

**SUPPLY NETWORK DEVELOPMENT AND THE INFLUENCE
PARADOX:
A CASE STUDY OF LOGISTICS SERVICE PROVIDERS**

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ABSTRACT

Supply network has become an essential representation of interorganizational relationships for many firms, some researchers even argue that competition has shifted from firm to firm towards supply network to supply network. This highlights the importance of developing and managing supply networks.

Mainstream studies on supply networks focus merely on one single type of focal firms which are value chain based, namely, the manufacturers and retailers regardless of the variety of research contexts and topics. In addition, there has been limited research into how different types of supply networks can be created and operated.

The present paper studies supply network development of mediating firms. Specifically, we examine the issue of creating and developing the supply network of a logistics service provider (LSP) taking a process perspective. Based on a single case study of TLog, a less-asset based LSP and its supply network in the alcohol and beverage distribution industry in Norway, our paper conceptualizes generic networking activities for mediating firms to initiating and developing supply network. Built upon the networking paradoxes that focal LSP faces during the networking process, we further provide managerial guidance for focal firm to cope with and manage the network over time.

KEYWORDS: supply network, logistics service providers, mediating firms, strategic actions, influence paradox

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INTRODUCTION

Supply network has become an essential representation of interorganizational relationships for many firms, some researchers even argue that competition has shifted from firm to firm towards supply network to supply network (Lamming et al., 2000, Mills et al., 2004, Gomes-Casseres, 1994). This highlights the importance of developing and managing supply networks.

Mainstream studies on supply networks focus merely on one single type of focal firms which are value chain (Porter, 1985) based, namely, the manufacturers and retailers (Lamming et al., 2000, Mills et al., 2004) regardless of the variety of research contexts and topics. In addition, there has been limited research into how different types of supply networks can be created and operated. A review of supply network studies reveals that none of the existing approaches appears adequate for managers facing the practical problems of creating and operating them on a day-to-day basis (Lamming et al., 2000, Harland et al., 2001).

The present paper studies supply network development of mediating firms. More specifically, we examine the issue of creating and developing the supply network of a logistics service provider (LSP) taking a process perspective. The supply network of mediating firm differs from that of manufacturers and retailers in that first, the role of clients differs. The value creation of mediating firms follows the logic of positive network externalities (Katz and Shapiro, 1985) meaning that the utility a given user derives from the good depends on the number of the other users who are in the same “network” (Katz and Shapiro, 1985). In other words, the other clients are also key parts of the “product” (Stabell and Fjeldstad, 1998); second, mediating firms forms coproducing mediating layers with one layer builds on the simultaneous services of another.

Owing to the growing pressures to reduce costs and provide better service, more and more companies outsource their logistics services to LSPs (Sum et al., 2001). LSPs are mediating firms that link senders and receivers. Despite the fact that more and more LSPs are actively involved in so called value-adding services, transportation and warehousing still dominate LSP relations (Berglund, 2000). These logistics services are said to be essentially interconnected (Andersen and Fjeldstad, 2003, Huemer, 2006, Huemer, 2012, Thompson, 1967), meaning that the primary roles of LSPs are related to mediation. LSPs include *traditional logistics operators*, such as transport operators and warehouse operators, which offer single specialized logistics services, so-called *third-party LSPs* (3PLs), and *fourth-party LSPs* (4PLs) (CSCMP, 2010). Both 3PLs and 4PLs work horizontally with several clients and provide integrated logistics services. However, 4PLs typically have no physical assets, except for information technology systems. Their physical logistics offerings rely on cooperation with 3PLs, which are asset-based in terms of warehouses, terminals, and transport vehicles.

To better understand the LSP’s dependence on and its interactions with the network actors, this study build upon the 4PL, working with administrative logistics. For 4PLs, network building involves not only recruiting clients, but also selecting LSP cooperators; in particular, 3PLs. Therefore, the research question is specified as: How do LSPs develop supply networks¹ over time and how should they respond to the influences from others?

Our paper conceptualizes key networking activities for mediating firms to initiating and developing supply network. Built upon the networking paradoxes that focal LSP faces during

¹ In this study, *supply networks* development refers to both client recruitment and LSP cooperator selection.

the networking process, we further provide managerial guidance for focal firm to cope with and manage the network over time.

THEORETICAL FRAMEWORK

In order to capture the process and complexity of how a focal LSP builds up and develops supply networks, we combine two theoretical approaches: the value network model (Stabell and Fjeldstad, 1998), which explains the key strategic actions of mediating firms for value creation, is applied for understanding the focal LSP's influential efforts on initiating and developing the network; the three networking paradoxes (Håkansson and Ford, 2002) are used to examine the focal firm's interdependences and how it becomes influenced by relevant actors.

The Value Network Model

The value network model captures the characteristics of those firms that create value based on a mediating technology, linking those that are willing to be interdependent (Stabell and Fjeldstad, 1998). The connections or linkages can be based on various forms of information, physical product flows, or some social connections, etc. Typical firms in this category include telephone companies, logistics service providers, banks, and insurance companies.

A mediating firm creates value by connecting clients, with the value of these linkages deriving from positive network demand-side externalities (Katz and Shapiro, 1985). The value-adding potential of new clients depends on whether they add synergies to the network. As a result, categorization and standardization is critical for the mediator to match compatible customers.

At the firm level, value creation by mediators occurs through three simultaneous and layered primary activities: network promotion and contract management, service provisioning, and infrastructure management. The primary activities have four so-called support activities: firm infrastructure, human resource management, technology development in terms of network infrastructure development and service development, and procurement. The three primary activities in a value network model are not performed sequentially like those in the value chain; instead, they are performed simultaneously, with one layer of the activity network building on the other. Service provisioning serves existing clients and relies on the efficient and effective operation of the infrastructure. Satisfactory services again are critically important in order to build and retain the relational network with new and existing clients.

At the system level, mediating firms form layered undercurrent and overcurrent value coproduction systems with one mediator's mediating networks based on those of the other (Fjeldstad and Huemer, 2008, Huemer, 2006). Mediating firms are motivated to form vertical layers to jointly create a system good (Farrell and Katz, 2000) when the value of the services provided by firms at a particular layer is dependent on the availability and characteristics of the services provided by firms at layers below or above. Interlayer access compatibility is achieved through standard protocols for interlayer activity linking. Apart from protocol compatibility, such access requires interlayer identification and information exchange (Andersen and Fjeldstad, 2003).

Three Networking Paradoxes—the IMP Perspective

The three networking paradoxes are based on the IMP perspective. The IMP perspective assumes that the landscape of the business world is more collaborative than competitive; on this basis, all firms are embedded in relationships composed of actors, activities, and resources. According to Håkansson and Ford (2002), in a network setting, firms involved in direct and indirect relationships face three paradoxes: the embeddedness paradox, the

influence paradox and the control paradox. The first paradox centers on the role of relationships and how the actor can use them. Established relationships play an important role in the survival and development of the focal firm, but a well-developed relationship network also ties the focal firm to its current ways of operating and restricts its ability to change. When the focal firm seeks to change, it must often consider the existing relationships or seek the approval of existing counterparts. The second paradox deals with how an actor may handle relationships. A company's relationships are the outcomes of its strategy and its actions; at the same time, those relationships also shape the identity and strategy of the focal firm. This paradox views companies' business development and strategy as a co-evolution process with different relationships and actors. The interdependence characteristic between companies indicates that the strategy process is interactive, evolutionary, and responsive, and occurs between companies. The third paradox is related to control. The network evolves through the interplay between initiative and interaction throughout the network. Companies attempt to control the network that they are embedded in and to manage network relationships in order to achieve their own goals. The advantage of control is that such an ambition can be a key driver to developing networks. However, it has also been argued that the more a company achieves control, the less effective and innovative the network becomes. The more a single actor exercises control over a network, the more it becomes the only source of intelligence and innovation in networks and the more likely it is that the network will become fixed in its processes and unresponsive to broader changes. On the other hand, if companies do not try to achieve the control, then an important development force disappears and the network becomes less dynamic.

RESEARCH METHODS

The present paper is based on single case study (Yin, 2003) of TLog and its supply network in Norway. It focuses on the interaction between the focal firm and its interacted actors during the network development process. It is process-oriented in terms of tracing the phenomenon over time from the establishment of the firm until today, and explanatory in terms of revealing the underlying logic regarding how the networks evolve over time and why they develop the way as they are.

The Focal Case Firm – TLog

TLog, the focal firm of the case study, is a 4PL in the fast-moving consumer goods and fashion industry in Norway, Sweden, and Finland². TLog is independent in the sense that it is not owned or linked to any logistics provider or to any market player in the business segments in which it operates. It was established in November of 2007 and currently provides physical logistics in terms of inbound transport, warehouse, and outbound transport; advanced supply chain services in terms of demand and inventory management, purchase orders, customer service, and invoicing with direct cash flow to clients; and supply chain consulting services. However, most of the company's services are related to the first two areas, with consulting constituting only a small part of its business. As an administrative logistics service provider, TLog does not provide all the services by itself. Instead, it uses the ICT system to integrate and coordinate outsourced services with 3PLs, clients, clients' clients (for example, the wholesaler of the wine.) Basically, TLog is responsible for arranging the information flow, while 3PLs are responsible for handling physical flow and executing the transport tasks. The value creation for TLog involves system-level coproduction, including

² TLog is one of the five LSPs that participated in the STRATLOG research project in which I participate. The STRATLOG project is carried out at the BI Norwegian Business School, I would like to thank the Norwegian Research Council for funding the project. <http://web.bi.no/forskning/projectcatalog.nsf/0/27cb67b9932e6beac12576e000464e9b?OpenDocument>

multiple actors. TLog, its 3PL cooperators, both distribution and warehouses, form overcurrent- and undercurrent-layered networks and simultaneously provide services to clients. TLog provides tailor-made logistics services to each specific client, depending on their needs. TLog offers some clients both inbound and outbound services, while it offers others outbound services only, and some only receive partial outbound services.

There are several reasons why TLog is an attractive case firm. First, as a 4PL, TLog needs to recruit not only clients, but also select 3PL cooperators. The mediating nature and network dependence becomes more explicit for less asset-based 4PLs compared with asset-based 3PLs as their core resource is basically relationships and people. Second, through unique access to TLog and its clients and 3PL cooperators, it was possible to follow the evolution of its network as it is a relatively young company. However due to the time constraint, in this paper, we can only provide insights for one single case in spite of the fact that TLog has three networks in Norway, Sweden and Finland. Among the three networks, we in particular chose the Norwegian case due to its complexity compared with the other two. Both Swedish and Finnish ones showed steady growth in terms of client number and also stable 3PL cooperators over the years. The number of Norwegian clients however has gone up and then down significantly during the past few years. Additionally, TLog also switched the 3PL cooperators from the original ones to new ones.

Data Collection

Triangulated data collection method is used including interviews, archive records and documents. Data collection is still an ongoing process and it is not finished yet. Up to date, we have interviewed both the focal firm and also the 3PLs, which are in total 23 relevant interviews, we are also planning to interview clients both the previous ones and existing ones.

The interview questions with focal firm TLog are divided into two rounds. The first round aims to gain an overall understanding of supply network dynamics and also TLog's strategic intentions regarding choosing clients and 3PL cooperators. The second round interview questions are about the process of developing the supply networks, which involves the interaction between TLog and other relevant actors. Interviews with existing and former clients and 3PL cooperators aim to gauge the micro-process of each actor to join the network.

DISCUSSION

The focal case company TLog experienced lots of challenges to develop its supply network in the Norwegian market. Between Nov 2007 when it was established and the beginning of 2009, it was mainly the network initiation stage, about shaping the business ideas, getting the service and infrastructure ready etc. TLog launched its first client on March 2009. The client number reached its peak at 2011, which was six. However, it started to drop significantly afterwards. Meanwhile, TLog also changed its 3PL cooperators from DLog to BLog.

The network dynamics implies complexities and challenges involved in the network development process. TLog that has the ambition to develop and maintain a supply network also faces influences from clients and their LSP cooperators. If their strategic ambitions are appreciated, the developed network is more likely to follow the firm's strategic intention; if not, the focal firm may experience strong constraints from relevant actors and the established networks may be quite different. In the section below, we provide an analysis about the influential efforts of key players during the network development process, which includes TLog, clients and 3PLs (both potential and existing ones)

TLog's Influences on the Supply Network

TLog's influence on the supply network is significant, as it is the focal firm which actually builds and develops the network over time. According to the value network model, TLog's influential efforts are based on three primary activities (network promotion and contract management, service provisioning and network infrastructure operation) and four support activities (technology development, procurement, human resource management and firm infrastructure). However its influential activities differ at different period of time as the network evolves. At the network initiation stage from Nov 2007 to the beginning of 2009, TLog mainly influenced the network through the support activities such as technology development and procurement. Since 2009 when the network became alive, TLog has focused more on different types of primary activities combining with some support activities.

The network initiation phase

At the network initiation phase, TLog spent most of its efforts on technology development which includes both service development and network infrastructure development. This paved the way for a well functioned mediating platform. For TLog, technology development is closely associated with procurement, as they source part of their service from 3PLs. The service development process includes designing and delimiting the scopes and types of the services for both 4PL part and also the 3PL solutions, to simplify and clarify them. It is based mainly on the understanding of clients' needs. And to understand clients' needs, for TLog it is a combination of previous experiences, regulations and also meetings and discussions with potential clients. Sales of wine and alcohol products are regulated by the Government in Nordic countries except Denmark, therefore the regulations specify some conditions and terms of doing business in this segment. The partners of TLog have also been working in this segment for over 10 to 15 years and they knew quite much about the clients, the wine monopolies, the on trade restaurants and also this segment. In addition, during 2008, TLog set up a lot of meetings with potential clients to better understand their expectation and what they see as the most important factors that TLog can do in order to facilitate their business in this segment.

TLog finally provides two main types of services, one is called the purchase-to-pay, which refers to the whole inbound process from producers to the local market warehouses, it includes the inbound transport, warehousing and relevant administrative services such as documentation and also replenishment. The clients of TLog, the wine importers, usually had EXW term for delivery meaning that the wine importers are responsible to transport the wine product from the producers' place to the local market, and TLog takes the responsibilities on behalf of clients. The second type of service ,the order-to-cash process is rather obvious in terms of the main activities related to outbound distribution and warehouses, in business practice, if clients outsource this part, they usually outsource the whole package of outbound services, including the reporting etc.

As for the network infrastructure, TLog had kind of blueprint regarding what constitutes a good network platform, based on that they listed detail selection criteria for building up each piece of the infrastructure platform, including the ERP system, 3PL cooperators and also the number and location of the warehouses etc. There have also been discussions within TLog regarding if they should focus on one country or the Nordic setup from day one, and they finally decided to start the Nordic approach which enabled them to serve international clients since the beginning.

The choice of the ERP system is important as it is the key mediating platform that TLog bases their service upon. The ERP system also determines the complexity and costs of integration between TLog and other actors. In addition, different ERP systems define the

operational routines and processes differently, which influences the way in which TLog interacts with relevant actors on this platform. However to have the right setup and the right configuration is challenging and complex. It requires business competency from both the business part as to understand the logistics process to handle the wine and spirits and also technical skills. TLog managed to combine its own competency in the business part with the IT skills from some consulting companies. The key partners of TLog have worked in this segment of business for over 15 years, and they are quite competent on the process understanding of the wine and beverage business.

TLog recruits the 3PL cooperators which fits their structure and design best. Since the partners of TLog have worked in this segment for many years, they had clear ideas about which 3PLs were the preferred ones and which ones were not. However in the selection process, TLog did not rely just on experiences and historical references, they also lifted up for new opportunities by reviewing the whole markets, going through professional RFQ processes with documentations and clear evaluation criteria, they had high level of negotiations and discussions with 3PLs in each country and chose the best structure in each region.

One important criterion for TLog to select the 3PLs is good track records, this is in particular important for TLog as a new established company to reduce risks, as adding a less experienced 3PL player to the network just increases the risks level for potential clients. In addition, strategic alignment is critical, it was important that the 3PLs believed the potential of TLog to grow and see TLog as the opportunity and would like to develop business with them together. As a startup, TLog needed the 3PLs that were willing to offer competitive price from day one. They had to have this clarify before they can approach the clients. They needed general frameworks or agreements with 3PLs so that they can go back to clients with more specific and detailed discussion. And to get competitive price without any client was not easy, therefore they preferred those 3PLs who would like to have strategic alignments with them. TLog also spent lots of efforts talking with different people at top management level in the 3PL organizations, presenting their background, concepts, and plans. They had also other selection criteria such as the 3PLs' experiences to work with KPIs, transparency and trustworthy etc.

TLog's choice regarding the number and location of the warehouses is also strategic as it directly influences the costs of the distribution services, including both inbound and outbound. The inbound flow of wine products are from all over the world to several key ports in Scandinavia countries such as Gothenburg, Oslo etc. and the outbound flow is from the local warehouses to the wine monopoly stores. Since the location of the key ports and monopoly stores are all given, TLog was able to design the location of the warehouses even though they did not have specific clients at the starting stage. They came up with about 52 detailed criteria for selecting specific 3PL warehouse cooperators, among those, the prioritized ones were for example, quality, the terms, efficiency and operation and also the facilities etc.

The network development phase

When the infrastructure platform was almost established, TLog started to put most of its efforts on its primary influential activities including network promotion and contract management with clients, service provisioning and also network infrastructure operation. Network promotion and contract management is the main activity in both the pre contract period and also the contracting period. Service provisioning and also network infrastructure operation are the key activities at the later stage when TLog started the service offering.

In the pre-contract period, TLog's influential efforts are mainly in twofold: firstly to set up selection criteria to include those interesting clients and exclude those who are not and secondly to promote and sell themselves to the interesting clients. Based on the infrastructure platform, TLog had the potential to serve any client in this wine and beverage segment, However TLog did not start with small clients who were in the bottom of the lists; they were approaching clients that they thought most interesting. The interesting clients should be trustworthy with big volume and sound track records. TLog is also interested in those unique clients who are more attractive for the wine monopoly and have better access to the journalists, by having them on the network, TLog can leverage marketing opportunities for other clients through organizing wine tasting events for all clients. TLog's selection criteria are a good reflection of the size and composition as two important value drivers for mediating firms. However, TLog also considers the types of clients. For example if clients are direct to market type whose aims are to have their own sales offices in local market and outsource all the other logistics activities to LSPs or the commodity type of clients who use distributors and focus mainly on price, TLog prefer the direct to market type of clients as they are usually long term focused, having broader service portfolio to outsource, and would like to see TLog as partners, the characteristics of the direct-to-market clients enriches the contents of the supply network in terms of broader scopes of services and also create stability for the network by means of staying long term in the network.

In order to attract those interesting clients, TLog had to do lots of homework, it had to have clear understanding about the specific needs of clients, they have to know at least as good as the clients themselves what they really need. They need to listen very carefully because they can not understand everything from outside. They have to gain these insights, what are the key processes for the categories of the services available, how they work, how it is structured in the business, what are the requirements and opportunities for clients etc. They have to be expert in the supply chain area in terms of both administrative services and 3PL areas.

When the potential clients become satisfied with the solutions provided by TLog, they reach the contracting period to negotiate the details. Key issues addressed include the terms, responsibilities, and KPIs etc. It is a bit hard to characterize TLog's influential efforts in this period as it depends very much on which specific client they negotiated with. With regards to the terms, the influential efforts are more dependent on the negotiation skills of both parties.

After the contract period when TLog starts the service offering, they are on the one hand working simultaneously with 3PLs to provide the 4PL services and on the other responsible for monitoring the total service quality which include both the administrative services and also physical distribution services. Meanwhile, they are also working on relationship management, trying to keep clients in the long term. With this regards, TLog serves like a safety guard of the network, taking the responsibility to ensure that every member and part of the network functions well and try their best to fix the problems if any. And this requires lots of influential efforts in terms of coordination and cooperation. TLog schedules regular meetings with them at different levels, such as strategic level (once or twice a year), managerial level (monthly) and operational level (every two weeks). In the Norwegian market however, TLog failed to maintain an expected service level when they had to switch their 3PL cooperators. The new 3PL cooperators were less experienced in this segment and struggled to provide satisfied services. TLog therefore pushed them a lot through continuous deep teaching and leaning practice, it took a while for BLog to become willing to follow what TLog's guidance but the quality finally got improved with the efforts from both parties.

Clients' Influences on the Supply Network

Clients' influences at TLog's network initiation phase remain rather limited. However, they managed to contribute to TLog's service design process. Potential clients' needs are the basis for TLog to design their service portfolio and they influence the value of TLog's service offering. Through the meetings and discussions with TLog, potential clients provided a lot of valuable insights regarding their needs. Besides, TLog's first client also partly influenced TLog's choice of 3PLs. When TLog reached the general agreement with the first client, they also showed the client the 3PL setups and without the client's permission or agreement about their choices of 3PLs, TLog could not get the client into their network.

In the pre contract stage, regardless of TLog's promotion strategies, target clients' cooperation willingness also influences if TLog could finally get them into its network. The interesting clients for TLog are those big ones and also direct to market type of clients, however, generally speaking, big clients are usually more risk taking and are thus more reluctant to outsource from a new 4PL like TLog, they may understand and like TLog's business concepts but still many of them would like to wait in order to see how TLog behaves in the market. Potential clients may also be hesitate to join TLog's network because of the switching costs with their existing LSPs. Usually when clients change the LSP cooperators, they have to go for a different warehouse location and adapt to the new people, new working procedures and also new ERP systems which may involve ICT integrations if clients also have their own ERP system, and it costs a lot in terms of both money, time and also gives quality uncertainty in the short term. However, clients have also motivations to join a new network regardless of the above mentioned switching costs. For example, better terms which improve the profitability, quality and better solutions in terms of delivery performance, warehousing quality and better system and processes etc.

When it comes to the contracting process, as discussed before, it is hard to argue which part is stronger in terms of influencing, as it depends on the exact terms and also the negotiation skills of both parties.

At the post contract period, clients' influences are found at different levels. Firstly, clients are aware of one another and jointly benefit from the total size and composition of TLog's supply network. The bigger the size of the supply network becomes, the better terms TLog can negotiate terms with 3PLs on clients' behalf. Besides, existing clients also influence TLog to get new ones. One of TLog's clients is the biggest wine producers in the Nordic market, when TLog got them into the network, it built up TLog's reputation which enabled TLog to recruit new ones much easier.

The strategic changes of clients (both potential and existing ones) also have impacts on TLog's supply network. One of TLog's clients for example left the network because it was acquired by one competitor of TLog so they had to terminate the cooperation. The strategic changes of clients may also bring TLog with opportunities, TLog's first client at that time was exploring the possibility to cut the distribution channel and built up its own sales in the Nordic countries, and they approached TLog by offering TLog a consulting opportunity and based on TLog's excellent consulting work, the client finally decided to outsource the whole logistics package to TLog. At the operational level, the clients' logistics demands may not fit well with LSPs' supply which leads to short term cooperation. One of TLog's previous clients is actively launching new products and therefore demands higher delivery frequency, however TLog's current delivery structure does not allow that, therefore, the client had to leave. Besides, the logistics competency from clients' side is also important to understand the value of the outsourced logistics services and the logistics processes which is important for deep learning and long term cooperation. Another previous client who had changed the ownership and the operation team was lack of logistics competency on this line of alcohol

business, they did not understand the value that TLog brought to them also, at the operational level they became less competent on cooperating with TLog on the logistics process, the cooperation turned out to be a mess and they ended up with terminating the cooperation.

3PLs' Influences on the Supply Network

At the network initiation phase even though TLog reached strategic alignment with their first 3PL cooperators DLog for both warehouse and distribution services, however that was more short term oriented. From TLog's perspective, it seemed that they had no other choices at all, they needed one experienced 3PL cooperator which also fulfilled their other selection criteria, and at that time DLog was the only option, they were almost the dominant player in this segment and TLog would not willing to risk themselves by cooperating with a new or small player by taking into consideration that they were new in this market themselves. For DLog warehouse, the reason why they became willing to cooperate with TLog was just to minimize the risks, they were serving TLog's competitor VLog as well and if they did not serve TLog, they would lose business volume when TLog took clients from VLog. However, for DLog managing competitive customers (TLog and VLog) at the same supply network seemed challenging. In the beginning they put TLog's clients' volume at the same warehouse as VLog's clients', this made sense for DLog as they were all wine products and grouping the similar type of products together provided economy of scale and scope. However, TLog's competitor was not happy, they were strongly against to have TLog sharing the same warehouse with them, since they were much bigger in terms of volume and they also cooperated with DLog for a long period of time, DLog finally decided to switch TLog's volume to another warehouse. The change of the location of the warehouse generated higher distribution costs which made TLog's total logistics price not competitive at all. TLog quickly sensed the need to find an alternative warehouse cooperator and they started to look for other options.

When TLog selected the second 3PL warehouse cooperator, they wanted the 3PL warehouse cooperator that offered competitive price in the long term. And they finally ended up with BLog, BLog at that time just built a new warehouse and they needed the business volume to fill in the capacity of the warehouse, they were also interested in entering this wine and beverage market, therefore they signed up the contract and worked with TLog together. From TLog's perspective, while they prioritized the long term strategic alignment as the key criterion, they also lowered down other selection criteria, for example, BLog was new in this segment and they were less experienced to handle this type of products and in the short run, this affected the service level and even because of this, TLog lost several clients.

In the pre-contract period, when TLog promoted themselves to potential clients, they did not present just themselves, but the whole supply network instead, in particular, the 3PL cooperators in terms of their reputations and their own supply networks, the attractiveness of 3PLs' supply networks added to the attractiveness of TLog's network.

During the after-contract period, the 3PL's changes on people, strategies and decisions over the years also make it challenges for TLog to maintain stable relationship with 3PLs. The reason why TLog had to switch from DLog distribution to BLog was the strategic change of DLog. DLog used to combine wine and beverage distribution with fashion, when they lost the market in fashion segment, they decided to shut down the distribution for the wine part as well. And TLog had to look for another distribution cooperator. Besides, the change of people in the 3PL organization may be problematic for TLog as well. At the strategic level, sometimes big 3PL organizations may change the managers or directors several times within a year, and the changes of key people may also imply strategic changes of the 3PL business .

At the operational level, the change of people influences the quality of the logistics services. When TLog cooperated with BLog warehouse, BLog changed the operational stuff several times and that directly affect the service quality. In addition, in current 3PL segment, there are ongoing merge and acquisition activities either cross boarder or within Norway. The competition and cooperation situation today may be different from that in the near future, TLog has to keep track on what's happening in the 3PL business as well.

CONCLUSIONS

The present paper illustrates the role of the focal firm TLog on shaping and developing the supply network through its strategic actions and also how the relevant actors influence the network development process at different periods of time. The case of TLog reflects generic networking activities for initiating and developing a mediating network which includes: 1) designing and developing the service portfolio and infrastructure platform, 2) setting selection criteria for mediating cooperators and buying service from them; 3) setting criteria for choosing clients and attracting potential clients, 4) Negotiating contract terms, 5) providing mediating services and monitoring the services of mediating cooperators and 6) managing relationship with clients. In general, the focal mediating firm plays a dominant role in terms of initiating the supply network. At the network development phase, focal firms seem to be more influenced by potential and existing clients and also potential and existing mediating cooperators, even though they still remain significant influences on the network through three primary activities. Notably, the value of the six networking activities depends on the extent to which the focal firm understands the value creation logic of the network and their ability to coordinate it to the direction as intend to. The first three networking activities provide focal mediating firms opportunities to direct and delimit the influential efforts from clients and mediating cooperators. Furthermore, as illustrated in the case examples, influential efforts can be both positive and negative. Some are possible for focal mediating firms to influence back into the direction it intends such as the example that TLog worked together with BLog to improve the services while some seems impossible, for example the case that one previous client was bought by competitors and they had to leave the network. Nevertheless, the focal mediating firm's ability to understand and to take advantage of the influential efforts of different actors is the key to build and maintain a successful supply network. Also a successful supply network should bring value to its members on a continuous basis here both strategic and operational fits with clients and mediating cooperators are important.

REFERENCE

- ANDERSEN, E. & FJELDSTAD, Ø. D. 2003. Understanding inter-firm relations in mediation industries with special reference to the Nordic Mobile Communication Industry. *Industrial Marketing Management*, 32, 397-408.
- BERGLUND, M. 2000. *Strategic positioning of the emerging third party logistics providers*. PhD Dissertation Linköping University.
- CSCMP. 2010. *Supply Chain Management Terms and Glossary* [Online]. Available: <http://cscmp.org/digital/glossary/glossary.asp> [Accessed 2010-04-20 2010].
- FARRELL, J. & KATZ, M. L. 2000. Innovation, rent extraction, and integration in systems markets. *The Journal of Industrial Economics*, XLVIII, 413-432.
- FJELDSTAD, Ø. D. & HUEMER, L. 2008. Value configuration analysis. A new view of supply management. In: ARLBJØRN, J., JAHRE, M. & SPENS, K. (eds.) *Northern lights in logistics and supply chain management*. Copenhagen Business School Press.
- GOMES-CASSERES, B. 1994. Group versus group -- how alliance networks compete. *Harvard Business Review*, 72, 62-70.

- HARLAND, C. M., LAMMING, R. C., ZHENG, J. & JOHNSEN, T. E. 2001. A Taxonomy of Supply Networks. *The Journal of Supply Chain Management*, Fall, 21-27.
- HUEMER, L. 2006. Supply management: value creation, coordination and positioning in supply relationships. *Long range planning*, 39, 133-153.
- HUEMER, L. 2012. Unchained from the chain: Supply management from a logistics service provider perspective. *Journal of Business Research*, 65, 258-264.
- HÅKANSSON, H. & FORD, D. 2002. How should companies interact in business networks? *Journal of Business Research*, 55, 133-139.
- KATZ, M. L. & SHAPIRO, C. 1985. Network externalities, competition, and compatibility. *The American Economic Review*.
- LAMMING, R., JOHNSEN, T., ZHENG, J. & HARLAND, C. 2000. An initial classification of supply networks. *International Journal of Operations & Production Management*, 20, 675-691.
- MILLS, J., SCHMITZ, J. & FRIZELLE, G. 2004. A strategic review of "supply networks". *International Journal of Operations & Production Management*, 24, 1012-1036.
- PORTER, M. E. 1985. *Competitive advantage: creating and sustaining superior performance*, New York, Free Press.
- STABELL, C. B. & FJELDSTAD, Ø. D. 1998. Configuring value for competitive advantage: on chains, shops and networks. *Strategic Management Journal*, 19, 413-437.
- SUM, C.-C., TEO, C.-B. & NG, K.-K. 2001. Strategic logistics management in Singapore. *International Journal of Operations & Production Management*, 21, 1239-1260.
- THOMPSON, J. D. 1967. *Organization in Action*, New York, McGraw-Hill.
- YIN, R. K. 2003. *Case Study Research Design and Methods*, Thousand Oaks, SAGE.