

# Rapid Alignment of Resources and Capabilities in Time-Bound Networks: A Theoretical Proposition

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Received: 15 August 2017 / Accepted: 22 May 2018 / Published online: 5 June 2018  
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**Abstract** Researchers studying the alignment of business resources usually focus on business cases that inherently have continuous interactions built on long-term relationships at the firm level, dyadic level, or broader network level. While contractual limitations can be applied to resource alignment, resource engagement holds the notion of a persistent value-adding relationship. This paper proposes a theoretical framework based on previous theories and empirical studies on resource alignment ranging from resource-based views to more complex network views of social organizational interactions and their implications for business performance activities. The main challenge comes from time-bound transactions built around the longevity of interorganizational relations. Thus, the key strategic management problem is how resources and capabilities can be rapidly aligned and managed in a time-bound network to achieve sustainable competitive advantages at the network level.

**Keywords** Alignment of resources and capabilities · Dynamic capabilities · Resource-based views · Sustainable competitive advantages · Time-bound networks

## Introduction

Researchers studying the alignment of business resources usually focus on business cases that inherently have continuous interactions built on long-term relationships at the firm level (Barney 1991), dyadic level (Eisenhardt and Martin 2000), or broader network level (Dyer 1996). Resource alignment is usually flexible in terms of the timeline for identifying and aligning resources and resource engagement. While contractual limitations can be applied to resource alignment, resource engagement holds the notion of a persistent value-adding relationship. However, there are multitudes of contexts in which relationships are bounded by the limited life of a project and by the way in which resources must be rapidly aligned and managed. Examples exist in sectors as diverse as construction, large defense projects, filmmaking, and oil exploration.

Resource alignment describes the processes of creating flows and links among organizational resources to enhance the value creation of firms. This alignment requires combining and coupling available resources to achieve competitive advantages in the market. This study examines theories and empirical studies of resource alignment ranging from resource-based views (Wernerfelt 1984) to more complex network views of social organizational interactions (Gulati et al. 2000). Most of the literature treats the development of business relationships and the acquisition of resources as a phenomenon that occurs over an extended period. This study uses the time-bound network

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to describe the importance of creating flexible interaction among network members to meet the short-term objectives that are governed by the life of the project. As a result of the complex and interdependent flow of resources among network members, resource alignment must provide access to ideal business conditions that lead to sustainable competitive advantages. Time-bound transactions challenge these theoretical perspectives built around the longevity of interorganizational relations. Thus, the question this research explores is how resources and capabilities can be rapidly aligned and managed in a time-bound network to achieve sustainable competitive advantages at the network level.

One of the challenges in this case is how to reduce the whole network into one entity that compresses all activities into a “one-stop-shop” firm, which is a complex and difficult task, as project developers and all downstream entities exercise their options to make or buy through a vertically integrated network. This research adopts Loasby’s (1998) view that a firm is a specialized system of limited internal resources and competences that is embedded in and relies on a network of external resources and competences. Chang (2006) integrated the resource-based view (RBV) with transaction cost economics (TCE) to study the strategic decision of subcontracting in construction. Based on the TCE perspective, he highlighted that a firm decides to deal with a subcontractor after a long trial period to reach a state of settlement, which is not a common feature of a time-bound construction project. With the fundamental objective of maximizing the net benefits of production costs and transaction costs, Chang assumed that the efficiency of all subcontracted construction firms is at the same level due to the equal availability of technology. This results in tight competition in a cyclical workload that encourages subcontracting. This is in line with the social network structures addressed in this research.

The other challenge concerns addressing sustainable competitiveness at the network level. The purpose of this is to justify the replication of benefits gained from one project through continuous business interaction after project completion. Early perspectives on firm assets by Penrose (1959) and Teece et al. (1997) suggest that unique competitive advantages are driven by internal strategies that require resource acquisition and development to achieve ongoing advantages (Momaya et al. 2017).

This research aims to contribute to the strategic management literature on time-bound networks by answering this research question: How do firms participate in a time-bound network to align resources and capabilities toward achieving a sustainable competitive advantage? This question is important from the strategic management perspective to define improvements in operational efficiencies at the firm and network levels and to provide insights into

management practices that aid in decision making when the network is established among firms. The concepts of this study can be explored in any business practice that requires a rapid alignment of resources and capabilities to reach specific objectives in a timely manner.

The research integrates early literature on firm-level competence (Teece et al. 2000) that contributes to the formation of networks (Alchian and Demsetz 1972; Ding and Akoorie 2009) aiming for sustainable competitiveness beyond the life of the project. The research foundation is rooted in different fields including management, industrial marketing, and international business. In addition to its contribution to theory, this research has practical implications for management practices and policies at the national and international levels. This research provides a rich source of information to enhance our understanding of resource alignment, which Winch (1987) called one of the most complex transactions, where building sustainable competitiveness during the life of the project may establish the momentum for successful future bids. This study evaluates the scenarios that lead to an understanding of the strategies behind the long-term matching and alignment of internal and external resources (Kießling et al. 2008).

## Literature Review

This study begins with a comprehensive review of previous studies exploring firms’ ability to align resources and capabilities in complex networks to sustain a competitive advantage in the industry. The literature review focuses on studies based on large projects, which require substantial networking activities to meet the project objectives in a limited time. According to Van de Ven (1976), organizational theory considers the flow of resources among organizations as a process of creating relationships. These relationships may take the form of simple business transactions such as trading in specific goods or may be structured into a more concrete alliance such as partnerships. In any case, the outcome of resource interaction is the fulfillment of predetermined business objectives. Such relationships would ideally be created with the notion of longevity. For example, in the case of a one-time trading transaction, the seller would set a target of customer satisfaction to ensure that the buyer would establish a longer-term relationship. At the other extreme, a joint venture alliance would start with the intention to support the prosperity of the relationship as long as it produces competitiveness and profitability (Colak 2016). By studying the overlap between transaction cost and organizational theory, Gadde and Hakansson (2007) adopted the industrial marketing and purchasing (IMP) approach to highlight the association between a firm’s management of its business

relationships and its use and control of resources. A firm forms dyadic links with certain members of the supply chain through the strategic decision to make or buy resources (Boehmke and Hazen 2017). This association then evolves through organizational relationships that may extend beyond the direct interaction to form a network.

Uncertainty and interdependence are among the factors that brand the construction sector as a complex industry (Bhattacharya et al. 2012). Gidado (1996) attributed this to the complexity of linking and orchestrating the workflow of resources. Such resources extend beyond the dyadic relationship to include an array of interdependencies that work together to execute a specific project. With this in mind, researchers have explored the previous literature on creating sustainable competitive advantage through resource management from two dimensions: (1) firm-level perspective reviews of resource-based literature that focuses on the dynamics of resource alignment at the level of a unit firm, with a distinction between internal and external resources, and (2) network-level perspective reviews that target the notion of resource management in networks, with a special focus on external resource alignment.

Researchers in strategic management (Penrose 1959; Barney 1986) and marketing (Alderson 1965) have assumed that the heterogeneity of resources was a reason for differentiating firms in terms of their levels of success. Strategy researchers integrated this assumption into their explanation of the source of competitive advantage for one firm (Barney 1991) or a network of integrated firms (Ritter and Gemunden 2003). However, not all resources are locked into the firm boundaries; in many cases, the firm does not even readily possess access to resources. Therefore, controlling internal resources or aligning resources with external environments plays an important role in the competitiveness of a firm or even of the industry to which the firm belongs, as demonstrated by Dyer's (1996) assessment of the auto industry. On a wider scale, the importance of resource differentiation and management plays a role in cross-country firm competitiveness (Yang et al. 2009).

According to Barney and Hoskisson (1989), sustainable competitive advantage is the ability to create value that has not been created by existing or potential competition. A firm can gain sustainable competitive advantage by developing or acquiring a unique resource. A perspective based on strategic management principles may be attributed to the value chain model first described by Porter (1980). In this perspective, the competitive forces approach considers value creation as the objective of a business transaction. Porter's approach identified the role of industry in determining a firm's success (Passemar and Kleiner 2000). Woiceshyn and Falkenberg (2008) assessed value creation by elaborating on the alignment of resources with

business strategies as described in the value shop model applied to firms that offer customized outputs, such as in the case of petroleum exploration. Their framework is based on the understanding that knowledge-based firms would acquire external technical resources when internal resources prove insufficient. The acquisition of resources follows the value shop model, which, for a knowledge-based firm, takes into account aligning resources with the types of technical problems the firm faces, along with an evaluation of economic feasibility (Stabell and Fjeldstad 1998). The motive for resource enhancement is to create competitive advantage through external alignments to complement internal shortfalls and to add value to the supply chain (Mangla et al. 2014).

### Resource-Based View

The literature on firm resources has been presented within the context of competitive advantage (Seggie and Griffith 2007), business relations (Gadde and Hakansson 2007), and value creation (Woiceshyn and Falkenberg 2008). Studies on how firms develop or acquire resources have been based on many characterizations of coupling modes; however, there is a consensus that industrial activities are linked through different levels and intensities of interdependence (Glassman 1973; Weick 1976; Orton and Weick 1990). Resource coupling may occur in various directions of a transaction, as described by Dubois and Gadde (2000)—among individuals, units, organizations, or even between environments, ideas, intentions, and actions. The main objective in such a matching is to create synergies among resources.

Wernerfelt (1984) introduced the RBV concept, which then diffused to become a seminal concept in business scholarship and practice. Barney (1991) adapted the model to construct a framework for a firm's sustainable competitive advantage. He argued that a firm's resource might be a source of sustainable competitive advantage if it possesses four characteristics: value, rareness, imperfect inimitability, and non-substitutability. Supporters of strategic management have criticized the RBV as having difficulty gauging the firm-specific factors that result in high performance and possibly create a competitive advantage (Dyer 1996). The RBV does not consider the time factor. While firm-based resources, especially those that are in some way tangible, are viewed as instantaneous in nature, capabilities are also among such resources. Capabilities could have associations with the time factor. Thus, dynamic market conditions need enhanced resources and capabilities beyond firm-bound resources. This will require a firm to extend its reach through external resource alignments to compensate for internal shortfalls.



## Dynamic Capabilities Perspective

Teece et al. (1997: 516) defined the term “dynamic capability” as a “firm’s ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environments.” This definition mainly focuses on managerial and organizational processes, which Helfat (1997) described as a means to open new strategic alternatives for a firm. Eisenhardt and Martin (2000) provided examples of processes characterized as dynamic capabilities, including business alliances, resource allocation, and knowledge transfer. They presented the dynamic capabilities perspective as an enhancement of the RBV with a focus on long-term competitive advantage, especially in dynamic markets. They viewed organizational capabilities as common across firms; these capabilities may be labeled as “best practices” that evolve over time through learning. According to Eisenhardt and Martin, the specific sets of organizational strategies that are addressed in the dynamic capabilities perspective include the formation of alliances and decision-making strategies that reconfigure resources into value creation. They concluded that dynamic capabilities are not the source of sustainable competitive advantage; rather, the source is the timing and effective use of these capabilities to configure resources ahead of competition.

Several other studies have enriched our understanding of dynamic capability, including that of Zollo and Winter (2002), who identified organizational learning as a source of dynamic capability. Over time, this capability may lead to what Adner and Helfat (2003) referred to as “dynamic managerial capability,” which encompasses management’s capacity to align a firm’s resources. Teece et al. (2000) described this capability as a mechanism for sensing business opportunities. Helfat et al. (2007: 29) later fine-tuned the definition of dynamic capability as “the capacity of an organization to purposefully create, extend, or modify its resource base.”

The broad term “resource base” includes not only tangible and intangible assets, but also dynamic capabilities as part of the resource structure. Based on this definition, and through their attempt to measure the performance of dynamic capabilities, Helfat et al. (2007) built upon the concept of evolutionary fitness, which describes the extent to which a dynamic capability enables a firm to operate by configuring its resource base. The key to linking dynamic capabilities to evolutionary fitness is the dependence of evolutionary fitness on external environment factors that will enable a firm to survive and grow in the market.

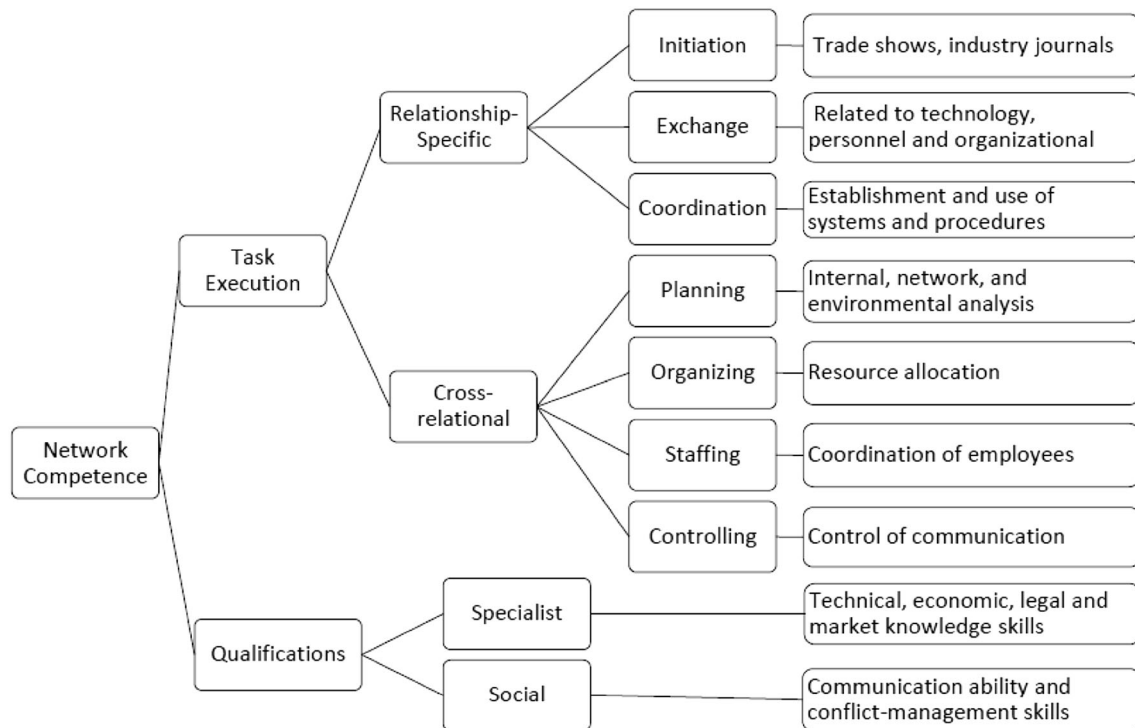
Evolutionary fitness presents a pretext to link a firm’s resources with external entities through the four factors influencing the evolutionary fitness of a dynamic capability: “quality, cost, market demand, and competition”

(Helfat et al. 2007: 52). Competition entails cooperation with other firms through alliances that will increase evolutionary fitness. At the same time, a greater competitive environment with similar dynamic capabilities will decrease the evolutionary fitness of a firm. Helfat et al. (2007) concluded that dynamic capabilities will not lead to competitive advantages unless the following prerequisites are met: (1) heterogeneity of the cost and quality of a dynamic capability, (2) demand for the application of the dynamic capability, and (3) rareness of the dynamic capability. While these prerequisites share similar themes with the RBV (i.e., valuable, rare, inimitable, and unsubstitutable), Helfat et al. (2007) attributed the sustainability of competitive advantage to the external environment. In a dynamic environment, needs might change, which might render imitation barriers insignificant because capabilities would no longer be required. A key dynamic capability identified by Helfat et al. (2007) is relational capability, which has the potential to provide competitive advantages that lead to long-term success through external growth mechanisms, including alliance and acquisition capabilities.

## Network Competence

Ritter and Gemunden (2003: 745) defined network competence as “a company-specific ability to handle, use and exploit interorganizational relationships,” which provides competitive advantage. The scope of competence in this definition encompasses owned qualifications and knowledge as well as the skills required to manage the associated resources. The network competence model involves the elements described in Fig. 1 as adapted from Ritter and Gemunden (2003).

Ritter and Gemunden (2003) presented network competence as a means to develop unique competitive advantages exemplified in the enhanced innovativeness of technology-based firms. This ability to manage networks has become a resource that can lead to competitive advantages. Another perspective that complements the RBV and dynamic capabilities perspective is the relational view described by Dyer and Singh (1998). By considering the dyad or network of firms as the unit of analysis, they designed a framework for network management that leads to interorganizational competitive advantages. The four sources of potential competitiveness are the use of relationship-specific assets, knowledge-sharing routines, complementary resources and capabilities, and effective governance mechanisms. Researchers have described these characteristics as alliance capabilities that can be a critical resource for a competitive strategic position (Anand and Khanna 2000; Kale et al. 2000; Dhir and Sushil 2017).



**Fig. 1** Parameters of network competence

The dynamic capabilities perspective is important in shifting upstream from firm-level resources to link with external resources. Dynamic capabilities are, in principle, an integral part of a firm's set of resources and capabilities. A key dynamic capability is network competence, which is the ability to manage resource alignment through external alliances within networks to achieve long-term competitiveness.

### Networks (Organizational Sociology)

The concept of networks dates back to Penrose's (1959) theory of firm growth. The picture of the exchange of heterogeneous resources emerged as an interactive process that later developed into interactions of interdependencies between human and physical resources. Alchian and Demsetz (1972) later exemplified a network as the cooperation between firms and across markets through interactions between a lumberman, a lumber mill, and a cabinetmaker.

Van De Ven (1976) described the interorganizational relationships among firms as a social action system that facilitates the achievement of goals that would be difficult to achieve had the firms acted independently. The formation of interorganizational relationships would be driven by the need to enhance internal or external resources. Van De Ven supported the idea that the strength of an interorganizational relationship may be gauged by identifying the

intensity and direction of the resource flow between units. The intensity of resource flow also refers to the frequency of interaction. Van De Ven used this framework to study how interorganizational relationships develop and eventually die. His assumptions and hypotheses propose that the strength of interorganizational relationships is a function of resource dependence on external support, awareness of external resources, and internal consensus on the objectives of the relationship. In this context, resource alignment becomes more complex as the number of interacting units increases.

This later evolved into the network perspective, which is also viewed from an organizational sociology perspective (Galaskiewicz and Zaheer 1999). A sociological approach to interorganizational networks was described in Gulati and Gargiulo (1999) study of organizational alliances. They explained that organizational alliances are formed to complement firm-specific resources and capabilities in the context of developing the social structure of the network. They elaborated on this concept by describing the formation of a network as an evolving social structure based on a longitudinally dynamic system that links resources. Their model portrayed the social structure as a "macro phenomenon" emerging from micro firm-level decisions seeking to gain access to resources.

The main connection between the RBV and industrial networks comes from the network resources referred to by Gulati (1999) as similar to those in the social capital view.

Therefore, the RBV perspective may be a source for the creation of inimitable resources within the network. With this capability, a firm's network allows it to gain access to key resources that are not possessed internally. Gulati et al. (2000) suggested that the network structure to which a firm belongs is a key resource that may be a crucial source of competitive advantage; accordingly, they labeled such structures "strategic networks." They stressed that a more elaborate assessment of a firm's performance and profitability may be achieved when evaluating the strategic network that the firm is a part of. They used a set of five sources of a firm's differential returns to illustrate the importance of strategic networks, or what they referred to as a "relational model" rather than an "atomistic model."

Gulati (1999) discussed network sustainability in the context of resource alignment through networks or alliances, suggesting that alliances and networks enhance the value creation of firms by providing valuable resources. Zheng et al. (2013: 1208) elaborated on Gulati's study by defining network resources as "those resources that are owned by their alliance partners but which potentially can be accessed by the focal firm, as well as the valuable routines and arrangements embedded in the ties between the external parties." Zheng et al. (2013) presented network resources as a source of competitive advantage, especially in relation to the innovation performance and technological capabilities of firms within a network.

### Industrial Marketing and Purchasing

On the basis of interorganizational theory, sociology, and anthropology, the IMP setting describes resource interfaces through empirical cases (Waluszewski and Johanson 2008). Scholars from this research field have stressed the importance of long-term relationships that form within structured networks (Axelsson and Easton 1992; Hakansson and Snehota 1995). Axelsson and Easton (1992: 14) labeled such interactive relationships as industrial networks that describe connections between "large numbers of entities" involved in the "economic process, which converts resources to finished goods, and services for consumption by end users whether they be individuals or organizations." In other words, the resources used by a firm have interfaces with other resources that affect the larger network of interactions.

Waluszewski and Johanson (2008) proposed that even when external resource interactions take place, it takes time for the internal organization to build a level of awareness that creates an efficient interaction with external resources. This aspect of development over time applies to both sides of the interaction. Another crucial factor in building effective external resource networks is being able to operate in an economic landscape that allows and even

nourishes resource interfaces across organizational borders. In the construction industry, this might imply the challenges that might surface due to a landscape that includes families, multinationals, or even governments. An efficient interactive structure would be more apparent in an environment that is governed by a heterogeneous ownership structure, decentralized management, and a technologically competent workforce.

In other research that illustrates the IMP approach, van de Rijt and Santema (2005) referred to firm-addressable resources based on the definition by Sanchez et al. (1996). These are resources that the firm can access externally without being owned or controlled. This definition differentiates these resources from internal firm-specific resources. van de Rijt and Santema referred to the four criteria that provide firm competitiveness (value, rareness, inimitability, and non-substitutability), with specific attention to the value of the firm-addressable resources. They used the operation of European airports to evaluate this model in the context of a highly complex business setup. On the one hand, the similarities between this example and the research example (i.e., the construction industry) are that both are service oriented and both involve various external players that may be formed into a consortium. On the other hand, airport management is a longer-term relationship within the network as opposed to the time-bound construction project.

### Project Management

Since this research will be applied to project-based transactions (PBTs), it is logical to explore the view of the practical field of project management. A PBT is most probably viewed by industry professionals from the perspective of project management practices that usually provide the standard charter for managing the sequence of activities governed by managing project resources. Resource management takes its definition from the discipline of construction management, as described by Clough and Sears (1979). They suggested that the execution of a construction project with economic and time efficiency is based on the management of available resources. The domain of a contractor directly involved with the physical construction is usually directly affected by the availability of resources. Seasonal shortages, labor disputes, and equipment breakdowns are among a host of uncertainties that challenge the availability of resources (Clough and Sears 1979). According to Clough and Sears, these uncertainties can be addressed by the systematic scheduling and planning of resources to supply and support project operations to meet time and cost objectives.

Winch (1987) explored traditional project management practices with a focus on coalition formation as a means of

reducing costs. He found that the group of entities contributing to the execution of a project usually focuses on the economic gains from the return on their investment rather than aligning resources for a longer-term objective. From a project management perspective, Winch (1987) traced the sources of complexity to the inherent uncertainties surrounding a construction project. The main impact of uncertainties in the time-bound construction industry is the inefficient allocation of resources due to the possible opportunistic behaviors of some coalition members, who may lean toward satisfying their immediate interests rather than the overall interests of the project. This defensive behavior, which is historically dominant in the construction sector, is driven by market-based relationships (Beach et al. 2005).

To understand the importance of coalition formation, Winch (1987) compared a construction project to a typical production system. What he termed “task uncertainty” highlights that a high level of uncertainty is generated by an inefficient learning curve. This results in a very limited transfer of knowledge from one project to another. The level of project complexity is strongly correlated with the level of uncertainty, which is also related to the size of the project. Winch stressed that as coalition members start responding to uncertainties, transaction costs increase due to the members’ opportunistic behavior; as a consequence, the project owner may experience additional costs. Based on this perspective, Winch suggested that the linkage system among coalition members is governed by the structure of contract management, where project managers liaise between network members to reduce uncertainties.

### Role of Internationalization

The topic of internationalization is an important complement to this research study because most large projects require the expert or technical contribution of international firms, especially in the construction industry. Thus, coordination among local and international firms is paramount to the formation of efficient business networks. The literature on firm internationalization highlights the importance of a firm’s resources in determining its ability to internationalize (Haldar et al. 2016). The business literature has produced extensive research on the modes and characteristics of firm internationalization. Most of the research has focused on growth through internationalization from the firm’s perspective. The foundations of these research tracks may have been inspired by Penrose’s (1959) theory of firm growth. Hymer (1976) referred to a firm’s resources as a critical factor that should be used to penetrate foreign markets. Many researchers followed by focusing on a firm’s resources (Seev 1976; Dunning 1988; Buckley and Casson 1998) to describe the evolving and dynamic area of

internationalization. The RBV and dynamic capabilities perspective were also explicitly attributed to internationalization strategies (Peng 2001).

Barney et al. (2001) highlighted that the tacit knowledge developed by a firm through international experience is a competitive capability that is difficult to imitate. When studies on internationalization started to focus on international production into or from emerging economies (Yamakawa et al. 2008), the industrial network perspective revealed its important role. Johanson and Mattson (1988) linked the strength of an international network to the strength of a company’s domestic relationships. Liu and Brookfield (2005) referred to “convoy migration” as a result of the internationalization of other network members. Yang et al. (2009) studied the internationalization of Chinese and Japanese firms and concluded that foreign entries are influenced by industry and resource-based considerations formed by local and international institutional frameworks.

Seggie and Griffith (2008) employed the resource-advantage theory to support their argument that the internationalization of service-based firms may be enhanced by aligning resources with the globalized domestic market. Standardization of the resource-matching process builds a competitive advantage for the international market. Although Seggie and Griffith (2008) emphasized the important role of resource alignment in internationalization, their perspective is more focused on the usually less studied topic of increasing client diversity domestically. The main proposition they advanced is that the alignment of firm resources with the domestic customers’ needs leads to enhanced performance at the domestic level and in the international market.

Javernick-Will (2009) explained that many internationalization process studies follow the tradition of Johanson and Vahlne (1977), where learning about the local market takes place through costly reiterative experiential knowledge. The time factor in this process contributes to the slow progression of strengthening the firm’s position in a foreign market. Various studies have found that a firm’s ability to recognize and grow its knowledge depends on the absorptive capacity or prior knowledge and experience of the project team or firm (Lorenzen and Mahnke 2002; Petersen and Pedersen 2002). Therefore, the international feature of firms allows them to enhance their knowledge, thereby contributing to firm-level sustainable competitive advantage. Accordingly, firm internationalization has been used in the academic literature to describe the advantages of entry strategies. However, limited attention has been paid to the implications of internationalization for network performance.

Table 1 summarizes the main theories discussed in this section and presents a schematic depiction of the expansion



**Table 1** Summary of theories

<p><b>D:</b> Assets, capabilities, organisational, processes, firm attributes, information, and knowledge <b>R:</b> Daft (1983)</p>	<p><b>T:</b> Resource Based View <b>D:</b> a resource may be a source of sustainable competitive advantage if it holds four characteristics <b>R:</b> Barney and Clark (2007)</p>	<p><b>T:</b> Network Strategy <b>D:</b> Organisational sociology and social capital. <b>R:</b> Gulati et al. (2000), Scherer and Ross (1990)</p>	<p><b>T:</b> Sustainable Competitive Advantage <b>D:</b> May be achieved if four characteristics are held at the firm level: value, rareness, imperfect immitability, and unsubstitutability <b>R:</b> Barney (1991)</p>
<p><b>D:</b> Physical capital, human capital, and organisational capital <b>R:</b> Barney (1991)</p>	<p><b>T:</b> Dynamic Capabilities View <b>D:</b> Firm’s ability to integrate, build, and reconfigure internal and external competencies to address changing environments <b>R:</b> Teece et al. (1997), Helfat et al. (2007)</p>	<p><b>T:</b> Strategic Networks <b>D:</b> A firm’s performance may be understood by examining the network the firm is part of. <b>R:</b> Gulati et al, (2000)</p>	<p><b>D:</b> Sustainable competitiveness is attributed to resources and capabilities within the firm, the network, and the industry <b>R:</b> Gulati et al. (2000)</p>
<p><b>D:</b> Financial, physical, legal, human capital, organisational capital, and information capital <b>R:</b> Hunt (2001)</p>	<p><b>T:</b> Interorganizational Relationship <b>D:</b> The simplest format of dyadic relationship that forms the intial step towards a network <b>R:</b> Van De Ven (1976) <b>T:</b> Network Competence <b>D:</b> A firm specific capability to manage interorganizational relationships <b>R:</b> Ritter et al. (2003)</p>	<p><b>T:</b> Economic organisation <b>D:</b>Internal firm affairs for managing resources <b>R:</b> Alchain and Demsetz (1972)</p>	
<p><b>T:</b> Theory or research discipline    <b>D:</b> Description    <b>R:</b> References</p>			

from a firm-level to a network-level view. Based on the literature reviewed in this section, it is evident that scholars have presented two levels of sustainable competitive advantage. The first level is firm-based competitiveness, which may be attributed either to tangible sets of resources or to intangible capabilities that should possess value-adding characteristics that are unique, inimitable, and non-substitutable. The second level is the macro network dimension that takes into account the nature of links among firms as well as the overall industry dynamics, with significant attention to social capital fundamentals. While this outlook serves well as a general interpretation of the basic

requirements for sustainable competitiveness in a typical business setup, it falls short of addressing the complexities associated with applications that fit within the category of time-bound networks.

In other words, previous studies have failed to describe the challenges that face individual firms as part of a temporary network where resources are aligned to provide a certain project with limited long-term potential for continuous interactions. Subsequently, these challenges cascade across the supply chain and affect the competitiveness of the specific network and the industry itself. This study is an attempt to fill this gap in the literature.

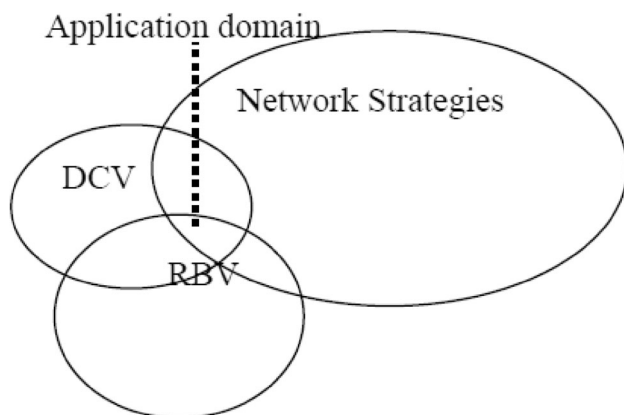




## Theoretical Positioning of Research

To answer the research question, this research is applied in the context of an internationally based construction industry, which provides a unique position from which to evaluate the features of sustainable competitive advantages in transactions that are extreme in terms of time, finance, and sequence of activities. While sustainable competitive advantage has been studied in the context of the construction industry, this research explores the crossroads between firm-level advantages as presented by the RBV (Barney 1991; Wernerfelt 1984) and the dynamic capabilities view (Eisenhardt and Martin 2000; Helfat et al. 2007). The dynamic capabilities view serves as a key to aligning with external resources and social networks (Gulati et al. 2000) that link firms in a single time-bound network. In principle, the RBV establishes the firm's advantages, while the relational dynamic capabilities allow a firm to align its resources with the external environment to become part of the greater network. Figure 2 presents the intersection points among the research disciplines that will be used in connection with PBT within an international setup.

Given the significance of network notions in this study, a sociological approach is the most suitable when addressing social networks. However, to address a broader perspective, including firm-based advantages and resource allocations, the industrial organizational approach was employed. In general, this research evaluated the characteristics of a PBT through the discipline of strategic management, a field that explores the reasons for business success. The approach of the IMP group stresses the value of relationships when aligning resources and capabilities. Current knowledge applies sustainable competitive advantage to relationships that involve a life cycle that could be definite for certain network members. But in a time-bound PBT, all the primary nodes of a network follow a life cycle that is bound by the life of the project and governed by the planned execution program. Because the



**Fig. 2** Theoretical positioning of proposed research

literature does not explore this relationship, there is a gap in the current knowledge on the subject.

## Developing Research Propositions

This research takes a novel approach to evaluating the alignment of resources in the construction industry. However, the same assumptions could be applied to other industries such as filmmaking, oil exploration, and large defense projects after considering the industry-unique settings. The critical realist approach served as a philosophical framework to develop the research propositions (Bhaskar 1998; Fleetwood 2004; Easton 2010). This section presents the path taken to develop the research propositions based on observations made from time-bound networks. An example is used to demonstrate the setting, and the four research propositions are listed.

## Observations

As seen in the literature review, researchers have concentrated on the enhancement of a firm's performance through shared network resources. The focus in this research on the alignment of resources in the construction industry brings a new perspective by studying a network's potential to sustain its competitiveness for participation in future projects. The following example is used to create an abstract model from the time-bound networks experienced in the construction industry in a country characterized as having a rapidly emerging economy. In this example, a property investment firm decides to develop a new tower and appoints an architecture firm to transfer the idea to the concept design stage. After approving the design, the property investment firm outsources the project management to a specialized firm, which appoints an engineering consultancy firm and a main contractor. The newly formed consortium of project management, consultant, and contractor provides the main resources for the project. This consortium then becomes the primary network structure that aligns more resources and capabilities to drive all subsequent network members to execute the project according to the agreed on design, budget, and timelines.

The structured network includes many other firms that interact with the project consortium, such as subcontractors and suppliers with different levels of interactions at various stages of the time-bound project network. Viewing the network as a whole reveals a systematically coupled interwoven structure. This structured interdependence and coupling of resources is the main reason a time-bound network can achieve its objectives. However, if such a structured system presents a successful relationship that serves the project, could the same structure be replicated to cater to

another similar project once the current project is completed? If this ideal scenario took place, then one would expect a replication of the network for a new project to be a reason for minimizing the time required to align resources. If the scenario took place, then many of the procedural requirements of tendering and due diligence would be eliminated and the competitive advantage of the network would be sustained to realize more gains on new projects.

If sustainable competitiveness is not realized at the network level, then a time-bound network and the industry associated with it may be destined to remain dormant in terms of the network's inability to create more value. According to Barney and Hoskisson (1989), sustainable competitive advantage is the ability to create value that has not been created by existing or potential competition. Hence, the lack of value creation may hinder the progressive development of the industry.

While sustainable competitive advantage has been studied in the context of the construction industry, this research explores the crossroads among different perspectives. These perspectives include firm-level advantages as presented by the RBV (Barney 1991; Wernerfelt 1984) and the dynamic capabilities view (Eisenhardt and Martin 2000; Helfat et al. 2007) as a key to alignment with external resources and social networks (Gulati et al. 2000) that link firms serving the same time-bound network in the context of a PBT. In principle, the RBV establishes the firm's advantages, while the relational dynamic capabilities allow a firm to align its resources with the external environment to become part of the greater network. Dubois and Gadde (2002) followed a similar approach by suggesting that the loosely coupled system at the industry level adversely affects innovation. However, they argued that the loose coupling system at the industry level provides the basis for supporting the tight coupling at the project level.

## Propositions

Silverman and Marvasti (2008: 134) stated that “in many qualitative research studies, there is no specific hypothesis at the outset.” In this study, the research proposition is built on the IMP views developed primarily by European scholars during the 1980s. Johanson and Mattson (1988) viewed networks as a bundle of relationships. To understand the basis of proposition development for this research, it is advisable to start with a general overview of the relationship-based IMP view of networks.

In their description of the network as a structure, Axelsson and Easton (1992) explained that interdependencies among firms pose limitations on the actions of individual firms, which results in creating a structure. On the other hand, a lack of interdependence produces unstructured and random forms. Reducing uncertainty is

one of the drivers of forming structured relationships within a project network. The major relationships of a firm with other network members have been found to be connected in a way that affects indirectly linked relationships (Blankenburg and Johanson 1992). Hakansson and Snehota (1995: 14) envisaged a firm as “an entity that in order to build up its own capabilities and strength and to offer the required performance in a certain relationship has to strive to connect all the other relationships.” Therefore, a dyadic interaction is dependent not only on the two firms involved, but also on the other interactions in the broader network.

Hakansson and Snehota (1995: 2) described business interaction between firms as dependent on historic and future links. They stated that the interactions are “episodes in a relationship, in which a lot of things happen besides haggling over price and transferring products and money.” This relationship view concentrates on relationships over time between companies in industrial markets, as opposed to typical buyer–seller exchange transactions. From a structural characteristic point of view of industrial markets, continuity, complexity, symmetry, and informality favor the long-term stability of business relations where companies appear to be linked based on the longevity of relationships. Given this background on the relationship-based IMP view of networks, this study presents the following propositions:

**Proposition 1** *Firms participating in a time-bound network align and manage resources to serve the target project without considering a possible sustainable competitive advantage at the network level that extends beyond project completion.*

Sustainability in this context carries the notion of longevity to serve a firm's interests in becoming a member of a new network. This is reflected in a firm's behavior in focusing on addressing the immediate needs of the project without giving regard to designing strategies and developing capabilities that enhance a firm's chances to build on the benefits gained from the existing network. This proposition does not necessarily indicate that members of a time-bound network have only short-term plans. Rather, it stresses that these firms do not capitalize on the advantages of aligning resources and capabilities that have the potential to leverage sustainable competitive advantage after project completion. The literature has demonstrated how the RBV (Wernerfelt 1995) supports the idea that firm-owned resources allow a company to differentiate its offerings. Such resources are categorized into tangible and intangible resources. The dynamic capabilities view (Helfat 1997) then elaborated on intangible resources and classified them as capabilities that are built on learning, evolving, and developing new capabilities that link to resources outside the firm's boundaries.

Hakansson and Snehota (1995) used the IMP approach to conclude that industrial business relationships have the

components of adaptation, cooperation and conflict, social interaction, and routinization. They described these characteristics of interaction processes as components that develop over time based on experience and potential for continuity. This causes the relationships to evolve in terms of their content, strength, and nature, and this becomes the source of change in the firm and the overall network.

**Proposition 2** *Tangible resources determine the initial structure of the network, but intangible resources and capabilities define the network evolution pattern.*

A resource that is scarce to a firm becomes an important element, and the firm exhibits a greater desire to gain control over it. On the other hand, if there is a surplus of the resource, the firm will have less interest in gaining control over it. Easton and Lundgren (1992) stated that networks are “living structures” that are continuously exchanging activities and resources. Therefore, networks are continuously changing and never reach a state of equilibrium. The authors described changes in industrial networks as a means for network members to adapt to changes caused by other actors.

Axelsson and Easton (1992) described the structure of networks in the technical connection between resources, which can be reflected in the analogy of the process of developing a road system in a modern country. Initially, people used paths that were shaped by nature based on terrain geography. Progressive development helped the roads evolve from a primitive system into a developed road structure that is safe and convenient to use. Intercompany relationships are built according to the same pattern, whereby the sequential exchange of activities and resources will run easily and in specific directions. Structuring is a continuous process and changes over time. This means that even if specific resource interactions are stable during a certain period, they tend to change in strength, direction, and intensity over a longer period.

Hakansson and Snehota (1995) stated that from a change point of view, a firm’s capabilities depend partly on the amount of resources it controls and on the movement pattern of these capabilities. Therefore, the faster the movement of resources and capabilities, the greater the change and development in the firm’s sustainable competitiveness. A study by Zhan et al. (2009) compared the property-based resources with the knowledge-based resources of a firm. Property-based resources are an alternative definition of tangible assets based on the RBV, and knowledge-based resources are equivalent to intangible assets such as know-how, management, and learning capabilities. Makhija (2003) suggested that knowledge-based resources lead to sustainable competitiveness. Knowledge-based resources may be enhanced through the movement of capabilities within the network. This contributes to the improvement of a firm’s

capabilities if acquired with the intention to serve beyond the life of the project.

Axelsson and Easton (1992) stated that heterogeneous resources create synergies when combined, and their joint performance increases through experiential learning and adaptation. Therefore, the time factor associated with learning and adaptation is crucial to realizing the synergistic effect of combining resources. In addition, when resources are heterogeneous and various combinations of resources are possible, the change and improvement of new combinations of resources will induce further changes in the network. Based on the above description, it is evident that the movement of resources and capabilities within a network has a reciprocal relationship with change in the network. Firms adapt to network changes through the movement of resources and capabilities. Similarly, the network structure changes because of the movement of resources and capabilities.

**Proposition 3** *The movement of resources and capabilities among members of the network is a source of developing firm-level sustainable competitiveness but has little effect on network-level sustainable competitiveness.*

Hakansson and Snehota (1995) believed that the network approach is more apparent and effective in a world with increasing business exchanges between countries. They suggested that international companies evolve partly through acquisitions and partly by establishing new units in different countries. Such activities induce the movement of resources and capabilities to fill the gaps, especially on the technical and knowledge fronts. Zhan et al. (2009) stated that local companies in less developed economies are increasingly forming international joint ventures to gain access to advanced organizational capabilities from foreign firms. International firms of a time-bound network are more active in considering high-level strategies for achieving sustainable competitive advantage compared to local firms.

**Proposition 4** *Foreign firms are more active than local firms in devising and implementing strategies for aligning resources in time-bound networks with the aim of gaining sustainable competitiveness beyond the life of one project.*

## Discussion

Most of the previous research addressed firm and network resource alignments that have long-term objectives of sustainability built into their modes of operation. This is suitable for such industries as manufacturing, hospitality, and consumer services. However, some business transactions possess very rigid conditions of execution, especially with respect to the periods of resource engagement. Examples of sectors that fit into this category are the



construction and film industries. A primary feature of these industries is the time-bound nature of resource alignment. A key finding of this research is that the firms' capabilities provide a powerful tool for the successful alignment of resources and capabilities at the firm and network levels. The term "capabilities" is used in a context similar to that of Teece et al. (1997: 516), who defined dynamic capabilities as a "firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments." Typically, the dynamic nature of large projects calls upon all network members to have a certain level of capability to allow an efficient flow of resources as well as other capabilities. Capabilities of organizational learning, social capital, alliance management, and network competence have proved to be important in the development of other resources and capabilities that eventually lead to sustainable competitiveness (Wernerfelt 1984; Barney 1991).

This research studied the alignment and combination of resources at the firm and network levels; thus, it developed a unique focus on evaluating the characteristics that determine the positioning of resources with respect to the firm—that is, internally or externally. Preliminary work was dedicated to understanding firm-level resources and network-based capabilities. The literature was then reviewed to explore the resources that contribute to a firm's or network's competitiveness. Although the study alternates between the firm and the network, the research is set within networks. Among the principles adopted in this research are those of Gulati et al. (2000) on the importance of strategic networks in linking a firm's performance to the network to which it belongs. However, while this view is applicable to long-term relationships, it falls short of defining the parameters of short-term commitments, such as those of the construction industry, where objectives set by decision makers are limited to the life of the project. This research aims to positively contribute to the strategic management literature and to participants in time-bound networks and international business activities. It integrates early literature on firm-level competence (Teece et al. 2000) that contributes to the formation of networks (Alchian and Demsetz 1972) aiming for sustainable competitiveness in the newly demonstrated dimension of time-bounded networks.

Findings from this study can benefit firms at two levels. At the project execution level, actions should sustain competitiveness by taking into account long-term interaction with direct links. At the corporate level, managers should also be in a position to devise strategies that consider longer-term advantages rather than the more commonly considered short-term benefits only, paying special attention to the time, economic, and management factors. For example, executive managers in large projects are

encouraged to create a more proactive approach to developing internal capabilities that play a significant role in enhancing a firm's sustainable competitiveness. This requires managers to provide a window of opportunity for industry practitioners to focus on sustaining gains from completing the projects on time. The evolving nature of a large project from concept to completion creates a dynamic environment for the interorganizational interactions of resources and capabilities.

## Research Implications

This research can enhance our understanding of the alignment of resources that contribute to sustainable competitive advantages as capabilities attributed to the firm's internal processes or competencies that build on the firm's presence within a network. This can play a significant role in the firm's internationalization activities. A PBT is a business transaction that is capital intensive, time bound, and involves non-routine tasks offering customized outputs through a consortium of specialized firms. While a PBT may be generalized to a wide array of industries, this research uses the construction sector as a domain of application through an industry-level case study approach.

In addition to its contribution to theory, this research has practical implications for management practices and policies. This research focuses on large projects within the industry, such as construction projects, which will provide a rich source of information to enhance the understanding of resource alignment, which Winch (1987) called one of the most complex transactions. A construction consortium usually creates a competitive advantage by building a unique proposition that will raise the entry barriers. The duration of a consortium extends to the completion date of the project, when the competitive advantages of a network are terminated. However, building sustainable competitiveness during the life of the project may establish the momentum for successful future bids. This study evaluates the scenarios that lead to understanding the strategies behind the long-term matching and alignment of internal and external resources.

The unique features of a PBT challenge existing knowledge about resource alignment on the academic and practical fronts. Given the complex and interdependent flow of resources, lessons learned from studying resource alignment for a time-bound network provide access to extreme business conditions that may benefit more relaxed transactions. For example, entrepreneurs may also benefit from these guidelines when engaging in new ventures that require a thorough assessment of the required resources. Areas that are worth analyzing include the outsourcing of

resource alignment. This may have other implications for knowledge sharing to be governed by contractual dealings.

## Future Research

This research is proposed to be conducted in a large construction project, since it requires completing a complex network of firms within a specific time. However, the same concepts can be applied to other industries that are based on networking among different firms to complement each other's resources and capabilities, such as the oil and gas industry. Exploration of oil and gas is based on concessions from the government with tight timelines that require the formation of networks capable of aligning the resources and capabilities that can meet business objectives. Managers in such networks can benefit from the findings of future studies to find better approaches to optimize the alignment of resources and capabilities.

Business situations are similar to PBTs, such as new venture creation and new product development, which rely temporarily on external resources and capabilities. In such cases, aligning resources and capabilities may be aimed at securing long-term benefits that could be transferred from one special project to the other.

The proposed research can also be applied to find out how firms can reshape their network to sustain competitive advantages and minimize the impact of economic crises, such as the 2008 financial crisis. This could require enhancing performance at the firm and network levels, and another dimension can be considered to enhance the performance at the industry level. In future research, the influence of government policy on building effective industrial networks could be explored in several industries to define how external factors could shape firms' ability to enhance their competitive advantages.

## References

- Adner, R., & Helfat, C. E. (2003). Corporate effects and dynamic managerial capabilities. *Strategic Management Journal*, 24(10), 1011–1025.
- Alchian, A., & Demsetz, H. (1972). Production, information costs, and economic Organization. *American Economic Review*, 62(5), 777–795.
- Alderson, W. (1965). *Dynamic marketing behaviors*. Homewood, IL: Richard Irwin Inc.
- Anand, B. N., & Khanna, T. (2000). Do firms learn to create value? The case of alliances. *Strategic Management Journal*, 21(3), 295–315.
- Axelsson, B., & Easton, G. (1992). *Industrial networks—A new view of reality*. London: Routledge.
- Barney, J. B. (1986). Organizational culture: Can it be a source of sustained competitive advantage? *Academy of Management Review*, 11(3), 656–665.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Barney, J. B., & Hoskisson, R. (1989). Strategic groups: Untested assertions and research proposals. *Managerial and Decision Economics*, 11(3), 187–198.
- Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6), 625–641.
- Beach, R., Webster, M., & Campbell, K. M. (2005). An evaluation of partnership in the construction industry. *International Journal of Project Management*, 23(3), 611–621.
- Bhaskar, R. (1998). *The possibility of naturalism* (3rd ed.). London: Routledge.
- Bhattacharya, S., Momaya, K. S., & Iyer, K. C. (2012). Strategic change for growth: A case of construction company in India. *Global Journal of Flexible Systems Management*, 13(4), 195–205.
- Blankenburg, D., & Johanson, J. (1992). Managing network connections in international business. *Scandinavian International Business Review*, 1(1), 5–19.
- Boehmke, B. C., & Hazen, B. T. (2017). The future of supply chain information systems: The open source ecosystem. *Global Journal of Flexible Systems Management*, 18(2), 163–168.
- Buckley, P. J., & Casson, M. C. (1998). Analyzing foreign market entry strategies: Extending the internalization approach. *Journal of International Business Studies*, 9(3), 539–561.
- Chang, C. (2006). The determinants of the vertical boundaries of the construction firm: Comment. *Construction Management and Economics*, 24(3), 229–232.
- Clough, R., & Sears, G. (1979). *Construction project management*. Hoboken: Wiley.
- Colak, M. (2016). The impact of environmental uncertainty on international joint venture performance: The mediating role of international joint venture adaptation. *Journal for Global Business Advancement*, 9(3), 231–247.
- Dhir, S., & Sushil. (2017). Flexibility in modification and termination of cross-border joint ventures. *Global Journal of Flexible Systems Management*, 18(2), 139–151.
- Ding, Q., & Akoorie, M. E. M. (2009). Constructing global business networks in China. *Journal of East-West Business*, 15(3), 295–315.
- Dubois, A., & Gadde, L. E. (2000). Supply strategy and network effects: Purchasing behavior in the construction industry. *European Journal of Purchasing and Supply Management*, 6(3), 207–215.
- Dubois, A., & Gadde, L. E. (2002). The construction industry as a loosely coupled system: implications for productivity and innovation. *Journal Construction Management and Economics*, 20(7), 621–631.
- Dunning, J. H. (1988). The electric paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies*, 19(1), 1–31.
- Dyer, J. H. (1996). Specialized supplier networks as a source of competitive advantage: Evidence from the auto industry. *Strategic Management Journal*, 17(4), 271–291.
- Dyer, J. H., & Singh, H. (1998). The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review*, 23(4), 660–679.
- Easton, G. (2010). Critical realism in case study research. *Industrial Marketing Management*, 39(9), 118–128.
- Easton, G., & Lundgren, A. (1992). Changes in industrial networks as flow through nodes. In B. Axelsson & G. Easton (Eds.), *Industrial networks: A new view of reality* (1st ed., pp. 88–103). London: Routledge.



- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10), 1105–1112.
- Fleetwood, S. (2004). An ontology for organization and management studies. In S. Ackroyd & S. Fleetwood (Eds.), *Critical realist applications in organization and management studies*. London: Routledge.
- Gadde, L.-E., & Hakansson, H. (2007). Teaching in supplier networks. In M. Gibbert & U. Durrand (Eds.), *Strategic networks: Learning to compete. Strategic Management Society book series*. Blackwell: Malden.
- Galaskiewicz, J., & Zaheer, A. (1999). Networks of competitive advantage. In S. Andrews & D. Knoke (Eds.), *Research in the sociology of organizations* (pp. 237–261). Greenwich: JAI Press.
- Gidado, K. I. (1996). Project complexity: The focal point of construction production planning. *Construction Management and Economics*, 14(3), 213–225.
- Glassman, R. (1973). Persistence and loose coupling in living systems. *Behavioral Science*, 18(2), 83–98.
- Gulati, R. (1999). Network location and learning: The influence of network resources and firm capabilities on alliance formation. *Strategic Management Journal*, 20(5), 397–420.
- Gulati, R., & Gargiulo, M. (1999). Where do interorganizational networks come from? *American Journal of Sociology*, 104(5), 1439–1493.
- Gulati, R., Nohria, N., & Zaheer, A. (2000). Strategic networks. *Strategic Management Journal*, 21(3), 203–215.
- Hakansson, H., & Snehota, I. (1995). *Developing relationships in business networks*. London: Routledge.
- Haldar, A., Rao, S. V. D. N., & Momaya, K. S. (2016). Can flexibility in corporate governance enhance international competitiveness? Evidence from knowledge-based industries in India. *Global Journal of Flexible Systems Management*, 17(4), 389–402.
- Helfat, C. E. (1997). Know-how and asset complementarity and dynamic capability accumulation: The case of R and D. *Strategic Management Journal*, 18(5), 339–360.
- Helfat, C. E., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D., et al. (2007). *Dynamic capabilities: Understanding strategic change in organizations*. Malden: Blackwell Publishing.
- Hymer, S. H. (1976). *The international operations of National firms: A study of direct foreign investment*. Cambridge, MA: MIT Press.
- Javernick-Will, A. (2009). Organizational learning during internationalization: Acquiring local institutional knowledge. *Construction Management and Economics*, 27(8), 783–797.
- Johanson, J., & Mattson, L. G. (1988). Internationalization in industrial systems—A network approach. In N. Hood & J. Vahlne (Eds.), *Strategies in global competition* (pp. 287–314). Kent: Croom Helm.
- Johanson, J., & Vahlne, J. E. (1977). The internationalization process of the firm—A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1), 23–32.
- Kale, P., Singh, H., & Perlmutter, H. (2000). Learning and protection of proprietary assets in strategic alliances: Building relational capital. *Strategic Management Journal*, 21(3), 217–237.
- Kiessling, T., Harvey, M., & Dabic, M. (2008). Knowledge management in Central and Eastern Europe through network development and boundary spanners. *Journal of East-West Business*, 14(2), 159–186.
- Liu, R. J., & Brookfield, J. (2005). The internationalization of a production network and the replication dilemma: Building supplier networks in mainland China. *Asia Pacific Journal of Management*, 22(4), 355–380.
- Loasby, B. J. (1998). The organisation of capabilities. *Journal of Economic Behavior & Organization*, 35(2), 139–160.
- Lorenzen, M., & Mahnke, V. (2002). Global strategy and the acquisition of local knowledge: How MNCs enter regional knowledge clusters. In *Conference on industrial dynamics of the new and old economy—Who is embracing whom?* Copenhagen, Elsinore, June 6–8.
- Makhija, M. (2003). Comparing the resource-based and the market-based views of the firm: Empirical evidence from the Czech privatisation. *Strategic Management Journal*, 24(5), 433–451.
- Mangla, S. K., Kumar, P., & Barua, M. K. (2014). Flexible decision approach for analysing performance of sustainable supply chains under risks/uncertainty. *Global Journal of Flexible Systems Management*, 15(2), 113–130.
- Momaya, K. S., Bhat, S., & Lalwani, L. (2017). Institutional growth and industrial competitiveness: Exploring the role of strategic flexibility taking the case of select institutes in India. *Global Journal of Flexible Systems Management*, 18(2), 111–122.
- Orton, J. D., & Weick, K. E. (1990). Loosely coupled systems: A reconceptualization. *Academy of Management Review*, 15(2), 203–233.
- Passemar, D., & Kleiner, B. H. (2000). Competitive advantage in global industries. *Management Research News*, 23(7), 111–117.
- Peng, M. W. (2001). The resource-based view and international business. *Journal of Management*, 27(6), 803–829.
- Penrose, E. T. (1959). *The theory of the growth of the firm*. New York: Wiley.
- Petersen, B., & Pedersen, T. (2002). Coping with liability of foreignness: Different learning engagements of entrant firms. *Journal of International Management*, 8(3), 339–350.
- Porter, M. (1980). *Competitive strategy*. New York: Free Press.
- Ritter, T., & Gemunden, H. G. (2003). Network competence: Its impact on innovation success and its antecedents. *Journal of Business Research*, 56(9), 745–755.
- Sanchez, R., Heene, A., & Thomas, H. (1996). Towards the theory and practice of competence-based competition. In R. Sanchez, A. Heene, & H. Thomas (Eds.), *Dynamics of competence-based competition: Theory and practice in the new strategic management* (pp. 238–265). Oxford: Elsevier.
- Seev, H. (1976). An international trade and investment theory of the firm. *Oxford Economic Papers*, 28(2), 258–270.
- Seggie, S. H., & Griffith, D. A. (2007). The resource matching foundations of competitive advantage. *International Marketing Review*, 25(3), 262–274.
- Seggie, S. H., & Griffith, D. A. (2008). The resource matching foundations of competitive advantage: An alternative perspective on the globalization of service firms. *International Marketing Review*, 25(3), 262–275.
- Silverman, D., & Marvasti, A. (2008). *Doing qualitative research*. London: Sage.
- Stabell, C. B., & Fjeldstad, O. D. (1998). Configuring value for competitive advantage: On chains, shops and networks. *Strategic Management Journal*, 19(5), 413–437.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- Teece, D. J., Pisano, G., & Shuen, A. (2000). Dynamic capabilities and strategic management. In G. Dosi, R. Nelson, & S. Winter (Eds.), *The nature and dynamics of organizational capabilities* (pp. 334–362). NY: Oxford University Press.
- van de Rijt, J., & Santema, S. C. (2005). The value of firm-addressable resources for European Airports. In F. Wynstra (Ed.), *Proceedings of the 21st IMP Conference*. Rotterdam: IMP Group.

- Van de Ven, A. (1976). On the nature, formation, and maintenance of relations among organizations. *Academy of Management Review*, 1(4), 24–36.
- Waluszewski, A., & Johanson, M. (2008). When resource interfaces are neglected: Lessons from history. *The IMP Journal*, 2(1), 13–30.
- Weick, K. E. (1976). Educational organizations as loosely coupled systems. *Administration Science Quarterly*, 2(1), 1–19.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180.
- Wernerfelt, B. (1995). The resource-based view of the firm: Ten years after. *Strategic Management Journal*, 16(3), 171–174.
- Winch, G. (1987). The construction firm and the construction process: The allocation of resources to the construction project. In P. Lansley & P. Harlow (Eds.), *Managing construction worldwide, Vol. 2, Productivity and human factors*. London: Spon.
- Woiceshyn, J., & Falkenberg, L. (2008). Value creation in knowledge-based firms: Aligning problems and resources. *The Academy of Management Perspectives*, 22(2), 85–99.
- Yamakawa, Y., Peng, M. W., & Deeds, D. L. (2008). What drives new ventures to internationalize from emerging to developed economies? *Entrepreneurship Theory and Practice*, 32(1), 59–82.
- Yang, X., Jiang, Y., Kang, R., & Ke, Y. (2009). A comparative analysis of the internationalization of Chinese and Japanese firms. *Asia Pacific Journal of Management*, 26(1), 141–162.
- Zhan, W., Chen, R., Erramilli, M. K., & Nguyen, D. T. (2009). Acquisition of organizational capabilities and competitive advantage of IJVs in transition economies: The case of Vietnam. *Asia Pacific Journal of Management*, 26(2), 285–308.
- Zheng, S., Li, H., & Wu, X. (2013). Network resources and the innovation performance. *Management Decision*, 51(6), 1207–1224.
- Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, 13(3), 339–351.

### Key Questions

1. Can firms use current network to build competitive advantages in future projects with new stakeholders?
2. Can firms transfer resources and capabilities across various networks without compromising performance?
3. Is the level of rapid alignment of resources and capabilities in time-bound networks has the same trend across various industries?
4. What is the role of rapid internalization in enhancing the effectiveness of time-bound networks?

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