Strategic Sourcing Development–Emerging Resource Combination and Knowledge Interaction

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Strategic Sourcing Development–Emerging Resource Combination and Knowledge Interaction

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Abstract

This paper contributes to the understanding of strategic sourcing through resource combination, with focus on knowledge interactions. The IMP approach, and especially the resource combination framework, views knowledge interaction as embedded in business relationships. Knowledge is understood as having soft and hard aspects and involving both inter- and intra-organizational interactions, as well as emergent physical and organizational resource combinations, such as IT systems, aimed at enabling virtual organizing, and humans acting as boundary spanners.

Two case studies of enterprise journeys are conducted. Especially the last five years both companies experience change in the resource combination, first the physical and then the organizational, adjusting the mechanisms to improve knowledge interaction and competence within their value chain and inter- and intra-organizational processes.

One SME, re-organizes its processes and integrates knowledge through a specific resource and knowledge interaction setup and breaks out of the SME category; the other, medium sized, de-organizes into an SME and does some resource combination through virtual organizational elements, emphasizing virtual knowledge interaction through IT systems and through the concentration of offshored activities using physical, intermediary control elements. As resource combination and knowledge interaction becomes more complex, the companies shift from more loose relationships to tighter subsidiary types.

Key words: Sourcing, resource combination, knowledge, knowledge interaction, SME

1. Introduction

Over the last two decades, more and more Danish manufacturing companies have come to reconfigure their sourcing structure and become globally networked enterprises, thus transcending an initial phase with a dyadic relation to a single supplier. This paper examines two enterprises – one from the textile sector, the other from the furniture sector – in their long strategic journey from a rationalization focus and with resource limitations towards including focus on expansion with new product development and innovation in their supply networks. The two cases are characterized by their chosen trajectories during a longer period, and especially during the five-year period of in-depth study. One case commences as an SME and grows beyond it, due to its green field setup of a labor-intensive Asian manufacturing site to partly replace former outsourced suppliers. The other commences as a medium-sized company, which then deorganizes into an SME with an extensive network.

Within a strategic sourcing perspective, the paper's particular focus is on the knowledge component of resource combining (Gadde & Håkansson, 2008), as well as the longer-term development of offshoring. Continued and active interactions involves knowledge transfer (Håkansson & Ingemansson, 2011: 71), and knowledge required for resource combining emerges through knowledge interaction processes (Gadde & Håkansson, 2008: 36). As knowledge in use to facilitate the resource combining is constituted by the context, relationship and resources (Ståhl & Waluszewski, 2007:143), the knowledge interaction processes shift. It would be expected that SMEs comparable to the case companies would experience special challenges, since their resources are scarce (Kirkels & Duysters, 2010). On the other hand, they could also be viewed as champions of networking (MacGregor, 2004, Gammelgaard & Mathiasen, 2007, Möller et al., 2005). The case companies' focus on knowledge shifts from knowledge interaction – understood as transfer related to physical resource combination – into a more developed understanding of how different characteristics of the knowledge component influence the inter- and intra-organizational processes, as part of an organizational resource combination that also demands intensive knowledge interaction.

The paper aims to take a long-term perspective on strategic sourcing, and investigate how one small enterprise and one medium-size enterprise with growth ambitions emerge through different periods of resource combination with emphasis on the knowledge interaction element in their offshoring initiatives.

The Industrial Marketing and Purchasing (IMP) group's approaches have extensively examined strategic sourcing (Axelsson et. al., 2005) and knowledge in business relations (Baraldi, 2008, Håkansson, 2011, Håkansson & Waluszewski, 2002, 2007, La Rocca & Snehota, 2011). The theoretical framework for understanding strategic sourcing adopted here is 'resource combining' (Gadde & Håkansson, 2008). Knowledge processes within this concept are viewed as both an important element in the business relationships and in the resource combination and integration aimed at by companies in their evolving strategic sourcing setups (Håkansson 2011, Håkansson & Waluszewski, 2002, 2007, Waluszewski & Håkansson, 2007, La Rocca & Snehota, 2011). Such strategic sourcing setups also evolve through knowledge interaction encompassing hard and soft elements.

The empirical material maps the journey of strategic sourcing taken by two case companies. Company A is a textile company. Company B is a furniture manufacturer and retailer. The two case studies reveal that one enterprise re-organizes its processes and integrates new knowledge through a specific resource combination setup; the other de-organizes and to a certain level 'compensates' with virtual organizational elements, emphasizing knowledge interaction through IT systems as well as the establishment of an offshored physical, intermediary control element. The paths chosen by the two case companies are very different, implying that there is not one single road to follow within strategic sourcing in an SME perspective. The cases also demonstrate that after initial facilities and product considerations, it is an ongoing challenge to combine resources and nurture business relations (see e.g. Kirkels, 2010 regarding the specific SME challenges in a brokerage perspective). Both companies demonstrate the importance of resource combination as part of the sourcing activities. Even if they might be competent in networking and developing business relations, the SMEs thus encounter considerable difficulties concerning both the inter- and intra-organizational knowledge processes between the entities that are dispersed in time and space.

The paper describes the long-term evolution of organizational resource elements of sourcing, more specifically the importance of organizational functions and inter- and intra-organizational knowledge processes, as the focus moves to innovation involving internal and external offshore business relations. The paper's contribution is twofold – first, theoretical, by appreciating the need for viewing resource combination as part of an understanding of both short and longer-term business relationships, emphasizing the knowledge element; and second, by identifying the emerging strategic offshore sourcing of SMEs over time, which is achieved through the longitudinal studies conducted. This approach reveals important shifts in sourcing strategy and knowledge interaction in both case companies.

The structure of the paper is as follows: The paper starts with a short introduction to the resource combination framework and moves on to further incorporate a discussion of the knowledge aspect in this framework arriving at distinguishing the formal/hard and the informal/soft aspect of knowledge interaction in business relations. We then introduce our methodological approach and describe in detail how we have selected and studied the two case companies. Then, two in-depth descriptions of the case companies are presented, after which we delve into a discussion of the cases based on the conceptual framework. Finally, concluding on the findings, we summarize the implications of the discussion.

2. Theoretical framework

Strategic sourcing has been on the business development agenda for quite some time (Nishigushi, 1994). Axelsson et al. (2005) claim that the development of (strategic) sourcing has led purchasing into a range of supplier structure formations in contrast to 'just' buying or procuring; into development of suppliers' capabilities in contrast to a pure market relation; and into a changed understanding of cost, i.e. full cost rather than just single product costing (Axelsson et al., 2005:4). This development is also mirrored in the supply chain management literature (Choi & Dooley, 2009, Flint et al., 2008, Guinipero et al., 2008, Wynstra, 2010. In this paper, the interest is the offshoring version of strategic sourcing. Relocation of business activities has been employed by companies for many years, first among large and later medium-size and small companies (Roza et al., 2011). Offshoring focuses on the relocation of business functions and more, from 'home base' to foreign locations (Jørgensen, 2010). This involves transfer of equipment and other physical resources as well as organizational resources that are 'glued' together through knowledge interaction, transfer, sharing, translation, integration, transformation and creation (Håkansson & Ingemansson, 2011).

Such plural location operations require resource combination in order to practice offshoring strategizing (Jørgensen, 2010). Moreover strategic sourcing, as noted by Axelsson et al. (2005) encompasses both internal and external strategic and tactical purchasing activities. Sourcing should be viewed as a cross-functional process, aimed at managing, developing and integrating with supplier capabilities to achieve a competitive advantage (Axelsson et. al., 2007: 7). And this strategic understanding distinguishes it from previously more implicit understandings of top-level management (Baraldi et. al., 2007).

The IMP approaches to business networks of suppliers provide an extensive set of studies and concepts for studying strategic sourcing (Baraldi, 2008, Håkansson, 2011, Håkansson & Waluszewski, 2002, 2007). The approaches encompass actors, activities and resources (Håkansson & Snehota, 1995). Here, the resource element is covered by using the Gadde & Håkansson (2008) framework of resource combination focusing on the knowledge aspect. The Gadde & Håkansson (2008) framework for systematic resource combination points at four types of resources that need to be combined in business relationships: physical facilities resources, physical product resources, organizational business unit resources and organizational business relations. Håkansson & Waluszewski (2002) expound on the 4R resource interaction model and account for each type of resources involved in the interaction. The first, physical resource facilities, is understood as:

"…plants, logistics infrastructures, production machinery, warehouses, vehicles, information systems and various other types of equipment" (Gadde & Håkansson, 2008: 36).

The second, physical resource products, is understood as artifacts that are exchanged between firms (Bankvall, 2011). Facilities and products are conceptually connected as facilities are used to produce the products (Gadde & Håkansson, 2008: 36).

The first organizational (and third resource) dimension, the business unit, recognizes the knowledge role as:

"…knowledge and competence required for resource combining is generated and refined through (these) interaction processes, and is thus embedded in the resource combining" (Gadde & Håkansson, 2008: 36).

The second organizational (and fourth resource) dimension, business relations, should, according to Gadde & Håkansson (2008: 41), be understood as follows:

"A business relationship is a result of resource combining across the boundaries of two firms. On the other hand it is an important means for making such combining possible, since it binds together knowledge and experiences of two organizations".

Two further aspects of resource combination are of importance here, the internal-external organization link and the IT-mediated virtual interaction. Resource combination involves an interaction between inter- and intra-organizational elements. We use Rozemeier & Wynstra's (2005) concepts of organization in a strategic sourcing context including informal and formal coordination to understand the internal part of the resource combining.

Virtualization can be seen as a response to and an appreciation of the tension between an increasing element of dispersion of organizations and the related interdependencies (Castells, 2000, Ensign, 1998). In such an organization, intra- and inter-organizational virtualization is mixed (Bosch-Sijtsema et al. 2011, Hinds & Kiesler, 2002, Okkonen, 2004). ICT technologies may act as a tool of transformation as well as a constraint for virtualization. ICTs can be seen as assisting companies in realizing virtualization by speeding access to as well as processing information, facilitating internal/external communication as well as linking and increasing control over distributed organizational elements (Buser et al., 2000, Koch & Buser, 2003).

Over time resource combination would tend to change. First, in the emphasis on which type of resource combination is predominant. Whereas the initial focus of knowledge processes is on physical resources (production equipment and products), the focus of business relations and business units turns toward developing a resource combination of organizational roles, according to Gadde & Håkansson, (2008). Second, in the extension of resource combination, especially for SMEs, who stretch beyond the first tier relation. A resource combination benefiting from a broader and deeper network of suppliers can be developed into secondary and tertiary combining (Gadde & Håkansson, 2008). Gadde & Håkansson (2008: 43) note however that "despite the broad scope of opportunities for systematic combining …. companies normally tend to recombine and modify their resources within quite a constrained range". These restrictions would especially apply to SMEs or companies with restricted resources. A single-site SME might initially exercise rather modest resource combination focusing on primary resources, developing into a dyad with its main relation to one outsourced unit. Over time, however, this is likely to develop into various types of triads (Balkow, 2012) and various dynamics, including an increasing complexity of knowledge interaction, which would lead to even more network like setups, including several units in combination and also with such (human) intermediaries as brokers (Kirkels & Duysters, 2010), middle men (Balkow, 2012) joint associations (Cantu et. el., 2010) with diverse combinations of legal and economic relations (Balkow, 2012). Even if terms like "multilocation" "operation" or "global networked enterprise" are used, it is more often a limited number of nodes in a network that develops as response to the complex dynamics (Koch, 2004).

2.1 Knowledge interaction in Resource Combination

In the contemporary, disperse and international type of business organization knowledge interaction becomes increasingly more important (Håkansson & Waluszewski, 2002, 2007; La Rocca & Snehota, 2011 a.o.). In this strand of IMP literature, one finds an appreciation of different types of knowledge and different ways of knowledge interaction (Håkansson & Ingemansson, 2011, Håkansson & Waluszewski, 2007, La Rocca & Snehota, 2011). The emphasis is on knowledge embedded in interactions and in use (Håkansson & Waluszewski, 2007, La Rocca & Snehota, 2011). To analyze business relationships such as those occurring at offshoring, IMP suggests a conceptual framework consisting of three elements, resources, activities and actors (Håkansson & Snehota, 1995). The resource combination understanding has conceptualized the resource element, where activities and actors are closely interacting with the resources. More specifically the knowledge component is inseparable from the interaction internally and externally and is enacted through managers, experts, operators, designers and more.

Håkansson & Ingemansson (2011) discuss how companies acquire knowledge through business interaction, they note that: "Knowledge is partly something that we can separate from ourselves and formulate in explicit terms but it also includes aspects embedded into single people or organisations" (Håkansson & Ingemansson, 2011: 71). As knowledge is embedded within individuals and organizations, interactions link "two different knowledge bodies – it takes place at the boundary" (Håkansson & Ingemansson, 2011: 68). However, the authors emphasize that knowledge has different features making it more or less easy to transfer between interacting organizational units; collective knowledge and sticky knowledge require active interaction. Thus, to move or to apply knowledge, which "is not explicit and/or formalized but embedded into people, routines, and organizations", requires close interaction (Håkansson & Ingemansson, 2011: 76). Another complexity related to knowledge is its instability; La Rocca & Snehota (2011) point out that "the knowledge in use, that is the activated knowledge set, tends to change over time and depend on the context". As knowledge is considered to be situational, the mechanisms to transfer the knowledge vary according to the contextual settings; i.e. with the process of knowledge interaction (La Rocca & Snehota, 2011: 80). The resource combining does not take place per se; rather than being a passive adaption, interacting business units make use of the organizational resources to understand problems and to identify solutions within a contextual setting. Håkansson & Snehota (2006: 260) illustrate this by emphasizing that "reciprocal knowledge and capabilities are revealed and developed jointly and in mutual dependence by the two parties". The various aspects of knowledge can be summed up as Håkansson & Snehota (1995: 137) do it by viewing the development of the resources as encompassing both tangible and intangible elements; the latter is described as ""soft" resources not embedded in physical products such as material know-how, knowledge of the market, application know-how or technology" (Håkansson & Snehota, 1995: 143). And the former, the tangible, as for example standardized procedures, can be seen as a "hard" type of knowledge and knowledge interaction.

To summarize the conceptual framework, a longitudinal study of strategic sourcing can be enriched by the approach of resource combination emphasizing the knowledge element. The resource combination understanding conceptualizes the resource element as physical and organizational resources and implies a longer-term trend away from physical resources toward mobilization of more and more intangible resources, e.g. knowledge related to innovation. The IMP literature conceptualizes business relations as resources, activities and actors, appreciating knowledge embedded in interaction and in use. Furthermore, understanding the SME's point of departure as resource scarcity, the increasing drive towards specialization, and the need for brokers and other network oriented resource combinations also forms the conceptual framework. The soft and hard dimensions of knowledge interaction are here emphasized incorporating inter- and intra-organizational coordination as well as emergent dynamic knowledge usage together with technical and organizational initiatives, including IT systems enabling virtual organizing and boundary spanners.

3. Method

The present paper's analysis is based on empirical material gathered in one of the authors' PhD project. The PhD project commenced with a focus on the knowledge element of strategic sourcing, initially relying on an open understanding of knowledge relating it to a broad range of enterprise activities including production, product development and material logistics (Jørgensen, 2007). Its method is further elaborated below. This paper's analysis of resource combining in the strategic sourcing setups of offshoring relies on the topical and theoretical similarity and openness of the doctoral work. The analytical design is a further iteration of the abductive approach of the PhD study as this paper introduces and uses the systematic combining perspective (Dubois & Gadde, 2002).

As for the PhD study, the initial interviews and data gathering were influenced by a broad and open-minded understanding of knowledge sharing and knowledge transfer and strategic sourcing through offshoring, which later came to involve more and more elements in the companies after the first steps toward the offshoring of manufacturing activities. This material is used here to analyze resource combining of production and products, organizational units and business relations, focusing on the soft and hard managerial aspects of knowledge handling. Additional data collection was done to enable this, but was only needed in a few missing subjects of the first material gathered.

The PhD study's empirical investigation took the form of qualitative case studies with a longitudinal orientation (Pettigrew, 1990). The four case companies in the PhD were selected on the basis – at the outset – of being globally operating SMEs in the textile and furniture industry with considerable experience in offshore sourcing. The two companies selected for the strategic sourcing analysis using resource combining with a knowledge element perspective were the most interesting of the four, in relation to illustrating the longitudinal aspects of strategic sourcing i.e. resource combining and the knowledge element, also because they differ in several characteristic ways. In the PhD study, 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 each company included annual reports, press releases, customer presentation material and stakeholder and media material. The method was based on focusing in on a few events in the four cases (strategic change in the sourcing set up) as a process research design (Pettigrew, 1990, Van de Ven, 2007). Interviews were transcribed and coded in NVivo (software from QSR International, Australia). The transcriptions, the codes from the transcripts, the revised summaries of the interviews and the secondary material were all used as the basis for the case descriptions presented here. Some details were changed due to anonymity concerns.

After the first visit, the companies were revisited the following three years. The first interviews of key informants were based on a semi-structured questionnaire, and the follow-up interviews in the subsequent three years were unstructured interviews; a total of 16 interviews were conducted during this period. From the early interview rounds informed by a knowledge transfer view on strategic sourcing, the study emerged into adopting Carlile (2004)'s, concepts of knowledge transfer, knowledge translation and knowledge transformation, looking at knowledge interaction and knowledge integration (Jørgensen 2010, Johansson et al 2011). These concepts informed the last two interview rounds.

In the two cases selected for resource combining and knowledge analysis, the following interviews were carried out: case A: four interviews with the CEO, two interviews with the Product and Development Manager and one interview with the Far East Unit Manager, conducted over four years with yearly visits; case B: nine interviews over four yearly visits. Those interviewed were a sourcing director, a logistics manager and the CEO, who was also the majority shareholder.

The analytical strategy was based on that created by Barley & Tolbert (1997). To identify and analyze possible scripts, four processes were adopted: (1) grouping the data by category or unit of observation; (2) identifying behavioral patterns (scripts) within categories; (3) identifying similarities across scripts; and (4) comparing scripts over time.

This study shows how factors and issues change over time by employing a real-time process approach based on narrative descriptions (Van de Ven, 2007). The companies appear to share similarities in their progression from offshore outsourcing to a more complex offshore constellation. Each case represents important and potentially unique learning about strategic sourcing (Stake, 2000). However, it is assumed that the variations between the two case studies will provide insight that will pave the way for examining the complexity of the strategic sourcing process. We therefore allow ourselves to compare the cases, even though we do not claim generalizability.

It can be viewed as a limitation that not more than two cases are used as basis for the analysis. Within a resource combination framework it is a limitation of the original data that they, apart from knowledge itself also encompassed an interest for the companies' attempts to manage knowledge. Moreover most of the data were generated from an inside out perspective, taking the point of departure in the core firms. Also our data on the wider network are limited. Finally our interviews occur relatively seldom compared to the length of the process and experiences might get ex post rationalized, implying that we recognize that an ethnographic approach would have given richer data on knowledge interaction and the attempts to combine knowledge.

Finally, we have chosen to focus the paper on the upstream activities of the case companies; a downstream focus would have shown another set of knowledge interactions and resource combinations evolving over time.

4. CASES: The long journey of strategic sourcing

Below, the two cases of strategic sourcing in a longitudinal perspective are described in detail in order to provide a multifaceted picture of the longer-term challenges experienced by the two companies.

4.1. Company A

Company A is a textile enterprise with a focal company situated in the textile cluster of central Jutland, Denmark. The company's history of strategic sourcing has been a long journey covering a 25-year period. This journey has led the company a series of different resource combinations through sourcing, outsourcing, offshoring and insourcing. The account of this journey is divided into three periods (see below).

The company produces complex textile products. At the end of period two, it broke out of its status as an SME. In 2012, it employs 1200 employees and is amongst Denmark's 800 largest enterprises. Around half of its employees are active in a Far Eastern facility. From the end of period two to 2012, its turnover grew by 22%.

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. In the first two periods described below, the focal company in Denmark had no production facilities except a small sewing department to support product development. However, this company carried out the activities of procurement, sourcing, administration, sales, product development, test laboratory, warehouses and management.

4.1.1 Period one - offshoring to Eastern Europe

Since its establishment, the focal company followed a strategy of not having its own captive sewing facility. For this reason, the resource combination setup focused in primarily sourcing sewing from small sewing workshops in the central Jutland area. At this time, company A took advantage of the possibility of direct interaction with the suppliers – negotiating contracts, checking quality etc. The enterprise saw product development as a core competence, and kept it within the confines of its headquarters.

Twenty-two years ago, however, the company began sourcing sewing activities from locations in Eastern Europe. During this first period, several Eastern European sewing companies became suppliers for company A, and a shift from a Danish to a European dye supplier was also realized. The company continued its commitment with Indian and Chinese cloth suppliers. Especially in relation to activities other than sewing, which had 'always' been outsourced, the company emerged into a strategy of increasing outsourcing.

These changes in the focal company's sourcing network meant that the manufacturing equipment required for producing the product was distributed to different geographic locations. Reducing labor costs was the determinant for the changes in sourcing strategy. The resource combining efforts mainly addressed issues related to the production of a product, and to ensuring that these outsourced production facilities were producing in compliance with the agreed quality level. To enable the cross site collaboration, all production preparations – for instance, working instructions and bills of materials for carrying out the activities – were drawn up by internal employees at the focal and domestic company. Despite this formal knowledge effort, additional interactions with the suppliers were required, but it did provide an opportunity to learn and thereby improve the organizational resources and combine the distributed resources. Looking back at this first period at the beginning of the third period, the CEO remembers the difficulties of interacting:

"We were sitting here, and they were far away from here. We spoke different languages, and we had different cultures and mentalities. So it was a real challenge. As I said, it started in Eastern Europe, and now we are born with that" (CEO, company A).

The company maintained its raw material and finished goods warehouses, its R&D laboratory and its administration, including the sourcing department at the focal location in Denmark.

4.1.2 Period two - growing into relocation and a new strategy

The company invested in an information system (Enterprise Resource Planning, ERP) to handle the flows of information related to production planning, material flows, costs, finance and quality control. This ERP system was implemented gradually. The company chose a mainstream system, commencing modestly with implementation at the Danish premises. However, the system had features to handle a globalized sourcing network if this was found necessary at a later stage in the development of the company.

As the complexity of the products grew – due to a higher level of customization and quality requirements, as well as an increasing number of customers – a beginning reorientation of the sourcing strategy and its resource combination initiated a search for new location possibilities for a setup in an owned factory with captive sewing activities, which would include quality control and warehouses in the Far East. Experiences with the sewing facilities in China meant that a Chinese location was shortlisted. In addition, collaboration with the dye factory in Europe was perceived as being under reconsideration. Finally, the transportation of goods between the various facilities, from raw materials to finished products, needed to be as flexible as possible in order to fulfill the requirement of shorter response time.

The company was keen on initially maintaining its warehouse facilities (raw material and final goods), its R&D laboratory, a small sewing workshop to support product development, and its administration, including the sourcing department, at the focal location in Denmark. Maintaining product development in Denmark was also justified by proximity to customers, whose feedback is used in the on-going design activities. As for product development, the company still reaped the benefits of prolonged interactions with an Eastern European supplier. As the Product and Development Manager states: "In the old days in Ukraine, everything was possible".

During this second period, employees from the Eastern European collaboration partners were hired to act as 'flying' quality controllers (i.e. moving from supplier site to supplier site) of sewing facilities in the Far East, to enable and improve the knowledge interaction on the quality of the products.

4.1.3 Period three - establishing a captive setup

The focal company's sourcing network became reconfigured. Company A began moving its Eastern European operational activities to its own newly established production facilities. These encompass a warehouse for raw materials and accessories, a garment factory and a quality control laboratory. The manufacturing plant hired a Danish plant manager and an East European manufacturing manager. Company A retained its outsourced sewing activities in China, India and a third Far Eastern country. According to the Product and Development Manager, the chosen change in the scope of the sourcing network and establishment of own production facilities in Far Eastern countries, reflect a wish to further reduce costs as well as to improve the time-to-market of the manufactured goods. The CEO phrased it like this:

"It is a totally new thing that we do our own production out there. But when we place ourselves in country X, it is due to that we also engage a lot in improving our products, and the lower pay implies the option of product development without considerable additional costs" (CEO, company A).

Market development meant increasing focus on B2B customers inside and outside Denmark, which required enhanced focus on specialized sewing, also established in the Far Eastern facility. In addition, the downstream activities were now internationalized in response to the required enhanced focus on customization. However, establishment of the captive setup in the Far East has placed efficiency at the top of the agenda. The Product and Development Manager, in stark contrast to the period when production facilities were owned by suppliers, expresses this by saying:

"We did not give a damn whether the suppliers had a high level of efficiency; it was their problem. Now, we cannot afford to make such demands, we have to take into consideration the efficiency in our own production" (Production and Development Manager, company A).

As a result of the focus on ensuring efficiency, all materials, drawings and production specifications must be ready and available before starting up a pilot production.

A year after establishing the captive setup, company A employed around 1100 workers in Europe and the Far Eastern facility, and in addition, it engaged about 2500 people in the Far East in operational (sewing) activities. According to the CEO, establishment of the captive setup in the Far East has been very successful, and during the third period, the company has reversed its strategic goal of 30% in-house offshore production and 70% outsourced to suppliers (in period 1 and 2) to a goal of 70% in-house offshore and 30% outsourced sewing activities, indicating a need for further investments in the local captive manufacturing setup. Investments were thus initiated at the end of the study period, and also included a new finished-goods warehouse in Denmark in connection with enlarged headquarter premises.

In this third period, the knowledge interaction between the focal company and the Far Eastern units involves detailed instructions and a bill of materials for each product, whereas more complex knowledge interactions are carried out by moving key employees back and forth between the two countries for longer periods of time, and by having a few expatriates work at the Far Eastern site. According to the Product and Development Manager, the expats play an important role in organizing the site in the Far East, as does the local domestic manager (a Dane who has previously held a diplomatic post in the country), who is responsible for implementation of a Corporate Social Responsibility (CSR) program as a managerial tool on the premises. From the perspective of the local domestic manager, the use of CSR has the dual function of profiling the company in the local context and establishing a leading position in the on-going recruitment battle with other international companies in the area. This focus has resulted in a fairly stable group of workers in the local setting. This has reduced the need to continually train employees, and thus developed the organizational capabilities within the production facility.

The combined efforts across organizational boundaries of the offshore production facilities and the Danish part of the company are limited. However, a control function developed and implemented by the Danish employees in the beginning of the third period facilitates an on-going improvement of the operational capabilities between the different facilities. At the end of the study period, the company finished offshoring the cutting-out process (drawings) to the Far Eastern facility; in the beginning of the third period, the process was constantly monitored via IT by a Danish employee. This control function has now been rendered redundant, due to the increase in organizational capabilities and understandings among key employees (locals, not expats) on the premises at the Far Eastern facility.

4.2 Company B

Company B was established in the 1950s by two Danish craftsmen. The two entrepreneurs' ambition was to design and produce quality furniture in the value-for-money segment. Sixty years later (mid-2012), the company has more than 300 franchise-based stores in more than 50 countries. The number of employees at the Danish headquarters and the owned domestic factories (captive manufacturing setup) is 579, while more than 2000 employees take part in the outsourced manufacturing and delivering activities; the latter of the two groups of resources is owned by external actors. The company's furniture production involves two product groups: upholstery and flat-pack furniture. Over the years, the ratio between internally controlled resources and externally managed resources has changed radically. The account of this journey below is divided into three periods. First, the production-orientated era is described; next, the emerging changes; and finally, a new strategic focus on marketing and logistics are presented.

4.2.1 Period one - production orientation

Company B gradually developed into an industrial company designing and producing furniture. At the end of the 1980s, company B acquired two furniture manufacturers. Thus, in the beginning of the new millennium, company B was growing into an international corporation with production facilities at four locations in Denmark and one in the Baltic region. At the time, the products were launched on the global market; eight sales offices supported this internationalization process. The products were mainly sold to consumers through traditional retail shops. The logistics infrastructure drew on various organizational units – in other words, the downstream supply network of company B had a low vertical integration of resources. Company B controlled the marketing function, the eight sales office facilities/resources, and the distribution of finished goods from a central warehouse. The shop facilities were owned by other organizational units – for instance, a retail chain were managed and owned independently. In the consumers' opinion, the furniture being designed and produced was not branded, and the retail chains continuously grew in size during the period. As a result, the logistics infrastructure underwent a radical transformation, which started with the opening of a captive brand store.

4.2.2 Period two – an emerging change of the strategic direction

At the turn of the millennium, company B decided to launch a new strategy for all downstream activities. The focal point for the new strategy was a franchising concept, and especially the marketing resources were tailored to improve the branding of the company. So far, company B's marketing activities had been allocated to two brands, but the change to the new franchising concept implied that all resources should focus on one brand name; the core of the new strategy was to become "One Company – One Brand". Four years later, this strategic objective was achieved. By then, more than 150 franchise-based stores in 24 countries were established; company B owned 12 of these.

Some components – for instance, fittings and screws – were sourced from an European supplier. According to the CEO, the cost of sold goods has always been an important issue, but it was rather problematic to negotiate the price level of the components being sourced from another European country (called country Y below).

"By chance, I met him (the person who facilitated the sourcing of components from country Y, authors) when I was on a business trip in Thailand. He had always told us the components could only be sourced from Italy, but I realized they were actually produced in Thailand. I found out it could be possible to reduce the cost of our goods sold, if we sourced directly from the Far East. Actually it was a real eye-opener for me" (CEO, company B).

It was not easy to start up sourcing activities in the Far East, but after a while, the organization had created the necessary organizational capability to source directly from there. This organizational capability and the potential for further cost savings sowed the seed of change in the sourcing strategy; gradually, the scope for the sourcing network increased. In the beginning, the purchasers were buying components, and later, finished furniture. Especially the quality of the products being produced at the Chinese facilities was an issue. Despite the fact that company B employed substantial efforts to improve quality, the CEO points out that it was not unusual to receive containers filled with worthless furniture. Consequently, company B established a sourcing office in southern China. According to the Sourcing Director, the achieved knowledge and organizational capabilities, as well as the established logistics infrastructure between the Danish facility and the suppliers' facilities in China, were crucial for setting up the sourcing office in China.

"We realized that it was necessary to create an organization and a base of suppliers before starting up; you have to build up a skeleton before constructing the sourcing office" (Sourcing Director, company B).

Concurrently with the increasing sourcing activities, company B decided to divest a large part of the manufacturing facilities and sold one factory in the Baltic region and one in Denmark. As a consequence of the change in the sourcing strategy and its resource combination, the company decided to outsource a part of the production of upholstery furniture to China, because the skills required in the upholstery field are less demanding and more labor-intensive compared to those of the flat-pack area. The remaining part of the upholstery production facility in Denmark was bought by a former management group and moved to the Baltic region to reduce labor costs. The flat-pack furniture production was not outsourced due to high flexibility and quality demands in the production process and lack of identified competent and suitable suppliers (especially in relation to the fact that the size should match the size of Case B as a large SME) in Eastern Europe/the Far East, as well as the company's historical path.

The above changes, as well as changes in the manufacturing facilities, made it possible for company B to move its managerial and organizational resources to the downstream activities of the company.

4.2.3 Period three - marketing and logistics orientation

Company B has changed its strategy from producing furniture to having retailing as its focal point. As also happens elsewhere, this has resulted in company B reducing its ownership of the production facilities. By the same token, according to the CEO, the captive production setups in Denmark rank alongside the suppliers in the Baltic region, as well as in China, when determining the sourcing network for developing a new product.

Regarding product development, the company combines resources with the upholstery supplier in the Baltic region, since this facility is still managed by the old management group from Denmark. Past interactions between the two physically separated facilities have paved the way for creating knowledge and organizational capabilities. As the CEO points out:

"The knowhow they have in X-country (the Baltic region, authors) is one we have built up in Denmark, and we gave it to them free of charge" (CEO, company B).

This enables collaboration across organizational boundaries when designing new products, as well as during the pre-production phase.

The company's other main supplier of upholstery furniture is located in China. In general, the Chinese suppliers lack understanding of company B's quality demands. This is due to an initially inadequate level of knowledge and organizational capabilities as well as cultural differences. Hence, the company decided to make additional changes to the sourcing setup by establishing a control unit in China and hiring local quality employees to function as quality controllers in the suppliers' factories. This sourcing setup was extended through the establishment of a second Chinese control unit, geographically dispersed from the other control unit. It was established at the end of the study period to achieve physical proximity to other key suppliers as well as the outsourced warehouse activities.

When designing a new product, the mindset among employees in company B is to utilize and combine the available technological resources, as well as the logistics infrastructure, to create value for the consumers in the franchise-based shops. As the CEO points out, the shops are the focal point for all decisions. According to the Logistics Manager, the development activities are mainly involving interaction with the facilities in Denmark and the Baltic region. However,

"…product development of upholstery furniture is rather dynamic. Actually, there are four players: our own product management, a group of designers, some of whom are sitting in Europe, a production, and finally the market" (Sourcing Director, company B).

Regarding the logistics infrastructure, a crucial issue is to ensure a short time-to-market and delivery lead-time; therefore, the geographic locations of the production and warehouse facilities are a determinant when designing new products. As the Sourcing Director states:

"We do not design our products; rather, we design our supply chain to handle the products we are going to sell in the shops" (Sourcing Director, company B).

This means that the products being developed to supply the franchise-based shops in Europe take into consideration the European and Chinese resource combination, while products to the franchise-based shops in China, Japan, USA and South America are developed to utilize mainly the Chinese logistics infrastructure.

The company uses an external design company to develop new products, together with key suppliers and the company's own product managers. This entails physical relocation of designers and product managers, since they interact directly with the local manufacturing staff in the different production facilities (mainly in the Baltic region for upholstery products; and from time to time, in China) to discuss new designs and how to produce the products with the available production equipment. Physical movement of humans is preferred, due to the difficulties entailed in other resource combining across organizational boundaries.

The company is continuously increasing its sourcing activities abroad, especially sourcing of products/components via its sourcing office in China. In addition, the company has outsourced its warehouse to different geographical locations in an attempt to optimize the logistics infrastructure and thereby reduce time-to-market and delivery lead-time to the franchise-based shops. To enable this resource combination, the company transfers Danish employees to its own facilities, for instance in China, for longer periods of time to train and work with local employees. Chinese employees in its captive quality control centers are sent to Denmark for short-term training and to attempt to translate the company's organizational culture into a Chinese context. The local expats, and to a certain extent the company's product managers, function as brokers regarding complex subject matters in the interactions between the Chinese suppliers and the Danish facility. This broker role is somewhat reduced regarding the Baltic supplier, due to the higher level of organizational knowledge and capabilities present at this supplier's Baltic site (Danish expats and managers).

5. Discussion

This paper sets out to look at strategic sourcing through the lenses of resource combining, with focus on soft and hard elements of knowledge interaction in SMEs with growth ambitions. Both case companies have experienced a long journey, commencing with outsourcing activities related to physical resources. During the study period, they have managed to navigate through the financial crises, and at the end of the study period, they are again picking up speed with regard to growth in sales and financial results. The following discussion attempts to integrate the four elements of our stated interest in this paper: resource combination, the knowledge element, the longer term, and SMEs, appraising the learning acquired from the two cases, and also making comparisons between them. According to the case companies' representatives, part of the companies' recent success is closely connected with the upstream moves they have made; however, these moves are not isolated, as both companies have made significant moves downstream as well. In total, both companies have witnessed significant changes in their strategic sourcing over a long period of time – especially during the five-year study period, during which organizational and managerial demands have become much more complex and globalized. These changing settings intensify the demands made by resource combination including both the formal/hard as well as informal/soft knowledge interactions. This is especially the situation for both companies in relation to initiatives regarding knowledge in use in innovation activities interacting with the companies' supplier bases in order to maintain and develop the case companies' innovation capabilities in the evolving inter- and intra-organizational setup. However, the two case companies have taken different, and to some extent crossing paths in their resource combining in order to steer clear of the perilous waters of the recent crises (in economic terms, both companies performed very well during the latest financial year at the end of the study period).

By establishing its own production facilities, in order to be able to manage the more complex production activities and resources, company A chose to depart from a long trajectory of not having any ownership of its production activities. The insourcing of the production activities and physical resources was due to a call for further cost reductions as well as improvement of time-to-market for the manufactured goods. Here, we are witness to reorganization of the sourcing network that involves integrating resources in the new setup through first physical facility resources, then business unit resources, and to a lesser degree business relationship resources. Recombining physical and organizational resources was not an isolated event; rather, it was a continuous process. It focused on improving efficiency of the captive manufacturing setup and the quality level of the products, as well as finding a competent dye supplier, located appropriately vis à vis the other Far Eastern units. Through this move, the company gained partial control of its production activities and the possibility to conduct 100 per cent quality control of its products – those produced in-house as well as those supplied by the established suppliers in the region.

Furthermore, the demands for further development of formal/hard coordination with suppliers diminished, due to the sourcing of less complex products from the suppliers, in-house production of the more complex products, and the in-house capacity to produce smaller quantities on a shorter-term basis. The managerial approach to combining cross-boundary resources changed, most notably with the establishment of the captive manufacturing facilities in the Far East. Efficiency in this offshore production facility is now at the top of the agenda, which however implied a more rigid resource combining in relation to product development. Likewise, the decision to transfer the raw material warehouse facilities from Denmark to the Far East caused a reduction in the flexibility for the employees working with product development.

The approach to handling the issues related to product development is to apply more formal planning that aims to achieve more efficient resource combinations across organizational boundaries. In doing this, company A has increased its organizational capabilities to manage both formal/hard and informal/soft resource combination mechanisms across product development, sales and marketing activities in Denmark, and its other activities in the Far East. With regard to informal/soft coordination of activities, they improved within the boundaries of the organization, because of the movement of personnel back and forth between Denmark and the Far East and the introduction of CSR in the Far East facility to reduce personnel turnover. The formal/hard coordination of activities is enabled by continual development of IT solutions and communication tools, which improves dialogue and makes it possible to transfer knowledge that is more or less codified. Furthermore, the expats and employees who travel back and forth between the facilities function as brokers with regard to complex subject matter, which has been crucial in combination with the above-mentioned developments in maintaining and increasing the product development rate in the company through a mainly business unit resource perspective.

Company B, at the outset of its development, was characterized by a high level of vertical integration. Seen in an upstream perspective, the knowledge and organizational capabilities required to utilize and combine production and logistics resources were more or less controlled by internal mechanisms at company B. To change this setup, company B made a huge effort, which was resource-demanding and time-consuming. Creating the hard/formal and soft/informal mechanisms to combine and utilize the physical and organizational resources has therefore constituted a long journey, starting in the cabinetmaker's workshop and continuing until company B became an industrial company producing upholstery and flat-pack furniture. During its second development phase, Company B was dissolving its own production activities and resources and dramatically increasing the scope of the sourcing network, mainly in the Far East and the Baltic region. In its third phase of development, the company chose several paths to manage the increasing complexity in the sourcing network, which is triggered by the number of different products being sourced, as well as the number of suppliers dispersed geographically.

The company kept domestic physical facility resources to continue the production of flat-pack furniture; this is enabled by organizational resources at the Danish facility. As for the upholstered furniture, resource combination involves two rather different suppliers; one in the Baltic region, and one in China.

The coordination mechanism to determinate the production site of the upholstery furniture (in either the Baltic region or in China) is the logistics infrastructure resources, i.e. warehouses, transport facilities and production equipment, which act as hard/formal coordination mechanisms when the business units combine and utilize the resources.

When addressing product development, the resource combination across organizational boundaries is different. Business relationship resources make it possible for company B to combine resources between an external design company and its own product managers and to involve key suppliers, mainly the supplier located in the Baltic region. Since this across-boundaries resource combining always takes place within the production facility in question, it entails physical relocation of designers. Physical movement of the employees is preferred, due to the need for soft/informal coordination when determining the design and utilization of the production facility/equipment. Regarding the supplier in the Baltic region, the organizational capabilities and knowledge that enables the supplier to be involved in company B's product development activities are mainly provided by the expat employees and owners. This means that company B has mainly relied on informal/soft coordination mechanisms based on the close relationship with the supplier's management team, which consists of former company B employees.

To enable the development of business relationship resources in China, and thereby across- boundary resource combination, company B has established a sourcing office in China as well as two physical control centers close to the key suppliers. It has also located its own local quality personnel at the key suppliers, thus depending on more informal/soft coordination mechanisms to manage the transfer of knowledge. This development places demands on the expats based at the control centers, as well as on the employees who travel back and forth between Denmark and the different suppliers' premises, mainly to initiate quality improvements. At the same time, the company is incrementally trying to use informal/soft coordination mechanisms to continuously develop organizational resource combination with the new key suppliers in China. This choice has been made deliberately to further develop and improve the suppliers' organizational resources and ability to receive and translate knowledge from company B, mainly regarding manufacturing skills, quality understanding and, in one case in China, the process innovation skills of the supplier.

The organizational resources related to the knowledge component of maintaining and developing innovation capabilities are very important. The development of organizational resources, including changes in organizational resource combination and knowledge interaction changes, can be summarized as shown in Table 1 below.

One organization reorganized its processes and integrated new knowledge; the other deorganized and 'compensated' with a moderate, virtual organizational element. Both cases emphasize the knowledge element over time. Management, in carrying out organizational resource recombination, might tend to overemphasize the initial diagnosis, choice and implementation of the 'new' organization (the design fallacy). As demonstrated, the organizations are emerging over time and involved in dynamically tackling the organizational players' learning as well as the dynamics of their cooperation partners, who are visiting and adjusting the resource combinations more frequently in order to improve their upstream sourcing setup. In the cases, mixed virtualization is practiced (Koch & Buser, 2003), as there seems to be a need for direct interaction between organizational unit members through physical facility resources (Intranet and IT connections) in combination with organizational resources (co-presence): in case A, through the reorganization and establishment of a captive setup in the Far East; and in case B, through the establishment of control units to support the deorganization of the manufacturing setup, caused by the previous offshore outsourcing moves of the company.

Furthermore, from the perspective of the focal company, a consequence might be that they should be more aware in their strategic sourcing of how the hard and soft issues of knowledge are combined to support and link the actors together in the new organizational offshore resource combination in the effort to maintain and develop innovation capabilities. A key development here has been the continuous and growing use of expats as knowledge interaction enablers (brokers), which, in both cases, initially was seen as a temporary resource to bridge knowledge between the entities. However, these positions have apparently become a permanent part of the resource combinations, and have even been extended with more expats positioned in the captive setup in case A in the Far East, and in case B, in the established control centers in China.

The use of expats occurs as part of the relations to the subsidiary and as part of the internal organization, which can be seen as a contrast to other studies of human intermediaries in the knowledge interaction, where so-called middlemen operate more independently of the single enterprise (Balkow, 2012), where brokers connect companies (Kirkels & Duysters, 2010). We also observe the importance of the expats' social capital, similar to Kirkels & Duysters' (2010) brokers. Initially, dyads and triads involve relatively simple knowledge interaction in the earlier stages of the offshoring journey, including the involvement of more loose intermediaries such as external middlemen. The increased complexity of the more mature offshoring companies, like the two cases in this study, may require tighter intermediaries as knowledge interaction moves to more and more critical business areas, increasing the demand for not only knowledge interaction but also knowledge creation in the emerging offshore setups (Håkansson & Ingemannson, 2011).

As SMEs or quasi-SMEs, both case companies seem to be continuously challenged by whether the allocation of the limited amount of resources in their global value chain setup is combined appropriately, thus indicating a need for them to be open to changing the resource setup of their organization more frequently. This would include an increasing use of knowledge interaction brokers in a tighter setup with own offshored subsidiaries (supporting brokerage findings in SMEs by Kirkels & Duysters (2010), although here in an offshore perspective). However, it should also be noted that many of the challenges faced by the case companies were parallel to those of large companies, and that their handling of these issues followed an emerging learning path, which shows indirectly that their initial networking competences did not suffice in the chosen offshore setups. Moreover, when it comes to early motives in these two cases, cost reduction dominated over the resource motive, counter to the findings of Roza et al. (2011).

From the above case descriptions and analysis, it follows that strategic sourcing through resource combination is anything but a one-off decision. Strategy formulation approaches tend to overemphasize the initial diagnosis and choice and implementation of a 'new' strategy, in this case a new sourcing arrangement and/or network (Whittington, 2006). This design fallacy is contradicted by the empirical findings here, and the importance of emergent strategy is also in accordance with the strategy schools of IMP and incrementalism (Baraldi et al., 2007), where enterprises and their resource combination through their sourcing network emerge over time and are involved in dynamically tackling the learning and functions of the organizational players. Furthermore, the case companies cooperation partners' dynamics lead to strategy formulation transformed into strategizing with continual iterations (Whittington, 2006), the companies (with their limited resources) continue to improve and adjust the upstream resource combination of all four resources identified by Gadde & Håkansson (2008), with more emphasis over time on organizational business unit and business relations resources.

As the companies experiences have grown there is a tendency that their resource combination extends beyond the primary partners and into a broader network of suppliers: Company A establishes business relationships with several dye suppliers and combines that with suppliers of fabrics in the Far East. The company has employed a dye consultant in an attempt to create stronger relations between the two different types of companies and to improve processes through documenting them, creating a hard type of knowledge interaction. Company B develops new upholstery products in interaction with their external designer team and their Baltic supplier combining their resources in these innovation activities. This also involves (internal) product managers. The resource combination with their Far Eastern supplier involves using product descriptions and even the physical products (pieces of furniture) to enable adaptions of production equipment and production processes to the new product. This also involves the presence of Company B's Far East representatives from the sourcing office and the control center. Along with Gadde & Håkansson (2008) analysis these further networking activities are still relatively restricted due to the companies' limited resources and primary focus of close direct relations

A central theme in strategic sourcing is the dependencies companies enter when becoming increasingly involved in complex external networks to provide their products and services (Bocconcelli and Håkansson 2008, Waluszewski and Wagrell this issue). The two case companies are from the very outset dependent of a range of external parties, but where company A initially operated no production, and perceived themselves as a network company, company B operated considerable production facilities. Company A's dependencies raise even after establishing their own production as their production volume grows and despite attempts to develop new downstream concepts for retail relationships. Company B's dependencies upstream increases, whereas its downstream dependency expands into a range of owned retail units. The companies thus get more dependent of either other companies or owned distant units, which both involve the centrality of having the knowledge about other units knowledge be it in efficiency or innovation issues.

6. Conclusion

The aim of this paper is to take a long-term perspective on strategic sourcing, investigating how one small and one medium-size enterprise with growth ambitions emerge through

Table 1: Changes in organizational resources and knowledge interaction dimensions

	Case A	**Case B**
Organizational resources	Insourcing of the more complex production activities in the Far East increases the control of both production and quality, which in turn is expected to facilitate offshoring of more complex activities, like designs, at a later stage "options of vertical integration considered. Including acquisition of a dye plant". A move from a narrow scope of the sourcing network towards a medium- size scope of the sourcing network.	Outsourcing of the less complex upholstery production to the Baltic States and China. Establishment of several control centres in China over time to create a physical link between headquarters and key suppliers, which also creates indirect control between headquarters and key suppliers in China. A move from a vertically integrated setup to a broad scope of the sourcing network.
Knowledge interactions		
Hard/formal dimensions	Captive production unit in the Far East takes over more and more complex manufacturing activities. Continuous development of IT tools to support the link between headquarters and the Far East entity regarding mainly formal knowledge such as standardizing routines	Continuous development of IT tools to support the link between headquarters and the control center regarding especially formal knowledge on quality
Knowledge interactions Soft/informal dimensions	Increasing physical movement of personnel back and forth between Denmark and the Far East, involving knowledge interaction with less transferable and complex components, such as organizational values and norms. Furthermore, hiring a dye expert to help a key supplier, initially in the Far East, then in Pakistan. Increasing use of expats as enablers of knowledge interaction within the captive setup, and application of CSR to reduce personnel turnover and thereby maintain and develop the local knowledge resource.	Increasing physical movement of personnel back and forth between Denmark, the Baltic States and China, thus interacting less transferable and complex knowledge – initially in the product development process and later on within manufacturing, warehousing and logistics (China). Strategic positioning of expats in control centers to act as enablers of knowledge interaction and continuously help the local suppliers build their manufacturing capabilities and quality understanding.

different periods of resource combinations including knowledge interaction in their offshoring initiatives. As we see, both case companies developed their strategic sourcing over a longer period of time, and especially during the five-year study period, both case companies worked with changing their resource combination. Commencing with physical and product related resources involving several relocations of design and emerging into organizational resources and knowledge interaction. Coming to adjust both soft and hard knowledge dimensions.

In an attempt to improve the capability within their value chain to facilitate knowledge interaction, and maintenance and development of their innovation capability within the offshored strategic sourcing setup. During the final years of the study, using resource combination with traditional, formal/hard organizational interaction mechanisms and virtual coordination and communication mechanisms, as well as informal/soft knowledge interaction mechanisms has become prevalent. Moreover, the paths followed by the two case companies are very different, crossing each other to some extent in the resource combinations and the knowledge elements over time. This implies that there is more than one possible path to follow when trying to combine resources and knowledge within dynamic, globalized sourcing setups in quasi-SMEs. The cases also demonstrate that combining both formal/hard and informal/soft knowledge interaction mechanisms is an on-going challenge, and both companies demonstrate that the sourcing activities and the resource combination within the value chain continue to emerge into new setups as dependencies takes new shapes.

The paper highlights the role played by the organizational resources and the knowledge component in maintaining and developing competences. One organization reorganized its processes and integrated new knowledge; the other deorganized and 'compensated' with a moderate, virtual organizational element; and both cases emphasize the knowledge element over time. Furthermore, the specific constraint of SMEs regarding resource scarcities was dealt with by the case companies over time through the use of resource combination emphasizing knowledge brokers in combination with a tightening of the organizational setup through the establishment of offshore subsidiaries to further facilitate dealings within an increasingly complex offshore environment and therefore with less emphasis on creating resource combination through more distant links between suppliers in the network. Seen in a longer-term perspective, resource combining develops competences over time, which shifts from addressing facility combination to inter- and intra-organizational innovation activities.

References

Axelsson, B., Wynstra, F. and Rozemeijer, F. (2005). *Developing Sourcing Capabilities: From Insight to Strategic Change* (Paperback). NewYork: Wiley & Sons.

Balkow, J. (2012). *In the Middle: On Sourcing from China and the Role of the Intermediary.* Jönköping: Jönköping International Business School.

Bankvall, L. (2011). *Activity Linking in Industrial Networks*. Chalmers University of Technology. Gothenburg.

Baraldi, E. (2008). Strategy in Industrial Network: Experiences from Ikea. *California Management Review*, 50(4), pp. 99-126.

Baraldi, E., Brennan, D., Harrison, A., Tunisini, J. and Zolkiewski, J. (2007). Strategic thinking and the IMP approach: A comparative analysis. *Industrial Marketing Management*, 36 (7), pp. 879-894.

Barley, S. R. and Tolbert, P. S. (1997). Institutionalization and structuration: Studying the links between institutions and actions. *Organization Studies*, 18(1), pp. 93-117.

Bocconcelli, R. & Håkansson, H. (2008). External Interaction as a Means of Making Changes in a Company: The Role of Purchasing in a Major Turnaround for Ducati. *The IMP Journal*, 2(2) pp. 25-37.

Bosch-Sijtsema, P., Fruchter, R., Vartiainen, M., Ruohomäki, V. (2011). A Framework to Analyze Knowledge Work in Distributed Teams. *Group & Organization Management*, 36 (3) pp. 275-307.

Buser, M., Poschet, L. and Pulver, B. (2000). *Télématique et nouvelles formes de travail. TA- report 35a*, Bern: Conseil Suisse de la Science.

Cantù, C., Montagnini, F. and Sebastiani R. (2010). Organizing a network within the network: The case of MC Elettrici. *The IMP Journal* 4(3), pp. 220-240.

Carlile, P. (2004). Transferring, translating, and transforming: an integrative framework for managing knowledge across boundaries, *Organization Science*,15(5), pp.555–568.

Castells M. (2000). *The rise of the network society*. 2nd Edition. Blackwell. Cambridge Massachusetts.

Choi, T. and Dooley K. (2009). Supply networks: theories and models. *Journal of Supply Chain Management*, 45, pp. 25-26.

Dubois, A. and Gadde, L. E. (2002). Systematic combining: an abductive approach to case research, *Journal of Business Research*, 55(7), pp. 553-560.

Ensign, P. C. 1998. Interdependence, coordination, and structure in complex organizations: implications for organization design. *Mid-Atlantic Journal of Business*, 34 (1), 5-23.

Flint, D. J., E. Larsson and Gammelgaard, B. (2008). Exploring Processes for Customer Value Insights, Supply Chain Learning and Innovation: An International Study. *Journal of Business Logistics*, 29 (1), pp. 257-281.

Gadde, L.E. and Hakansson, H. (2008). Business Relationships and Resource combining *The IMP journal*, 2(1), pp. 31- 45.

Gammelgaard, B. and Mathiasen, J. B. (2007). The impact of globalisation on SME-subcontractors' supply chain strategies: a Danish case study. I*nternational Journal of Learning and Change*, 2 (1), pp. 1-19.

Giunipero, L. C., Hooker, R.E., Joseph-Matthews, S., Yoon, T. E. and Brudvig, S. (2008). A decade of SCM literature: past, present and future implications. *Journal of Supply Chain Management*, 44 (4), pp.66-86.

Håkansson, H. eds. (2011). Special issue knowledge in business networks. *The IMP Journal*, 5(2).

Håkansson, H. and Ingemansson, M. (2011). Construction companies and how they acquire. Knowledge through business interaction. *The IMP Journal* 5 (2), pp. 67-78.

Håkansson H. and Snehota I. eds. (1995). *Developing Relationships in Business Networks*. London, Thomson.

Håkansson, H. and Snehota, I. (2006). No business is an island: The network concept of business strategy, *Scandinavian Journal of Management*, Vol. 22, pp. 256-270.

Håkansson, H. and Waluszewski, A. (2002). *Managing Technological Development. IKEA, the environment and technology.* London, Routledge

Håkansson, H. and Waluszewski, A. eds. (2007). *Knowledge and Innovation in Business and Industry*. *The importance of using others.* London, Routledge.

Hinds, P. and Kiesler, S. eds. (2002). *Distributed work: New* *ways of working across distance using technology*. MIT Press. Cambridge

Johansson, M., Axelson, M., Enberg, C. and Tell, F. (2011). Knowledge Integration in Inter-firm R&D Collaboration: How do Firms Manage Problems of Coordination and Cooperation? In: Berggren, C., Bergek, A., Bengtsson, L., Hobday M. and Söderlund, J., eds. *Knowledge Integration & Innovation – Critical Challenges Facing International Technology-based Firms.*, Oxford: Oxford University Press, pp. 148-169.

Jørgensen, C. (2007). Let's go global. *The international journal of knowledge, culture and change management*, 6(8), pp. 167-177.

Jørgensen, C. (2010). Offshore supplier relations: Knowledge integration among Small Businesses. *Strategic Outsourcing: An International Journal*, 3(3), pp. 192-210.

Kirkels, Y. (2010). *Brokerage in SME networks*. Proefschrift. Eindhoven University Press.

Kirkels, Y. and Duysters, G. (2010). Brokerage in SME networks. *Research Policy* 39(3), Pp. 375–385.

Koch, C. (2004). Innovation networking between stability and political dynamics. *Technovation*. 24(9), pp. 729 – 739.

Koch, C. and Buser, M. (2003). Getting hold of the disappearing worker? - Managerial Issues of Distance Work. In: Zedtwitz, M.v., Haour, G., Khalil, T. and Lefebvre, L. eds., *Management of Technology: Growth through Business, Innovation and Entrepreneurship*. Oxford: Pergamon Press, pp. 481-495.

La Rocca, A. and Snehota, I. (2011). Knowledge in use when actors interact in business relationships. *The IMP Journal* 5(2), pp.79-93.

MacGregor, R.C. (2004). Factors associated with formal networking in regional small business: some findings from a study of Swedish SMEs. *Journal of Small Business and Enterprise Development*, 11 (1), pp.60 – 74.

Möller, K., Rajala, A., Partanen, P., Westerlund, M. and Svahn, S. (2005). *Role of partnerships and networks in SME innovation and growth*. Paper published at the 21st IMP-conference. Rotterdam.

Nishiguchi, T. (1994). *Strategic Industrial Sourcing*. New York: Oxford University.

Okkonen J. (2004). How virtuality affects knowledge work: points on performance and knowledge management. *International Journal of Networking and Virtual Organisations*. Vol 2 no.2 pp 153-161.

Pettigrew A.M. (1990). Longitudinal field research on change: Theory and practice, *Organization Science*, Vol. 1, No. 3, pp. 267-292.

Roza, M.W., Volberda, H.W., Van Den Bosch, Frans, A.J. (2011). Offshoring Strategy: Motives, Functions, Locations and Governance Modes of Small, Medium-Sized and Large Firms. *International Business Review*, 20(3), 314-323.

Rozemeijer, F. and Wynstra, F. (2005). Organizing for strategic sourcing. *In*: Axelsson, B.,

Rozemeijer, F. & Wynstra, F. (eds.) *Developing sourcing capabilities: creating stategic change in purchasing and supply management*. Chichester: John Wiley and Sons.

Stake, R. E. (2000). Case studies. In: Denzin, N.K. and Lincoln Y.S. eds., *Handbook of qualitative research*. 2nd ed. Thousand Oaks: Saga Publication Inc., pp. 435-454.

Ståhl, B. and Waluszewski, A. (2007). Use of knowledge in the model world – lessons to learn from economic literature. In Håkansson, H. and Waluszewski, A. eds. *Knowledge and innovation in business and industry: The importance of using others*, London: Routledge.

Van de Ven, A.H. (2007), *Engaged scholarship – a guide for organizational and social research*. Oxford University Press.

Waluszewski, A. and Håkansson, H. (2007). Economic Use of Knowledge. In: *Knowledge and Innovation in Business and Industry. The importance of using others*. Håkansson, H.,Waluszewski, A., eds., pp.1-27. London, Routledge.

Waluszewski A. and Wagrell S. (2012). Public purchasing policy as innovation killer? *The IMP Journal*.

Whittington, R. (2006). Completing the practice turn is strategy research, *Organization Studies*, Vol. 27(5): 613-634.

Wynstra, J.Y.F. (2010). What did we do, who did it and did it matter? A review of fifteen volumes of the (European) Journal of Purchasing and Supply Management. *Journal of Purchasing and Supply Management*, 16(4), 279-292.

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