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The idea of transport independence in the Russian Arctic: a Scandinavian institutional approach to understanding supply chain strategy

Abstract

Purpose – This study aims to explore how supply chain strategies emerge and evolve in response to contextual influence.

Design/methodology/approach – A qualitative single-case study presents the journey of a supply chain strategy, conceptualised as the *idea of transport independence* in the Russian Arctic context. Data from 18 semi-structured interviews, personal observations and archival materials is interpreted through the institutional concepts of translation and editing effects.

Findings – The study reveals how supply chain strategies evolve over time and can affect institutional factors. The case study further reveals how contextual conditions make a company reconsider its core competencies as well as the role of supply chain management practices. The findings show that strategy implementation through purposeful actions can represent a powerful resistance to contextual pressures and constraints, as well as being a facilitator of change in actual supply chains and their context. During the translation of the idea of transport independence into actions, the supply chain strategy transformed itself into a form of strategic collaboration and thereby made supply chains in the Russian Arctic more integrated than before.

Research limitations/implications – More empirical studies on strategy implementation in interaction with contextual and institutional factors are suggested. An institutional process perspective is applied in this study but we suggest that future research should include a human dimension by an exploration of day-to-day routines and challenges that employees face when strategising and the actions they take.

Originality/value – The study provides an understanding of how a new supply chain strategy emerges and how it changes during implementation. In this process oriented study – merging context, process and strategy content - it is further shown that a supply chain strategy may affect the context by responding to contextual and institutional challenges.

Keywords Supply Chain Management, Strategy Implementation, Case Study, Arctic Shipping, Translation Theory, Process Perspective

Paper type Research paper

Introduction

The literature on supply chain strategies largely concentrates on supply chain configurations that should ensure profitability, efficiency and/or customer responsiveness (Gunasekaran et al., 2008; Gammelgaard, 2010; Nakano and Akikawa, 2014). However, Fawcett and Magnan (2002, pp. 359-360) argue that “*supply chain strategies lack specificity and reach*” due to variations and inconsistency in the understanding of supply chain management (SCM) in practice. Further, supply chain strategies are often studied in isolation from their adoption in practice through models or hypotheses on supposed organisational actions (Qi et al., 2011; Qrunfleh and Tarafdar, 2013; Nakano and Akikawa, 2014). So it seems like there is a lack of understanding of how supply chain strategies are developed and implemented in practice. Without considering how supply chain strategies are deployed, their feasibility may become problematic (Qrunfleh and Tarafdar, 2013).

Further, supply chain strategy is most often understood through theories from the strategic management discipline such as transaction cost economics (TCE) (Williamson, 2008) and the resource-based view (RBV) (Prahalad and Hamel, 1990; Vickery et al., 2003; Zhao et al., 2011; Halldorsson et al, 2007). However, these theories are only concerned to some degree with the

potential influence of external contextual factors, which can compel companies to make certain decisions and implement different strategies. The theories are, though, useful in understanding supply chain strategy when companies focus on their core competencies and outsource f. ex. logistics to logistics service providers (Gilbert et al., 2006; Lin et al., 2014). Or, alternatively, when a company accumulates its capabilities and resources in developing an own transport infrastructure to ensure full control over its supply chains. Despite the advantages and contributions of these theoretical approaches to supply chain strategy, there is still a lack of understanding of how supply chain strategies are developed over time as a result of the interaction between supply chain and context. This includes how companies employ organisational actions to develop their supply chains strategically according to their needs and values as well as in compliance with external norms and practices due to various contextual pressures (Oliver, 1997).

Motivated by the above-mentioned shortcomings in the literature on supply chain strategy, *the present study aims to explore how supply chain strategies evolve and are translated in practice in response to contextual influence.*

In doing so, the study presents an empirical case of the development and implementation of a supply chain strategy to ensure a company's control over its supply chain in the Russian Arctic. In the region, this strategy is referred to as "transport independence". The Russian Arctic provides a unique empirical setting, where mining enterprises are challenged by harsh climatic conditions, remote location, sparse transportation links with global markets and a limited amount of logistics providers and suppliers. They have to apply specific supply chain strategies to ensure regular deliveries of cargoes for their own needs as well as those of their customers. Maritime transportation is often the only link to the market but was challenged by many regulatory norms. In addition, the Russian government played a role both as regulator of cargo transportation and as one of the main suppliers, particularly providing icebreaker assistance. In response to state regulatory pressure in the early 2000s, some enterprises tried to implement a new supply chain strategy to ensure control over their cargo delivery. This strategy has entrenched itself as the *idea of transport independence* among practitioners (Gromakova, 2007) where independence implies release from coercive regulatory constraints in order to find supply chain solutions for regular cargo deliveries without delays.

The study applies Scandinavian institutional theory to illustrate the process of how supply chain strategy implementation affects the external environment including regulatory factors and SCM in practice. In particular, the concepts of translation and editing effects are employed to emphasise "... not of those who did it (the actors), but how it was done (the actions)" (Lindberg and Czarniawska, 2006). This process approach is helpful in revealing the interplay between the company's supply chain strategy and the contextual constraints through the organisational actions of developing and adopting a new strategy.

The study is organised as follows: The next section outlines the field of supply chain strategies in more detail. This is followed by the theoretical framework taken from the Scandinavian institutional approach. The fourth section describes the research method. Then the context and the case study are presented. The findings are discussed in the following section. The article concludes with implications for theory and practice as well as giving an outline of future research opportunities.

Supply chain strategy literature

Overall, supply chain strategies can be divided into two types – those that focus on efficiency and those that deal with responsiveness (Gammelgaard, 2010). The efficiency focus is particularly found in concepts such as Lean supply chain, just-in-time and business process redesign, which aim to achieve a low cost of product inventory and delivery and thereby improve the quality and efficiency of the supply chain (Qrunfleh and Tarafdar, 2013). A strategy of

supply chain responsiveness, on the other hand, is commonly typified as an agile supply chain strategy (Christopher and Towill, 2001, Gunasekaran, 2008) aiming at adapting swiftly to rapidly changing customer needs and market demand (Qrunfleh and Tarafdar, 2013). To achieve customer responsiveness, the importance of strategic supplier selection and the forging of close ties with relevant suppliers is often highlighted (Bernardes and Zsidisin, 2008; Vanteddu et al., 2011; Qrunfleh and Tarafdar, 2013). However, the two strategy types commonly employ supply chain practices such as building relationships with suppliers, eliminating waste, facilitating customization and information sharing (Qrunfleh and Tarafdar, 2013). Both strategy types have a common understanding of context as being limited to customers, demand factors and/or suppliers. The external and institutional environment does not play a role.

Most SCM literature considers strategy as a goal and plan to be performed by employing appropriate activities and developing certain supply chain practices (Qrunfleh and Tarafdar, 2013; Nakano and Akikawa, 2014). The focus is on strategy formulation rather than organisational actions to implement the strategy in practice. In this way supply chain strategies become an outcome of rational supply chain configuration and design (Gammelgaard, 2010). However, the literature's understanding of how the individual supply chain strategy is implemented is limited. This may lead to an unwanted and unforeseen discrepancy between what a company rationally formulates as its supply chain strategy and the practices actually implemented.

Recent literature reviews have pointed to intense use of TCE and RBV as the theoretical foundation of logistics and SCM studies (Sachan and Datta, 2005; Defee et al, 2010; Swanson et al, 2017). Being under increasing pressure to cut costs and improve return on investments, companies face the dilemma of whether to keep key functions in-house or outsource them to third-party suppliers. The RBV analysis recommends that companies focus on core competencies and outsource only non-core activities to outside providers. This strategy allows for consolidation of the market position by reducing costs, improving the quality of operational activity (Gottfredson et al., 2005; Gilbert et al., 2006), and avoiding intense competition (Lin et al., 2014). Others claim that a company's ownership of capabilities and resources is no longer important; it is rather *"its ability to control and make the most of critical capabilities"* (Gottfredson et al., 2005) which can be achieved through the SCM practice of managing supplier relationships. Thus, in essence, supply chain integration (Mentzer et al., 2001; Vickery et al., 2003; Jüttner et al., 2010; Lin et al., 2014), can be established by close relationships with other supply chain members, customers and/or suppliers (Vickery et al., 2003). Supply chains are, according to this theory, expected to be as disintegrated as the protection of core competences allows and hence coordinated by supplier relationships (Halldorsson et al, 2007). Others, however, have pointed to disintegration and outsourcing as risking a loss of control over critical functions and the entire supply chain, as well as making companies dependent on suppliers' quality of work (Schniederjans and Zuckweiler, 2004; Lin et al., 2014). This is a transaction cost issue where potential opportunism and incomplete market information will lead to vertical integration of the supply chain. Where these elements do not play an overwhelming role, longer term contracts with trusted suppliers may be preferred.

The limitation of TCE and RBV is, however, that little attention is paid to the potential influence of contextual factors such as firm traditions, network ties, regulatory norms, and all other taken-for-granted values (Oliver, 1997). At the same time, strategy formulation and implementation define the nature of interaction between the supply chain and context understood as the external environment in which strategies are developed and implemented. Some research has identified that local contexts and the adoption of new supply strategies, are able to affect supply chain practices (Bello et al., 2004; Yaibuathet et al., 2008; Cai et al., 2010). Changes in context may also make it necessary to change strategy formulation and the set of resources deployed in order to align the existing strategy to new conditions (Borgström and Hertz, 2011). De Wit and Meyer

(2004) have suggested viewing strategy implementation simultaneously through three dimensions: process, context and content. They emphasise that these three dimensions are not separate parts of strategy but interrelated and should be examined together (De Wit and Meyer, 2004; Knemeyer and Murphy, 2004). Further, Lawrence and Suddaby (2006) assert that research often disregards that, in certain cases, companies are able to react to contextual pressures through implementing strategies and own behavioural norms on practice.

To investigate supply chain strategy implementation processes, this study goes beyond the theories most often used in the SCM field. This is done by looking at the impact of contextual and institutional factors on supply chain strategy development; applying Scandinavian institutional theory as outlined in the section below.

The theoretical framework: strategy implementation through translation and editing effects

SCM literature applying institutional theory has so far focused on what effects the context has on strategic decision-making (Kinra and Kotzab, 2008; Tate et al., 2010; Doha et al., 2013), as well as on the implementation of new SCM strategies and technologies in existing or new contexts, when companies seek to expand their markets and activities internationally (Bello et al., 2004; Rogers et al., 2007; Williams et al., 2009; Zhang and Dhaliwal, 2009; Liu et al., 2010; Kauppi, 2013; Doha et al., 2013; Lee et al., 2013; Hoejmose et al., 2014). This literature stream, however, does not touch upon the processes of how meanings and actions change when companies face a choice of supply chain strategy. The Scandinavian institutional approach, as applied to this study, in particular discusses processes and change in organisational actions. It stresses the change of strategies and practices from their time and place of origin to their objectification in ever-new localities (Czarniawska and Joerges, 1996). Scandinavian institutionalism further makes it possible to consider a company's strategic actions in response to contextual pressures, as well as revealing the reverse effects of supply chain strategies on the contexts in which they are developed. In this way application of this institutional approach provides unique insight into dynamic supply chain strategy processes.

In the Scandinavian institutional approach, new strategies and practices to be adopted in a new or existing context/external environment with new conditions, take the form of *ideas*. The notion of 'translation' is used to describe the process of implementing a new strategy. Translation implies a process, which "*occurs when an idea that seems promising for alleviating an organisational problem is selected and then objectified and materialized*" (Boxenbaum and Pedersen, 2009, p. 191). We employ this definition to focus on how an idea is turned into a supply chain strategy with real objects and organisational actions. Thus strategy implementation processes in the interplay between a strategy's content and the contextual influence may be revealed.

The process of translation is animated by reproducing and altering existing institutions, as well as guided by a *legitimacy* order of the institutional environment (Sahlin and Wedlin, 2008). Legitimacy means that organisational actions are "*desirable, proper, or appropriate within some socially constructed systems of norms, values, beliefs, and definitions*" (Suchman, 1995, p. 574). It affects not only how organisations act, but also how they understand themselves to be legitimate (ibid). To remain legitimate, organisations use external evaluation criteria. For example, organisations often rely on industrial templates and duplicate supply strategies proven to be successful in practice (Ketchen and Hult, 2007). In this way, legitimacy helps organisations to survive and to achieve success in the opinion of their social culture (Meyer and Rowan, 1977). Therefore, the appropriateness of an idea for a certain context does not lie in its inherent properties or attributes, but in the success of its presentation (Czarniawska and Joerges, 1996). Czarniawska and Sevón (2005) further argue that the translation of ideas, objects and practices affects not only "*what is translated*", but also "*those who translate*" (p.10). Here, it is worth noting that companies that disregard environmentally legitimate procedures and routines, or

create unique structures and practices, can become “*vulnerable to claims that they are negligent, irrational, or unnecessary*” (Meyer and Rowan, 1977, p. 156).

At the same time, organisations traditionally introduce changes through the application of new ideas to gain strategic advantage. According to Holliger (1980, p. 87 in Czarniawska and Sevón, 2005), “*Ideas [...] are instruments that not only can become true by doing their job [...], but can also transform the environment to which they are applied*”. In this way, the translation process can cause *editing effects* in the local environment by creating and ascribing new meanings, visions and logics to earlier practices and activities. When new actions are taken to implement new strategies, the contextual circumstances change and the history of earlier experiences becomes reformulated in the light of new visions and present needs (Sahlin and Wedlin, 2008). However, the consequences that arise during and/or after the materialization of a new idea may not only be unplanned, but also undesirable (Czarniawska and Joerges, 1996).

Method

Research design

A qualitative single-case was chosen to explore the implementation of the *idea of transport independence* in Russian Arctic shipping. This supply chain strategy was developed by a Russian mining and metallurgic company, whose core activities are extraction and processing of mineral resources, as well as production, marketing, and sales of non-ferrous and precious metals (hereafter, the focal company). This company was a main actor in the elaboration and implementation of the supply chain strategy.

The case study research method was applied to capture the contextual settings of the Russian Arctic where the idea of transport independence as a supply chain strategy evolved and was translated into supply chain practice. It helped reveal the potential influence of the context on strategy formulation and editing effects after the strategy was developed. One of the misunderstandings about the single case study is that one cannot generalize and, therefore, the findings obtained from specific contextual factors cannot contribute to theoretical knowledge (Flyvbjerg, 2006). However, a single-case is useful for understanding “*the processes by which phenomena take place*” (Maxwell, 1996) from bounded real-world settings (Barratt et al., 2011) and interpreting them “*in terms of the meanings people bring to them*” (Denzin and Lincoln, 2005). In addition, this embedded single case study approach enabled the collection of rich data from multiple organisations within a supply chain and one related to Russian Arctic shipping.

Data collection

We used multiple data sources, including 18 semi-structured and in-depth face-to-face interviews with the representatives of 11 organisations, observations in the port of Murmansk as well as archival materials. The interviewees were selected on the basis of their involvement in the focal company’s supply chain operations as well as accessibility. The interviews focused on tracing events and actions associated with the idea of transport independence in the Russian Arctic, in addition to identifying the role of the focal company, state regulation and other actors in these events and actions. This helped to reveal the conditions under which the focal company had to reconsider its core competencies, what kind of the organisational actions were applied to make the strategic implementation of changes to the existing SCM practice feasible and the meanings ascribed to those actions. The interviews took place in Murmansk, St. Petersburg and Moscow during four periods: May 2014, November 2014, October 2015 and December 2015. All the interviews (done by the first author) were hand-written and recorded with the consent of each interviewee to be transcribed later. Each interviewee received drafts of interview protocols and transcripts via e-mail to ensure validity of descriptions and interpretations. The interviews were

conducted in Russian and then translated into English. When necessary, follow-up interviews with additional questions were conducted via email, telephone or in person.

Our findings were supported by personal observations by the first author of how maritime transportation is carried out under severe Arctic conditions. A certain amount of the empirical data was collected during a trip on board the container vessel, ice-class Arc7, owned by the focal company, on its regular voyage from Murmansk to Dudinka between April 28 and May 6, 2016. Personal observations were also made during several full-day visits by the first author to the focal company's port terminal and the interviewees' own offices at the focal company's site. These data sources and several periods of interviewing permitted observation of the process of how the idea of transport independence was implemented into the focal company's SCM practice by the operational activities of different employees such as senior managers, the master and chief mate on board the ships, and fleet operators.

In addition, secondary data was collected, mostly from the focal company's annual reports, internal archival materials, press releases and its official website, as well as the legislation on navigating in Russian Arctic waters.

Data analysis

The combination of interview transcripts, secondary materials, and a number of informal discussions, documented by a logbook, with experienced experts and personal observations in Murmansk port ensured data consistency and sound overall understanding of the case. To support our interpretation of data, the interviewees were repeatedly asked questions for cross-checking and in order to grasp the true meaning of their words behind emotions, voice tone, repetitions and different rhetorical forms of the spoken Russian language. Data from many sources appeared as fragments of a whole story that had to be put together in order to understand how this particular supply chain strategy evolved in this particular context.

The data analysis was constructed through the translation stages suggested by the Scandinavian institutional approach. It allowed for the disclosure of the editing processes of existing supply chain practices due to the influence of strategy implementation, as well as revealing the interplay between the focal company's actions and state regulatory pressures. When constructing the case story, the meaning of interview contents played an essential role in the interpretation of organisational actions. The case presentation is based on the many qualitative pieces of data including the individual perceptions and experiences of the focal company's managers. Interview citations are used to support the claims made in the coherent description of strategy formulation and implementation. The theoretical analysis of the empirical data is presented as a descriptive composition – a case story– recounted chronologically with a focus on how its episodes were sequenced.

The case story starts with the description of contextual settings and the external environment in which the idea of transport independence was developed by the focal company. Then the process of implementation of the new strategy into the existing supply chain is presented. This is done by revealing the focal company's organisational actions as strategic responses to the constraints imposed by the state regulation and identifying the repertoire of “*unexpected results*” and “*unintended consequences*” which followed those actions.

Case presentation

Contextual settings of the Russian Arctic

The focal company's manufacturing takes place in an extremely remote northern Russian area close to natural resource deposits and extraction and, from there, processed components and materials are distributed to international markets (Plaizier et al., 2012). The focal company's

customers are steel producers, hydropower utilities, and machine-building plants in Europe, Asia and North America, which use the focal company's metal products as inputs for their industrial processes. There has been only one transport connection through the Arctic waters, namely the sea segment between the ports of Dudinka, Murmansk and Arkhangelsk. The focal company's main operational concern was that its supply chain should ensure regular year-round deliveries of products to customers as well as of cargoes from suppliers to meet its manufacturing needs. It is worth noting that the focal company took social responsibility for the people living in the quite large mono-industry town around the focal company's business activities. Thus, the regular cargo deliveries matter not only to the focal company's manufacturing operations and infrastructure but also to the survival of local people.

Contextual and regulatory challenges as prerequisites for strategy origination

Localisation in the Russian Arctic implies contextual challenges like remoteness, long distances, severe Arctic climate, sparse transportation networks and lack of transport infrastructure. There was an extremely limited choice of suppliers and transport links with other regions, which mostly occurs via sea routes, requiring complicated navigation through ever-changing ice conditions. These challenges made the focal company's cargo deliveries vulnerable to disruption and increased delivery time, isolating the focal company from its customers and global markets as a whole.

Another type of challenge is related to state regulation and state involvement in cargo shipping in Russian Arctic waters. The focal company's manufacturing activity is a major component of the state and regional economic development due to the large-scale exploitation of natural resources. Its cargo flows make up the bulk of the total cargo shipped on that sea segment. The state as a stakeholder of the focal company's activities used to play two roles – first as the regulator of cargo shipping in the Russian Arctic waters and second as the sole supplier of transportation infrastructure, including ice-strengthened vessels and icebreaker assistance.

Over several decades up to the beginning of the 2000s, a state owned shipping company based in Murmansk was the only sea carrier providing ice-class vessels and nuclear icebreaker assistance during winter navigation from October to May. The focal company was the largest cargo owner in the region, and its freight traffic between the ports of Dudinka and Murmansk comprised about 45% of the profits of this sole carrier. However, the focal company experienced a strong influence and even domination from this state shipping company due to dependence on its actions and behaviour.

The economic crisis and decline in production by many industrial enterprises during the 1990s caused a significant decrease in shipping activities within Russian Arctic waters. Freight traffic often became interrupted and irregular. To compensate for the economic losses, the state changed the regulatory policy by constantly increasing tariffs on icebreaker services. At the beginning of the 2000s, cargo deliveries became unprofitable due to this continuous increase in transportation costs. The policy of constantly increasing tariffs led only to an even greater decline in freight traffic and uncertainty of providing icebreaker services in a timely manner. The situation was further complicated by the fact that the state fleet of ice-strengthened vessels and nuclear icebreakers became obsolete due to technical innovation and necessary renovation.

“An idea whose time has come”: formulating the idea of transport independence

The limited choice of suppliers/sea carriers, a shortage of nuclear icebreakers and ice-class vessels requiring renovation, as well as constantly increasing tariffs for icebreaker assistance caused uncertainty about the reliability of cargo delivery. Any disruption of cargo delivery could interrupt the manufacturing process and result in significant economic losses for the focal company.

So the focal company chose to search for alternatives including collaboration with the state but decided to reconstruct its own supply chain. As emphasised by one of the focal company's managers: *"Ensuring regular cargo transportation was one of the most important strategic tasks to survive under the strict state enforcement and coercive pressure at that time"*.

Among the transportation alternatives which suited the needs of the focal company, the strategic initiative of the firm building its own Arctic fleet looked most attractive. Initial discussions about building an Arctic fleet began as early as 1996 and continued for a few years, sometimes flaring up and then fading away.

However, in 2004, the focal company formulated a new supply chain strategy based on this initiative; it was stated in a special document, 'The concept of logistics optimisation'. The strategy aimed at ensuring the company's control over its supply chain activities, primarily by avoiding the state tariff regulation on icebreaker assistance and the domination of the state sea carrier in Russian Arctic waters. It implied partial release from the state regulatory order on cargo deliveries and thereby entrenched itself as the *idea of transport independence* among all players involved. A top manager of the focal company phrased it this way: *"It was an idea whose time came in a certain period when new technologies made it possible to build ships of 'dual action' capable of breaking 1.5m-thick ice shields and thus creating an ice free sea area around them"*.

Translating the idea into actions and objects

Next, the idea of transport independence was objectified through the following steps:

- Establishing the company's own logistics provider in the Port of Murmansk:

The strategy implementation started with establishing a new subsidiary in Murmansk as the focal company's own logistics provider to coordinate and streamline all its transport needs. Cargo revenues of the subsidiary averaged 2.5 million tons per year.

- Commissioning the company's own Arctic fleet:

Between 2006 and 2008, the focal company launched five ice-class (Arc-7) container vessels with a freight-carrying capacity of 16,000 tons. A senior manager of the focal company pointed to this action as the most important step towards transport independence: *"Having our own fleet ensured cargo transportation without icebreaker assistance all year round. Its availability solved one of our most urgent strategic objectives: to ensure transport independence from the constant use of icebreaker assistance and government policies in Arctic shipping, in order not to pay the obligatory icebreaker fees when sailing along the Northern Sea Route"*.

The building and subsequent commissioning of its own fleet demanded heavy investment in what were considered non-core assets. However, the significant investment was soon repaid. Icebreaker fees were so high that the commissioning of its own fleet made up for the focal company's costs related to icebreaker assistance and freight by third-party vessels.

Gaining control through ownership of the fleet enabled the focal company to improve the efficiency of its supply chain considerably. In 2009 and 2010, the focal company undertook several voyages directly from Dudinka to the European ports of Rotterdam and Hamburg without any trans-shipment in Murmansk. The delivery time was shortened by an average of ten days and now required 10-12 days under favourable weather conditions. In 2010 and 2011, finished metal products were even carried along the eastern part of the Northern Sea Route (the most difficult sea segment of the Russian Arctic for navigation) without icebreaker assistance and third-party suppliers to the port of Shanghai. The transit time was shortened from 84 to 57 days in comparison with shipping via the Suez Canal by third party carriers. The impact on the supply chain was substantial. As noted by a senior manager of the focal company: *"These new solutions*

for Arctic navigation to sail without icebreaker assistance along the whole length of the Northern Sea Route shortened delivery time and cut transportation costs”.

- Constructing the company's own trans-shipment terminal in Port of Murmansk:

The construction of own trans-shipment terminal in Murmansk port was finished by 2014. The terminal can process all kinds of own cargoes: nickel matte from Norilsk to the Murmansk region; metal finished products from the port of Dudinka and Murmansk region for export to European ports; and commercial cargoes from Europe to be supplied to myriad manufacturing locations. Up to 700,000 tons of cargo is trans-shipped through Murmansk port annually.

Before, there was only one provider of stevedore services – the state organisation “Murmansk Sea Trading Port”. This provider increased tariffs for its services by almost 50% during the three years between 2010 and 2013. In addition, only one berth was available for handling the cargoes of different clients, including the focal company. The risk of cargo delays was considerable. The construction of its own trans-shipment terminal released the focal company from heavy dependence on the state organization's actions and behaviour. The focal company's own trans-shipment terminal was an important step further on the road to transport independence. A senior manager framed the new situation in this way: *“Now all our cargoes transported through Murmansk port are processed at our own terminal. It has made it possible to turn our logistics subsidiary into a full-rate stevedoring company by now. This has reduced our costs and improved the company's stability”*.

- New supply chain practices:

The new strategy of transport independence encouraged the focal company to implement new supply chain practices, which had hardly ever been used before in Arctic navigation. These new practices – such as containerisation, the “open water” principle, and the cargo circulation principle to avoid empty vessel voyages – constituted specific operations, focused on ensuring maritime safety and improving the performance of cargo transportation.

Containerisation assured the safety and security of products at all the stages of transportation as well as reducing product delivery periods by decreasing the time of cargo trans-shipment and handling operations at ports. But even before the construction of the company's own trans-shipment terminal, containerisation reduced transportation costs on average by 15% through eliminating the costs of bulk cargo handling at ports. The “open water” principle meant that, by monitoring ice conditions, the master chose the best route to navigate the vessel through open-water channels or light ice, using a sophisticated online information system. It allowed adherence to the tight schedule of vessel traffic, avoiding any disruption and reducing delivery time and fuel consumption. When sailing in Arctic waters, shipping companies often encounter a cost issue: vessels might have to travel empty in one direction due to insufficient cargo accumulation in the northern regions. In order to avoid empty vessel voyages from the port of Murmansk to Dudinka, the focal company introduced the principle of cargo circulation by taking onboard commercial cargoes. Avoiding empty vessel voyages secured additional income.

- Consequences of strategy implementation:

Implementation of the new strategy allowed the focal company to improve its cargo transportation efficiency and ensure the efficiency and reliability of its supply chain between the ports of Dudinka, Murmansk and Arkhangelsk. It transpired that the strategy of transport independence altered the way of making logistics decisions on the planning and management of cargo flows. Its implementation mitigated the drawbacks of the company's remote location in the Russian Arctic and decreased the probability of supply chain disruption, a significant risk due to the sparse transportation network and a highly limited choice of suppliers and carriers.

Editing the SCM practices, context, and strategy content

- SCM practices:

The focal company's fleet with the application of new technologies made it possible to sail without icebreaker assistance between the ports of Dudinka, Murmansk and Arkhangelsk. Thereby it changed the historically established of cargo transportation in the Arctic waters. New supply chain strategic practices affected multiple aspects of existing SCM principles and marked a new development of Russian Arctic shipping in general.

- Context:

The focal company's new SCM practices caused discontent among its former suppliers – the state sea carrier and the state provider of icebreaker services – because they lost their major customer. As this customer was the largest cargo owner in the Russian Arctic, their profits suffered considerably. The discontent manifested itself through claims, complaints and even legal proceedings due to conflicting economic interests between the focal company and other main actors, represented mainly by the state.

As noted by one of the interviewees: *"These [focal company's] ice-class vessels became a new phenomenon in Arctic maritime transportation. The previous regulatory framework did not determine procedures for them as they are incompatible with the new technologies adopted by the [focal company]"*. Consequently, the government had to make significant changes in the Russian legislation on sailing in Arctic waters and tariff regulation of icebreaker assistance in 2012-2013. The obligatory use of icebreaker assistance was abolished: ship-owners could now decide for themselves whether they needed icebreaker services or not. The legislation became more flexible and less coercive for actors in the Russian Arctic waters.

In addition, the focal company's ice-class vessels were recognised as legally capable of providing icebreaker services. These regulatory updates stopped any claims and legal proceedings against the focal company's maritime activity. Thus, strategy implementation allowed the focal company to control its supply chain activities, but also, to some extent, released other actors from dependence on state constraints concerning Arctic navigation, especially from the tariff policy for icebreaker assistance. Due to its new SCM practices, capabilities and resources, the focal company became the largest sea carrier on the sea segment between the ports of Dudinka, Murmansk and Arkhangelsk.

- Strategy content:

The strategy of transport independence initially intended to promote the focal company as an independent player in Arctic sea cargo transportation. However, after the strategy was implemented in practice, the focal company continued to maintain its relationships with other actors. For instance, it chartered two icebreakers for the winter period for creating and maintaining the channel in the ice at the mouth of the Yenisei River, despite the fact that the focal company's vessels were able to navigate it by their own efforts. Those third-party services allowed the focal company to ensure transportation efficiency by increasing commercial delivery speed, reducing delivery time and saving fuel. The natural Arctic conditions encouraged the focal company to introduce supply chain collaboration as an additional strategic tool to increase effectiveness in delivery time and maintain, for most of the time, the vessels' circulation between the ports in spite of the icy conditions. This editing effect revealed a discrepancy between what the focal company formulated as an initial strategy and the SCM practices that actually developed as an outcome of strategy implementation due to the contextual conditions. An interviewee commented on the focal company's behaviour: *"The idea of transport independence already occurred in the Arctic waters, when an oil company (in 1999-2002) and a ship-owner (in 2010) purchased ice-class tankers for sailing the Arctic waters without icebreaker support but*

both failed in this strategy implementation. Harsh Arctic climatic conditions made the [focal company] collaborate with other players".

Interestingly, the state-owned provider of nuclear-powered icebreaker assistance announced that, due to the increased demand for its services, it did not intend to renew contracts in the future with those who once refused its services. This resentful reaction to competition indicates a redistribution of dominance among the major actors in Arctic maritime transportation, including the state. Also, the focal company faced a number of negative reactions from other major actors. Its actions were even considered illegitimate, although the previous legislation did not prohibit sailing without icebreaker assistance as without new technologies in shipbuilding it was not possible. However, because of severe Arctic conditions challenging navigation, the pursuit of economic interests motivated the focal company to interact with other actors in the Arctic supply chains. The strategic idea of transport independence itself underwent a change from the intention of full vertical control to volunteered collaboration with other actors due, not least, to the harsh weather conditions. The strategy of transport independence underwent a change of content from the strategic initiative to actual implementation in practice.

Summary

The development and translation of the *idea of transport independence* as a supply chain strategy in the Russian Arctic roughly encompassed three periods, each propelled by specific processes and their consequences (See Table #1 below).

Table #1. The translation of the idea of transport independence as a supply chain strategy

###About here###

The translation process illustrates a movement from the situation of uncertainty and risk of supply chain disruption towards ensuring regular cargo deliveries by vertical control of resources through supply chain integration and collaboration.

Discussion

The *idea of transport independence* emerged in the Russian Arctic as a consequence of several contextual challenges that became critical for economic activities in the area. Through its translation into actions and objects the idea manifested itself as a strategic response by the focal company to state pressures and constraints causing both organisational and institutional change. At the same time, the focal company's new SCM practice of sailing without icebreaker assistance violated the historically established principles of cargo transportation in the Arctic waters. The 'idea' initially shook the major actors and officials because they did not expect it to be effective or powerful enough to produce a number of editing and unintended effects on the external environment, including legislation, supply chain relationships and Russian Arctic SCM in general. Therefore, the findings support the supposition that institutional factors may play a role in how supply chain strategies evolve and that such strategies are not (only) objective, rational processes of goal setting and activity planning. In order to understand how supply chain strategies emerge and evolve, a process perspective is necessary.

We have suggested the Scandinavian institutional approach by focusing on an idea as a supply chain strategy that seems to be illusive but, nevertheless, under the certain circumstances, can change existing SCM practices through actions and objects. Through the process towards implementation, the strategy met resistance from other actors in the Russian Arctic who problematised the legitimacy of the new supply chain strategy which did not imply icebreaker

assistance. The idea of transport independence from state regulations and state-owned actors of maritime transport changed over time. The harsh weather conditions in the Arctic, as well as the limited population, changed the original strategy of securing the company's own control to one of control supplemented by collaboration with other actors in Russian Arctic supply chains. The illusive 'idea' vanished as the focal company's Arctic fleet sailing without icebreaker assistance became accepted as 'legitimate' due to new legislation. In this way, the focal company's supply chain strategy and practices became re-embedded in the Russian Arctic institutional environment. Although the theoretical and practical focus of supply chain strategy is efficiency and responsiveness, this study shows there are more sides to it. A lean or agile supply chain strategy is not just a concept which can be plucked from the "theoretical shelf" and employed anywhere and at any time. Contextual circumstances – for example geography, climate, culture and regulations – should be taken into consideration when goal setting and planning and the whole strategy should be prepared for changes.

After evoking a number of changes and modifying itself into integrated supply chains, the 'idea' ceased its journey in the Russian Arctic. It did not become institutionalised in its new environment as a strategy widely practiced and taken-for-granted among other players, mainly due to the severity of the Arctic natural conditions and big investments. The study showed that the idea of transport independence was destined to appear at a certain time and place to play a 'revolutionary' role in the strategic response to contextual pressures, and then to disappear or hibernate in order to manifest itself anew at another time and place when it is needed again. This was also how the inspiration to the idea of transport independence first came into the Russian Arctic from other countries.

It is often found among major extractive companies who experience government restraints in the guise of regulatory norms and tax pressures and so decide to invest in the development of transport infrastructure for their own needs and cargo deliveries to markets. It mostly happens due to governmental fears that major companies become able to block access to other actors (Gromakova, 2007; IBM report, 2009; Volkov et al., 2014; Ismar, 2014; Willis, 2014). According to theoretical assumptions by Czarniawska and Joerges (1996), an "idea" (or a strategy) travels in time and space, being imitated from originators that have successfully implemented the "idea" in their specific contexts. In our case, however, the idea of transport independence was already introduced by some other actors in the Russian Arctic, but was not successfully implemented. Nevertheless, this "idea" re-emerged and received renewed promotion in the Russian Arctic, being imitated by the focal company as a new adaptor. This finding is inconsistent with Ketchen and Hult's (2007) observations that organisations choose strategies and behavioral templates already successfully implemented by others. By contrast, this case presents the capacity of an organisation to resist the influence of the external environment and was caused by the pursuit of the organisation's need to survive. The same effect of resistance strategies has been asserted before by several institutionalists who claim that resistance makes organisations more efficient – due to increasing their ability to mobilise resources – than when they yield to institutional pressures (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Oliver, 1991). The findings of this study support this claim by illustrating this effect in SCM practices.

Organisations often confront multiple conflicting pressures of the external environment (Scott, 2014), especially when the state acts as a "*jungle of conflicting requirements at the local level*" (Scott, 1983, p. 105). In this case, the idea of transport independence not only played the role of a resistance strategy to institutional pressures and expectations of the old legislation. It also became a purposive action on the part of the focal company by affecting the contextual rules, rather than inducing strategic non-compliance or passive conformity. The context change referred to introducing new legislation and regulatory norms for navigating in the Russian Arctic waters, as well as affecting the behaviour of other actors.

Illustrating strategy implementation as a process, we have also revealed change in the strategy content. Initially intended to lead to integrated SCM of the focal company, the idea of transport independence transformed itself into a new substance that grew into strategic collaboration with suppliers despite the focal company's new ability to fulfill its cargo transportation on its own. The Arctic natural conditions encouraged the focal company to introduce collaborative SCM practices as an additional strategic tool to be more effective in delivery time and keep a high degree of the vessel circulation between the ports despite the ice conditions. Vijayasarathy (2010) argues that mutual dependence between supply chain participants has a significant and positive influence on the integration and development of long-term relationships with partners. This case, however, reveals that there was a change of behavior so that supply chain collaboration in the Russian Arctic is possible even when there is a low degree of external dependency on suppliers. Therefore, our study has demonstrated that, despite a loosening of mutual dependence between major actors in cargo transportation in the Russian Arctic, collaboration and operational integration is possible and even generally accepted among other supply chain members.

The case studied here can, to a great extent, be understood through the lenses of transaction cost economics – where transaction costs are so high that it is efficient for a company to *make* its own supply chains rather than *buy* supply chain services on the market. Also, application of the resource-based view could, to some extent, be used to understand that maritime transportation is a core competence for a large company as in the case of the focal company studied here. However, this case challenges the concept of core competence as the investment in transport infrastructure and a fleet of ships was rather a question of gaining control and securing the reliability of supply chains. Again, none of these theories take a process perspective in understanding the impact of contextual factors in supply chain strategy. Our case emphasises the interconnectedness of the context, process and content for a better understanding of strategy implementation that is coherent with assumptions by Knemeyer and Murphy (2004), and De Witt and Meyer (2004). Thus, knowledge of how a supply chain strategy emerges under institutional constraints, is translated into existing SCM practices, and then causes the editing effects on the context, practice and even its content after the implementation, contributes to a new understanding of supply chain strategy.

Conclusion and implications for theory and practice

Through the lenses of the Scandinavian institutional approach, the study presents the journey of a supply chain strategy, conceptualised as the *idea of transport independence* in the Russian Arctic. Strategy implementation is viewed through how the strategy emerges under certain circumstances, evolves through translating strategic initiatives into actions and objects, as well as produces the editing effects on the supply chain practices, context, and its content after this strategy is translated. Through the analysis of the translation process of the idea into practice, we have found that not only does the environment and institutional context influence supply chain strategy but this strategy may, in turn, impact the context, both in terms of government regulations and reactions of other actors in the supply chains.

Responding to calls for conducting more case study-based research within the SCM field (Näslund, 2002; Seuring, 2005; Stock et al., 2010), our findings provide in-depth understanding of strategy implementation in particular empirical settings. The single case study illustrates the supply chain strategy processes where various contextual factors converge, thereby making resistance to state coercive pressures and constraints a viable option. This could happen more often than normally anticipated by the literature. Further, the interactions between context and strategy content, as well as the editing effects, uncover “*unexpected results*” and “*unintended consequences*” of the deployment of particular strategies.

Reflection on the contextual challenges and circumstances before deploying a supply chain strategy may be crucial in choosing a set of subsequent strategic actions. This is because there are institutional forces which, though not always visible, may nonetheless exert considerable influence on strategy implementation. By considering the interaction of context, strategy content and the potential impacts of strategy implementation, managers will gain a better understanding of how to manage the strategy implementation. This is particularly relevant when extending business to countries or regions where local regulations present contextual challenges.

Finally, as companies are also, in many cases, already committed to ensuring their own transport infrastructure in different parts of the world (IBM report, 2009; Volkov et al., 2014), the findings may be valuable for managers responsible for developing supply chain strategies in other localities.

Limitations and further research

The findings provide deep insights into the real-life situation of the translation of an idea into supply chain practices. However, the Russian Arctic is obviously a highly specific context, not least due because of its harsh natural conditions. Further research should include case studies on the implementation and adaptation of supply chain strategies in other contexts to learn more about the processes that we found not to be solely a result of rational goal-setting and planning. Even though our choice of a single case approach points to the importance of case uniqueness, we still suggest that more investigations should be made into strategy implementation in both emerging and developed economies.

Further, we suggest that to understand supply chain strategy implementation even better, it should be viewed and studied not as something that a company has (Jarzabkowski, 2004), but rather as “*an activity undertaken by people*” (Carter et. al., 2008, p. 101) who deal with everyday challenges and construct strategic actions at specific localities. Therefore, further research may extend knowledge about the implementation of supply chain strategies from the perspective of the people involved, by developing links between practices and companies’ strategic initiatives. This “strategy-as-practice” perspective will shed light on what/how strategic actors actually do and what kinds of activities and routines they carry out when strategizing (Jarzabkowski, 2004). Studying practices even closer to reality on the ground may deliver more accurate descriptions and deeper understandings of supply chain strategy implementation (Carter et al., 2008).

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Period:	#1: 2000-2004 'An idea whose time has come': formulating the idea of transport independence	#2: 2004-2012 Translating the idea of transport independence into actions and objects	#3: 2013-onwards Editing the SCM practices, context, and strategy content
Supply chain position of the focal company:	Largest cargo owner in Russian Arctic	Owner of cargo, vessels and logistics infrastructure; maritime carrier	Owner of cargo, vessels and logistics infrastructure; dominant maritime carrier
Process:	<p><i>Emergence. Contextual challenges made the 'idea' appealing:</i></p> <ul style="list-style-type: none"> - Remoteness, the only transport link; - Domination of the state sea carrier; - Lack of icebreakers, obsolescence of ice-strengthened vessels; - Regulatory constraints: constantly increasing tariffs; unstable, coercive state policy 	<p><i>New actions and objects:</i></p> <ul style="list-style-type: none"> - Establishing own logistics provider; - Commissioning own Arctic fleet with new technologies to overcome ice; - Constructing own trans-shipment terminal in Murmansk port; - New supply chain practices (containerisation, the 'open water' principle, cargo circulation principle) 	<p><i>New meanings and logics:</i></p> <p>SCM practices:</p> <ul style="list-style-type: none"> - Navigation without obligatory ice-breaker assistance (depending on vessel type); - Supply chain efficiency through new supply chain practices <p>Context:</p> <ul style="list-style-type: none"> - Conflicts lead to new legislation; - Substantial release ('independence') from regulatory constraints <p>Strategy content:</p> <ul style="list-style-type: none"> - From intention of full vertical control of supply chain to strategic collaboration with other supply chain actors
Consequences:	<ul style="list-style-type: none"> - Uncertainty over regular deliveries, high risks of disruption; - Decision to build own Arctic fleet and develop own transport infrastructure; - Strategy content: 'The concept of logistics optimisation' to ensure regular deliveries, more own control and less state constraints 	<ul style="list-style-type: none"> - Improving cargo transportation efficiency; - Ensuring reliability of the supply chain; - Decreasing risks of disruption; - Mitigating drawbacks of the remote location 	