

Bridging dynamic global sourcing relations with knowledge governance

Ass. Professor Claus Jørgensen

Department of Business development and Technology, Aarhus University

clausj@btech.au.dk

Ass. Professor Ole Friis

Department of Business development and Technology, Aarhus University

olefr@betch.au.dk

Abstract

The purpose of the paper is to explore how knowledge governance can be used for bridging global sourcing relations in the struggle to avoid the erosion of firm capabilities. The paper is based on longitudinal case studies of two Danish enterprises competing in the highly globalized textile industry.

Keywords: Global sourcing, Dynamic capability, Knowledge governance

INTRODUCTION

The rupture of the value chain caused by sourcing activities have created challenges regarding how to maintain and develop firm capabilities in various industries. One of the first industries to meet these challenges has been the textile industry. Our aim with the paper is to consider if knowledge governance might be an alternative to bridge sourcing relations, which were globally dispersed implying a need to govern more complex distances in space and time from the perspective of the two case companies.

The paper discusses challenges in managing global sourcing configurations and maintaining firm capabilities in two enterprises competing in a highly globalized industry (textiles). As the companies have experienced a continuing globalization of both their distribution and manufacturing activities, both companies have changed their global sourcing configurations in various ways. Their firm capabilities were amended during this process due to an increasingly dynamic task environment.

When initializing or increasing global sourcing activities, many issues arise that companies must consider and react to in order to maintain and develop their firm capabilities over time. Danish SMEs including the two case companies rely largely on proprietary processes, tacit competencies, and unique products to support their niche strategies. This means that the companies are more dependent on long-standing sourcing relationships in the supply chain than may be expected in other circumstances (e.g. Freytag and Mikkelsen, 2007). Although the case companies have come far in relocating parts of their value chain, they have done so at a cost generated by the coordination and cooperation efforts. Estimating this cost is difficult, as well as the total cost of

global sourcing and its influence on firm capabilities. Kotabe et al. (2008) argue that a vicious cycle of competence destruction is identifiable over time through the outsourcing of activities. Quintens et al. (2006) observe that global sourcing settings may act as relevant labs for knowledge-based theories. This paper raises the following research question:

to which extent can knowledge governance help maintain and develop firm capabilities when strategic sourcing changes are implemented.

The case companies, both of which were SMEs at the outset of the study period, were chosen for this study due to their performative success (growth rates in production output, turnover, and profitability) in a competitive and volatile market (see e.g. Hernández-Espallardo et al., 2010 and Teng and Jaramillo, 2006 regarding the textile industry). Both companies experience structural changes in the operations configuration e.g.: experiencing changes in overseas manufacturing facilities, as well as choosing either captive, or a combination of captive and non-captive governance modes.

The paper draws on knowledge governance (Foss and Michailova, 2009) as an approach to manage complex global sourcing configurations. Gelderman and Semeijn (2006) claim that the literature needs to address the strategic importance of knowledge in the areas related to supply management. The knowledge governance approach is regarded as a way of combining (Heimann and Nickerson, 2004) the literature of transaction cost economics with a resource-based viewpoint when making managerial sourcing decisions and implementing these decisions over time. The categorization of formal and informal knowledge governance activities (Scarbrough and Amashi, 2009) will be used for analysis of the case companies in combination with the suggested capability of knowledge governance mechanisms to solve knowledge cooperation problems (Johansson et al 2011).

The approach of comparing the two case companies over time (see e.g. Giannakis, 2008 regarding the need for longitudinal studies in the field) is expected to help identify similarities regarding which knowledge governance mechanisms (both formal and informal) are applied to maintain and develop firm capabilities within different and emerging governance structures (non-captive, captive, or their hybrid combination).

This article starts with a literature review of knowledge governance and dynamic capabilities. We continue with our methodological approach including how we have selected and studied the two case companies. Then follows the two descriptions of the case companies, before we move into a deeper discussion of the cases based upon the literature review. Finally, we conclude and sum up implications found in the former discussion part.

LITERATURE REVIEW

In the search of means for explaining inter-firm collaboration, several scholars (e.g., Heiman and Nickerson, 2002; Heiman and Nickerson, 2004; McIvor, 2009) have worked with combining the resource-based viewpoint (Kogut and Zander 1992) with transaction cost economics (Foss 1996). This paper follows this trend by combining the knowledge governance and the dynamic

capabilities literature to study effects of sourcing strategies on firm capabilities and their managerial implications.

Michailova and Foss (2009) discuss the knowledge governance approach as: “Governing knowledge processes means choosing governance structures (e.g., markets, hybrids, hierarchies) and governance and coordination mechanisms (contracts, directives, reward schemes, incentives, trust, management styles, organizational culture, etc.), so as to favourably influence processes of transferring, sharing, integrating, using, and creating knowledge”.

The choices made regarding knowledge governance structure and coordination mechanisms might change over time due to both unsolved and new challenges that companies face in their globalization processes regarding knowledge transfer, sharing, integration, usage and creation. Experienced challenges and problems with knowledge governance mechanisms often causes a need for both changes in formal and informal mechanisms in the existing sourcing configuration. The viewpoint of Scarbrough and Amaeshi (2009) that “it might be more important that such structures [knowledge governance] are able to change and adapt to the shifting needs of knowledge integration than pursue a best fit with circumstances prevailing at a single point in time” suggests a more dynamic approach to knowledge governance. Further, a more dynamic view of knowledge governance might evolve together with changing demands from sourcing relationships creating a need for formal and informal mechanisms to maintain and develop firm capabilities over time.

The dynamic capability view (DCV) has become influential in explaining organizational change processes in organizations including dimensions like innovation, handling crisis and transforming organizations (Vogel & Güttel 2013) like new strategic sourcing configurations. DCV can further help specify the routinized adaptation processes surrounding the change needed to adapt to environmental needs (Teece et al., 1997; Teece, 2007). Routines include some kind of “repetitive pattern of activity”, and dynamic capabilities contain two types of routines; routines necessary to perform a task and routines to coordinate tasks (Helfat and Peteraf, 2003). Routines are the interplay between memory and action; where patterns of behavior become routinized; and memory reduces the need for a problem-solving search through the stored results of prior successful actions (Miller et al., 2012). The interest is then to study how dynamic capabilities (Teece et al., 1997) is connected to the change of routines and thus the modification of organizational assets.

When considering coordination and control of work across borders (turning over time into routines), Kim et al. (2003) distinguished between the following modes: people-based, information-based, formalization-based and centralization-based. They further concluded that people-based and information-based modes are generally more effective than formalization-based and centralization-based modes in integrating functions globally. Ferdows (2006) on the other hand identifies four mechanisms that might help in the dynamic adjustment of the knowledge governance mechanisms in combination with changing sourcing configurations. The four knowledge transfer mechanisms are dependent on whether the form of production know-how is tacit or codified, and whether the speed of change for production know-how is slow or fast. The primary transfer mechanisms consists of: *moving people* (tacit and slow); *projects* (tacit and fast); *manuals and systems* (codified and slow); and of *joint development* (codified and fast). All four activities are people dependent, as both codified and tacit transfer mechanisms need a sender and a receiver implicating a need to look closer upon the development of relational routines needed and caused by the changing sourcing configurations.

When companies choose to source activities offshore, it often leads to a stronger emphasis on relations between elements of the organization (Cheung et al. 2010). Pagano's review (2009) of relational capabilities, drawing on Heimeriks (2004), Heimeriks and Duysters (2007), sets out to link internal organisational mechanisms with external relations. The aim is to disentangle specific components of relational capabilities at the micro level, moving beyond the configuration of organisational units. Based upon and partly extending Pagano's (2009) definition, we define here organisational capability as: the capability to develop and run routines in a firm that can manage and develop its external performance.

At a micro level the organizational capabilities is seen as Organizational functions, Tools, Management and leadership as well as Boundary spanners. *Organisational functions* (extending on Pagano's (2009) "function") are functions both pooling necessary equipment and expertise and functions for external linking, such as an alliance department in charge of alliance-related tasks. *Tools* involve human resource management and information systems to support knowledge management flows. *Management and leadership procedures* (extending on Pagano's (2009) "management and control procedures") include coordination mechanisms between multinational corporations' (MNCs) internal units. Leadership is of particular importance as the organisational configuration is under continual development (Bryman et al 2011). *Boundary spanners* (extending on Pagano's (2009) "external actors") involves internal and external actors (middlemen, expats and other human intermediaries; Balkow, 2012) to provide knowledge resources related to the management of supplier partnerships.

We combine these four dimensions with the suggested facets of dynamic capabilities by Sprafke et al. (2012): *dealing with complexity*, social actor's ability to absorb and structure environmental change; *self-reflection*; how social actors develop their own development process and initiate change; *combination*; social actor's ability to apply their knowledge to various problem situations and *cooperation*; social actor's ability to build and maintain relationships. Adner and Helfat (2003) introduced the term "dynamic managerial capabilities", indicating that the managerial actors are more important when addressing individual capabilities. However, more actors are involved in the strategy process (Regner, 2008), leading us to extend the term "social actors" to also refer to employees with no formal managerial responsibilities. The organizational capabilities are shaped and changed by actors, who can think out of the box, show new ways to think and act, and furthermore acquire, secure, integrate and/or recombine relevant knowledge (and routines) necessary to implement the strategic (sourcing) decisions. On the other hand organizational capabilities (Organizational functions; Leadership/management; Tools and Boundary spanners) might "help" the actors to implement the strategic decision.

Our aim in this paper is to investigate how knowledge governance initiatives are helping the individual actors in their strive to maintain and develop firm capabilities during the strategic process of changing sourcing configurations. The chosen analytical framework is summarized in table 1 and will be used to study how four suggested mechanisms of production knowledge transfer mechanisms (Ferdows, 2006) are changing or not changing the organizational capabilities within the case companies.

Table 1: Organizational capabilities and knowledge transfer mechanisms

		Knowledge transfer mechanisms			
		Moving people	Projects	Manuals and systems	Joint development
		<i>Tacit and slow</i>	<i>Tacit and fast</i>	<i>Codified and slow</i>	<i>Codified and fast</i>
Organizational capabilities	Boundary spanners Internal and external actors' roles	Facets of actors			
	Management/ Leadership Knowledge management approaches and incentives	Dealing with complexity Gathering and filtering information. Organizing and prioritizing information. Developing action plans (feasibility, time). Controlling progress and stay goal-focused. Making high-quality decisions faced with complex information.			
	Tools Human resource management and information systems	Self-reflection Providing and asking for feedback actively. Evaluating own performance and behavior. Using feedback for improvement.			
	Organizational functions Functions pooling necessary equipment/ expertise and functions for external linking	Combination Using new, creative ways for problemsolution. Integrating others' knowledge and strategies into solutions. Applying experiences and knowledge to new situations. Customizing and established methods.			
		Cooperation Establishing relationships comprehensively and precisely. Dealing constructively with conflicts. Being prepared to postpone own interest for the sake of the group. Shifting perspectives and adapting to others. Showing reliability and demanding it from others.			
Knowledge governance bridging power		Individuals ability to use knowledge governance tools and routines to enable dynamic capabilities			

METHOD

The theoretical and analytical perspective adopted here is interpretive (Walsham 1995). The analysis is based on empirical material gathered between 2007 and 2012. This paper's analysis of knowledge governance's bridging role in the continuous work with the development of firm capabilities in the strategic sourcing configurations of offshoring relies on the topical and theoretical similarity and openness of previous work by one of the authors, introducing organizational capabilities to discuss findings of the study. The analytical design is a further iteration of the abductive approach of the original study as this paper introduces and uses the systematic combining perspective (Dubois & Gadde, 2002). The empirical investigation was qualitative case studies with a longitudinal orientation. The choice of a longitudinal case study is suitable for gaining in-depth and contextual insights (Stake, 2003).

At the outset, four case companies were selected on the basis – of being globally operating SMEs in the textile and furniture industry with considerable experience in offshore sourcing. A reduction in the number of the cases was chosen for this article based upon the fact that the selected case companies for this study included visits and interviews at both case companies' offshore activities by one of the authors. The method was based on focusing in on a few events in the two cases as a process research design (Van de Ven, 2007). The field methods were onsite observations, semi-structured and unstructured interviews, and review of secondary materials. Respondents from each company were involved in commenting on case summaries, including revisions. Secondary materials used from the companies included annual reports, press releases, customer presentation material and stakeholder and media material. These and the secondary material were used as the basis for the case descriptions presented here. Thirteen interviews were conducted in company A and nine interviews were made in company B from 2007 to 2012. Interviews were partly transcribed. Both in the domestic and offshore visits a significant number of informal non-recorded conversations took place as well, which have been included as background material in the following descriptions and analysis of the two case companies.

As the process research design, we use a comparative method based on few cases and few events (strategic change), and we mainly use summary case studies as the typology of process research design (Van de Ven, 2007). Nvivo was used to build an axial tree-node structure based on both sequential and thematic codes. By building the coding structure in an ongoing process, a number of focused codes, used to conduct the initial comparative study of the case companies, became more directed, selective and conceptual (Charmaz 2006). We kept adding codes during the analysis of the case companies until reaching a saturation stage. The analytical work performed during the writing of the article can be characterised as less structured and more in accordance with Walsham's (2006,) description of doing interpretive research. He suggests learning from the data itself, where "the researcher's best tool for analysis is his or her own mind, supplemented by the minds of others when work and ideas are exposed to them". Although each case represents important and potentially unique learning about strategic offshore sourcing (Stake, 2003), it is assumed that the variations between the cases studied will provide insights that will pave the way for examining the complexity of the strategic offshore sourcing process. We therefore allow ourselves to compare the cases.

CASE DESCRIPTION

Company A

The company was one of the first in the Central Jutland textile cluster to offshore its sewing activities to Eastern Europe. After outsourcing to various Eastern European countries for some time, the company established its own production capabilities in Ukraine. In 2008, it had about 300 employees in Ukraine and 30 employees in Denmark. Initially, the company kept all other operations (procurement, sourcing, administration, sales, product development, warehouse and management) in Denmark and used its production managers as boundary spanners for the offshored production. The company established its own production activities in Ukraine caused by their former suppliers raising costs and because there was a lack of local Ukrainian suppliers with resource complementarities at the time the company decided to move its sewing activities. It tried to move one of its more complex activities, design, to the Ukrainian site as well, but after a short period of time (less than two years), it chose to backshore the activity to its headquarters in Denmark. The main reason was a lack of understanding of the company's BtB customers' demands at the Ukrainian site, creating frustration among both the sales people at the headquarters as well as their BtB contacts. It has however moved procurement and sourcing activities to the Ukrainian site during the period of study, which places the Ukrainian site as a strategical very important part of the company's supply network encompassing cloth and accessories suppliers, sewing units and raw material storage in the Ukraine as well as storage of finished materials in Denmark.

Company B

The company outsourced its sewing activities in the late 1980s to Eastern Europe as an early mover in the Central Jutland textile cluster. It kept all other activities in Denmark and shifted the

outsourcing activities among suppliers in Eastern Europe as well as India, China and Vietnam. More recently, Company B began to move its Eastern European activities to its own newly established production facilities in Vietnam, while retaining outsourced sewing activities in China, India and Vietnam. In mid-2009, it employed around 1,100 workers in Europe and Vietnam and had about 2,500 workers in the Far East engaged in outsourcing. The focal company is part of a supply network encompassing cloth suppliers, dying facilities, garment production, sewing units and raw material storage as well as storage of finished materials. Initially, the focal company in Denmark had no production facilities except a small sewing department to support product development. However, the company carried out the activities of procurement, sourcing, administration, sales, product development, test laboratory, warehouses and management. The establishment of production facilities in Vietnam reflected a wish to reduce costs as well as the time to market of the manufactured goods. For these reasons, the physical location of the raw material stock was moved from Denmark to Vietnam as well. In the captive arrangement in Vietnam, the more complex products are manufactured as well as new products to the market, whereas the standardised products are mainly outsourced to local manufacturers in Vietnam.

DISCUSSION

As an opening remark, it can be concluded that, at the end of the study period, both case companies considered themselves successful. Although company performance and offshoring and/or organisational capabilities do not necessarily imply financial results of the core group, it can be noted that, during the study period, both case companies have managed to navigate through the stormy waters of the financial crisis. In comparison, Case A has reached a milestone regarding their new downstream brand, passing the break-even point, whereas their captive upstream offshore activities are slightly decreasing. Case B has again picked up speed with regard to growth in sales and financial results. Case A and B both interpret their developments as successful based on them similarly remarking that they are still here; many of their former Danish colleagues do not exist anymore.

Both cases show evolvement of differentiated organizing capabilities. They develop relational sourcing competencies, transactional contract competencies and competencies in running an offshored manufacturing subsidiary with integrated international supply and distribution. In this sense, the cases can be considered a progression of organizing capabilities. However, it is more relevant to think of the organizing capabilities as involving the dynamic capability to establish and run profitable global organisational configurations with new shapes and capabilities. In the case companies various ways of using expats is reflected combining the elements of boundary spanners, management/leadership and organisational functions to mainly combine/cooperate the domestic and offshore activities. They are challenged in their capabilities due to rupture of the activities in time and space. They therefore try with different means to improve initially the capability to deal with complexity followed by the development of mainly cooperation and to a lesser degree self-reflection. Both companies end up with having their design and product development activities

placed in the domestic setup indicating a failure (at least in case A) to move and develop the development capabilities in a combined domestic/offshore setup. The cases commenced their offshoring development, mostly in production, as firms with a focus upon sourcing final merchandise from external suppliers. The structural organisational capabilities partly varied between the cases regarding the division and geographical position of production, product development, sales, management and administration. Management consisted of different profiles regarding the capability of handling distribution, sourcing and production, all capabilities develop in various ways and in importance in the two cases during the period of study.

The cases' organizing capabilities began to develop in similar directions moving from relying on external offshored units of production to relying on offshored internal communities of practice regarding production activities. Offshoring production created quality challenges in both cases, and the companies were forced to start developing alternative quality configurations like the heavy use of boundary spanners to meet the evolving demands towards capabilities regarding mainly cooperation and dealing with complexity. Thereby relying mainly on the mechanism of moving people to govern knowledge.

The cases transform themselves into various constellations; Case A moves from a production-based capability into including a distribution-based organizing capability, whereas Case B adds a production-based organizing capability to its already existing distribution and design capability. In both cases this new capability is mainly reached through project-based mechanisms during the study period in combination with the abovementioned mechanism of moving people.

On the sourcing side staff in case A increasingly moved back and forth between Denmark and the offshore location, as the interaction became increasingly complex and also began to involve other activities than production activities, such as logistics, innovation and procurement thereby struggling to rebuild communities of practice between the domestic and offshore entities. Expats were in both cases used to act as boundary spanners and continuously help the offshored local captive units and/or local suppliers build their communities of practice including manufacturing and quality understanding. Both cases even place Danish consultants at their captive offshore units to increase the manufacturing capability of the offshore units due to environmental demands and requests from present and future customers. Again this is mainly achieved through the mechanism of moving people. However, during the study period both companies create (Case A) and buy (Case B) IT-based ERP-systems thereby involving the mechanism of manuals and systems to support the new sourcing configuration.

CONCLUSION

This paper's focus is on how companies' resources and capabilities transform during an offshoring process of more than 5 years in two Danish textile companies. The strategic decision involved the choice to offshore "ruptured" capabilities, which then had to be rebuilt. Both cases followed distinctive trajectories amending their capabilities/practices to combine and cooperate activities. Specifically the use of key boundary spanners is emerging as a key knowledge governance mechanism in both cases to manage the more complex constellations. Further activities such as product development were kept or backshored in both cases indicating a need for communities of practice/ to support and maintain the dynamic capability of the companies. The

knowledge governance mechanisms of manuals/systems and project-based were applied to help establish these communities.

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