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Master's Degree Programme in International Business Management

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**KNOWLEDGE-INTENSIVE PROJECT LOGISTICS
CASE OY HACKLIN HAMIKO LTD**

Master's Thesis 2012

ABSTRACT

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This research project aimed to study a concept of knowledge-intensive project logistics. The goal was to determine ways of securing commissioned company's profitability and competitiveness within rapidly changing international business environment. Additionally, detecting challenging issues and factors of success within previously held logistics projects for knowledge obtaining and making further corrective actions was in a purpose of the present research.

The research was conducted as a case study. Three project logistics cases accomplished by Oy Hacklin Hamiko Ltd were studied in order to evaluate the cases in respect of knowledge-intensive project logistics services' development and to indicate strategic implications from each studied case. Empirical data is collected by conducting internal and external interviews and observing.

The results showed that development of knowledge-intensive project logistics services secures a company's position on the market, its further successful development, and profitable growth. Moreover, maintaining knowledge as a competence helps to deliver higher customer satisfaction and generates value for clients. Offering consulting services in respect of international project logistics implementation engages clients already during the independent project phase and provides better possibilities to implement the project successfully.

Thus, from a strategic perspective Oy Hacklin Hamiko Ltd should continue development work of knowledge-intensive logistics services. Based on the findings, higher attention should be also paid on internal communication of project teams and issues related to project management leadership.

TABLE OF CONTENTS

ABSTRACT

1	INTRODUCTION	6
1.1	Motivation for research. Background	6
1.1.1	Oy Hacklin Hamiko Ltd - Introducing the case company	7
1.1.2	Hamiko Project Services	8
1.2	Research objectives and the research questions	10
1.3	Research methodology	11
1.3.1	Qualitative research and case study	11
1.3.2	Empirical data gathering for the case study	12
1.4	Research project overview	12
1.5	Literature review	13
2	MARKETING IN LOGISTICS SERVICE INDUSTRY. PROJECT MARKETING	15
2.1	Project marketing. A process view	16
2.2	The project marketing logic	19
2.3	Project selling approaches	19
3	INNOVATIONS IN LOGISTICS SERVICES	21
3.1	Innovation process in LSPs	23
3.2	Stages of new service development process	24
4	KNOWLEDGE-INTENSIVE BUSINESS SERVICES (KIBS)	25
4.1	Knowledge as a competence	27
4.2	Research trends in KIBS analysis	28
4.3	Development of innovative value-added KIBS within LSP	29
4.4	Knowledge-intensive logistics service models	31
4.4.1	Consulting service model	33
4.4.2	Outsourced CLO	34
5	KNOWLEDGE-INTENSIVE PROJECT LOGISTICS	34
5.1	Development of knowledge-intensive project logistics services in Hamiko	37
5.2	Hamiko's knowledge-intensive project logistics service model	38

6 PROJECT CASES ANALYSIS	41
6.1 Case 1. Glass wool plant	42
6.1.1 Introduction	42
6.1.2 Case analysis	44
6.2 Case 2. Dispersion plant	45
6.2.1 Introduction	45
6.2.2 Case analysis	46
6.3 Case 3. Concrete element plant	47
6.3.1 Introduction	47
6.3.2 Case analysis	49
7 DISCUSSION	50
7.1 Overview of case analysis	50
7.2 Reflections on methodology and theory	51
8 CONCLUSIONS	52
8.1 Evaluation of the research	53
8.2 Managerial implications	54
8.3 Suggestions for further research	55
APPENDICES	
TABLES	
Table 1. The detailed project buying process	17
FIGURES	
Figure 1. Research structure of the thesis	13
Figure 2. Literature areas investigated in the thesis and their relation to the concept of knowledge-intensive project logistics services	14
Figure 3. The three periods of project marketing	18
Figure 4. Three different project marketing tactics	20
Figure 5. Overlapping NSD process in the logistics service provider industry	24
Figure 6. OPP and VOP linking supply and demand	30

Figure 7. Tactical and operational levels of demand-supply chains	32
Figure 8. The service model propositions	33
Figure 9. Allocation of the VOP within knowledge-intensive project logistics supply chain	37
Figure 10. Hamiko's knowledge-intensive project logistics service model	39

*If there is no project, we will create one, if there is no client, we will assemble one, if
there is no money, we will get them some*
 McCartney

1 INTRODUCTION

1.1 Motivation for research. Background

Finnish logistics companies concentrating on Russian trade (transit cargo) are facing challenges of rapidly decreasing handling volumes and overall changing structure of the cargo flow. According to Kortelainen, Myller and Hannola (2012, 1-3) the monetary value of Russian transit traffic through Finland has grown significantly before 2009. Based on statistics of the National Board of Customs for the period of 2000-2009, the traffic has nearly tripled between years 2002-2008. After upstream euphoria of the beginning of 2000's, when the industry saw rapid growth, market situation radically changed. The financial crisis started in 2008 led to dramatic drop of imports to Russia of over 50% in 2009. (National Board of Customs, 2010.)

According to the latest statistical information available, no cardinal changes occurred during the period of 2009-2012 in respect of transit and export cargo transportations to Russia via the Finnish route. After the dramatic decrease of handled volumes, significant growth has not been yet detected. (National Board of Customs, 2012.)

In present conditions, re-orientating and re-organizing business activities within changing market situation have been significantly important for many logistics companies performing in the sector. Taking advantage of new opportunities available at the market became to be a matter of vital importance for industry players. Present research project is conducted for a Finnish logistics company Oy Hacklin Hamiko Ltd in order to contribute organization's development and performance. Intention to secure the company's competitiveness has been an essential impulse for the present research work's conducting.

This study sustains on the researcher's valuable working experience and previously gained professional knowledge. High motivation, areas of responsibility and personal background ensures researcher's activities as a change agent for the case company.

Thus, it can be stated that conducting of the present study is a matter of great importance for the commissioned company. Change agent role enables researcher to affect the organization's strategic development and tactical performance.

1.1.1 Oy Hacklin Hamiko Ltd - Introducing the case company

Logistics company Oy Hacklin Hamiko Ltd offers a full spectrum of services dealing with logistics and storage, inclusive complex solutions such as 'door to door' shipments and operations on individual activity lanes. Hamiko is specialized in the field of logistics in and out from Russia and all the CIS countries.

Traditional logistics service pallet of Hamiko includes international transportation services of general cargo, port forwarding, free-zone warehousing in Port of HaminaKotka, Finland and documentation services.

Oy Hacklin Hamiko Ltd has been building up its project cargo haulage service pallet to cover demanding and complicated Russian import customs procedures.

New launches of Hamiko are arranging of through delivery of containerized cargo from ports in the Asian and Pacific region, railway cargo transportations between Finland, Russia and the CIS. (Oy Hacklin Hamiko Ltd's marketing material, 2012.)

As stated above, due to global financial recession, volume of cargo flow handled by Hamiko dramatically decreased, price competition in logistics sector became very tuff while customers are constantly re-designing and re-analyzing whole logistics supply chain in order to decrease costs and improve competitiveness of their own businesses. So increasingly Hamiko has to bring value for its existing and potential customers by offering competitive and valuable service offerings.

At the same time, processes taking place in the world economy connected with globalization and integration, as well as with the development of international business co-operation, are forcing Western European countries with developed economies to search for new markets for their products and new territories for development. Under these conditions, issues related to cooperation with Russia and creation of new production facilities in the territory of the Russian Federation are of relevance to a larger number of European entrepreneurs.

Within the past years during several logistics exhibition events held in Russia it was noticed that a big number of potential customers are searching for a logistics provider to handle special project type of cargo (extra heavy or oversized items). This phenomenon is a result of the above-mentioned process of industrial factories development in Russian Federation, which lead to increased demand of machineries' and equipment transportation as well as raw materials to be transported to construction plants.

Instead of this process of growth, regular consumer goods, such as electronics which Hamiko used to handle as its first priority before, have been transported through another logistics channels (directly to Russian ports by sea or via other routes), or began to be assembled in Russia's own factories. As a result, attractiveness of this customer segment for Hamiko reduced.

Thus, on the strategic and operational level, Hamiko's management made a decision to re-orientate its business activities, re-organize the company internally in aim to expand the organization's business activities to another growing market segments.

1.1.2 Hamiko Project Services

After announcing the new type of business activities and trial marketing in the segment, Hamiko began to receive inquiries regarding handling of project cargo, including project transportation and customs clearance of dismantled factories from Europe to Russia.

Usually clients turned to Hamiko at the very early stage of the process, being fascinated with an idea of e.g. transportation of their factory, production lines or machineries to Russia. Many international companies were interested in possibilities of expanding their businesses to Russia or establishing their own daughter companies and production factories in the country. Business in Russia was in a great interest for many of them, but unfortunately only a few were familiar with the requirements and possible barriers which could appear on the way: legal issues, taxation and customs formalities etc. At this early stage of investigating and shaping clients' desires Hamiko recognized itself being in an excellent position to offer client organizations the best and competitive solutions for their businesses.

As expected, projects in kind turned out to be demanding and quite complicated, since they required detailed analysis, planning and control of every stage of the process. Integration to client's organization's business processes was essential. Even designing of a service offering was often challenging and time-consuming: consignments to be transported should be properly analyzed and documented in details, preferable ways of oversized transportation and suitable and cost-effective way of customs clearance in Russia should be determined etc.

Despite very extensive consultation and analysis work, not every service offering lead to a deal. Thus, in order to secure profitability of the company, Hamiko decided to separate consultation (pre-analysis) stage from the implementation stage of the process (transportation, documentation and customs clearance of consignments). A separate consultation unit within the organization was established. Hence, by offering its clients a wide variety of consulting services in the field of logistics and supply chain management, Hamiko extended its traditional logistics service pallet. Such expansion provided the company with an excellent possibility to improve its marketing process and gain competitive advantage on international project logistics market. Main characteristics of the established consultation unit are presented below.

Oy Hamiko Project Services Ltd offers expert consultation services in logistics field. The company's specialty area is transportation and import customs clearance planning associated with investment project deliveries to Russia. Through careful planning of customs clearance formalities, the company is able to evaluate and minimize project-related risks.

Russian import customs clearance is considered to be the most challenging and demanding part of an investment project. It crucially affects whole project supply chain, transport mode and route determination as well as export customs clearance procedures. In addition, properly planned import customs clearance considerably lowers project costs.

A little number of consultancy organizations in kind is concentrated on the same specialties area. According to marketing analysis conducted within the company, most of competitors offer significantly wider service packages. Thus, through efficient operations in its own niche, Oy Hamiko Project Services Ltd is able to gain and deliver expert knowledge, significantly improve logistic project performance, minimize project-

related risks and deliver additional value for its clients. (Oy Hacklin Hamiko Ltd's marketing material, 2012.)

1.2 Research objectives and the research questions

The aim of this research project is to determine dimensions and aspects of knowledge-intensive business services and study the concept of knowledge-intensive project logistics. Applying the concept to practice is also one of the objectives of the study. Additionally, the goal is to determine ways of securing the company's profitability and competitiveness within rapidly changing international business environment. Based on explored theoretical material, previous logistics projects accomplished within Hamiko will be investigated. The goal is to detect challenging issues and factors of success within previously held projects for knowledge obtaining and making corrective actions for the future.

According to Eriksson and Kovalainen (2008), the ability to formulate and reformulate the research questions can be seen as one of the key success factors of a qualitative business research project. The research problems and questions drive whole research project, as well as the choice of methods and theoretical frame.

The following research questions are determined:

What are the critical success factors of knowledge-intensive project logistics development?

How to succeed in management of knowledge-intensive logistics projects?

How to successfully improve competitiveness of logistics company in rapidly changing business environment?

Considering the major aim of the study it can be argued that the research questions are workable: answerable, interconnected, and substantively relevant. These questions are quite fascinating for the researcher and the commissioned company.

In other words, the research project aims to determine how to successfully develop knowledge-intensive project logistics services. This objective can be considered as the thesis statement since it has close relation to the purpose of the study and the main

point of the research. With the help of the mentioned research questions, the boundaries of the research project are set, giving it a specific direction and increased coherence.

1.3 Research methodology

1.3.1 Qualitative research and case study

Unlike quantitative research, qualitative research studies normally fairly small number of samples or situations and preserve the individuality of each of these in analysis. Thus, qualitative research is the most suitable for studies in which the purpose is to understand the meaning of the events, situations and actions the participants are involved with. The ultimate goal of qualitative research is to understand the research cases from the participant's point of view. (Eskola & Suoranta 1999, 65-66.) The present research project aims to investigate issues related to development of knowledge-intensive project logistics services within Oy Hacklin Hamiko Ltd. Hence, chosen research strategy is *qualitative* instead of *quantitative*.

Eskola and Suoranta (1999) explain that every case study is related to a specific case. Despite of the fact, that the concept of case study is really broad, there is a same goal which unites all the case studies regardless the differences stated between them. It is argued that every study aims to produce *intensive and detailed information about the research object*. Herewith, case study is considered to be a *detailed investigation aimed for specific purpose that focuses on characteristics and complexity of the single case*. (Eskola & Suoranta 1999, 65-66.)

According to Creswell (1998, 61), case study is an exploration of:

- 'a bounded system', which can be defined in terms of time and place (e.g. an event, an activity, individuals or groups of people);
- over time and through detailed, in-depth data collection;
- involving multiple sources of information that are reach in context.

Case study was the optimal method to use in this research since present research project is conducted for the purposes of Oy Hacklin Hamiko Ltd with accurately set boundaries in respect of time and place, several project logistics cases related to the

organization's performance is studied and multiple sources of reach in context information are used. Moreover, case company's business development within selected time period can be profoundly studied only by applying case study method. The chosen method enables to gather accurate detailed information on business services' development in respect of the commissioned company's background. Thus, undoubtedly case study method is the most appropriate research method to be applied in this project.

1.3.2 Empirical data gathering for the case study

During conducting a case study research, empirical data from either one or any combination of sources can be used. In the present research project theoretical data is gathered using multiply sources such as journal publications, sources available in the Internet as well as printed publications on the topics chosen.

In addition, various types of project-related reports and correspondence were studied. Internal and external interviews held with project-related persons in Hamiko, as well as with other project-related parties.

1.4 Research project overview

In the introduction part of the thesis, a brief overview of present market conditions in logistics sector and current situation in Hamiko is presented. The research methodology is explored at the beginning of the work as well. Research objectives and research questions provide necessary guidelines for composition of the theoretical part.

In the theoretical section several important areas connected to development of knowledge-intensive project logistics services are investigated. Issues of marketing in logistics, project marketing as well as innovations in logistics services are explored. Dimensions and aspects of knowledge-intensive business services (KIBS) is studied as well. Overall, the areas studied in the theoretical part provide necessary guidelines for the development of knowledge-intensive project logistics services phenomenon.

In the empirical part, several logistics projects accomplished in Hamiko are analyzed in order to determine challenging issues and success factors for knowledge obtaining and making corrective measures for the future. Chosen cases are studied taking into

consideration implications provided within the theoretical part of the thesis. Based on the example cases development process of knowledge-intensive project logistics services is investigated. Further on, conclusions are made, necessary suggestions and managerial implications indicated. Overall research structure of the thesis is presented in the Figure 1.

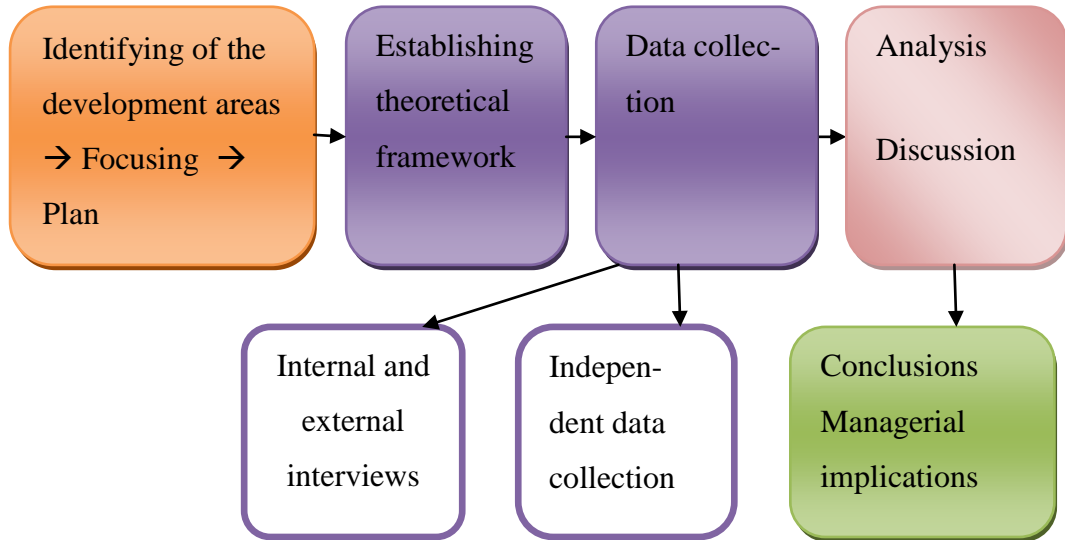


Figure 1. Research structure of the thesis.

1.5 Literature review

It is argued that relating researcher's own interpretations and conclusions to other researchers' ideas and findings bring value to a research project. It is crucial to determine how the research idea has been explored in the literature by other researches. (Eriksson & Kovalainen 2008, 43.)

The literature review is defined and guided by my research questions mentioned above. As was stated earlier, the main objective of present thesis is to study development of knowledge-intensive project logistics services. During literature investigation was stated that the concept "as it" has not been exactly formulated before. In order to gain necessary understanding on this subject, previous researches on the concept-related areas were studied.

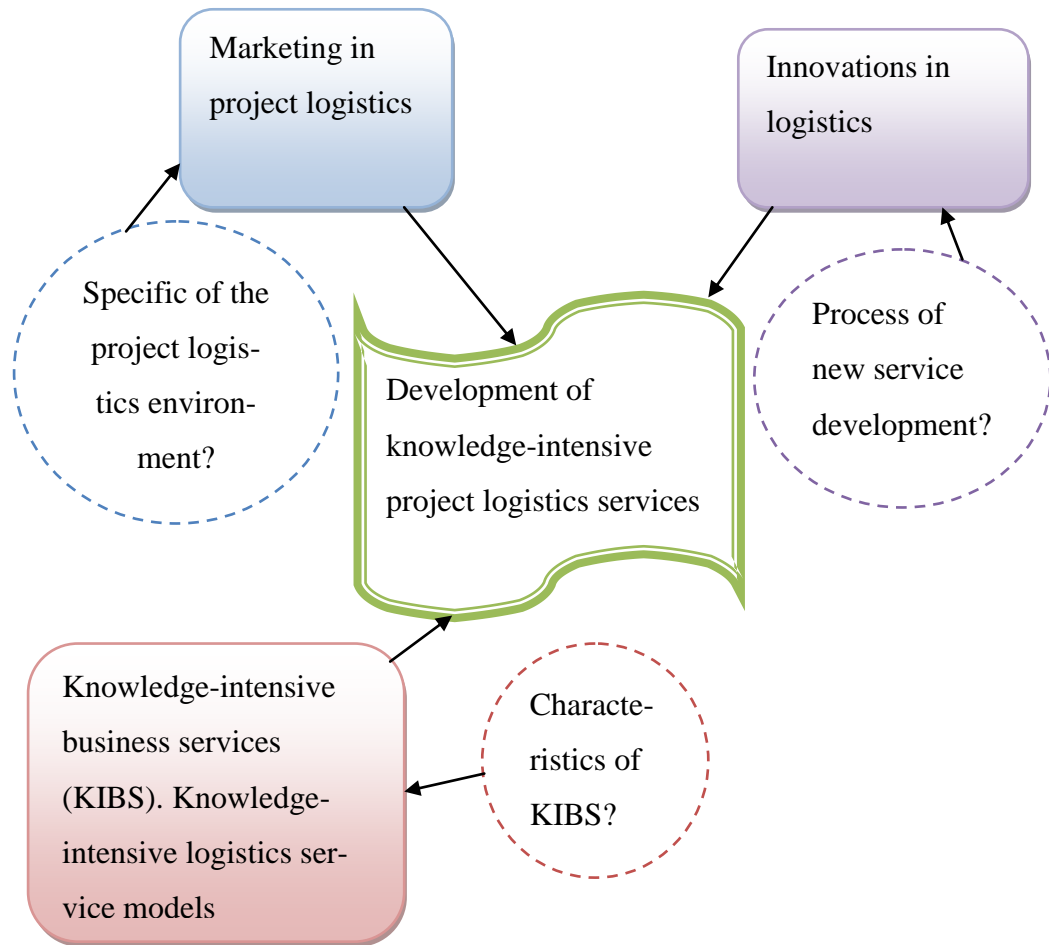


Figure 2. Literature areas investigated in the thesis and their relation to the concept of knowledge-intensive project logistics services.

Approaching the concept begins with investigating of logistics project marketing issues. It is particularly important since from my point of view it helps to gain an understanding of the project logistics business environment specific. Additionally a concept of knowledge-intensive business services and here to related literature implications are investigated.

Theoretical material connected to innovations in logistics services is also studied. Innovations and new service development matters are important in producing knowledge-intensive project logistics services. Investigation of the literature related to this subject helps to gain understanding of new service development issues and stages of this process. Areas of literature investigated within the present thesis and their con-

nection to the concept of knowledge-intensive project logistics services is presented in the Figure 2.

2 MARKETING IN LOGISTICS SERVICE INDUSTRY. PROJECT MARKETING

The present chapter concentrates on issues related to project marketing and sales and specific of the project logistics milieu. Since possibility to participate in a logistics project implementation heavily depends on marketing success, studying of theoretical material on this matter is considered to be important for the thesis implementation. The chapter aims to provide a basic understanding on the subject and offer necessary guidelines for further investigation of knowledge-intensive project logistics services.

Project marketing is distinguished as a sub-field of the marketing discipline. Significant contributions to the concept were made especially in Europe and Australia. In 1996, a special issue of *International Business Review* journal was dedicated to project marketing issues. (Skaates, Tikkanen & Alajoutsijärvi 2003, 83.)

Literature conducted on project marketing is argued to be highly relevant to complex business services being often sold in a package as projects (e.g. management consulting projects) (Skaates, Tikkanen & Alajoutsijärvi 2003, 83). In this chapter key contributions from the project marketing literature are briefly introduced. Project marketing aspects are studied by reviewing i.a. works of Baker (1984), Fuller, O'Connor and Rawlinson (1993), Cova and Holistius (1993), Günter and Bonaccorsi (1996), Cova and Crespín-Mazert (1997), Cova, Ghauri and Salle (2002) and Marquardt, Golcic and Davis (2011). Project selling tactics are verified by approaching studies of Mattsson (1973) and Ghauri (1983), Hanan (1995), Bosworth (1995), Cova and Salle (2000), Henke (2000) and Stremersch (2001).

As Fuller, O'Connor and Rawlinson (1993, 87-98) state, during the latter part of the 1980s and the early part of the 1990s, many companies across several industries intended to ensure better possibilities to compete in their respective segments. Hence, organizations started to strategically refocus on their core competencies. This phenomenon lead to increasing the outsourcing and distribution functions. Due to this fact, the number of customers of logistics services significantly increased. Supply and demand was shifted and large and highly competitive marketplace created with thou-

sands of firms offering logistics services. Nowadays the situation in the sector remains to be the same (Heikkinen 2011, 9).

Referring to the studies of Baker (1984, 9-20), Fuller, O'Connor and Rawlinson, (1993, 87-98) and Gordon (2003, 7-50), Marquardt, Golcic and Davis (2011, 49) point out that logistics services can be considered a commodity offering, with hundreds of thousands of logistics companies (i.e. carriers, warehousing firms, and third party providers) competing to provide similar services to many of the same customers. However, they state that most firms typically use a small number of providers for logistics services, and using unknown providers is usually being avoided.

As have been mentioned earlier, the economic recession and overall situation on the marketplace negatively affected the situation in logistics sector. Thus, in order to avoid fierce price competition in this highly competitive marketplace, logistics companies should find ways to differentiate themselves and their service offerings. (Marquardt, Golcic & Davis 2011, 49.)

Hence, in Hamiko's case development of customer-centered project logistics solutions is a matter of great importance. In the following chapters the project marketing issues will be investigated in order to gain better understanding of specific marketing process related to project business and, further, project logistics.

2.1 Project marketing. A process view

In the contemporary business environment, international business activities are often related to different type of projects. Many industries have always been working on a project basis, and today products of most companies performing internationally often have some project-related features. (Grönroos 1997, 7-18; Günter & Bonaccorsi 1996, 531-537; Hadjikhani 1996, 319-336.)

Cova, Ghauri and Salle (2002, 3-23) define a project as a *complex transaction covering a package of products, services and work, specifically designed to create capital assets that produce benefits for a buyer over an extended period of time*. With reference to Günter and Bonaccorsi (1996, 531-537), they state that such characteristics of project business as uniqueness, complexity, discontinuity and the extent of financial commitment significantly influence project sales. Such factors lead to a high degree of

uncertainty for the parties concerned, a specific buying process by customers, long transaction duration with many phases clearly delimited and a double fragmentation of buying and selling centres. From Cova, Ghauri and Salle (2002, 13) point of view, these factors characterize exceptionality of project management in comparison with traditional marketing management practices.

In project business, projects often have long duration and can be tracked for month or even several years before the project is officially put to tender. The project buying cycle is distinguished as a *long-lasting, negotiated and interactive process*. (Cova & Holstius 1993, 105-121.) The average buying process, which begins from the stage of identification of customer's requirements to the final contracting stage, is presented in Table 1. Despite of the fact, that phases of the project buying process highlighted below were identified already in 1993, the idea and the concept are still well relevant nowadays.

Table 1. The detailed project buying process (Cova & Holstius 1993, 109)

1.	Identification of requirements
2.	Feasibility study
3.	Research / selection of suppliers for advice
4.	Definition of specifications and compilation of terms and conditions
5.	Setting up a bidding list
6.	Invitation to tender
7.	Information exchange: buyer + supplier network
8.	Reception and analysis of suppliers' proposals
9.	Selection of suppliers and setting up of a shortlist
10.	Negotiation of all points
11.	Reception of new proposals
12.	Analysis of new proposals
13.	Negotiation of all proposals
14.	Final evaluation
15.	Selection
16.	Contract

According to Cova, Ghauri and Salle (2002, 28-29) interpretation, the table presents a procedure that reduces uncertainties associated with a project. During the carrying out

of adjustments and selection of potential suppliers, customers progressively reduce uncertainty by continuous contacts and exchanges with consulted actors. Potential suppliers gain undeniable advantages, if they have already had some social and information exchanges with customer before the invitation to tender stage.

Supplier's goal is to detect projects far upstream though networking with business and non-business actors within the milieu, customer intimacy and long-term relationships. In order to develop best position in the project milieu, supplier should preferably get information regarding opening projects before its competitors do. (Cova, Ghauri & Salle 2002, 85-116.)

Following Cova and Salle (2000), for efficient project marketing it is reasonable for supplier to consider three project phases, as presented in Figure 3.

- *Independent* – the project does not yet exist
- *Pre-tender* – a project has been detected and choice of resources investment to the development of an offer and contacts is made
- *Tender preparation* – the project exists officially in the form of invitation to tender

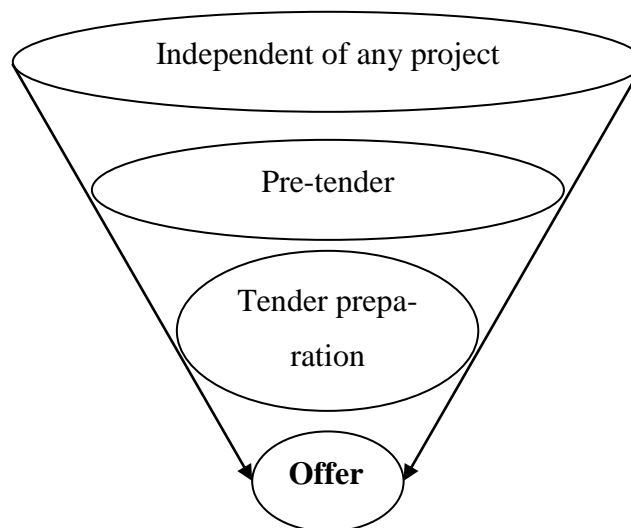


Figure 3. The three periods of project marketing (Cova & Salle 2000, 34).

Authors argue that a supplier has almost unsubstantial chance to get a project if it begins to take an interest only at the invitation to tender stage. (Cova & Salle 2000, 34.)

2.2 The project marketing logic

The field of project business represents an extreme case of business-to-business marketing and radically differs from the traditional model of business-to-consumer marketing. Commonly it is assumed that the client buying projects is generally the initiator of the project, and, on the opposite, the project supplier is naturally placed in the position of submission. It is supposed that the supplier submits proposals at the client's requests and, thus has no price strategy. (Cova & Crespín-Mazet 1997, 343-359.)

Cova, Ghauri and Salle (2002, 143-145) explain that over the last 20 years, project marketing has evolved from a submission approach to a construction approach, where the firm is positioned as an expert on the client's problem. Generally, current marketing strategies in project business are concentrating on the demand construction or deconstruction. Such approach relies in particular on the very long definition, implementation and completion process of the project.

It is stated that the central project marketing tactics are the construction of the demand (i.e. of the call for bidding and its specifications), more than the preparation of the answer to the bid. Being originally positioned in a situation of information asymmetry, dependence and submission, the supplier's logic is to gain increased control and power. With the main goal of building the rules of the game, the phenomenon of offer and demand co-construction can be viewed as main tactic in this process. (Cova, Ghauri & Salle 2002, 143-145.)

2.3 Project selling approaches

As shown in Figure 4, marketing tactics of project development base on approach of shaping a project at three stages: independent of any project to create the project, pre-tender to write the rules of the game and during tender preparation to deconstruct and recreate the project.

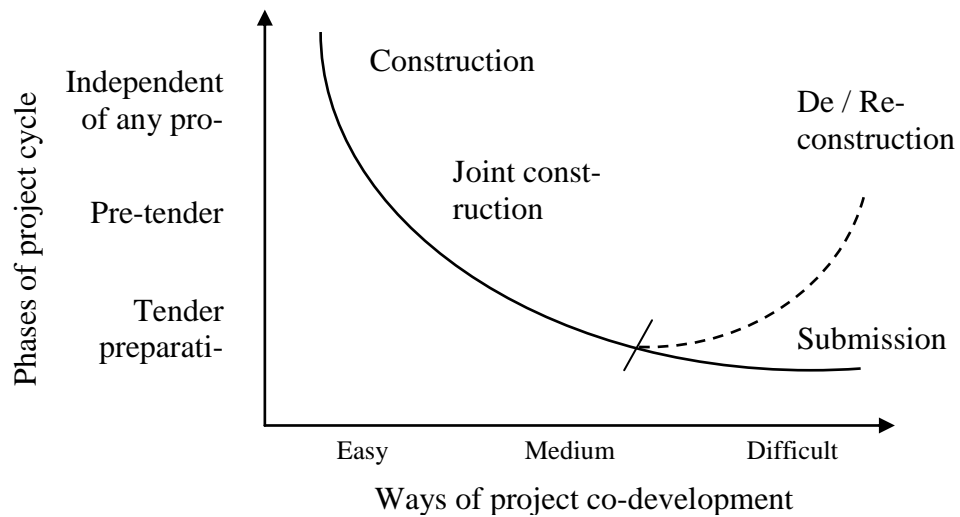


Figure 4. Three different project marketing tactics (Cova & Salle 2000, 144).

As can be seen in figure 4, *construction* way of project co-development is considered to be the easiest one to accomplish. *Joint construction* during the pre-tender stage is harder to perform. Lastly, *submission* technique related to the tender preparation phase of project cycle is the most difficult way to develop a project in co-operation with the client. Nevertheless, it enables supplier to re-construct the project and partially affect to the rules of the game.

The tactics of building the rules of the game is closely related to the recently re-discovered *systems selling* and *solution selling* (or *consultative selling*) approaches. In *systems selling approach*, the seller offers a combination of hardware products and software (including problem solution, services etc.) which form an integrated system able to carry out a total function or set functions in the buying organization (Mattsson 1973, 107-119, and Ghauri, 1983.) Compared with the product selling approach, in the systems selling the seller fulfills a more extended need. (Henke 2000, 271-284.)

So-called *consultative selling* approach, carries an idea of adding consultancy activity and expertise to re-engineer the customer's process. The idea of consultative selling is to go beyond selling products and services in order to become actually involved in the discovery and redesign of customer's business processes. (Hanan, 1995). Cova and Salle (2000, 146) with the reference to the work of Bosworth (1995) argues that the most appropriate term for this concept, which was proposed by Bosworth in 1985, is '*solution selling*':

In solution selling, we are trying to redefine the definition of selling. We would like the business card of sellers we train to read 'buying facilitator'. By facilitating the buying process we allow the buyer to feel in control of the buying. (Bosworth 1995, 135.)

Stremersch, Wuyts and Frambach (2001, 1-12) explicate this approach to be designed for projects, or complex product / services that are conceptual or intangible and partly co-developed with the buyer. Projects are usually sold to committees where the different members are guided by different rationalities in the decision-making process. Sales process in this case is conducted by experts for non-experts.

Hence, for project marketers, getting involved into a project at its earliest stage of identification of a need is crucial in winning a deal and contract signing.

3 INNOVATIONS IN LOGISTICS SERVICES

Knowledge-intensive project logistics services are considered to be a new service concept for the case organization in question. Hence, exploring of new service development issues is important in further analysis of the concept itself as well as development process of Hamiko's service pallet in particular. The purpose of this chapter is to provide an understanding of the issues related to the process and indicate stages of development which should be taken into consideration during the investigation of the empirical material provided later.

With the reference to Christopher (2005) and Chapman, Soosay and Kandampully (2003), Blecker, Kersten and Herstatt (2007, 4) point out that in the past decades, the logistics service sector has been facing a highly competitive environment and higher customer demands. Higher complexity in planning, organizing and transporting, increasing amount of customer desires keep logistician permanently occupied. Due to this fact, in order to satisfy the increasing demands of customers, logistics service providers concentrate on service development. As stated in the fourth community innovation survey, on average 33% of logistics service providers and 43% of organizations in other industries were actively working on innovations.

Soinio, Tanskanen and Finne (2012, 33) argue that *without innovation and the development of new services, logistic service providers (LSPs) will have to cope with the*

transformation of their current service offerings into commodities and thus risk losing the opportunity for long-term profitable growth.

Since modern competition takes place not only between single companies, but entire supply chains, the emerging challenges have to be faced at the supply chain level. Thus creating and managing innovations in supply chains will become one of the main differentiation aspects in a world of global competition. (Blecker, Kersten & Herstatt, 2007, 5.)

In their work Blecker, Kersten and Herstatt (2007, 5) consider logistics to be a key enabler of supply chain collaboration. From authors' point of view, finding structures and approaches for enabling all types of innovations in logistics and supply chains is an important task for many service providers. This approach enables companies to better fulfill customers' needs. Another challenge is considered to be handling of the growing complexity and the associated supply chain risks.

According to Wagner and Franklin (2008), LSP as a key player in the supply chain affects the entire supply chain, and logistics company's suboptimal performance in combination with the lack of innovation may negatively affect the client's business.

3PL has received significant attention in the contemporary research literature (Soinio, Tanskanen & Finne 2012, 33). Prockl, Pflaum and Kotzab (2010) state that the following main features distinguish 3PL from traditional warehousing and transportation: complex and individually designed bundles of services; long-term contracts and significant volume in terms of service costs. Gericke (2003) assumes that new services at 3PL providers are developed rather in the area of value added services than transportation, as value added services are considered to be the core business of 3PL companies (Gericke 2003, 36-37).

Busse and Wallenburg (2011, 190) argue that outsourcing of logistics activities continues to be a growing trend in the business milieu. At the same time, customers' demand for value-added logistics services has been growing for the past years. Hence, LSPs' service offerings include more and more advanced supply chain solutions in addition to traditional transportation and warehousing offerings. (Soinio, Tanskanen & Finne 2012, 31.)

Soinio, Tanskanen and Finne (2012) point out that the trend of outsourcing *is facilitated by greater integration in supply-chain processes that require multiple services of logistics information, operational knowledge, and relationships in addition to direct participation in the integration of the supply chain*. Furthermore, authors argue that in the near future LSPs will be required to provide more intelligent services to their clients. (Soinio, Tanskanen & Finne 2012, 32-33.)

Through outsourcing LSPs get in touch with the material flow of their customers, as well as with the main players within the supply chain. That is why degree of innovativeness of LSPs is important to other supply chain parties as well. (Busse & Wallenburg 2011, 190.)

Another trend is considered to be the demand of industry-specific solutions, which further emphasizes importance of individual customer's needs. It is argued that due to this fact, addressing of individual customer wishes within innovation projects is quite easy, as well as innovation generating in close coordination with customers overall. (Busse & Wallenburg 2011, 190.)

Soinio, Tanskanen and Finne (2012, 33) argue service innovation to be a challenge for the logistics companies. According to Busse and Wallenbur (2011, 188), innovativeness of LSPs differs significantly from other service providers and considered to be quite low. Authors mention that logistics-related improvements are mainly driven by LSPs customers, which increasingly expect to receive new innovative solutions from their LSP.

Later a closer look will be taken on development of innovative value-added services by logistics-service providers (LSPs). Detailed attention will be paid on development of consulting services on logistics project management field.

3.1 Innovation process in LSPs

Blecker, Kersten and Herstatt (2007, 4-6) point out that only a limited number of publications can be found on the topic of new service development (NSD) in logistics. However, the interest in service development is growing and many authors recognize the need to analyze NSD processes (Stevens & Dimitriadis 2005, 175-198).

The literature stresses the importance and relevance of market orientation and customer's integration into the NSD processes (Alam & Perry 2002; Johne & Storey 1998). As Lovelock and Young (1979) state, through the integration of customers in the development process organizations obtain the possibility to gain customer's trust, and to educate customers how to use the new service. Matthing, Bodil and Edvardsson (2004, 479-498) explicate that ideas which are developed in co-operation with customers have a greater potential in comparison with ideas developed without customer's involvement since organizations are able to learn about customer's latent needs. Hence, Blecker, Kersten and Herstatt (2007, 6) argue that innovation management at logistics service providers has not been sufficiently explored.

Toivonen and Tuominen explicate that service innovations differ from product innovations, thus possibilities for applying existing concepts from manufacturing is limited (Toivonen & Tuominen 2006, 4-11). Since it is not common for service organizations to have an R&D department, services are often developed on an ad hoc basis and not planned in advance. Testing a new service is often done by introducing it to the market. (Easingwood 1986, 264-275.)

3.2 Stages of new service development process

Blecker, Kersten and Herstatt (2007, 10-14) explains that NSD process has several important stages, such as idea generation and evaluation, concept development, business market and competitors analysis as well as implementation stage (Figure 5).

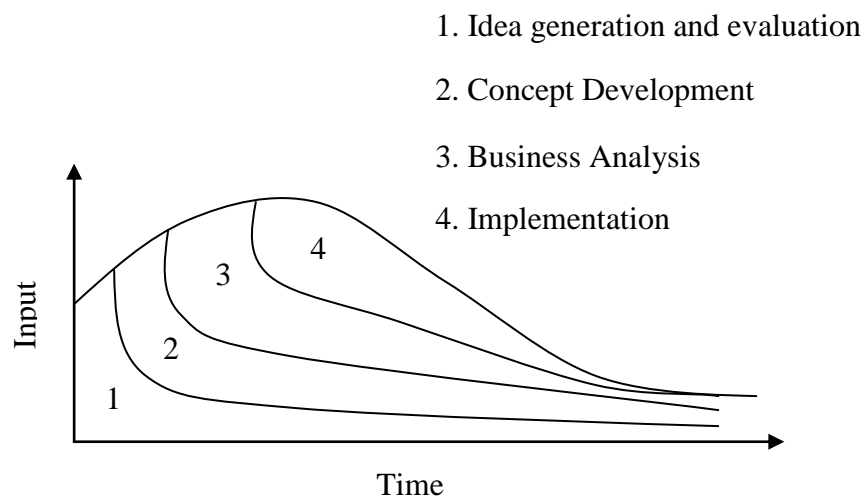


Figure 5. Overlapping NSD process in the logistics service provider industry (Blecker, Kersten & Herstatt 2007, 14).

At the first stage, an organization receives customer's impulses for existing services' improvement as well as indication of customer's specific needs. General ideas are validated by customers, and thus organizations are supported by this process.

The analysis stage aims to investigate whether the new service is hard to copy, innovative, attractive and offers an important advantage for the customer. Authors argue that otherwise the idea of such new service development should be dropped. (Blecker, Kersten & Herstatt 2007, 13-14.)

Furthermore, internal factors should be considered during the analysis stage of new service development process in addition to mentioned external factors. It had to be investigated whether the company's existing staff bears the necessary expertise. During the conception and the analysis stages, customer's integration is passive, but at the end of the service development process their role becomes to be more dominant. (Blecker, Kersten & Herstatt 2007, 13-14.)

4 KNOWLEDGE-INTENSIVE BUSINESS SERVICES (KIBS)

New type of services related to project logistics developed in Hamiko has knowledge-intensive characteristics. Thus, approaching of the literature on the subject of knowledge-intensity is considered to be important for the purpose of present thesis. Concept of knowledge-intensive business services is studied in general, important matters of knowledge as a competence of companies are raised. Classification of knowledge-intensive service sector briefly explored and closer look is taken on development of innovative value-added KIBS within logistics service providers (LSP) and knowledge-intensive logistics service models.

Knowledge-intensive business services (KIBS) are one of the rapidly growing and dynamic sectors of the economy. They are considered to contain various innovative users of new technologies and provide significant potential for employment growth. It is also argued that KIBS affect on improving the competitiveness of organizations throughout the economy. (Miles 2003, 11.) The activities development of knowledge intensive services is considered to be one of the vital trends of recent economic evolution in industrial countries (Andersen *et al.*, 2000; Boden & Miles 2000). KIBS are mainly concerned with providing knowledge-intensive inputs to the business process-

es of other organizations, including private and public sector clients. (Muller & Doloreux 2007, 5).

According to definition provided by Miles *et al.* (1995, 18), KIBS are *services that involved economic activities which are intended to result in the creation, accumulation or dissemination of knowledge*. Thus, Miles *et al.* (1995) distinguish the following main characteristics of KIBS:

- Heavy reliance upon professional knowledge
- KIBS are either primary source of information and knowledge themselves or knowledge to produce intermediate services for their clients' production processes is used
- KIBS are of competitive importance and supplied primarily to business.

As Consoli and Elche-Hortelano (2010) highlight, KIBS are intermediary firms specialized in knowledge screening, assessment and evaluation, and trading of professional consultancy services. Toivonen (2006, 2) defines KIBS organizations as *expert companies that provide services to other companies and organizations*. Den Hertog (2000, 505) proposed a more detailed definition of KIBS: *private companies or organizations who rely heavily on professional knowledge, i.e. knowledge or expertise related to a specific (technical) discipline or (technical) functional-domain to supply intermediate products and services that are knowledge based*. Bettencourt *et al.* (2002, 100-101) narrows down the definition of KIBS as *enterprises whose primary value-added activities consist of the accumulation, creation, or dissemination of knowledge for the purpose of developing a customized service or product solution to satisfy the client's needs*.

With reference to works of Strambach (2001), Miles (2005), Hauknes (1999) and Alvesson (1995), Muller and Doloreux (2007, 5) derives three core elements from the main definitions of KIBS presented above. Firstly, they detect a connection between the term *business services* and those specialized services demanded by firms and public organizations and not produced for private consumption. Secondly, they interpret the expression *knowledge intensive* either in terms of labor qualification or in terms of the conditions for the transactions between the service provider and their service user

or producer. Hence, *knowledge intensive firms* are defined as firms that undertake complex operations of a knowledge-intensive nature with human capital as the dominant factor.

4.1 Knowledge as a competence

According to Nordenflycht, a knowledge-intensive activity is an *activity that relies on a substantial body of complex knowledge* (Nordenflycht 2010). *Knowledge intensiveness* means a business, where knowledge is playing a vital role. The way of producing and delivering knowledge is crucial in determination of knowledge intensiveness, but not the amount or extent of knowledge. (Haataja & Okkonen 2004, 256.)

Generally, knowledge has been seen as the most important competence of companies. It is stated that new services and products can be generated through development of new competencies and new combination of competencies. Thus, creating and utilizing knowledge and its transferring into value-creating activities is considered to be the most important task of companies. (Chun-Yao Tseng *et al.* 2011, 971.)

It is considered essential that in knowledge-intensive organization knowledge brings competitive advantage to the firm (Paton, 2009). Chun-Yao Tseng *et al.* (2011) argue that knowledge creation and utilization ensures organization's long-term survival and success (Chun-Yao Tseng *et al.* 2011, 972). Moreover, Starbuck (1992) specifies that knowledge is the most important input in the knowledge-intensive firm.

As Tether and Hipp (2002) state, KIBS organizations are characterized by their ability to collect external information and knowledge and it's combining with internal knowledge into service outputs. Knowledge-intensive services are usually highly customized and customer relationships are close. (Tether & Hipp 2002.) The provision of knowledge-intensive services in KIBS firms requires in-depth interactions between suppliers and users. Thus knowledge-intensive organizations are seen to benefit significantly from the intense interactions with other industry companies. (Chun-Yao Tseng *et al.* 2011, 972.)

The value of KIBS firms has been seen in their capacity to offer tailored services for their client's needs. It is argued that KIBS organizations naturally differentiate their offerings in accordance with their client's requirements. Hence, opportunity of new

knowledge creation and its transferring to customers due to interactive mechanisms has been stressed as a quite essential matter for KIBS companies. (Bettiol, Di Maria & Grandinetti 2012, 551.)

Knowledge-intensive services are often customized to special needs of customers, thus they are developed in continuous interaction with the clients. The significance of personal service and knowledge refining is very high. Hence, the quality of personal service and knowledge is argued to be valuable resources for a service firm. (Haataja & Okkonen 2004, 257.)

4.2 Research trends in KIBS analysis

Researchers began to consider KIBS as a distinct research topic at the beginning of the 1990s. Muller and Doloreux (2007, 7) argue that development of studies in this field had three main stages. During the first phase KIBS were recognized as a peculiar sector. This stage includes mainly theoretical reflections and characterized by little empirical concern. Inspired with the works of Barras (1986; 1990) and Soette and Miozzo (1990), Miles *et al.* (1995) proposed the first detailed elaboration of KIBS.

The second phase is considered to be an empirical one. The matters of KIBS innovation and its differentiation from innovation in manufacturing were broadly investigated. The Community Innovation Survey (CIS) was developed to collect micro-level data on the innovation activities of organizations. According to Muller and Doloreux (2007, 8), studies based on the CIS data relate mainly to the patterns of innovation and sources of competitiveness (Camacho & Rodriguez 2005; Evangelista 2000; Hollenstein 2003; Tether 2003; Tether & Hipp 2002), innovation and sectoral performance (Cainelli, Evangelista & Savona 2004, Cainelli, Evangelista & Savona 2006; Evangelista & Savona 2002), and innovation and inter-firm collaboration (Tether 2003). These studies focused on the innovation activities of KIBS only within national frameworks.

A comprehensive picture of the innovative patterns of KIBS was developed by scholars based on a relatively large scale surveys conducted on KIBS and sub-sectors. In their research paper, Muller and Doloreux (2007, 8) refer to the works of Balaz (2003), Djellal and Gallouj (2001), Freel (2006), Koch and Stahlecker (2006), Muller (2001), Tether (2005), Wong and Singh (2004) which were performed in this field.

Overall, a growing interest towards KIBS can be detected. After the analysis of the related literature was noticed that a number of researches conducted on KIBS grew significantly within last years.

According to Kemppilä and Mettänen (2004, 1) in spite of the fact that knowledge intensive services and innovations have been a matter of great interest for many researches in the latest literature, little systematic analysis has been performed.

In their research paper Kemppilä and Mettänen (2004, 1-3) state that many attempts have been made in order to define and clarify knowledge-intensive services. Problems arise due to using several different terms referring to more or less same sector. For example, some researches use the term *knowledge-intensive services (KIS)* (Eurostat 2003; Viitamo 2003). On the other hand, Kautonen *et al.* (1998), Miles (2003), National Technology Agency of Finland, Tekes (2002) and others use in research carried the term *knowledge intensive business services (KIBS)*. Hermelin (2001) and Lowendahl (1997, 2000) are considering *professional services*.

According to Kemppilä and Mettänen (2004, 4) since the industry is quite young and quickly changing, establishment of any clear and unambiguous classifications seems to be challenging. Nevertheless, they list the main characteristics which are related to knowledge-intensive services (KIS):

- Knowledge is an important input of services
- Services are significantly based on professional competence and knowledge
- Services themselves are sources of knowledge for a customer or services are used as an input for developing a customer's own knowledge
- An intensive interaction between a customer and a service provider, thus distribution and creation of new knowledge is possible. (Kemppilä & Mettänen 2004, 4.)

4.3 Development of innovative value-added KIBS within LSP

LSP service offerings has been studied by Punakivi and Hinkka (2006), who discussed the fact, that customer's growing service needs will require a significantly broader expertise from LSPs in future. With the reference to van Hoek and Chong (2001), Soinio, Tanskanen and Finne (2012) highlight the similarity of mentioned service features to the concept of the fourth-party logistics (4PL) defined as *a supply chain ser-*

vice provider that participates rather in supply chain co-ordination than operational services. It is highly information based and co-ordinates multiple asset-based players on behalf of its clients (van Hoek & Chong 2001, 463). Thus, 4PL is considered to focus on supply-chain co-ordination, while traditional 3PL concentrates on bundling operational services. (Soinio, Tanskanen & Finne 2012, 35.)

The concept of a “maestro” was introduced by Bitran and Arroyo-López (2007). As external neutral party, “maestro” is able to *co-ordinate the entire network and operate as the link between the client firm in the supply chain, the suppliers, the customers, and 3PLs, with the aim of aligning the incentives for all the members in the supply chain*. It is noticed that the degree of involving LSP into client’s supply chain depends on client’s decision. Some large enterprises are considered to be more careful and hence endeavor to manage the supply chain by their own. In some cases, smaller companies are supposed to benefit from the centralized-service-provider concept more. (Soinio, Tanskanen & Finne 2012, 35.)

Holmström *et al.* (1999) studied the transformation of the customer demand to suppliers in the demand chain (Figure 6). It is argued that in a customer-supplier relationship, demand and supply has two linkages defined as the *value-offering point* (VOP) and the *order-penetration point* (OPP).

The value-offering point is *the point in the customer’s demand chain at which a supplier offers his solution to the customer*. The order penetration point is *the stage in the supply chain from which onwards delivery is made to customer orders*. The OPP determines how and when a product is allocated to the customer. (Kaipa, Holmström & Hellström 2006, 2.)

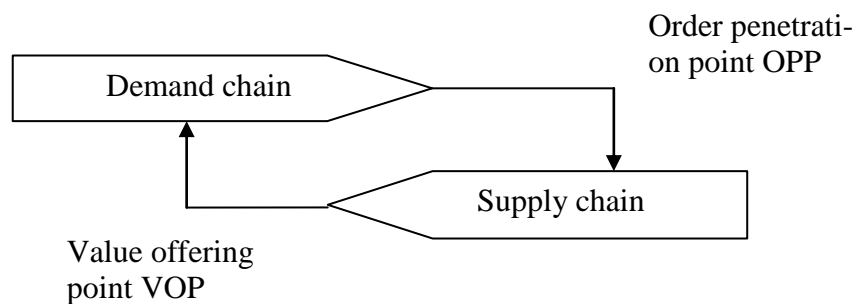


Figure 6. OPP and VOP linking supply and demand (Holmström *et al.*, 1999).

It is stated that shifting the VOP to the earlier phase of the demand chain, or before the point when customer allocates the demand to a specific supplier, benefits the customer and increases responsibility of the supplier. Soinio, Tanskanen and Finne (2012) argue that the LSPs have better possibilities to gain new business opportunities in the earlier phases of the customer's demand chain, or at the pre-transportation level (e.g. transportation planning), compared to the possibilities can be achieved in the last stage of the demand chain (or e.g. the stage of purchasing of the transportation service). (Soinio, Tanskanen & Finne 2012, 38.) This opinion is close to the project marketing tactics discussed earlier.

Within their research work attempted to combine the perspectives of LSPs and SMEs in the development of value-added logistics services, Soinio, Tanskanen and Finne (2012) constructed several rudimentary service models. The third one, called *consulting*, with the focus on conceptual issues such as network planning and inventory optimization, and the fourth one, named *outsourced Chief Logistics Officer (CLO)*, which covers operational-, tactical-, and strategic-level activities, are presented in the below section. A closer look is taken to the refined service models.

4.4 Knowledge-intensive logistics service models

According to Fisher (1997) and Collin, Eloranta and Holmström (2009), the products or services supply chain should be defined based on the customer's demand chain. The core service in logistics is considered to be transportation, since without need for transportation there is no necessity of providing any other additional value-added services. Herewith, starting point of different logistics service models' exploring was the customer's demand chain for transportation service. The two levels of activity were determined in the supply chain based on the presumption whether the nature of the activity is operational (execution) or tactical (planning) (Figure 7). (Soinio, Tanskanen & Finne 2012, 38-39.)

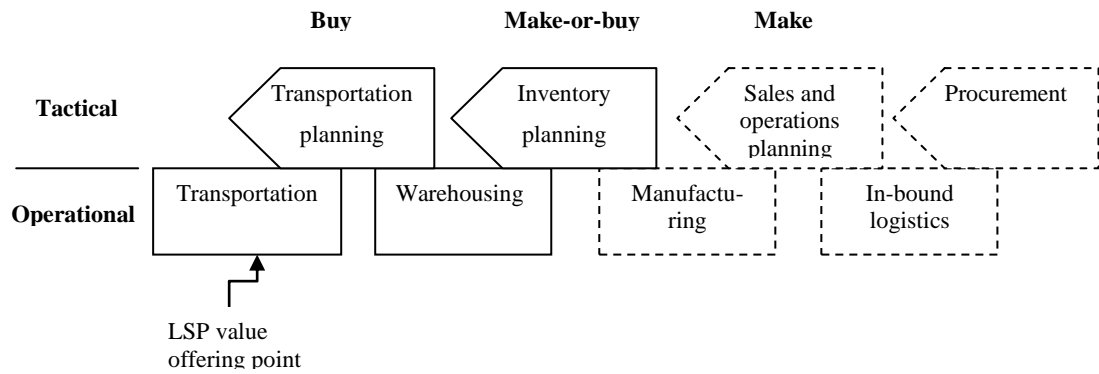


Figure 7. Tactical and operational levels of demand-supply chains (Soinio, Tanskanen & Finne 2012, 39).

It is argued that SMEs put seemingly low level of effort into development of the supply chain. For instance, Soinio, Tanskanen and Finne (2012) state that in case of studied companies no knowledge or the resources was possessed by SMEs into the SCM development activities. Hence, they argue that a third, strategic level of activity in the demand chain can be determined, which is related to managing of functions such as e.g. inventory optimization, demand forecasting, carrier selection etc. (Soinio, Tanskanen & Finne 2012, 39.)

Figure 8 highlights several rudimentary service model propositions which consider different levels of activities within the demand-supply chains. The first service model proposition named *transportation* is connected with transportation procedures and related to operational level services. The second service model presented (*3PL with planning*) considers operational and tactical level activities of the demand chain. Third, the *consulting* service offering, is associated with strategic needs of an enterprise. *Outsourced CLO* model covers all activity levels within the demand-supply chain. In following sections, a closer look to *consulting* and *outsourced CLO* service models will be taken.

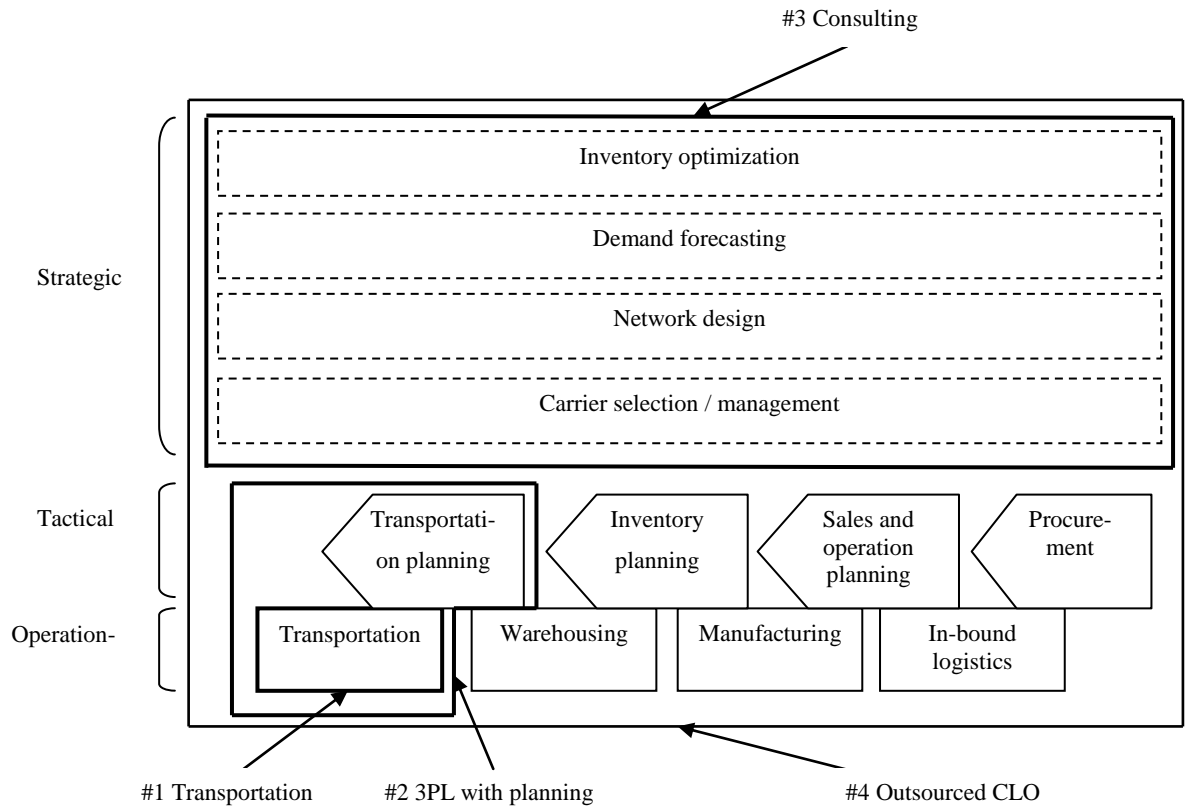


Figure 8. The service model propositions (Soinio, Tanskanen & Finne 2012, 40).

4.4.1 Consulting service model

In accordance with the Figure 8, consulting service model matches the strategic needs of enterprises and greatly differs from the other models developed. Consulting service model does not take into account operational and tactical-level activities, and the main focus is made only on conceptual issues. *The strategic-level services require high customer participation in terms of shared information and transferred knowledge <...> Strategical-level services should not be offered together with operational and tactical-level services.* For successful applying of this service model by LSP, the client company in question should be able to recognize the challenges it faces and to choose the needed tool from LSP's portfolio in order to deal with these challenges. (Soinio, Tanskanen & Finne 2012, 41-42.)

4.4.2 Outsourced CLO

Outsourced CLO service model covers all levels of activities (operational-, tactical- and strategic-level activities). According to Soinio, Tanskanen and Finne (2012), this service model is partly based on the ideas presented by Bitran and Arroyo-López (2007).

Soinio, Tanskanen and Finne (2012, 42) write that outsourced CLO is seen as an experienced and knowledgeable external party, which takes over the logistics tasks of the client company's manager and have a clearer view of the client company's supply chain. Hence, the outsourced CLO identify and improve the challenge areas of the enterprise.

<...> it is [CLO service model] more suitably operated by a party equipped with a thorough understanding of a customer's business and the capability to analyze the challenges facing the customer. This party would also have knowledge of the service providers that are operating in the industry. The CLO would then be the logistics integrator, understanding the customer's needs and bringing the best-in-class solutions from the service providers. (Soinio, Tanskanen & Finne 2012, 42.)

5 KNOWLEDGE-INTENSIVE PROJECT LOGISTICS

This chapter presents a review of knowledge-intensive project logistics aspects. Information is given based on the previous theoretical implications and partly on the researcher's own interpretations and experience as well. Process of knowledge-intensive project logistics services development in Hamiko is introduced briefly. Though, detailed analysis of the process will follow in the analysis and discussion parts only and does not presented here. The company's knowledge-intensive project logistics service model is introduced.

Project logistics activities differ significantly from traditional logistics operations. Projects are usually tailor-made in close coordination with client, and sound planning is considered to be the backbone of every project. Often project shipments have special characteristics and are handled globally. Demand projects include handling of heavy transports, oversized cargo within precise deadlines set. Execution of some projects is dependent on the movement of large quantities of goods to and from project

sites. Hence, evaluation and planning stages of the assignment affect at success of the entire project.

Successful accomplishment of demand logistics projects requires a great contribution of knowledge at the every stage of the process. Knowledge is created within every single project and shared within the organization, client company and other parties involved. It is argued that project organizations should concentrate on building knowledge since increased knowledge leads to increased project performance (Kotnour 2000, 404).

Sobotka and Czarnigowska (2005, 73-74) highlight that procurement system of e.g. contemporary construction project evolves: a party acting on behalf of the client decides on designers, contractors and suppliers selection. Decision-making develops as well: consultants or project managers choose appropriate materials, manufacturers and suppliers of the project. Moreover, they also determine the logistic system of the building site.

Decision making in project logistics requires a wide knowledge of the materials market, financing and managing supply. As well, understanding of the logistics impact on the project efficiency in terms of cost, quality and time is essential. Wide knowledge on current market conditions such as cost of capital, material, transportation and storage prices is a matter of great importance. (Sobotka & Czarnigowska 2005, 73-74.)

An LSP is able to gain competitive advantage through expert activities performing and participating to project planning and decision making processes. Especially consulting service model and outsourced CLO activities presented earlier, significantly engage logistics provider to the clients' project entirety.

Such kind of performance relies heavily on professional knowledge and expertise. In case of project logistics, consultative activities are developed for the purpose of providing a customized service (tailor-made logistics solutions) and can be recognized as value-added ones. Moreover, they are closely connected to the accumulation, creation and dissemination of knowledge and involved in strategic, tactical and operational levels of project performance. Therefore they can be distinguished as highly knowledge-intensive ones.

Main aspects of knowledge-intensive project logistics services are determined below. Attention is also paid on services' critical development success factors as well as matters of LSP's competitiveness and performance improvement.

Following Holmström *et al.* (1999) and their studies related to the transformation of the customer demand to suppliers in the demand chain (figure 6) can be argued that in order to improve competitiveness of a logistics provider and ensure high project performance, value-offering point (VOP) should be shifted to the earliest phase possible within the project demand chain. It enables supplier to gain new business opportunities and provide additional value for the client.

According to the project marketing approach, studied earlier (figure 3), the VOP should be shifted to the pre-tender and, if possible, the independent of any project stage in order to secure supplier's participation to the project construction or joint construction and assure an easy way of project co-development (figure 4).

Thus, previously highlighted *solution or consultative selling* approach must be used in this case as a special selling approach designed for projects or complex product / services considered to be intangible and partly co-developed with the buyer.

As was stated earlier in this chapter, such kind of performance requires highly knowledge-intensive activities from the logistics service provider. Based on the above mentioned implications and with reflection to the work of Soinio, Tanskanen and Finne (2012) (propositions highlighted in the figure 8) it can be concluded that the optimal VOP in knowledge-intensive project logistics demand-supply chain is located at the independent of any project / pre-tender project stage and related to the strategic-level activities provided by LSP. Thus, knowledge-intensive project logistics services are connected with the consulting and outsourced CLO activities indicated in the respective service models.

Hence, proper positioning of the VOP within project demand-supply chain is crucial for the LSP. Choosing the right tactics and approaches enables supplier to gain significant advantages, generate additional value and transfer valuable knowledge to the client and other actors within the project milieu.

Above implications are briefly introduced in the figure 9 presented below.

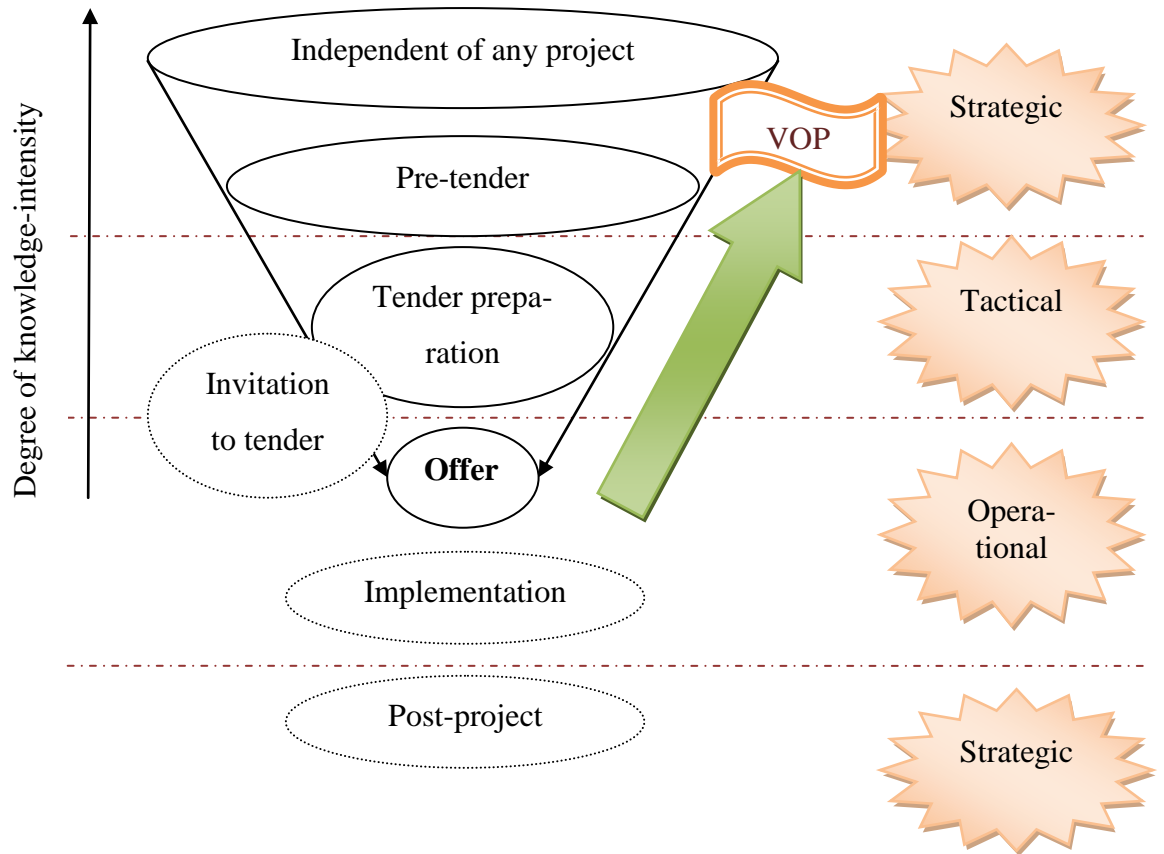


Figure 9. Allocation of the VOP within knowledge-intensive project logistics supply chain

5.1 Development of knowledge-intensive project logistics services in Hamiko

In previous sections of the thesis specific nature of logistics project marketing was investigated. Hamiko as organization which expands its activities to the demanding environment of project logistics shall undoubtedly choose the right tactic of approaching its clients. Getting involved into project planning enables the company to build a strong relationship with the client and to shape the project already at the pre-tender stage. In this case Hamiko gains significant advantage and has greater possibilities to win a tender and thus participate to the implementation of the project itself.

Following a construction marketing approach, Hamiko intends to position itself as an expert to the client's problem. Thus, the organization concentrates on a solution or consultative selling approach. In addition to its traditional logistics service pallet, project consultancy activity enables the company to obtain significant competitive advantage. It enables Hamiko to gain strong position in competing for actual logistics implementation of a project.

Knowledge-intensive project logistics services have been developed on ad-hoc basis during experience gaining within several logistics projects. As stated previously, this way of new service development is considered to be common within service organizations. Testing of new service has been done by introducing it to the market.

5.2 Hamiko's knowledge-intensive project logistics service model

As was stated earlier, in highly competitive business environment during the stagnation stage and re-focusing of logistics business activities, companies are forced to concentrate on new service development. Thus, innovations processes and development of new services became an essential part of Hamiko's strategy as well.

In Hamiko's case, business activities' outsourcing process as a growing trend in the milieu combined with development of knowledge-intensive project logistics services within the company led to new business strategy and competencies creation. Development of industry-specific solutions (knowledge-intensive project logistics service model) became crucial in addressing clients' needs.

New project logistics service model has been developed on step-by-step basis. Starting from the simplest transportation tasks performed at the operational level of the project demand-supply chain, company's activities reached the strategic level activities as well.

It is argued, that there are several logistics models and different strategies can be applied in every project. The choice of a proper approach is usually based on careful analysis of suppliers' market limitations, structure of material consumption, accuracy of consumption planning and logistics cost minimization. Type of a project itself, its complexity and its procurement system significantly affect the logistics planning and implementation. (Sobotka & Czarnigowska 2005, 73-74.)

During described period of knowledge-intensive project services development, a separate knowledge-intensive project logistics service model was developed. A general example of the model is presented in the following Figure 10. The figure is related to implementation of investment projects.

<p>Independent project phase</p>	<p>Business idea generation Market research Evaluation of business opportunities, Negotiations with clients Trading contract terms negotiation Investigation of financing opportunities Approaching a consultant and other experts (finance, juridical etc.) Pre-liminary shaping of project boundaries begins</p> <p>LAWERS, BOOK-KEEPERS CONSULT. CLIENT</p>
<p>Pre-tender stage Project evaluation</p> <p>Strategic</p>	<p>Negotiating on purchase under the contract with material suppliers Shaping of project boundaries Modifying of equipment list with drawings, technological processes as the part of the trade agreement. Analyzing of different options and possibilities Evaluation of importation possibilities (as investment to the share capital of Russian company as contribution in kind, direct purchase / sell-buy delivery etc.) Costs evaluation and estimation Analysis of trade agreement (from customs and logistical point of view) Evaluation of client's ideas regarding import possibilities and their appliance to practice Choosing of an appropriate way of customs clearance Modification of Equipment list for the purposes of its submitting to Russian independent appraiser and customs authorities If needed, registration and amendments to the charter of Russian import company (taking into consideration logistics and customs clearance guidelines) Evaluation of customs codes, possible duties and taxes Pre-liminary consultations with federal and local customs authorities Obtaining of classification decision Consultation under the form of the Bank Guarantee, including local customs Registration of the Bank Guarantee as maintenance of payment</p> <p>CONSULT. CLIENT LAWERS, BOOK-KEEPERS HAMIKO</p>

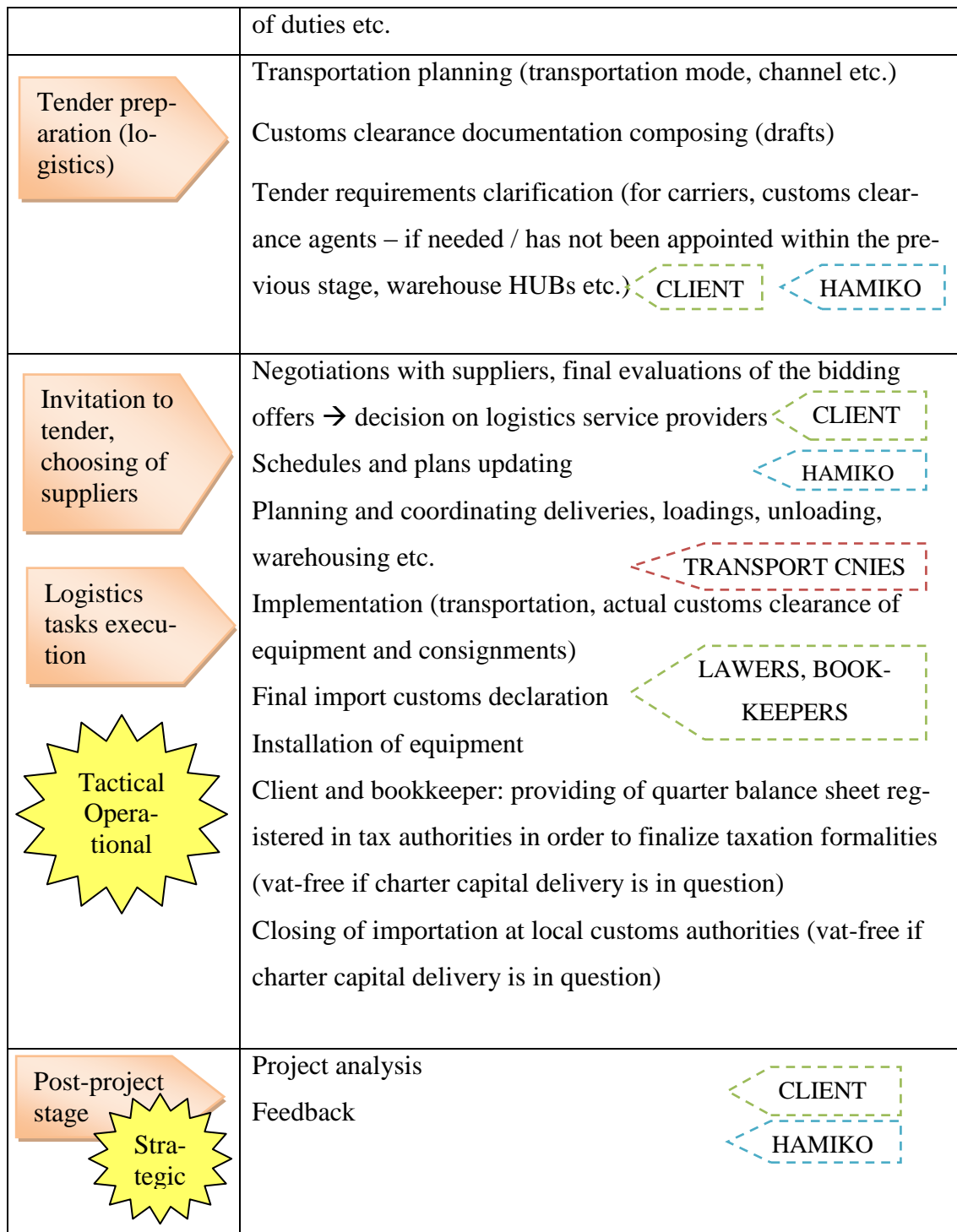


Figure 10. Hamiko's knowledge-intensive project logistics service model (related to investment projects)

As can be noticed from the Figure 10, knowledge-intensive project logistics service model partly reflects a structure of client's project itself. It is shaped taking into consideration earlier discussed marketing approaches applied in project logistics (e.g. identification of independent, pre-tender and tender preparation stages of the logistics project).

Additionally, its structure is based on several rudimentary service model propositions which consider different levels of activities within the demand-supply chains (strategic, tactical and operational activities). These service models (consulting and outsourced CLO) have been studied in the previous parts of the thesis.

The service model starts at the independent project phase which extends to strategic level activities. Along with the client itself, such business players as e.g. consultant companies participate to this phase as well.

Following the consulting service model, Hamiko as a company providing knowledge-intensive project logistics services has a possibility to be involved already to this stage of the process. Consultant role dominates in this case.

Pre-tender stage is connected to strategic as well as to tactical activities within the supply-demand chain. Hamiko plays an important role as a consultant and an expert in customs clearance and logistics planning of investment projects. At this stage the company's activities extends actions performed within consulting service model and respond the outsourced CLO performance. During the tender preparation stage Hamiko participates to the client's decision-making process at the operational level of the project.

Within the tender and logistics tasks execution phase Hamiko has different involvement possibilities. The organization can be engaged to the logistics implementation and customs clearance of consignments as a 3PL service provider, or only to continue performing the outsource CLO or only consultation activities (Hamiko Project Services).

The post-project phase is an important phase of the process which provides necessary feedback and guidelines for future activities. Thus, Hamiko's involvement into this phase is essential.

6 PROJECT CASES ANALYSIS

In the present chapter three project logistics cases accomplished by Hamiko are studied. The cases were chosen in chronological order starting from a case related to a partial accomplishment of project logistics tasks only. During each following project case

investigated within the thesis, the company performed broader tasks in the client's project structure.

For the purposes of current research three project cases were chosen in the period 2006 – 2011. Information gathering and analysis was made by studying company's internal documentation, service offerings, invitations to tender and related e-mail correspondence. Several persons within the company were interviewed: company's top management (managing director, sales manager, forwarding manager and managing director of the company's representative office in Russia) as well as personnel from forwarding department. Additionally, representative persons from the client companies were interviewed. Researchers' own implications and involvement significantly benefited research and analysis process as well.

A purpose of detailed investigation of presented cases is an intention to detect challenging issues and factors of success within the previously accomplished projects. These matters will be particularly discussed during the overview of case analysis in the discussion chapter of the thesis.

The aim of case analysis is needed knowledge obtaining and making corrective measures for the future. The goal is to evaluate the cases from the management side and to indicate strategic implications from the each studied case. Managerial implications will be highlighted in conclusions chapter of the thesis.

6.1 Case 1. Glass wool plant

6.1.1 Introduction

The first project case is related to a delivery of forwarding and transportation services for a glass wool plant situated in Russia. Finnish company, which has its own productions facilities in Russia, decided to make an investment decision to extend the existing glass wool production line 2, situated 120 km to south-east from Moscow, Russia.

Value of the main project was approximately € 25 million, and the value of co-related project about € 1,6 million.

As a subcontractor of the main logistics provider chosen to implement the project, Hamiko was asked for forwarding and transportation services in accordance to beforehand agreed instructions and transportation plans.

The evaluation and selection of suppliers was done on the basis of received offers, where the operational characteristics of services, competitive price and ability to meet requirements were indicated as the most important selection criteria.

Hamiko's warehousing facilities were chosen as a main project HUB in Finland where cargo was collected and supervised before its final transportation to Russia. In addition, the company was responsible for export customs clearance of project consignments, checking and documenting of the cargo and further transportation of the goods to Russia.

Transportations were performed mainly in standard tent trailers. A number of extra heavy and oversized items were delivered to the project site in special transport units as well. In addition to the above mentioned services, Hamiko lashed the cargo, took a responsibility for arranging of transport permits and safety cars and reporting cargo location. The company was responsible for preparing of drafts of pro-forma invoices and sending the documents to nominated customs clearance agent in Russia for checking.

All cargo had to be marked clearly in English with waterproof marking so that it could be easily identified before dispatching at the destination in Russia. The job should be performed as accurately as possible since any missing information on markings caused extra costs and delays in customs clearance and was charged from the shipper / responsible party.

Among other things, forwarding agent's services included the following procedures:

- receipt and visual inspection of arriving cargo at Hamina
- transloading services at the port of Hamina, Finland, including unloading of cargo from vessels and trucks, moving of cargo into warehouse
- storing of cargo in covered warehouse, oversized special cargo storing at the yard
- bookkeeping for warehouse operations and instant, real time reporting of arrived and departed cargo

- preparation of export documentation and drafts of pro-forma invoices
- loadings and inspection of lashing and securings of trucks
- insurance of cargo during port operations and warehousing in Hamina against physical damages was offered as an option
- cargo insurance for transportation was offered as an option

6.1.2 Case analysis

In the first project case introduced mode and schedules of transportation were chosen in advance by the client during the pre-tender and tender-preparation stages. Import customs clearance of the investment project was performed by other parties involved, the type and place of customs clearance in Russia was settled beforehand.

During internal interviews conducted within the organization was noticed that getting involved into the project (or winning the deal) was quite difficult. Within the invitation to tender stage, a list of possible suppliers had been already formed. Supplier requirements and target competitive prices were considered to be the main decision criteria from the client's side. Thus, gaining competitive advantage in this competition was not simple and mostly depended on internal costs reduction for competitive price offering and maintaining supplier's profitability. This situation affected profitability of the project from Hamiko's side and lead to e.g. inflexible schedules and unfavorable conditions for the supplier.

Hamiko acted as a subcontractor of the main logistics company responsible for general project logistics implementation, which means that a number of other parties were also involved into the process. Several subcontractor organizations, transport companies, customs clearance and shipping agents, customs representative agents etc. communicated amongst themselves. According to Hamiko's project team members, in the beginning of the project there had been some communication problems within external logistics teams (inter-organizational communication). For example, correction of transportation schedules and pro-forma drafts finalization was challenging in the beginning.

Hamiko nominated a person in charge from the forwarding department to be responsible for the job performance. Several other team members were appointed in addition, but based on interviews required job scope and the process did not differ so much

from a normal routine work in Hamiko. Schedules and timetables were in a matter of great importance and particular accuracy of actions and good communication skills were required for assuring of excellent job performance.

6.2 Case 2. Dispersion plant

6.2.1 Introduction

Second case is connected to delivery of a production line for a dispersion manufactory in Russia. Machineries were delivered as an investment into a charter capital of the manufactory arranged by Finnish investor.

Value of the project (one production line) was about € 1,5 million.

An order for the job was received from a consultant company appointed by the investor. Together with the consultant, Hamiko developed and planned logistics implementation of the project and acted as a subcontractor of the consultant company in question.

Hamiko acted as a main subcontractor responsible for logistics implementation. Overall, the company was responsible for export customs clearance, collecting of consignments in Hamina warehouse, handling, documenting, loadings' and inbound deliveries' supervising as well as co-ordination of import customs clearance of consignments in Russia. Hamiko undertook to arrange transportation of the items ex warehouse to the factory situated 40 km near Moscow (Russia).

On behalf of the client, Hamiko nominated a customs clearance agent responsible for the customs clearance and settling all the matters with Russian customs and tax authorities. The client company made a direct separate agreement with nominated customs clearance agent in Russia which was appointed to take care of customs formalities and handling of contribution capital formalities on behalf of the principal. Hamiko acted only as a consultancy party between the principal and the customs clearance agency taking care of co-ordination matters.

Several equipment and spare parts suppliers delivered cargo to the Hamiko's project site, where deliveries were checked, consolidated, documented properly and necessary

transportation lots composed. The project also involved delivery of several oversized collies.

6.2.2 Case analysis

As was stated in the introduction part of the case, Hamiko was appointed as the main co-ordinator of Russian import customs clearance, who nominated authorized local subcontractors for handling the job “on site”. It should be mentioned that despite of this fact, Hamiko was not involved into the overall project planning process right from the beginning. This matter led to a situation when juridical part of the project was in dissonance with further customs clearance implementation and original plan of the client.

In order to perform a delivery as an investment to a charter capital of Russian company, the import company in question should have proper legal status in Russia, which means that it should have a legal ability to receive foreign goods from abroad. Client planned the delivery of the production line specifically as a charter capital delivery, according to which no funds should be transferred from abroad for additional shares purchase. The goal of the project was to deliver machineries especially for the exchange for shares, which means that delivery should be arranged with pro-forma invoices with value mentioned for customs purposes only. No payments from the investor’s side were planned.

During the independent phase of the project, client established own daughter company in Russia for the purpose of further charter capital delivery. Despite this fact, by misunderstanding or simple lack of knowledge related to the process, client’s lawyers and bookkeepers made a mistake and established only a representative organization with no rights to purchase or accept any goods from abroad. Later on this fact became clear too late when no changes could be made to the further process anymore since the project was at the implementation stage already.

This matter negatively affected the whole project, its timetable and agreed deadlines and overall costs and resources involvement of each party involved.

The project manager responsible for the co-ordination of the process from Hamiko’s side indicated also some misunderstanding issues at the first stage of the project. Some

of the client's requirements were unclear, certification process was challenging but despite of this fact overall performance was satisfactory.

From Hamiko's management point of view, getting involved into the project and winning the deal was much more simple in comparison with the first project case indicated.

6.3 Case 3. Concrete element plant

6.3.1 Introduction

The third case is related to delivery and customs clearance of a concrete element production plant to Saint-Petersburg area in Russia. Client company manufactures pre-cast element structures for industrial, office and residential building projects and is considered to be one of the biggest actor in the field of concrete element industry in Finland.

The organization intended to build its own factory in Russia in order to start a production of the concrete elements in Russia domestically and, thus, lower the costs on the long run and broaden its market share in the country.

Client approached Hamiko during the independent project phase asking for an advice regarding the best possibility to implement the project. At that moment Hamiko had its own consultation unit established under the name of Oy Hamiko Project Services Ltd and was actively marketing the new launch of services.

In the beginning, the client intended to evaluate business opportunities, risks and pitfalls on the way and study possible ways of transportation and customs clearance of consignments. Since Hamiko gained a significant experience within previously accomplished projects, several opportunities were carefully studied and costs evaluated.

Consultation and analysis part of the assignment was performed under the name of Oy Hamiko Project Services Ltd. Hence, during the first stage of the project the company acted as a consultative party which had a possibility to offer different solutions for the logistics implementation of the job.

As was mentioned above, several import options were offered to the client. The client chose to deliver the goods as an investment to the share capital of Russian company as a contribution in kind. According to the chosen option, technological equipment imported to Russia was exempt from Russian VAT. Hamiko had a possibility to organize the delivery and equipment list in the way when delivery of the goods in lots provided an opportunity to perform customs clearance by using only several customs codes.

Hence, at the beginning within the independent and pre-tender project stages Hamiko was involved into planning of the process and settling all the pre-liminary matters with customs authorities and other parties involved.

A separate unit within the organization, representative office of the company in Saint-Petersburg, Russia, was established in order to deal with the project in kind locally. Personnel of the office had long experience in consultation area related to import customs clearance in Russia and taxation matters.

In Hamina's office several persons were appointed for the project implementation from the Finnish side. The client created a responsible project team from his side as well.

Among other things, Hamiko Project Services team took care of the following project assignments:

- Examination of technical and technological documentation. Systematization and optimization of provided data (integration of equipment into groups, encoding according to Russian customs encoding system – TN VED, etc.) taking into consideration the goods final customs clearance with privileges obtained, and adjust it to the form required by customs authorities
- Preparation of necessary set of documents and application to independent appraiser for expert examination of CIK equipment value
- Co-ordination of examination process with the appraiser during preparation of statement of independent appraiser. Obtaining of the statement of independent appraiser
- Co-ordinations with corporate lawyers regarding drafting of corporate documents (minutes of shareholders meeting regarding decision to increase charter

capital, regarding amendments in charter, regarding amendments in foundation agreement)

- Preparation of set of documents for application to Federal Customs Service (FCS) of Russia for classification decision and resolution about granting tax privilege. Supervising and coordination of the procedure. Obtaining confirmation from FCS regarding privileges
- Preparation of full set of necessary documents and application to customs authorities for registration of privileges on duty payments and tax payments. Obtaining of customs authorities' decision regarding granted and registered privileges
- Preparation of full set of approved and registered documents, final customs declaration and application to customs authorities for finalizing of CIK importation and obtaining of documents confirming legal execution of CIK customs clearance with privileges
- Participation to transportation planning, routing and scheduling

During the invitation to tender stage of the project, Oy Hacklin Hamiko Ltd participated to a tender as a logistics service provider. Unfortunately due to several issues presented in the analysis of the case below, Hamiko had no chance to actually transport the goods in accordance to previously agreed plans. Goods were collected at the plant site in Finland, and import customs clearance and transportation of equipment performed by other forwarding agent, but under Hamiko's strict control as the main consultant.

Luckily, the factory was import customs cleared by Hamiko's representative office in Saint-Petersburg under before agreed schedule and in accordance with informed costs.

Hence, within particular project case Hamiko had a chance to participate only to the strategic and tactical project level activities.

6.3.2 Case analysis

According to opinion of the involved parties, consultation part of the project performed by Hamiko Project Services was implemented very well. The client company especially appreciated Hamiko's input in respect of schedules, cost-saving possibilities provided for the project and overall expertise performance. Sound planning and

investigation of all possible pitfalls beforehand provided a good possibility to clarify future transportation and customs clearance schedules.

Consignments were studied and documented properly even some challenging issues raised on the way. It was always possible to find a solution before the actual transportation and customs clearance implementation. In addition to consultation and coordination activities, Hamiko was able to provide translation services which made e.g. composing of transportation documents easier.

Overall, Hamiko showed the client significant costs savings along with providing of additional value-added services.

Hamiko had an excellent chance to participate to the project right from the beginning, thus juridical issues and charter capital obstacles were organized properly and there had not been any problem with the bookkeeping and legal issues in Russia. Despite this fact, client reported that afterwards after the installation and opening of the factory turned out, that local legal adviser made a mistake during later formal settlements with the state authorities. This situation affected further production activities at first, but the matter was quickly solved.

Based on conducted interviews can be stated that the main reason for Hamiko's failure as a logistics provider within the invitation to tender stage was unpredictable changes within the project team in Hamina. A person responsible for the management of the process in Finland and organizing internal communication between Finnish and Russian offices of Hamiko temporary left the organization, so a team without a project manager could not succeed and failed the competition.

7 DISCUSSION

7.1 Overview of case analysis

After detailed analysis of presented case projects can be noticed that participation and gaining of a possibility to create logistics guidelines already at the earliest stages has positive impact on the project cost effectiveness and value creation for the client. In this way the company avoids a submission supplier position and gets a chance to affect the boundaries of the entire project. During the first project phases it is possible to

take into consideration main important matters which have further impact on logistics implementation.

Within its project-related history, Hamiko had a unique opportunity to observe project logistics tasks from different angles. Through continuous development of own performance, the company got a chance to move forward into the customer's value demand chain: an improved position in the demand-supply chain was gained. Hamiko shifted its position from operational level participation to a strategic level involvement.

Possible pitfalls were investigated which allows the organization to avoid unpleasant surprises during further performance. Valuable knowledge and large experience in the field was gained within every single project case. It can be stated that Hamiko's input into project value creation was the lowest in the first case and the highest in the last one. Undoubtedly Hamiko will continue to accumulate and share acquired knowledge with future client companies and other actors in the project milieu.

Meanwhile, the last explored case showed that the company should learn from its own mistakes and strengthen internal performance for example in respect of project team maintenance and development.

Following detailed investigation of the project cases can be stated that new service development process, indicated earlier in figure 5, does not have a straight-forward structure which begins from the idea generation and extends to the implementation stage. In Hamiko's case development of knowledge-intensive project logistics services follows a so-called spiral route. Implementation of each case further led to idea's re-evaluation and following concept development and business analysis. This process does not end as it, and development will remain to be continuous.

7.2 Reflections on methodology and theory

Qualitative research and case study method chosen seemed to be a proper way for the exploration of the concept of knowledge-intensive project logistics services development. Studying of multiply project cases provided the research with a unique opportunity to compare development process of the services in questions on the example of

the single organization. Case study gave the possibility to widen the angle of the research in respect of the objective set. Hence, the focus still remained unchanged.

Explored theoretical material provided the research with valuable basis for further empirical exploration and formulation of the concept of knowledge-intensive project logistics services and Hamiko's knowledge-intensive project logistics service model formulation.

Empirical data gathered on the subject in form of interviews and studied materials gave valuable information for further development and interpretation of the concept. Overall, applying chosen research method to the combination of the theoretical research and empirical analysis helped to explore and understand the subject and gave needed answers to the research questions.

8 CONCLUSIONS

After detailed analysis of literature available on the topics of project marketing, innovations in logistics services as well as knowledge-intensive business services and after further reflections of acquired knowledge to current situation on the market and particularly Hamiko's development process, can be undoubtedly stated that the company has taken a right strategic direction of development. In order to ensure long-time profitable growth and competitiveness of its business, Hamiko should differentiate its offerings in accordance with changed market situation and its client's requirements within target segment. As was stated earlier, knowledge brings competitive advantage to the company and creates value for its clients, thus matters of new knowledge creation in continuous interactions with clients and, moreover, transferring of gained knowledge to them is a matter of great importance.

Service customization and answering first client's desires and intensions during the very beginning of logistics project lifecycle secure high possibilities of successful project marketing and sales and, lately, logistics implementation. However, as a specialized logistics service provider offering knowledge-intensive solutions for project logistics, Hamiko should concentrate on combined development of both service pallets at strategical, tactical as well as operational levels. As can be noticed in the analyses of the case studies, there can be a gap between strategic level and operational and tactical-level services and their offerings, thus it may be important to choose the right

strategy for project marketing, sales and implementation. It may be necessary to offer such services separately.

Client's engagement already at the independent project phase ensures company's competitiveness, provides better possibilities for successful implementation of logistics project. During this period it is possible to construct and shape the project together with the client and provide higher value for both parties involved. Positioning the value offering at the earliest phase of project life cycle significantly benefits the client and increases Hamiko's responsibilities and chances to gain new business opportunities.

Innovations and development of new services can be considered crucial for securing the company's position on the market and its further successful development and profitable growth. As was stated above, creating and managing innovations is one of the main differentiation aspects in a world of global competition. Therefore it can be argued that via development of knowledge-intensive project logistics services Hamiko is able to gain significant opportunities on the logistics market and increase revenues.

Hence, by offering knowledge-intensive project logistics services via Oy Hamiko Project Services Ltd, Hamiko differentiates itself on the market, gains better opportunities to win a project, shows monetary savings for its clients and the company itself and, moreover, delivers higher customer satisfaction and generates value for the parties involved. Thus, maintaining knowledge as a competence is strategically important matter for the company.

Underlining previous thoughts can be concluded that participation to a project at the earliest stage possible ensures successful development and management of knowledge-intensive project logistics services. Project co-development together with client at its strategical level secures high performance and success of entire project. This phase involves high degree of knowledge generation and exchange, which benefits client company and improves LSP's future performance.

8.1 Evaluation of the research

The purpose of this research project was determination of knowledge-intensive project logistics concept and analyzing knowledge-intensive project logistics services' devel-

opment process within Oy Hacklin Hamiko Ltd. It was considered important to verify ways of securing the company's profitability and competitiveness within rapidly changing international business environment. Discovering issues and critical success factors in this process was essential as well.

Following the research plan, several publications on the subject-related areas were studied, concept of knowledge-intensive project logistics determined, necessary empirical data on the subject gathered and project cases analyzed. It is important to mention that during the research process separate knowledge-intensive project logistics service model was formulated for the purposes of the case company. It helped to formulate total service scope of Hamiko and classify solutions provided by the company for logistics projects implementation in accordance with different levels of demand-supply chain.

Thus, the purpose of the study was met and the answer to main research questions given. Hopefully conducted research provides valuable material for further investigations on the subject and creates meaningful knowledge for the commissioned company.

8.2 Managerial implications

From researcher's point of view this research project is valuable for Oy Hacklin Hamiko Ltd. No similar studies was made before, and Hamiko's management consider conducted research truly important since it investigates quite new concept which is treated to be strategically significant for development of the whole organization and maintenance its competitiveness.

Since every project is a unique one, Hamiko's consultative service pallet requires continuous development. During the analysis of gathered empirical material several obstacles affecting the organization's overall performance were detected. Hopefully the present research project will generate necessary corrective actions in order to improve the company's performance in the project logistics field.

The analysis and the follow-up of the project significantly contribute future performance, boost further service development and secure company's profitability. Hence,

it is vitally important to pay attention on the post-project stages, learn from own mistakes and take advantage of the matters properly performed.

Additionally higher attention should be paid on internal communication of project teams, issues related to project management leadership, maintenance and continuous improvement of both service offerings: solutions related to consultation activities during strategic phase of the project, as well as their seamless connection with tactical and operational project logistics performance.

Hamiko should strategically concentrate on its long-term development in order to secure company's strong performance in the future. Challenges always give important impulse and a good reason for analyzing current direction and re-formulating further development strategies.

This study is useful not only for the commissioned organization, but for other logistics providers on the field. Hopefully Hamiko's example will indicate the importance of innovation processes in logistics and particularly knowledge-intensive services development by logistics service providers. Since plenty logistics companies undergo significant changes processes at the moment and are in a period of adaptation to new unstable business environment, working on differentiation, new service development and, thus, maintaining competitiveness can be seen as a key for success in this process.

8.3 Suggestions for further research

Later on, knowledge-intensive services as a part of logistics companies' service pallet can be studied not only in relation to project logistics, but under more general angle. There are several opportunities for improvement of LSP's performance in the field. Within present research was noticed that unfortunately there has not been much information regarding knowledge-intensity in logistics in particular, and further research on the subject would be really valued and appreciated.

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