Introducing Service-oriented Organizational Structure for Capability Sourcing

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Abstract. At the strategic management level in an organization, participants in the decision making process need to share a common language to facilitate discussions and enhance related decision making. The context of this position paper is about strategic sourcing decision making and the goal is to facilitate it through a well-defined language. Companies need to acquire the right capabilities from the right source, and the right shore, at the right cost to improve their competitive position. In this position paper, capability sourcing is introduced as an organizing process to gain access to best-in-class capabilities for all activities in a company's value chain to ensure long-term competitive advantage. Furthermore, capability sourcing takes place in the service-oriented organizational structure that is introduced as a flexible structure to allocate the resources that shape the firm's competitive advantages. Therefore, the conceptualization of service system is proposed as a well-defined language for modeling, formalizing, representing and visualizing the concepts, constructs, and models in the capability sourcing process to facilitate strategic sourcing decision making.

Keywords: capability sourcing, strategic sourcing, service-oriented organizational structure, service orientation, componentization and service system.

1   Introduction

Organizing as a phase of organization management is defined as the process of arranging resources to work together to accomplish a goal. The organizing process formulates corporate strategies to achieve competitive advantages through arranging the firm's resources and configuring the firm's capabilities within a changing environment. In the organizing process, high-level (strategic) decisions are made about choosing the right sourcing alternatives like outsourcing, insourcing or co-sourcing. Sourcing decisions include the commitments, decisions and actions required for a firm to achieve strategic competitiveness on resources and organizational capabilities. In this paper we introduce two key requirements to facilitate sourcing decision making. There requirements need to be elaborated in further research.

2   Strategic Sourcing

"*For years, sourcing has just been another word for procurement — a financial material, but strategically peripheral, corporate function. Now, globalization, aided by rapid technology innovation, is changing the basis of competition. [1] It's no longer a company's ownership of capabilities that matters but rather its ability to control and make the most of critical capabilities, whether or not they reside on the company's balance sheet*". [1]

Forward-thinking companies are making their value chains more elastic and their organization structures more flexible and adaptable. "*Sourcing is evolving into a strategic process for organizing and fine-tuning the value chain*". [1] Companies should be looking to alternative sourcing of business capabilities to seize new market opportunities. Yet few companies are taking full advantage of the cost and flexibility opportunities in the new global arena. [1]

Strategic sourcing is a systematic and fact based approach for optimizing an organization's supply base and improving the overall value proposition. "*Strategic sourcing allows companies to take full advantage of cost, flexibility and new capability opportunities; whether delivered by traditional suppliers and BPO suppliers, trading partners, distributors, agents and even customer self-service models*". [2]

Strategic sourcing is rooted in the idea that a business must have a set of explicitly defined capabilities in order to execute its strategy successfully. [2] "*Leaders often mistake the course of action and pursue a wrong path — diverting attention from the intended strategy. A root cause is often that strategic intent and objectives are not articulated in clear operating language for better execution. A written strategy does not ensure strategic action*". [2]

3   Requirements for Right Sourcing

Companies need 1) to define for their own business how they create competitive advantage, and identify key capabilities they need to be world class; 2) to determine the optimal work location and delivery approach for in-house work; 3) to determine the right sourcing options to meet the sourcing strategic objectives and structure optimal sourcing decisions; 4) to determine optimal sourcing location: onshore, nearshore, offshore. Overall, companies need to leverage *the right capability at the right cost from the right source and the right shore* to improve their competitive position.

A right way of arranging resources and configuration capabilities is needed to *acquire the right capabilities from the right source, and the right shore, at the right price across the value chain and within a changing environment.*

There are two main requirements for arranging resources and configuration capabilities (organizing) to accomplish strategic sourcing goals effectively and efficiently: 1) a process as a course of action to execute strategic sourcing goals and 2) an organizational structure as a configuration or construction to pursue strategic sourcing goals.

The first requirement is an organizing process of gaining access to best-in-class capabilities for all activities in a company's value chain to ensure long-term competitive advantage. [1] It is needed to support companies to improve their competitive position by reducing costs, streamlining the organization, and improving quality. Also it is needed to support companies for finding more-qualified partners to provide critical functions that usually allow to enhance the core capabilities that drive competitive advantage in their industries. [1]

The second requirement is structure as a means that managers use to harness (control) resources and capabilities to achieve strategic goals. Also the organizing process take place within a structure reflected by the way in which the organization: 1) groups its work or activities, 2) establishes patterns of relationship among its various parts, 3) allocates its resources to achieve the specific strategic goals efficiently and effectively.

An organization structure needs to follow the organizational strategies. It is Chandler's Thesis – 1960's. Business environments are in a constant state of change. An organization's strategy must be adapted to changes in its competitive environment. Strategic change creates the need for restructuring the organization to acquire new and different knowledge, skills and abilities. [3]

It is critical to match organizational structure to the firm's strategy. "*Effective structures provide stability and flexibility. Structural stability provides the capacity required to consistently and predictably manage daily work routines*". "*Structural flexibility provides for the opportunity to explore competitive possibilities and the allocation of resources to activities that shape needed competitive advantages*". [3]

Therefore, strategy and structure have a reciprocal relationship. "*Structure flows from or follows the selection of the firm's strategy but once in place, structure can influence current strategic actions as well as choices about future strategies*". [3] Firms grow in predictable patterns by volume, by geography, by integration and finally through product or business diversification. A firm's growth patterns determine its structural form. [3]

A flexible structure refers to participative communication patterns of interactions that link a firm's components across its value chain within a changing environment. The flexible structure provides the opportunity to explore competitive positions and the allocation of resources that shape competitive advantages needed by the firm. [3] The Flexible structure decentralizes both tasks and decisions so that the company can adapt more quickly to changing circumstances. It works best in fluid and unpredictable business climates, in which a rigid structure might not respond quickly enough. Therefore it is needed to follow strategic sourcing goals.

Finally, the organized process needs to take place within a flexible structure to execute sourcing strategies through gaining access to best-in-class capabilities in the company's value net. This is because the flexible structure is successful in adapting to change in unstable and uncertain environments and allows firms to bring resources together in a boundary-less organization. (Fig.1)
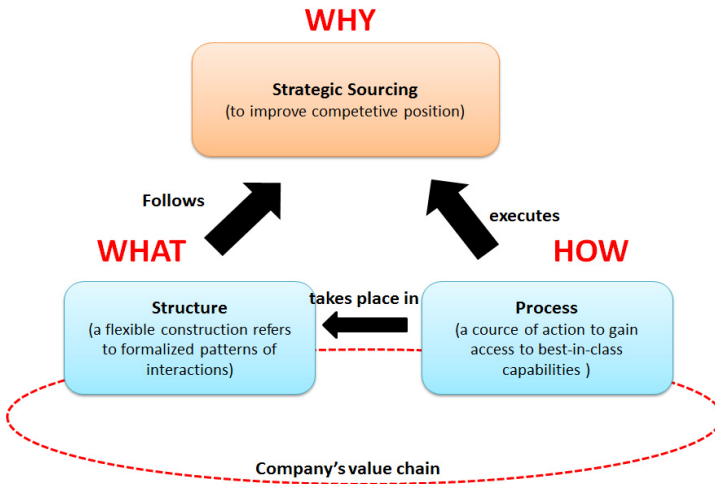
WHY

Strategic Sourcing
(to improve competetive position)

Follows

WHAT   **executes**   **HOW**

takes place in

Structure
(a flexible construction refers to formalized patterns of interactions)

Process
(a cource of action to gain access to best-in-class capabilities)

Company's value chain

Fig. 1. Role of structure and process in right sourcing

4   Capability Sourcing as an Organizing Process

Capability sourcing began as a cost-cutting measure, but companies that create real sustained value routinely use it for far more strategic ends to gain capabilities that they don't have in-house, or to strengthen capabilities they do have, for everything from developing world-class talent to bringing new products to market faster and enabling business model innovation. [4] The capability sourcing process improves a company's competitive position by ensuring that processes and functions are obtained from the right source at the right cost. Greater focus on capability sourcing can improve a company's strategic position by reducing costs, streamlining the organization, and improving quality. [4] Also it can support companies for finding more-qualified partners to provide critical functions that usually allows to enhance their core capabilities that drive competitive advantage in their industries. [1]

Totally, capability sourcing is a process of gaining access to best-in-class capabilities for all activities in a company's value chain to ensure long-term competitive advantage. [1] [5] In this process, capabilities are the key to alignment and successful strategy execution and also capability sourcing model is a blueprint and a structured and aligned way to organize the capabilities required for strategy execution.

Role of Business Capability in Sourcing: Capabilities are WHAT the company needs to do to execute its business strategy, stated in measurable and actionable terms. [2] Resources are the assets that organizations have or can call upon (e.g. from partners or suppliers), that is, 'What a firm Has'. Capabilities are 'What the firm can Do'. Resources and capabilities are the key to alignment and successful execution. Furthermore, dynamic capabilities are the organization's abilities to renew and recreate its strategic capabilities to meet the needs of a changing environment. [6]

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. In other hand, incorrect sourcing decisions limit agility and increase costs. Capabilities where the company is not best in class can be, 1) built internally via process improvement and investment; 2) outsourced to a provider who is best in class; 3) moved offshore when cost and/or quality are superior. Clarifying the value contribution (or strategic relevance) of each capability helps a business allocate the right level of time and resources — whether to strengthen, minimize or outsource. Determining the value contribution helps focus resources and sourcing alternatives on capabilities that create value and distinctiveness, or identifies where to target efficiency work, either through rigorous process improvement or sourcing to a low cost provider. [2]

A complete picture of capabilities is the Enterprise Capability Model, sometimes also referred to as capability (heat) map. [7] It is a blueprint for the business expressed in terms of the capabilities necessary to execute the stated strategy. A capability model organizes in a structured and aligned way the capabilities required for strategy execution by determining capability value contribution. [2]

5   Service System as a Flexible Structure

Organizational structure refers to the grouping of activities and establishing patterns of relationships among the various parts of the organization. Structure provides a means of balancing two conflicting forces; 1) differentiation (Grouping): need for the division of tasks into meaningful groupings; 2) Integration (linking): need to integrate the groupings for efficiency and effectiveness. It creates a basis for measuring and comparing organizations. [8]

Organizational structure is an organization's framework as expressed by its degree of complexity, formalization, and centralization. Complexity refers to the degree of differentiation that exists within the organization. Formalization refers to the degree to which works (jobs) within an organization are standardized. Centralization refers to the degree to which decision making is concentrated at a single point in the organization. [8]

To execute sourcing strategies through the capability sourcing process, an organizational structure is needed that eliminates traditional barriers between departments as well as barriers between the organization and the external environment. In other words, an organizational structure is needed in which chains of command are eliminated, spans of control are unlimited, and rigid departments give way to empowered teams. Here, types of organizational boundaries and barriers are as below: [3]

- *Horizontal boundaries between different departments or functions in a firm.*
- *Vertical boundaries between operations and management, and levels of management, between "corporate" and "division".*
- *Geographic boundaries between different physical locations; between different countries or regions of the world and between cultures.*
- *External interface boundaries between a company and its customers, suppliers, partners, regulators, and competitors.*

We introduce Service System as a flexible structure to follow sourcing strategies. Service system has been defined as a dynamic configuration of resources (people, technologies, organizations and shared information) that is able to create and deliver value to other interested entities, through service. [9] In this research, this flexible structure has been called "Service-oriented Organizational Structure (SoOS)".

Service-oriented organizational structure introduces componentization and service orientation as two structural enablers for balancing two conflicting forces, differentiation and integration.

Componentization is a way to deconstruct an enterprise and then reconstruct it again into a value net, in which partnerships with customers and suppliers operate in a value network. The process of deconstruction-reconstruction is realized through business components (i.e. distinct business functions). A business component is a part of an enterprise that has the potential to operate independently. Business components represent a logical grouping of the work done within the enterprise and contain capabilities, activities, resources and performers. Therefore, service-oriented organizational structure introduce componentization as a way of differentiation by grouping tasks into meaningful and independent logical groupings. [10] [7]

Service orientation is a seamless integration and connection between business components within the firm, across external partners and throughout the world. Therefore, service-oriented organizational structure introduces service orientation as a way of integration through linking the groupings internally and across the boundaries of organization. [11]

Finally, Service-oriented Organizational Structure is a flexible structure to follow strategic sourcing goals and the capability sourcing process can take place within this structure to execute strategic sourcing goals through sharper focus on differentiating capabilities. (Fig.2)
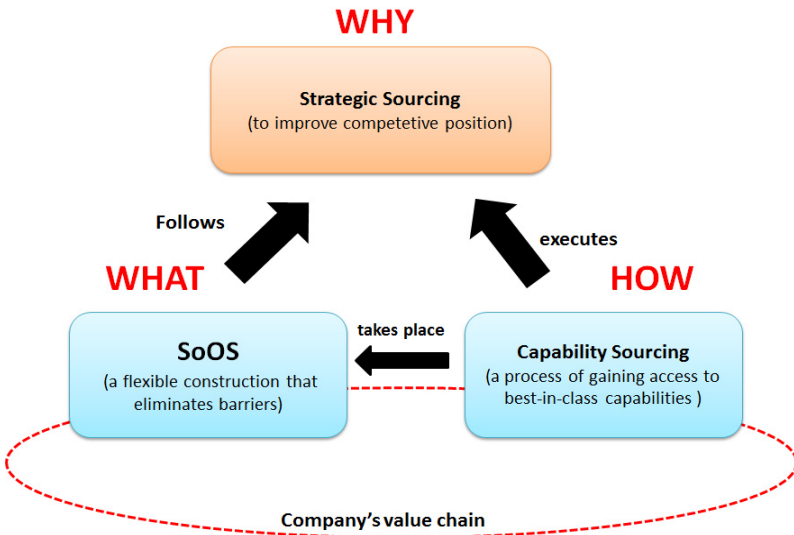

Fig. 2. Relation between SoOS and capability sourcing

6   Enterprise Capability Model Based on SoOS

In this paper, service-oriented organizational structure has been introduced as a flexible and adaptable structure that provides opportunities for dynamic allocation of resources and also dynamic configuration of capabilities to shape the needed competitive advantages. This structure is needed to follow strategic sourcing goals to achieve competitive advantages. Firms frequently alter their structure as they grow in size and complexity. Organizations require such form of organizational structure to implement and manage their sourcing strategies to improve their competitive position.

Furthermore, in this paper, we introduced capability sourcing as an organizing process which takes place in a service-oriented organizational structure to pursue strategic sourcing goals. This process includes modeling and decision making processes to perform the right sourcing. A modeling process is needed 1) to create artifacts like an Enterprise Capability Model as a blueprint to express the capabilities that are necessary to execute the stated strategy; 2) to formulate sourcing principles and measurements that inform and support the way in which an organization realizes its strategic sourcing goals.

At the strategic management level in an organization, decision makers need to share a common ground or a common language to facilitate their discussions. [12] 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. [13] Our research will focus upon the design of an articulated and clear modeling language based on a service-oriented organizational structure for capability sourcing. Service-oriented organizational structure is a well-defined basis for conceptual modeling in capability sourcing process. Our approach is introducing the service system abstraction as a well-defined conceptualization for capability modeling through mapping the concepts of service system [9] with the concepts of capability sourcing. The key concepts in service system are: (Fig. 4) [14]

Resource- in the context of service systems, resources are operand resources and operant resources. Operand resources (e.g., natural resources) are usually tangible and static resources that require some action to make them valuable. Operant resources (e.g., human skills and knowledge) are usually intangible and dynamic resources that are capable of acting on operand and other operant resources to create value. In other hand, in the sourcing context, the resources of the firm are seen as the main factors driving the firm's strategy and performance. When the external environment is subject to rapid change, resources and capabilities offer a more secure basis for strategy than market focus. This distinction between operand and operant resources is useful for capability modeling to describe dynamic capabilities through the dynamic configuration of resources. [14]

Value creation- in the context of a service system, value is an increase in the viability (survivability, well-being) of the system. [15] [16] In the context of service system, value is created collaboratively in interactive configurations of mutual exchange. [15] [16] This definition is similar to the definition of core competencies in a strategic sourcing context. Core competencies are the essence of what makes an organization unique in its ability to provide value to customers. Core competencies

are "What a firm Does" that is strategically valuable and also can lead to competitive advantage. [14]

Service system- it is a dynamic value co-creation configuration of resources, including people, organizations, shared information and technology, all connected internally and externally to other service systems by value propositions. [14] This definition is similar to the concept of business component in sourcing context. A business component is a discrete business areas comprised of people, processes and/or technologies that have a clear purpose and maintain financial viability. It is a part of enterprise that has potential to operate independently. Business component is key element to realize the deconstruction- reconstruction process of organization (componentization). [14]

Service exchange- in the context of service system, service is the application of resources (knowledge and skills) by one entity for the benefit of another. This definition provides a fresh perspective for understanding economic phenomena, by implying that value is created collaboratively in interactive configurations of mutual exchange. The definition of service exchange between service systems is similar to service orientation in sourcing as a seamless integration between business components. [14]

Resource Integrator- businesses, firms, and customers are all viewed as socio-economic actors who connect through value propositions within "complex service systems" and perform actions aimed at reaching desired outcomes such as mutual value creation. All social and economic actors are essentially doing the same thing; creating value for themselves and others through reciprocal resource integration and service provision. From the S-D Logic view, all economic and social actors are resource integrators and also the actor is always a co-creator of value. This definition is meaningful to describe best-in-class external partners and internal specialists who connect through value propositions within a value net. [14]
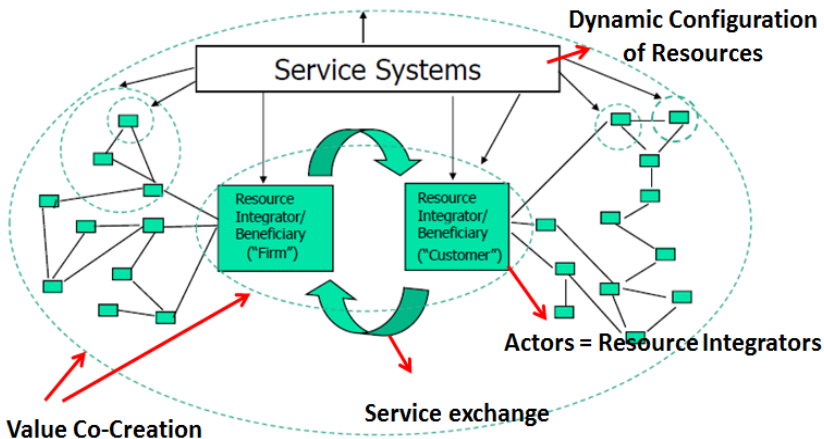

Fig. 3. Core concepts of service system

Current analytical methods for strategic planning such as strategy maps, SWOT analysis, PEST analysis, Porter's five forces analysis, and value chain analysis are not based on common languages, conceptual frameworks, and visual schemas that could be used to facilitate the strategic (sourcing) discussions and strategic (sourcing) decision making. [17] The advantage of the proposed approach "Service System Conceptualization" is its ability to apply for modeling, formalizing, representing, and visualizing the concepts, constructs, and models in strategic sourcing. Therefore, this conceptualization can improve the process of design thinking, prototyping, and exploring alternative solutions for strategic sourcing or capability sourcing decision making.

7   Research Method

Information systems (IS) research has the potential to contribute to improving strategic planning, particularly to improving decision making. [13] The current research focus in strategic management could be improved by some of the more conceptual and design-oriented research in IS. Three research areas of strategic management that could be improved by IS research are (1) the formalization and visualization of the core strategic concepts, (2) the exploration of design techniques for generating and assessing multiple models (to improve the process of designing answers and alternatives to strategic business questions), and (3) the support of computer-aided design for strategic management. Therefore, IS research offers a unique opportunity to contribute to corporate strategy research by helping in the design and exploration of multiple strategic options to better decision making. [13]

In our future research, our intended contribution is applying IS research in strategic management to improve strategic sourcing decision making. We apply IS research for identifying and formalizing strategic (sourcing) notions by (1) discovery of objects relevant to the design of (sourcing) strategy, (2) turning these objects into explicit specifications of a conceptualization, and (3) validating those subsequent objects. Our research is based on theories of two disciplines (1) service science with theories like service system theory and service dominant logic, and (2) organization science with theories like resource based view and dynamic capabilities.

Therefore, our research method is Design Science Research Methodology (DSRM) that is an accepted framework for IS research. [18] Our artifact is a conceptual construction in the scope of strategic decision making. Furthermore, we will use an observational design evaluation method for evaluation design artifact i.e. case studies. Consequently, the next step of our research is designing a sourcing conceptualization based on an ontology and modeling approach for service science like in [19].

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