Industrial Marketing Management xxx (2014) xxx–xxx

Contents lists available at ScienceDirect

Industrial Marketing Management

Strategic capability architecture: The role of network capability

Jukka Vesalainen [1], Henri Hakala *

University of Vaasa, Department of Management, P.O. Box 700, FI-65101 Vaasa, Finland

ARTICLE INFO

Article history:
Received 8 January 2014
Received in revised form 27 March 2014
Accepted 29 March 2014
Available online xxxx

Keywords:
Network capability
Relational capabilities
Capability configurations

ABSTRACT

A firm's network capability refers to its ability to build, handle and exploit relationships. These capabilities are interwoven in a complex configuration with the other capabilities and competencies of the firm and in practice, are very difficult to separate from them. Rather than assuming that firms inherently possess network capability, our aim is to discover if the shared managerial logic of top management teams confirms its presence. In order to understand how managers perceive, process and interpret network capability, we guided the management teams of five industrial suppliers through a novel five-step process of introducing, identifying, critically screening, challenging and verifying the capabilities of the firm. The paper introduces a framework for strategic capability architecture and investigates how network capability emerges from among the configuration of other capabilities in industrial firms. We found that network capabilities are central to the formation of customer capabilities. Network capabilities also play an important role as assets contributing to the formation of other capability sets. Furthermore, we found that the networking capabilities act in unison with other capabilities through three different strategic logics termed partnering, value streaming, and horizontal allying.

1. Introduction

Network capability refers to the ability to build, handle, and exploit relationships (Ritter & Gemünden, 2003; Tyler, 2001). Prior studies (e.g., Tyler, 2001) have suggested that network capability may play a significant role in creating competitive advantage, "however the concept of inter-organizational relational capabilities needs to be developed further" (Capaldo & Petruzzelli, 2011, p. 283). The resource based view describes the firm as a configuration of related resources, capabilities, or competencies. This equates to what Dosi and Teece (1998, p. 284) referred to as the "differentiated set of skills, complementary assets, and organization routines which together allow a firm to coordinate a particular set of activities in a way that provides the basis for competitive advantage in a particular market or markets." It can be difficult to isolate the role played by network capability from other internal factors affecting the firm among this mass of different capabilities. In response to a "need to develop a better understanding on the intra-organizational dimension of the management of external relations" (Pagano, 2009, p. 905), this study focuses on the role of the network capability within the overall *strategic capability architecture* of the firm.

Rather than assuming that firms inherently possess network capability, our aim is to discover if the discourse and shared managerial logic of top management teams reveals its presence in their firms. In a recent study, Kor and Mesko (2013) argue that "a leap forward in dynamic capabilities research hinges on an intuitive understanding of how managers, *individually* and *as a team*, perceive, process and interpret new stimuli and information and *respond* to them" (p. 242, emphasis in original). Our study attempts to advance this understanding by investigating the role of network capability through a study conducted in a series of workshops with top management teams from five small and medium-sized businesses. Top managers' cognitive understanding of the capabilities of their firms is particularly interesting as it is likely to evolve over time to become a dominant logic at the organizational level, and to dictate how the firm acts, and ultimately, whether it is successful or not (Kor & Mesko, 2013; Krogh & Roos, 1996).

The design of the study is novel, and arguably also methodologically contributive for the study of firm capabilities. Adopting some of the ideas of structural cognitive mapping (Bougon, Weick, & Binkhorst, 1977), we implemented a series of workshops with a thematically fixed structure but allowed the content to vary. The management teams of five firms were guided through a five-step process to define the capabilities of the firm. Managers did this against the framework of *strategic capability architecture* introduced later in the theory section of this paper. At no point during the process did we try to force any mention of network capability (or any other specific type of capability), as the aim was to reveal its presence in as natural a form as possible.

The contribution of the study is threefold. First we introduce a theoretically driven capability architecture that explicates the hierarchical nature of capabilities. Second, using the architecture, we empirically identify a number of capability sets and elucidate the different roles of network capability within these sets. Third, the method used to unravel

* Corresponding author. Tel.: +358 29 449 8440.
E-mail addresses: jukka.vesalainen@uva.fi (J. Vesalainen), henri.hakala@uva.fi (H. Hakala).
[1] Tel.: +358 29 449 8463.

http://dx.doi.org/10.1016/j.indmarman.2014.05.008
0019-8501/

the capability sets contributes by introducing a participative research project that may be used to study a theoretical concept such as capabilities as naturally occurring managerial phenomena.

After introducing the theory and method that shape the empirical segment, the paper proceeds to describe the findings of this exercise. In the discussion, we introduce the different ways network capability may be positioned as part of the configuration of firm-specific capabilities.

2. The strategic capability architecture

Capabilities have been defined as the reflection of the firm's ability to "organize, manage, coordinate, or govern sets of activities" (Dosi & Teece, 1998, p. 284). Yet, to understand the nature of a firm's strategic capability, it is crucial to understand its conceptual architecture, even if that is complicated by the system complexity inherent in bundles of organizational capabilities (Pandza, Horsburgh, Gorton, & Polajnar, 2003). Two different types of capabilities can be identified; the first associated with resources, and the other with activities that deploy resources. Henderson and Cockburn (1994) use the concepts *component competence* and *architectural competence* to differentiate between them. The first refers to resources (Amit & Schoemaker, 1993) or knowledge and skills (Leonard-Barton, 1992) as such. The term architectural competences, refers to capabilities (Hamel & Prahalad, 1994), combinative capabilities (Kogut & Zander, 1992), organizational capital (Tyler, 2001) and managerial systems (Leonard-Barton, 1992).

Various models have been developed to determine the hierarchical architecture of the competence theory. For example, in Mills, Platts, and Bourne's (2003) model, specifically coordinated resources give rise to various services (resource usages), the coordinated services build various competences, and coordinated competences build higher-level competences. Each resource at the highest level of analysis is a product of lower level resources deployed by certain coordinating activities. Wang and Ahmed (2007) propose a hierarchical structure where resources are seen as "zero-order" and capabilities as "first-order" elements of the hierarchy. The logic uniting them is that resources are deployed by capabilities and therefore form various resource or capability sets. Core capabilities (the "second-order" concept) emerge as bundles of resource or capability sets. The unique configuration of the bundle of core capabilities forms a foundation for sustainable competitive advantage for a firm. Wang and Ahmed (2007) see dynamic capability as the highest-order element of the hierarchy, referring to the firm's need to change the core capability set in recognition of the changes in the business environment.

A four-layered hierarchy emerges from most of the capability models presented in prior literature (Hafeez, Zhang, & Malak, 2002b; Mills et al., 2003; Sanchez, 2004; Sanchez & Heene, 1997; Wang & Ahmed, 2007). For the purposes of the present study, focusing on the business-unit level of analysis, the strategic capability architecture is here defined as layers of assets, capabilities, and organizational capability. These are linked with coordinating and developing activities (dynamic capabilities).

2.1. Assets as zero level elements

The resource based view and competence-based competition models of strategic management recognize the organization's resources or assets as the foundation of competitive advantage. Assets as such, however, are not usually treated as a sole source of sustainable competitive advantage due to a usually weak VRIN[2] value (Wang & Ahmed, 2007). Some writers also include capabilities (Hooley, Greenley, Fahy, & Cadogan, 2001), competences or routines (Mills et al., 2003) with assets, describing them as higher-order assets. However, in our conception of strategic capability architecture, we define assets as tangible and intangible, firm-specific and firm-addressable basic elements of competitive advantage. They are essentially passive in the sense that they must be coordinated in order to generate economically feasible activity within the business context.

2.2. Capabilities as assets coordinated by activities

A range of concepts originating from Penrose's (1959) distinction between assets and service (resource use), have been used to describe the deployment of assets. There are actually two distinct interpretations possible: a firm can have a capability to *use resources* or a capability that is a *combination of resources and activities*. The latter interpretation highlights the mutual dependence of resources and activities (Ritter & Gemünden, 2003). This conceptual distinction is not always explicit in the literature and various terms have been used to refer to asset/activity combinations. These include competences (Human & Naudé, 2009; Ritter & Gemünden, 2003; Sanchez & Heene, 1997), capabilities (Hafeez, Zhang, & Malak, 2002a; Sanchez, 2004; Wang & Ahmed, 2007), organizational routines (Hafeez et al., 2002a), services (Mills et al., 2003) and transformation processes (Lewis, 2003). In our hierarchical architecture, we use the term capability to refer to those firm-specific elements that are products of coordinated assets. At the very lowest level, this is a human and machine combination where a physical asset is used by a machinist possessing special skills to run the machine. Moving up to a higher level of analysis a firm may have certain assets such as automated machinery, and up-to-date information systems. These assets are then coordinated by, for example, active leadership, and lean production principles resulting in a capability that could then be called 'efficient production'.

2.3. Organizational capability as a bundle of important capabilities

Organizational-level capabilities have been treated as bundles of important resources and competences (Wang & Ahmed, 2007), a network of valuable capabilities (Hafeez et al., 2002b), and as coordinated services (Mills et al., 2003). Capabilities such as products of asset/activity combinations have also been nominated as higher-order resources (Hunt & Morgan, 1995; Lambe, Spekman, & Hunt, 2002). At this level of the competence hierarchy, capabilities have to be coordinated by activities, thus following the same asset/activity logic presented above. The activities at this level of analysis have mainly been described as business processes (Sanchez, 2004; Sanchez & Heene, 1997) or spanning capabilities (Day, 1994). In the present study, we use the term organizational capability as a concept for organization-level attributes. The organizational capability set is a product of (functional) capabilities coordinated by business processes (e.g., order-to-delivery and new product development processes) and other integrating managerial activities (e.g., management team routines and information systems).

2.4. Dynamic capabilities as activities embedded in processes

The literature alerts us to two ways to treat the topic of dynamic capabilities in the context of a firm's capability architecture. First, it can be treated as an element at the highest level of the capability architecture (Wang & Ahmed, 2007), and second it can be seen as an element embedded in processes (Mills et al., 2003; Sanchez & Heene, 1997). Following the idea of dual activity (Abell, 1993; Sanchez & Heene, 1997), we distinguish capability leveraging and capability building. The former refers to coordinated deployments of resources without qualitative changes in the resources used, and the latter to action taken to acquire or develop new resources or activities. The dynamic capability of a firm is here treated as an organizational characteristic embedded in activities or processes in our framework. These capability building and leveraging activities resemble organizational learning dynamics of either an incremental (single loop learning or continuous improvement)

[2] VRIN = Value, Rarity, Imperfect imitability and Non-substitutability qualities of a resource, referring to the framework by Barney (1991) and used to determine if the resource serves as a basis of competitive advantage.

Please cite this article as: Vesalainen, J., & Hakala, H., Strategic capability architecture: The role of network capability, *Industrial Marketing Management* (2014), http://dx.doi.org/10.1016/j.indmarman.2014.05.008