The dynamic role of small- and medium-sized multinationals in global production networks: Norwegian maritime firms in the Greater Shanghai Region of China

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Abstract

This paper examines the role of small- and medium-sized multinational firms in the dynamic development of global production networks (GPNs) in the maritime industry. It has studied the dynamism between the subsidiaries of Norwegian maritime firms in the Greater Shanghai Region and the regional actors. It is argued that strategic coupling, recoupling and decoupling are the evolutionary outcome of regional selection mechanisms. In the cases where the subsidiaries are strongly embedded in the region, the strategies and behaviour of the small- and medium-sized multinational firms are of decisive importance for the dynamic development of GPNs.

Keywords: China; Global Production Networks; Maritime industry; Multinational Firms; Norway; Strategic Coupling

Introduction

One of the main features of current economic globalization is the emergence of strong global production networks (GPN) that connect multinational enterprises (MNEs) with local regional clusters in many industries. According to Coe, Dicken and Hess (2008, 274), production networks are defined as ‘the nexus of interconnected functions, operations and transactions through which a specific product or service is produced, distributed and consumed’. Consequently, a global production network is a production network ‘whose interconnected nodes and links extend spatially across national borders and, in so doing, integrates parts of disparate national and subnational territories’. These networks have become strongly integrated in the current global economy. According to an UNCTAD report (2013), 80 per cent of international trade is organized through GPNs. Consequently, there is a shift of research with focus on the international trade among different nations to the global value chains in which firms are engaged in the production of services and goods (Yeung and Coe 2015).

Southeast Asia has a strong position in GPNs in several industries, which is reflected in a large number of GPN publications based on the empirical research on China (e.g. Kim 2011; Wei and Liao 2013; Yang 2013; Li, Kong, and Zhang 2016; Rasiah, Kimura, and Oum 2016) or other countries in the region (e.g. Yeung 2009; Intarakumnerd, Chairatana, and Chaiyanajit 2016). The research on GPN in general and on GPNs that connect Southeast Asia actors to their global partners has not only contributed to increasing our knowledge on the characteristics and functions of these production networks in the global economy, but also raised some new questions on how GPNs have emerged and developed, how global and regional actors in GPNs connected to each other at the micro-level. This paper is motivated

by three observations in the literature on the GPN. Firstly, GPNs, which are dynamic, evolve over time (MacKinnon 2012). However, we still do not know much about how this dynamism works since the previous research on GPN has paid little attention to the evolution of GPNs, and especially in an early period of their history (MacKinnon 2012). Secondly, the research has shifted from only focusing on the role of local regional institutions in GPNs to the strategic behaviour of MNEs that have invested in the region. The role of MNEs is, however, underexplored (Yeung 2009; Yeung and Coe 2015). Thirdly, in many industries, the global lead firms, like Toyota in the automotive industry, has been playing an active role within the GPNs by orchestrating other actors. There has been less focus on the role of small- and medium-sized MNEs play in the industries where global lead firms are absent or difficult to define (Egels-Zandén 2017).

The paper explores the dynamic development of an early phase of a GPN within the maritime industry by focusing on how firms from an industrial cluster in Norway have connected through strategic coupling processes to local actors in a maritime cluster in the Shanghai region, East China. It addresses the following research question: What is the role of small and medium-sized MNEs in the dynamic development of GPNs by investing in local industrial clusters? This main question draws upon the investigation of the following two subordinate research questions: How do subsidiaries of MNEs connect with local actors and institutions when operating in a host cluster in the emerging economies? Which role do subsidiaries play in relation to their headquarters in forging the global and local linkages?

We will also explore how the MNEs connect locally in the emerging economies through selecting, changing and combining their market entry modes. The choice of market entry modes represents different degrees of local ownership, ranging from the wholly

owned enterprises (WOE) to the joint ventures or forging strategic alliance with local actors. The choice of market entry modes can evolve in dynamic processes in the host country. MNEs often combine different market entry modes, like WOE and joint ventures together at a certain time (Benito, Petersen, and Welch 2011). Consequently, the choice of market entry modes expresses different forms of coupling processes that MNEs can use to connect with regional or local actors.

The paper aims to enrich the GPN literature by showing how non-lead firms contribute to creating dynamic GPNs by being an active partner in the coupling processes with local or regional actors, institutions and other incoming MNEs. It also contributes to studying the internationalization of maritime industrial clusters in the context of GPN. Several scholars have contributed to the literature on maritime clusters by researching the formation (Shinohara 2010), identification (Lazzeretti and Capone 2010), development (Zhang and Lam 2013), and strength (Othman, Bruce, and Hamid 2011) of clusters. The maritime industry is, however, one of the most globalised industries and there has been an increasing interest in researching the internationalization model of maritime clusters (e.g. Amdam and Bjarnar 2015). To our knowledge, only Notteboom and Merckx (2006) studied the internationalization of maritime agglomerations within the GPN framework. While their contribution was based on the studies of the shipping industry, which is the most globalized sector of maritime industries. The research focuses on the manufacturing sector of the maritime industries, the Offshore Service Vessel (OSV) GPN. Within the production of vessels that serve the off-shore oil and gas rigs, a GPN emerged in the 1990 when oil and gas activities expanded off-shore and the OSV industry was globalized (Amdam and Bjarnar 2015).

Theoretical perspectives

GPNs are networks that link global actors within the production, distribution and consumption of products and services (Coe, Dicken, and Hess 2008). These networks of actors are more than networks of firms in a supplier-production-consumer relationship (Levy 2008). They are linkages between firms, suppliers, NGOs, labour, institutions and other actors (Egels-Zandén 2017). A key mechanism in the dynamic development of GPNs is the strategic coupling, recoupling and decoupling between regional institutional arrangements and MNEs investing in the region. Within GPNs, the strategic coupling process has the following three main characteristics. First, it is strategic and relies on intentional actions; second, it is space and time contingent; and finally, it transcends territorial boundaries (Coe and Hess 2011). A GPN is consequently dynamic, and the coupling processes change over time through processes of recoupling and decoupling (MacKinnon 2012; Wei and Liao 2013; Horner 2014). Recoupling means strategic renewal and change of the relationship between actors (Nobel and Birkinshaw 1998), including MNEs, local or regional actors and institutions. Decoupling means the processes in which such relationships are terminated, for example, when an MNE withdraws from the region (MacKinnon 2012).

The focus in the GPN literature has been on how regional actors and institutions act in the coupling process through selection mechanisms. According to Yang (2013), the processes of recoupling and decoupling are caused by regional selections and abandonment by the MNEs investing in the region. On the other hand, MacKinnon (2012) argues that the research has underplayed the power of MNEs entering the region. Strategic coupling processes may be the results of intentional actions and active deliberation by several participants, not only by regional actors but also by MNEs. According to Hervas-Olivier and

Boix-Domenech (2013) , the GPN literature fails to address the central role of the firm, especially MNEs which co-locate and connect to territories along GPNs. Consequently, it is highly important to investigate the strategic behaviour of MNEs that have invested in the region when analysing the coupling processes.

In the cases where the role of MNEs has been raised explicitly, the focus of GPN literature has been on global lead firms such as Toyota. Global lead firms are important due to their power that enables them to be effective in 'orchestrating trans-regional production networks on a global basis' and drive changes within GPNs (Yeung 2009, 328). Within a GPN, global lead firms are demanding that suppliers have the ability to support their operations around the world. In this paper, we also draw upon GPN literature that accepts that actors other than global lead firms may have an orchestrating role within GPNs. They might for instance be influential in a GPN not because of their size, but because they control the core competencies. Parker and Cox (2013) show that in the case of the film industry, small MNEs, which have had an orchestrating role, are able to manoeuvre to power positions within the GPNs. The empirical research on Taiwanese PC firms' investments in some Chinese regions indicates that the firms other than global lead firms may function as drivers of the development of GPNs. According to Yang (2009), the strategic coupling of regional development in China with GPNs has in some cases been driven by various tiers of Taiwanese computer firms. The interaction between the parent firms in the home country and their subsidiaries in the region plays a key role in orchestrating production networks on a global basis. In order to identify where relevant decisions are made, we, therefore, need to include intra-firm relationships in the analysis of a GPN with a special focus on the power relationships between the headquarters and the subsidiaries (Coe, Dicken, and Hess 2008).

In the paper, we have chosen to study three small- and medium-sized MNEs that have their headquarters in the same Norwegian maritime industrial cluster and subsidiaries in the maritime cluster in the Greater Shanghai Region in China. Here, we define the Greater Shanghai Region as the Yangtze River Delta region and the Hangzhou Bay Area to Ningbo. The three sample firms entered the Greater Shanghai region in an early phase of the formation of GPN for OSV, and we have studied their activities since their first investments (in 1997, 2003 and 2006) to 2014 to understand their dynamic roles in the coupling processes.

Norwegian maritime MNEs operating in the Greater Shanghai Region

The chosen firms in the study are the members of a maritime GPN manufacturing vessel for the offshore oil and gas industry (OSVs). The Norwegian maritime MNEs in the study are members of a maritime industry cluster located in Møre and Romsdal in Norway. Although it is a county representing only five per cent of Norway's total population, it is world leading in several sectors of value chain in the production of OSVs.

There are about 14 yards, 165 suppliers, 19 shipping companies and 15 consulting and design firms in the maritime cluster in Møre and Romsdal, Norway. In 2011, the clustered firms employed more than 15,000 employees locally and the turnover reached NOK 47 billion (ca 5.7 billion Euros), which is around 50 per cent of the total output of Norwegian maritime industry (Hervik et al. 2012). There are both strong vertical and horizontal inter-firm relationships in the maritime cluster. Almost all parts of the value chain activities are represented, ranging from the basic suppliers to after-sales services as well as the shipping companies within the offshore and fishing sectors. In addition to the local

Norwegian firms, the leading MNEs such as ABB (Switzerland), Rolls-Royce (the United Kingdom), and Vard (Italy) have set up global division headquarters in the region. These international actors entered the region in the late 1990s by acquiring local firms that had emerged to become competitive international firms with their high maritime competence and advanced technology.

From the 1970s, the local industry added the production of OSV to the production of fishing vessels. The region became gradually internationalised. Since the late 1990s, the maritime cluster has been developed into one of the most advanced milieus in the world for the design and production of high-tech offshore vessels. In 2012, around 30 per cent of the Norwegian offshore fleet was located in this region (Menon 2013). This type of vessel developed rapidly both in the number and technology since the 1970s. The development was driven by the expansion of oil and gas production into the new and often challenging environments of offshore fields around the world. There are no obvious global lead firms in the maritime sector, which enables small firms to play a crucial role in the global development including ship design, engineering and equipment.

Norwegians have been present in the shipping community in Shanghai since the late 19th century (Seeberg and Filseth 2000). In 2012, there were about 60-70 Norwegian maritime firms in China, most of which were located in the Shanghai area. They played a leading role in the region especially in the *design* of offshore vessels. In 1995, the state council in China approved the international strategy of Shanghai City to become one of the world-leading maritime centres by 2020. The greater Shanghai region has developed a strong and relatively complete port-oriented cluster, with ports, shipping companies and shipbuilding activities as its main strengths, and finance, insurance and trade as its main

weaknesses (McKinnon 2011). Shanghai's new *port* was ranked as the largest port in the world in 2011 followed by Ningbo port in the south of the region. These two ports serve sixteen big cities in the Greater Shanghai Region and connect regional activities to the GPNs through global transportation by the leading Chinese and international shipping companies like A.P. Moeller, a global lead firm in container transport and port operation.

Shanghai is also one of the leading shipping centres in the world. Most of the world's leading shipping companies are present. The maritime cluster includes three largest carriers (COSCO, CSL and Siontrans Shipping) in China, 20 global shipping lines, 6 international carriers, 630 ship agencies and 350 freight forwarders. These numbers also illustrate the existence of maritime service providers such as the ship agencies. There are also about 28 Chinese and 11 foreign maritime insurance companies, several international and Chinese shipping banks, classification societies, and law firms. Some of the largest shipyards in the world are located in the region, like *Waigaoqiao* and *Jiangnan*. The total output of Shanghai's shipbuilding industry and related industries reached RMB 56,824 in 2009, and exports accounted for RMB 40.497 billion (Shanghai 2010). The region is also strong in some areas of maritime supply industry, such as steel, machinery and electronics. However, despite the large production volume, China is still at a lower level of the value chain of international shipbuilding industry.

Within all these areas there are Norwegian firms, which illustrates the recent trend of international networks between Norwegian and Chinese maritime clusters, as observed by Bathelt and Li (2014). As seen from table 1, Norwegian firms are mainly engaged in financial, legal and management services, the equipment industry, and after-sales activities.

Table 1. The number of subsidiaries of Norwegian maritime firms in Greater Shanghai Region of China in 2012.

	<i>In total</i>	<i>Brokers, agents, consultants, legal classification, and financial services</i>	<i>Engineering and design</i>	<i>Equipment</i>	<i>Yards</i>	<i>Aftersales</i>	<i>Shipping companies</i>
Norwegian subsidiaries in total	44	14	6	23	2	18	6
Norwegian subsidiaries with headquarters or core activities in Møre and Romsdal County of Norway	16	3	3	10	0	9	0

Notes: 1. Some companies have many activities.

2. The units represented in the different parts of the maritime value chain.

Sources: Website of Norwegian Business Association Member and firms' websites. December 2012.

Methodology and design

In this paper, we have chosen an explorative approach based on in-depth interviews of three case companies with headquarters located in the Møre and Romsdal maritime cluster of, Norway. According to Yin (2003), case studies are an appropriate research method when discussing 'how' or 'why' questions. The paper focuses on explaining 'how' some Norwegian incoming small- and medium-sized MNEs are linked to the regional actors in the Chinese context, contributing to the dynamic development of a GPN. Another reason for making an explorative study based on in-depth interviews of three small- and medium-sized MNEs is

that there were about 16 small- and medium-sized MNEs with headquarters in Møre and Romsdal maritime cluster , which had invested in the greater Shanghai region (see Table 1). All of the sample firms had all made changes of their market entry modes after entering China for the first time. Meanwhile, they had been undertaking the different parts of the maritime value chain activities in the region (see Table 1). The first sample firm was a typical maritime equipment manufacturer. The second one specialised in maritime equipment and aftersales. The third one was engaged in multiple business activities including agency, designs and engineering, maritime equipment and aftersales. They are representative out of sixteen small- and medium-sized MNEs with headquarters in Møre and Romsdal maritime cluster. Finally, these firms also accepted our strict research requirements and invited us to interview top managers at the headquarters in Norway and their subsidiaries in China. In this study, the three sample firms were named *EnDesing*, *Equip*, and *Server*.

EnDesign was a small family-owned shipbuilding company established at the beginning of the 20th century. It has diversified its business since the 1960s. In the 1990s, its business activities comprised shipbuilding, ship design and manufacturing maritime equipment. In addition to having a *shipyard* in Norway, *EnDesign* has become primarily a *design and engineering* company with business units in Norway, the Netherlands, Poland, Croatia and China. The company supplies electronics and power control equipment for ships and vessels through its business units in Norway, China, Singapore, Brazil and Dubai. Its subsidiary in China is located in Ningbo City, Zhejiang Province.

Equip is a *supplier of equipment* that was established to produce toilets for the international shipbuilding market in 1986. From the very beginning, the MNE focused on international export by establishing business networks with the agents in major international

shipbuilding countries. It has become a global leader in producing vacuum toilets for ships and exported to 25 countries, including China. .

Server is a *supplier* of fasteners, tools and sundries to the maritime cluster as well as other clients in the mechanical, construction and furniture industries in the Nordic countries. The MNE has around 125 employees. In 2011, *Server* started to operate a warehouse in Suzhou City, Jiangsu Province.

All of the three sample MNEs are the major actors in the local Norwegian maritime cluster, but none of them is in the category of global lead firms in the maritime GPN. All of them are relatively small with less than 100 employees in China, but given the strong position of the Norwegian maritime industry in the Greater Shanghai Region, their subsidiaries are representative for the research purpose and are suitable for studying the dynamic processes of GPNs from the perspectives of the subsidiaries of MNEs.

Qualitative interviews are well suited to tap into the organizational members' accounts and interpretations (Maitlis 2005). Our main data source is 32 in-depth interviews of senior managers in the three sample maritime firms. Fourteen interviews (ten interviews in *Endesign*, two in *Equip*, and two in *Server*) were conducted in English with the senior managers in their Chinese subsidiaries by the two Norwegian authors and one Chinese author. The other eighteen interviews were conducted with the top managers at the headquarters in Norway by the two Norwegian authors (nine interviews in *Endesign*, five in *Equip*, and four in *Server*). Each interview lasted from 1.5 to 2 hours and was recorded and later transcribed. These interviews were undertaken as part of a research project on the internationalisation and sustainable development of Norwegian maritime sector from 2011

to 2014. The interviewees were addressed open questions and asked to reflect on when, how and why they entered China and later made changes in their operation modes. The data from the interviews were analysed and then discussed in the following sections.

Operation modes and coupling processes

Regarding strategic coupling, when the three small- and medium-sized MNEs entered the Greater Shanghai Region for the first time, we see in the case of *EnDesign* that the owners had a strong international focus long before it invested in China. It began to produce vessels for export, and established several sales offices in Asia in the 1970s, including Singapore. In the 1980s, it became an MNE itself by acquiring the target firms in Denmark and the UK. It decided to enter the Chinese market in 2003 due to a crisis in the Norwegian shipbuilding industry during 2001–2003. The company managed to turn the loss into profits through internationalisation. One of the main reasons the company decided to make investment in China was the rapid growth of the shipping industry in the emerging economy. The regional institutional arrangement that attracted the company to the Greater Shanghai Region and contributed to the coupling with local actors. *EnDesign* created a joint venture with one of local maritime firms for the production of vessels in 2003.

Equip, which was founded in 1986, was an international market-seeking Norwegian maritime firm with a CEO that had a unique interest in the Chinese market. He was – then as an employee at *EnDesign* – sent to China in 1980, as he said, ‘*to see if there were any opportunities for building ships in China*’. The mission did not result in any investment, but it created an international mindset that supported the decision to enter the Chinese market in 1997. At that time, *Equip* already had international business experiences with South Korea.

Equip chose to use a local agent when entering the Chinese market, the same entry strategy as that when it had entered other countries.

There were two important regional institutional arrangements that supported the decision to enter the Chinese market by using an agent, which other Norwegian firms also used. One was the domestic system of agents linking international producers to Chinese customers. *Equip* established the contact with one of them through their operations in South Korea. The other was a network of Norwegian maritime suppliers in Shanghai City, with several actors from the regional maritime cluster in Norway. A group of exporters was first established in Shanghai City to promote Norwegian products to Chinese shipyards in 1984. *Equip* became a member in 1997 and made full use of this organization's network to find an agent.

Server's entry into China was more reactive. The company focused traditionally on the domestic market without having any international ambitions. The main reason for establishing a warehouse in Suzhou City in 2006 was that two of its main clients within the Norwegian maritime industry had established their subsidiaries in the region, and they wanted *Server* to follow them as a high -quality supplier: *'We are careful about internationalization, but when one of our main customers asks us: "Do you want to follow us?", we have to do it,'* one senior manager commented. *Server* entered China by establishing a wholly- owned foreign enterprise (WOFE) as the market entry mode. The primary function of the WOFE was, according to one manager, to serve the two Norwegian customers: *'We wanted to follow our best customers and serve them with high- quality maritime products. We didn't intend to find new customers.'* In addition, the subsidiary should support the headquarters in purchasing the maritime products for the product

assortment in Norway. The Chinese suppliers on contract produced around 25 per cent of the assortment.

After their first entrance into China, the three firms became gradually integrated in the GPNs through recoupling and decoupling, which also meant the changes regarding the operation modes. One example is that *EnDesign* dissolved the joint venture after two years when it changed its international strategy towards entering strategic alliances. Instead of building ships themselves in China, they focused on engineering and design, establishing a new strategic alliance with one local shipyard in Ningbo City. *EnDesign* also opened a representative office (WOFE) in Shanghai City with three main functions. The first function was to sell design packages to the Chinese and international ship-owners in cooperation with the allied yards. The second function was to develop an engineering and design centre for the global production of standardized vessels, while the design of high-end tailor-made vessels should remain in Norway. At that time, *EnDesign* had established one ship design company primarily making high-tech offshore vessels for the oil industry. Typical for this strategy was that each vessel was unique, which required the demanding investments in highly competent designers and engineers who were originally from Europe. In order to become less vulnerable, the managers decided to expand into less cost-demanding standardized design and engineering packages for the global market. The engineering and design function represented a step towards recoupling by moving some high-competence functions from Norway to China and becoming more embedded in the region through skilled engineers, who could also strengthen the local relationship with the shipyards by supervising the production of vessels. The third function was related to project management and supervision. *EnDesign* had two or three of its employees constantly on site at the shipyard in

Ningbo City to follow production. They were advisors to the shipyard so that the ships were constructed according to the drawings. They were also knowledge brokers who reported almost daily to Shanghai and Norway. They actively screened different kinds of knowledge before this was transferred back to Norway. Within the organization, the Shanghai unit was meant to have a core function of implementing the organization's strategy for global expansion. In addition, *EnDesign* also expanded its activities by establishing a wholly owned production unit of electrical equipment for its own ships in Ningbo City.

The recoupling process was followed by the further recoupling and decoupling. The company decided to close down the design and engineering activities in Shanghai and focus only on sales after three years. A decoupling process took place by moving the key functions back to Norway, but in this case without changing the operation mode. The Shanghai office was strengthened as a marketing unit for sales. The MNE focused more on its core competence orchestrating the networks between designer, yards and clients: *'We are the conductor in the networks before the contract is signed. After that the yard is the conductor,'* a top headquarters manager remarked.

Similarly, *Equip* took actions that led to the further recoupling. The MNE has had a stable marketing system of distributing their toilets to the Chinese shipyards by using the same local agent since the 1990s. The use of an experienced agent was a suitable tool to stay coupled to a GPN including a huge number of shipyards, ship-owners and other actors working in a global market from the Greater Shanghai region. *Equip's* position in the region changed when the firm established a joint-venture production unit in Ningbo City in 2007. The establishment was not, however, an attempt to become more integrated with GPNs within the maritime industry. Instead, the initiative was undertaken in order to get into the

Chinese inland market by producing vacuum toilets for the high-speed trains. In a period when the expansion and upgrading of the Chinese railway system took off, the MNE witnessed a huge potential market for their vacuum toilets in China. The regional mechanism that led to this new process of coupling was not linked to their networks through their agents, but through the subsidiary of *Innovation Norway* in China, a Norwegian governmental unit to promote internationalization. The personal contacts played an important role in the case since *Innovation Norway* helped the MNE to initiate a joint venture in China and finance an initial R&D project. However, the joint venture was not successful in getting any contracts for the coaches but managed to produce toilets for a limited number of locomotives before the agreement was terminated due to the lack of good relationship with the Chinese governmental units.

Server, the third MNE, went through two processes of decoupling. Firstly, the role of subsidiary in purchasing goods in China was replaced by the headquarter in Norway, which visited and negotiated with the Chinese contractors directly. Afterwards, the subsidiary in China was mainly engaged with the original two industrial clients and refused to be a supplier to other new clients in the region, regardless of whether they were Chinese or originated from the home cluster in Norway. *'We want to be a reliable partner and a strategic ally for our key customers.'* These experiences inspired the headquarter to define the MNE as a *'relational supplier'* as a general strategy, meaning that the focus was on maintaining and further developing these key relationships.

Table 2. The coupling, recoupling and decoupling of three Norwegian maritime firms in the Greater Shanghai Region.

<i>Firm</i>	<i>Process</i>	<i>Object</i>	<i>Entry strategy</i>	<i>Relation to local actors in YRD</i>	<i>Relation to Norwegian customers in YRD</i>	<i>Relation to global customers</i>	<i>Relation to headquarter</i>
<i>EnDesign</i>	Coupling	Production	Joint venture	Through partner	Direct to customers	Direct to customers	Direct control
	Recoupling Unit I	Design Sales Project management	WOFE	Through strategic alliance; direct to local customers	Direct to customers	Direct to customers	Direct control, some autonomy
	Decoupling Unit I	Sales	WOFE	Direct to local customers	Direct to customers	Direct to customers	Direct control
	Recoupling Unit II	Production	WOFE	Some contact with suppliers	None	None	Direct control
<i>Equip</i>	Coupling	Sale	Agent	Through agent	Direct to customers	Direct and indirect to customers	Contract based; some autonomy
	Recoupling	Production	Joint venture	Through partner	None	None	Direct control
	Recoupling	Production	WOFE	Some contact	Some	Some	Direct control
<i>Server</i>	Coupling	Sale Purchasing	WOFE	Direct to suppliers	Direct to customers	None	Direct control
	Recoupling	Sale	WOFE	None	Direct to customers	None	Direct control
	Decoupling	Closed down					

Sources: Compiled by the authors.

Discussion

The dynamism that led to strategic coupling, recoupling and decoupling of the three sample small and medium-sized MNEs was a result of processes both at the regional level in China as well as at corporate level. Regarding regional actors, one type was the local firms that acted as partners in joint ventures. The local partners are often the initiators of joint ventures, a fact noted by one of the interviewees: *'The establishment in Ningbo was spontaneous. We had a good product, but no push to establish here. It was the local company that contacted us to produce for trains.'* In the three case studies, these joint ventures existed only in an initial phase and were soon dissolved due to lack of trust. *'We didn't know what our partner did when he went out of our doors,'* one manager said. A more sustainable regional actor in the coupling processes was the agent who helped *Equip* to penetrate into the local and global networks. The cost of having a local agent is, however, lack of control. *'It is difficult to control an agent,'* one manager at the headquarter said. The risks of having an agent to make contracts were reduced by developing strong and stable relationships between the headquarters and the main clients who are parallel to the agent's networks.

The constraints that *Equip* met with the high-speed train project in China and the dissolution of the joint venture are typical examples of regional selection mechanisms and abandonment of foreign firms that take place in the host region and create dynamism in a GPN (Yang 2013). Another one is local networks that may constrain or reduce the possibilities for external actors to develop any relationship with existing partners, which was the reason why *Server* closed down its warehouse in Suzhou City. The selection process by local abandonment process was very indirect. The management team experienced that the

relationship with its two business partners from their home cluster weakened because the local management team of their key Norwegian industrial clients recruited more Chinese purchasers, and they ordered more and more from Chinese the suppliers within their own personal networks rather than from *Equip*. The socialization into the local Chinese community of its key Norwegian industrial clients acted as a driver of decoupling.

The relationships between the headquarters and the Chinese subsidiaries were characterized by a high degree of control from the headquarters. The degree of subsidiary autonomy was relatively weak, except for *Equip's* agent. Control was exercised by a tight relationship between the decision-making headquarters in Norway and typically one Norwegian subsidiary manager in China. All of the major decisions such as contracting and local procurement were made in Norway. The subsidiary manager in China had relatively limited autonomy and mainly followed the detailed routines set by the headquarters in Norway.

According to the interviewees, the headquarter-subsidiary relationship was important in two ways regarding the firms' own role in coupling processes. Firstly, the actors interpreted the experiences of foreign subsidiaries differently depending on their positions. As one interviewee said: *'Some argue that we have to learn and improve. Others say we should withdraw.'* Secondly, in all three sample MNEs, the subsidiary managers tended to become frustrated because their headquarters failed to understand what was going on: *'In the beginning nobody in Norway knew about the factory,'* one local manager in China said.

Regarding the features of external networks between the MNEs and the Greater Shanghai Region as part of a maritime GPN for OSVs, the relationships between the MNEs

and their main clients (yards and shipping companies) in the region were mainly based on the maritime services, sales and engineering activities instead of manufacturing activities. The organizational structure with highly centralized control of subsidiaries made the ties with other regional actors within the GPN vulnerable. This should be considered as a disadvantage for the small- and medium-sized MNEs compared with the global lead firms in the GPNs.

The cluster networks that originated from the home cluster in Norway were of a different kind. Firstly, there were business networks between customers and suppliers. The sample firms did business with each other in Norway, and many customers in China were Norwegian clients from their home cluster. Most of the vessels that were built in China based on the design from *EnDesign* were for one European company with their global maritime headquarters located in the Norwegian cluster. The clustered MNEs have forged and maintained their business ties over the decades, which has been extended internationally to be integrate into the GPN. *'We have moved the cluster to Shanghai,'* one senior manager said. Still, most of the cooperation related to activities in China took place in the home cluster. *'The units in China do not talk so much with each other. We do the talking back home in Norway,'* a CEO said.

Implications for further research

By entering the Greater Shanghai Region, changing their operation modes, and in some cases exiting from the market, the three small- and medium-sized Norwegian MNEs contributed to the dynamic development of a GPN in the production of OSVs through

coupling processes. The dynamism resulted from an interplay between regional selection mechanisms and the MNE's strategy, organization and behaviour. Here, we will elaborate this model and propose that this model on the relationship between regional selection mechanism and the MNE's strategic behaviour in coupling processes be tested on a more robust dataset.

Regarding the regional selection mechanism, the role of formal institutions, like political regulation, was modest and the climate for foreign direct investments (FDI) in the maritime industry in China has in general been favourable. The challenges that one of the MNEs met when it tried to expand from the maritime sector to the inland high-speed train industry illustrates the informal aspects of non-market institutions in emerging countries like China, where contracts are not only decided by formal legislation and procedures, but also by political and social networks as an informal institution. The case studies in the paper indicate that both the market and the business partners played a major impact in forging and developing the maritime GPN. Two of the sample small- and medium-sized Norwegian MNEs were present in the region because they tried to enter a complex emerging market where Chinese, Norwegian and international ship-owners agreed to use the shipyards in the Greater Shanghai Region. The third one followed Norwegian business partners to China and continued to maintain their business relationships. The complexity of the emerging market gave the MNE more space for manoeuvring when the ties to the local business partners, which had played a major role for entering the region, were broken.

Regarding the MNEs' actions to manoeuvre within the space that the regional arrangement offered, it did matter if the small- and medium-sized MNE had a proactive strategy to find new solutions (i.e. operation modes) when they met with severe challenges

or had a reactive one and exited. Another element in the compound system of interplay between regional arrangements and MNEs' strategic behaviour was their skills in absorbing the signals from the regional context, if their partnerships were dissolved due to the lack of trust and failed to adapt to the local context accordingly. Furthermore, the capability of adaption depended on the position of the MNEs' subsidiaries in relation to their headquarters. The case studies indicate clearly that the subsidiaries of small- and medium-sized Norwegian MNEs had a relatively low degree of autonomy and limited power to exert any adaptation without firm support from the headquarters. Therefore, it could be argued that a higher degree of autonomy for the subsidiaries would have had an impact on subsidiaries adaptation to the local market. Finally, the existing networks from the home-cluster also influence the MNEs' capability to participate in the strategic coupling processes of GPN, either by using the same agents as other Norwegian MNEs when entering the emerging market, or indirectly through launching new initiatives or maintaining their previous business ties with their former Norwegian clients, which had a relatively strong position within the GPN as producers of key maritime equipment for the vessels.

Limitations and Future Research

Since the research is based on the in-depth studies of three small- and medium-sized Norwegian MNEs, albeit representatives of a maritime country that have a strong position within the GPN for OSV production, some of the research findings might not be generalizable in some local context. However, the model developed in the research paper on the relationship between regional selection mechanism and small- and medium-sized MNEs' strategic behaviour in the coupling processes can be possibly tested on a more robust dataset both qualitatively and quantitatively.

Conclusions

The maritime industry, like many other industries, has witnessed a rapid development of GPNs with strong regional anchoring and global connections in the past decades. In a global economy where East Asia has achieved a stronger economic position, China and other emerging markets in the region have become important nodes in these production networks. GPNs develop over time through coupling, recoupling and decoupling between regional actors and MNEs. While most of the literature on GPNs has focused on how regional actors and institutional arrangements have contributed to these strategic coupling processes, this paper has focused on the dynamic role of small- and medium-sized MNEs in the GPNs with no obvious global lead firms. We argue that the regions in emerging markets have selection mechanisms that have high impacts on the coupling, recoupling and decoupling processes. The regional actors, like business partners and governmental institutions, also contribute to integrating the small- and medium-sized MNEs with some GPNs by initiating the business contacts with the host region. However, lack of trust and local networks can exclude the subsidiaries of small- and medium-sized MNEs and result in the recoupling and decoupling processes with local or regional actors.

The strategic behaviour and intra-firm relationships of small- and medium-sized MNEs have been of decisive importance for the dynamic coupling processes within GPNs. Their attempts to be accepted locally in the emerging market and gain a position in the formation and development of GPNs are expressed in how they have changed their operation modes in the host country, in this case in China. The power of MNEs to orchestrate the coupling processes is, however, moderated by the following two factors that have not been highlighted in the existing literature. First, business networks from the MNEs'

home region act as an institution that contributes to the coupling processes in the host region where they have invested. Second, the power relationships between headquarters and subsidiaries are important for the action of the subsidiaries in their foreign context (Ambos and Birkinshaw 2010).

In our cases, all of the subsidiaries have had a low degree of autonomy. A higher degree of subsidiary autonomy would have resulted in another story of a dynamic development of GPNs. Based on this, we have suggested a model for analysing the interplay between regional institutional arrangements and MNEs' strategic behaviour in the coupling processes.

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