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CAPABILITY SOURCING: A SERVICE- DOMINANT LOGIC VIEW

Research in Progress

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Abstract

Sourcing is evolving into a strategic process for organizing and fine-tuning the firm's value chain. Companies need to strategic sourcing in order to survive within the industry, particularly hospitals which are facing rapidly competition to provide high quality services in healthcare. Healthcare organizations need to leverage the right capabilities from the right source, and the right shore, at the right cost to improve their competitive position. Capability sourcing is an organizing process to execute strategic sourcing and improve the firm's competitive position through gaining access to best-in-class capabilities across the value chain to ensure long-term competitive advantage. The main problem is a lack of technique to explore sourcing alternatives (insourcing, co-sourcing and outsourcing) and choose the right sourcing model. Our research solution is applying conceptual modeling as a technique to create schematic descriptions of alternative solutions based on organization's capabilities to facilitate strategic sourcing decision making. The fundamental requirement of capability sourcing conceptual modelling is a language as a carrier for modeling intermediate artifacts of sourcing alternatives. Our position is introducing service-dominant logic conceptualisation as a well-defined language for capability sourcing conceptual modeling.

Keywords: strategic sourcing, capability sourcing, conceptual modeling, service-dominant logic.

1 Introduction

Sourcing is evolving into a strategic process for organizing and fine-tuning a company's value chain. Companies should be looking for alternative sourcing of business capabilities to seize new market opportunities. Strategic sourcing allows companies to take full advantage of cost, flexibility and new capability opportunities; whether delivered by traditional suppliers, trading partners, distributors, agents and even customer self-service models. Sourcing decisions are strategic decisions at the management level about choosing the right sourcing alternatives like outsourcing, insourcing and co-sourcing. At the strategic management level of organization, decision makers need to share a common ground or a common language to facilitate their discussions (Clark and Brennan 1991). A common language is needed to define and articulate concepts that facilitate the description of objects of strategic interest and that improve the strategic discussions and enhance related decision making (Osterwalder and Pigneur 2013). Current analytical methods for strategic sourcing planning such as strategy maps, SWOT analysis, PEST analysis, Porter's five forces analysis, and value chain analysis are not based on common languages that could be used to facilitate the strategic sourcing discussions. Strategic decision makers (e.g. contract manager) need a technique to explore sourcing alternatives and choose the right sourcing model based a common language and schematic descriptions of solutions.

2 Capability sourcing

Capability sourcing has been introduced as a process or a course of action to execute strategic sourcing goals. It is a process of gaining access to best-in-class capabilities in a company's value chain to ensure sustained competitive advantage. Right sourcing of capabilities improves the competitive position of firm across the value chain and within a changing environment. Right sourcing means leveraging the right capability at the right cost from the right source and the right shore to improve the competitive position. Capabilities are the key to alignment and successful strategy execution. Capabilities exist across the value chain and in order to achieve high-performance a business must learn to manage capabilities that other parties in the value chain perform. They must learn to govern a network of capabilities. Right sourcing allows sharper focus on differentiating capabilities. On the other hand, incorrect sourcing decisions limit agility and increase costs (Loftin et al. 2011). Here, the main requirement is a technique to explore and express the capabilities that are necessary to execute the stated strategy as 1) Insourced capabilities that are assigned to an internal (but 'stand-alone') entity that specializes in that operation. 2) Outsourced capabilities that are assigned to a third party to perform on its behalf. 3) Co-sourced capabilities that are assigned to a partnership as a long-term cooperation between two (or more) business partners.

Our research position is introducing Information systems (IS) research to improving strategic sourcing. IS research has a unique opportunity to contribute to business strategy research by helping in the design and exploration of multiple strategic options, much in the way it has contributed to better decision making (Osterwalder and Pigneur 2013). Accordingly, our research solution is applying conceptual modeling (a major part of IS research) as a technique to explore sourcing alternative solutions which are insourcing, outsourcing or sharing forms (e.g. in-house, spin-off and joint venture). We use conceptual models as intermediate artifacts which are schematic descriptions of sourcing alternatives based on organization's capabilities. Conceptual models use a language as a carrier for the modeling artifact and are restricted by the expressiveness of this carrier (Thalheim 2010; 2011; 2012). This language is also used for the description of the concepts that are incorporated into a modeling result (Thalheim 2010; 2011; 2012). We propose the Service-Dominant Logic (S-D Logic) as a language for modeling the intermediate artifacts in capability sourcing conceptual modeling (Rafati and Poels, 2014a; 2014b). In the next section, different views of capability sourcing are introduced to organize all perspectives of sourcing decision making and the things (concepts) viewed from each perspective across the firm's value chain. (Fig.1) These views aid to make a mapping between the core concepts of capability sourcing and S-D Logic (section 4). Finally, we apply this mapping in a given capability of a healthcare organization in the context of competition (section 5).

3 Views of capability sourcing

To choose the right sourcing solutions, strategic sourcing decision makers (e.g. contract manager, sourcing manager) need to both internal and external views on the organization's resources, competencies and capabilities. The internal view focuses on the firm's resource base and competencies and the external view focuses on the value network actor's resources base and competencies (e.g. partners and customers). Therefore three views of capability sourcing have been introduced as 1) internal view; 2) external view and; 3) core view to integrate the external and internal views.

Dynamic Capability View (DCV) is the core view for capability sourcing. It is a view on "*the firm's capabilities*" (capabilities) to reconfigure its resource base and competencies internally and externally to achieve competitive advantage in rapidly changing environments (Helfat et al. 2007). This view define two categories of capabilities depending on orientation and focus of defining processes as 1) Inside-out capabilities or internal capabilities such as financial management, manufacturing,

technology development and human resource management 2) Outside-in capabilities or external capabilities whose focal points is almost exclusively outside the organization. The purpose of these outside-in capabilities is to define other organizational capabilities to the external environment and enable the firm to compete and creating durable relationships with customers, channel members and suppliers. The examples of outside-in capabilities are market sensing, customer linking, channel bonding and technology monitoring (Day 1994).

Value Creation View (VCV) is the external view for capability sourcing. It is a view on “*the firm’s beneficiary*” (value) that is derived by the participation of its network actors. In this view, the key is value co-creation through the exchange of competencies among network actors like firm, customers and suppliers (Dobrzykowski et al. 2010). Companies are shifting their focus from increasing internal efficiency to leverage external resources and competencies, in order to gain new competitive advantages. According to this view, value is created through the interactions of economic actors. Suppliers, customers, and the focal firm all work together in a complementary way to develop and share new value creating competencies (Dobrzykowski et al. 2010). It is a focus on “the inter-firm value co-creating competencies” (collaborative competencies) involving its partners. *Collaborative competency* will aid a firm in absorbing new information and knowledge from partners or improve its absorptive competence. *Absorptive competence* is the ability of an organization to be able to comprehend from the external environment the important trends and know-how. This will assist in transforming these external environments into important resources the firm can draw upon for support (Lusch et al. 2007).

Resource Based View (RBV) is the internal view for capability sourcing. It is a view on “*the firm-specific strengths*” (core competencies) that allows a company to gain competitive advantage by differentiating its products and/or achieving lower costs than its rivals (Hill and Jones 2012). Resources are the source of a firm’s core competencies and basis for competitive advantage. *Superior resources* enable organizations to sustain competitive advantage, if the resources are Valuable, Rare, Inimitable, and Non-substitutable (VRIN). Valuable resources increase revenues or decrease costs. Valuable common resources can lead to competitive parity but no advantage. Non-value-adding resources lead to competitive disadvantage. Rare resources are those possessed uniquely by one organization or by a few others only. Valuable rare resources can provide, at best, temporary competitive advantage. Inimitable resources are those that competitors find difficult to imitate or obtain. Non-substitutable resources are resources that do not have a strategic equivalent. Only valuable, rare, hard-to-imitate and non-substitutable resources can provide sustained competitive advantage (Barney 1991,2002).

According to these three views, capabilities constituted by VRIN resources and core competencies are critically underpinning competitive advantage that others cannot imitate and obtain. These *core capabilities* are deeply embedded in the firm and therefore difficult to transfer and likely to be performed internally. Capabilities involved by non-valuable resources and *threshold competencies* are non-core capabilities. *Threshold competencies* are needed to meet the necessary requirements to compete in a given market and achieve parity competitive advantage. *Non-core capabilities* can be outsourced without any serious compromise to the firm competitive position. Furthermore capabilities constituted by the external resources and collaborative competencies and characterized by high value co-creation are likely to be shared.

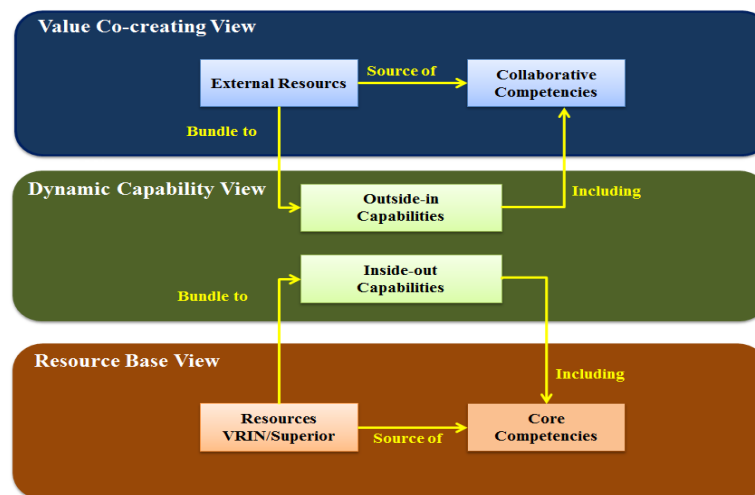


Figure 1. Views of capability sourcing

4 Conceptualization based on S-D Logic

S-D Logic provides a framework for thinking more clearly about the service system and its role in competition. The S-D Logic views a service system as a dynamic value co-creation configuration of resources, including at least one operand resource, all connected internally and externally to other service systems by value propositions (Vargo and Akaka 2009). There is a similarity between the core concepts of S-D Logic (Fig.2) and capability sourcing as below. (Lusch et al. 2007); (Dobrzykowski et al. 2010); (Mele and Della Corte 2013); (Rafati and Poels, 2014a; 2014b).

Resource as operand resource: S-D logic views operand resources as usually tangible and static resources which must be acted on to be beneficial such as natural resources, goods, and money (Vargo and Akaka 2009); (Poels, 2010). According to S-D logic and in the context of sourcing, we redefine “resources” as “operand resources” that require some action to make them valuable and beneficial toward enable firm to sustain competitive advantage.

Competency as operand resource: S-D logic views operand resources as usually intangible, dynamic resources that act upon other resources to create benefit such as competences (e.g. knowledge and skill); (Vargo and Akaka 2009); (Poels, 2010). According to S-D logic and in the context of sourcing, we redefine “competencies” as “operand resources” that are capable of creating value and allow a firm to gain competitive advantage by differentiation and lower costs. Operand resources, especially “know-how,” are the essential component of differentiation. “Operand resources (competencies) are the fundamental source of competitive advantage” (Lusch et al. 2007).

Capability as configuration of resources: S-D logic views service system as dynamic configurations of resources capable of providing benefit to other service systems and themselves (Vargo and Akaka 2009). This definition is similar to the definition of dynamic capability as the firm’s capacity to reconfigure it’s resources and competencies internally and externally to achieve competitive advantage. According to S-D logic and in the context of sourcing, we redefine capability as “*the configuration of resources*” (capacity) including at least an operand resource (competency) that is able to provide benefit to other entities externally and internally through “service exchange”. The ability to configure best in class operand resources between organizations increases the ability to gain competitive advantage through innovation.

Service as application of operand resources: S-D Logic views service as “*the application of operand resources*” for the benefit of another party (Vargo and Akaka 2009). Service is able to develop desirable capability through the exchange of specialized competencies (operand resources) . Service is the fundamental basis of value creation through exchange. According to S-D logic and in the context

of sourcing, we define service as the application of competencies (operant resources) by exchanging them on the market, which is the primary source of competitive advantage. Competitive advantage is a function of how one firm “applies its operant resources” (service) to meet the needs of the customer relative to how another firm applies its operant resources. Service is the primary source of competitive advantage. But the only true source of sustainable competitive advantage is the operant resources that make the service possible (Lusch et al. 2007).

Value creation through resource integrating: The central idea of S-D Logic is the concept of resource integration as a key mechanism for value co-creation. The individual firms need a network-to-network conceptualization of relationships that converge on value creation through a web of resource integration. Resource integration is therefore a multidirectional network-oriented process with parties integrating multiple resources for their own benefit and for the benefit of others. “Resource integrating is a process for value co-creation through a value network of actors that results in a competitive advantage” (Lusch et al. 2007).

Value network members as actors: S-D Logic views all actors engaged in exchange (e.g. firms, customers and suppliers) as value creator. Firms gain competitive advantage by engaging customers and value network partners in co-creation activities. All social and economic actors are essentially doing the same thing: creating value for themselves and others through reciprocal resource integration and service provision. “The actor that is the prime integrator is in a stronger competitive position” (Lusch et al. 2007).

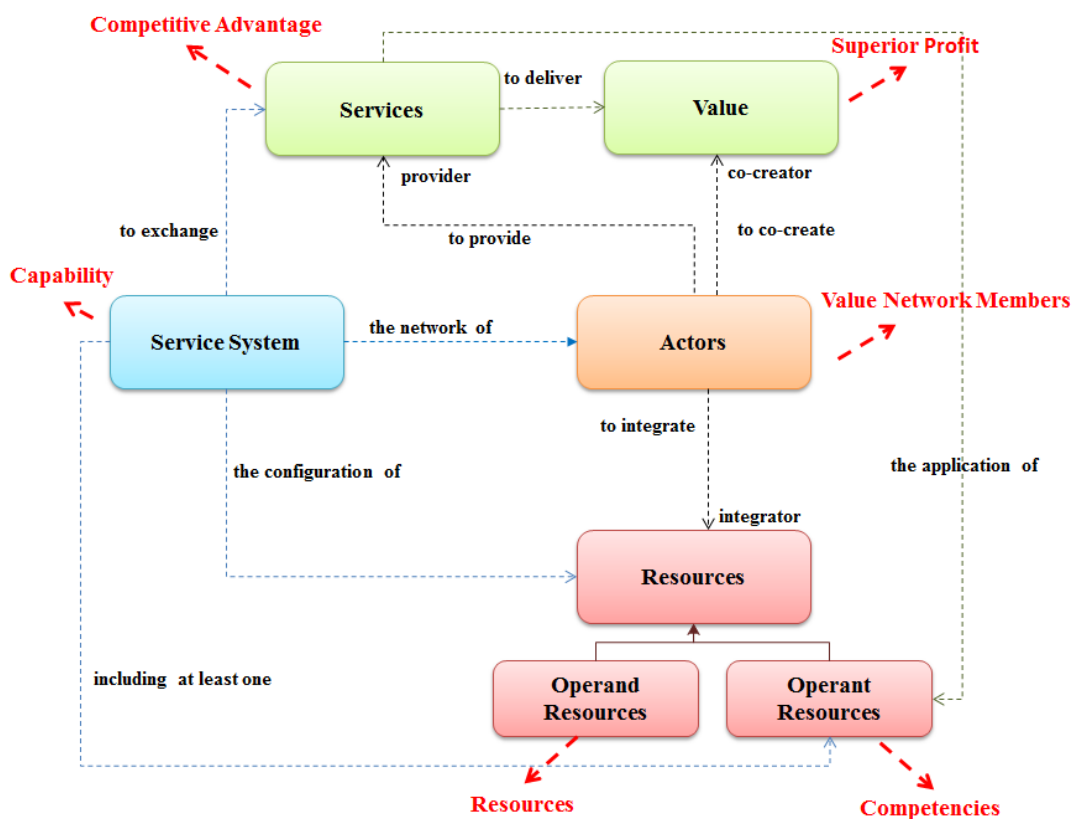


Figure 2. S-D logic Conceptualization for capability sourcing

5 Strategic Sourcing in Healthcare

Healthcare costs are increasing and hospitals are facing rapidly competition to provide high quality services. Now more than ever, hospitals need healthcare strategic sourcing in order to survive within the industry. Strategic sourcing can play a key role in creating a more efficient hospital by 1) decreasing the total cost of ownership of resources (specialists, capital equipment and facilities) through improving supply chain management; 2) differentiating its services through hiring specialists and purchasing or renting equipment and facilities. The proposed conceptualization has been applied in a given capability in a healthcare organization in the context of competition. The clinical engineering department (CED) in the hospital is responsible for the patient and clinical staff safety in using medical devices. It is responsible for establishing and regulating a Medical Equipment Management capability to ensure that medical devices are safe and reliable. This capability includes activities of medical devices such as purchase, contract, repair, and maintenance.

Medical equipment management as capability (Fig.3) is a configuration of resources (e.g. capital equipment such as MRI machine that is an operand resource) including at least an operand resource or competency (e.g. specialized knowledge about managing capital equipment) that is capable to provide benefit (safe, effective, and economical services and equipment) to other entities (patient and clinical staff) externally and internally. For this capability, services are procurement, installation and setup, maintenance, testing and monitoring and training services. These are the application of operand resources (e.g. specialized knowledge about managing like procurement, installation, monitoring, maintenance and training) to deliver value (e.g. the patient and clinical staff safety in using medical devices). In this scenario, value network actors (e.g. hospital, equipment users, patients and service providers) are all engaged in exchange as value creators. The process of value creation is through resource integration. So the actor who is the prime integrator of operand resources (competency) is in a stronger competing position. If the hospital can be the prime integrator of operand resources (e.g. specialized knowledge about managing capital equipment), the Medical equipment management will be a core capability and could be performed internally. Otherwise, if an external provider (e.g. medical equipment manufacturers and suppliers) is the prime integrator of operand resource, then the capability is likely to be shared.

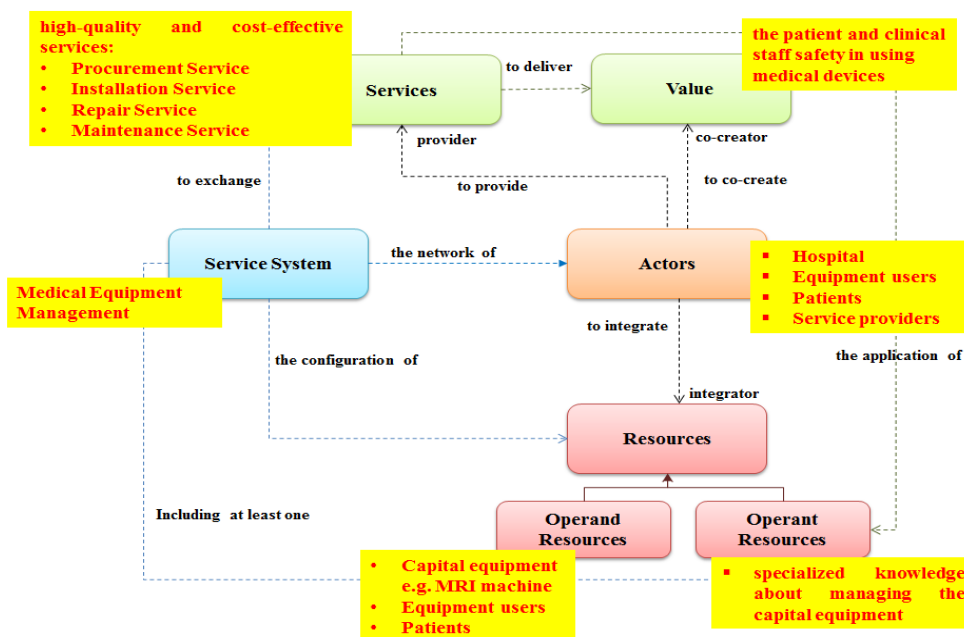


Figure 3. Sourcing of Medical Equipment Management

6 Future work

Our research objective is facilitating strategic decision making about sourcing. We proposed the S-D Logic abstraction as a well-defined conceptualization of capability sourcing. The next step of our research is applying this conceptualisation as a language for modeling intermediate artifacts as conceptual models to create schematic descriptions of sourcing alternatives. These conceptual models can be applied as a technique to explore sourcing alternatives and choose the right sourcing model. Furthermore, the healthcare organization as a business scenario would be more elaborated in the context of strategic sourcing based on the S-D logic conceptualization.

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