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Off the record- LSP green transports

- Exploring differences in and monitoring of environmental demands in the purchasing process of transport services

EVELINA WEICH 2015
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SUPERVISOR:HENRIK STERNBERG DEPARTMENT OF DESIGN SCIENCE LTH

LUNDS UNIVERSITET

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Lunds universitet

Miljövetenskaplig utbildning
Centrum för miljö- och klimatforskning
Ekologihuset
223 62 Lund

"People think responsibility is hard to bear. It is not. I think that sometimes it is the absence of responsibility that is harder to bear. You have a great feeling of impotence"[1]

[1] Henry Kissinger 1923

Abstract

Effective freight transportation is a central part of the modern society, creating social and economic benefits. Nevertheless, the logistics industry is facing substantial sustainability challenges, where freight transports have been identified as the main environmental hazard. Scholars have previously highlighted the centrality of the purchasing process for reducing the environmental impact of the industry; however a limited amount of research tackles the LSP-LSC relation and the stipulated environmental demands in a detailed and practical manner, leaving the research stage highly premature. The purpose of this study is to explore the environmental demands stipulated in the purchasing process of transport services by investigating differences in characteristics of green demands emerging from two industries of LSCs, exploring how the stipulated demands affect the price of the required solutions, and examining how LSCs monitor compliance of the demands. The research questions are undertaken by a case study approach, combining analysis of corporate documentation and interviews with industrial experts.

The study finds that the environmental demands vary greatly in consistency, ambition and focus between the investigated industries concluding that the food retailers demonstrate high ambition in demanding environmental considerations, while any real environmental interest among the construction materialist is limited when negatively affecting price. Furthermore, the study discovers that it is not possible to accurately distinguish how the environmental demands affect the price of the transport solutions due to the attitude of the LSP, the markets character and the conditions given the author. Concerning the monitoring process, the findings point out that LSCs monitor compliance mainly via environmental reports provided by the LSP, signifying a profound faith in the rightness of the provider. Additionally, some LSCs conduct complementary follow ups by spot-checks, assemblies and audits but strains that 100% environmental compliance is not feasible to assure.

Keywords: *Freight Transport, Purchasing process, Environmental demands, Pricing & Monitoring*

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List of Abbreviations

Abbreviations	Explanation
B2B	Business To Business
COC	Code Of Conduct
CSR	Corporate Social Responsibility
GHG	Greenhouse Gas
LSC	Logistic Service Customer
LSP	Logistic Service Provider
RFI	Request For Information
RFP	Request For Proposal
RFQ	Request For Quotation
SCM	Supply Chain Management
3PL	Third-Party Logistics

List of Definitions

Term	Definition
Logistic Service Customer	Defines the shipper, client, buyer or customer purchasing the logistics service[2]
Logistic Service Provider	Provider of logistics services that performs the logistics functions on behalf of their clients[3]. Includes actors such as carriers, forwarding agents, third party logistics providers and logistic/transport service companies/providers/supplier[4]

[2] Lumsden 2012; Arsonsson et al 2013; Pooler et al 2012
[3] Coyle et al 1996
[4] Martinsen & Björklund 2012

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Due to the sensitive nature of the industry, all company information is treated as confidential. No company names or names of respondents will be mentioned in the thesis, nor will data be connected to company names. However my gratitude goes out to everyone who contributed to the empirical material. Thank you!

I wish you all well, and of course - a pleasant reading.

Lund, May 2015

Evelina Weich

1. Introduction

This chapter introduces the environmental relevance, purpose and scope of the study. Moreover, two research questions are presented to concretise the research area, delimitations are set and the context of which the study is a part of is clarified.

1.1 Motivation of thesis in an environmental context

"The most environmentally friendly transports are those who never take place"[5]

In an industrialized and globalized world road freight plays a central role in supply chains throughout a product's lifecycle (Rodrigue 2013; Hesse & Rodrigue 2004), creating social and economic benefits (UN 1987; Banister et al 2000) and delivering competitive advantages for corporations (The Confederation of Swedish Enterprise 2005). The shipping of goods over great distances is increasing, driving a growing demand for road freight transportation (Swedish Transport Administration 2014; Traffic analysis 2014). The development is possible due to the fact that transportation commonly only corresponds to a few percent of the products value (Lammgård et al 2013), causing transports and environmental externalities to increase more rapidly than the economic growth (Stern 2007). The Swedish emission statistics confirms the expansion, specifying that emissions from road freight has increased by 8 percent the last 15 years (Swedish Transport Administration 2007) where 10-20 % of the total national emissions (2013) descends from the freight transport sector, almost exclusively dominated by fossil fuels (Swedish Environmental Protection Agency 2014a; Swedish Transport Administration 2013). Moreover, in a global context freight accounts for one third of all energy consumed by transport (IPCC 2007), and 7 % of the global GHG emissions (Stern 2007), a development not compatible with ambitious global nor national climate commitments and goals (IPCC 2013; Swedish Environmental Protection Agency 2014b).

It is evident that the logistic system is facing substantial sustainability challenges (Mckinnon 2010; Min & Galle 1997) where transportation has been identified as the main environmental hazard (Wu & Dunn 1995). The insight have resulted in a newfound business and management focus (van Hoek 1999; Aronsson et al 2008) where transport services have been identified as having potential to act value adding in supply chains (Bø & Hammervold 2010). Previous research highlights two traditional approaches for addressing environmental issues in the industry; improving technologies or implementing changes in applied processes (Björklund 2005; Lumsden 2012). Yet, scholars have argued that technical solutions will not be enough, singling out changes in strategies as beneficial for decreasing the environmental impact. This study tackles one such approach, namely the purchasing processes of transport services where the changing expectations are specified. It is evident that Logistic service providers (LSPs) play a central role in the greening of the industry since they manage

[5] Granqvist 2012 p. 67

resources directly connected to the negative externalities (The World Economic Forum 2009) nevertheless; LSPs are simultaneously providers to the Logistic service customers (LSCs, also known as transport buyers), whose demands to great extent frame their businesses (Martinsen & Huge-Brodin 2014). Although customer demands have been identified as fundamental for increasing logistics performance and reaching environmental goals (Lammgård et al 2013; Rossi et al 2013), they have seldom been included in the transport purchasing literature and very few studies have touched upon the subject of environmental demands (Coyle et al 2000; Holter et al 2008). The early research stage is puzzling since transports are singled out as accountable for substantial environmental degradation (Mckinnon 2008; Aronsson & Huge-Brodin, 2006), where selection of mode and carrier are described as central considerations (Wu & Dunn 1995). Moreover, the industrial performance is traditionally associated with efficiency, service and price (Lammgård et al 2013; Laitila & Westin 2001; Whyte 1993), resulting in environmental and social considerations commonly being overshadowed by monetary values (Vasileiou & Morris 2006).

Due to the environmental centrality of the purchasing process and the fairly unexplored interface between the offering and demanding actors (Martinsen & Huge-Brodin 2014), this study aims to contribute to the research field of environmental purchasing in the logistics industry by exploring differences in environmental demands emerging from two industries of LSCs, investigating how the requirements affect the price of the transport solutions, as well as exploring the monitoring process, -which all have been sparsely addressed in former research. The research angle possesses not only a steady theoretical relevance, but also practical potential. From a business perspective the study can assist LSPs in assessing which customers that value environmental services, clarify how the demands differ, provide opportunities to evaluate what service that generates the most profit and highlight possibilities and shortcomings in the monitoring process.

1.2 Purpose and research questions

The purpose of this study is to explore the environmental demands stipulated in the purchasing process of transport services by investigating characteristics, price and monitoring of demands provided by two industries of LSCs.

In order to practically approach the purpose, two research questions are presented to narrow the research area and guide throughout the reading process.

RQ1) How do the characteristics of the environmental demands in practice vary between LSCs from the food retail- and construction material industry, and what are the effects of environmental demands on transport solution price?

RQ2) How do the included LSCs monitor compliance of the environmental demands?

1.3 Delimitations

This study focuses on the purchasing process where the environmental demands are stipulated and further explores the monitoring process where compliance of the demands is measured. The study takes a B2B approach (business to business) where corporations from two industries (food retail & construction material) purchases transport services from one large LSP. The study targets one market leading LSP national network and four of its large transport buyers, all operating on the Swedish market. Nevertheless, despite the narrow selection, it is likely that the empirical findings of this study are applicable and generalizable for the industry in whole since organizations in similar industries tend to operate and function according to similar conducts (Dimaggio & Powell 1983). Due to the strong environmental relevance, only purchasing of freight transportation by road (i.e. trucks) is explored and the study is tackled from a domestic perspective, excluding import and export with regards to the complexity of multimodal trans-boundary freight transports. Furthermore, the study only considers sustainability from an environmental perspective and does not explore the social dimension of the demands, with regards to the extent of the research area and the nature of the academic major.

1.4 Studied context

The majority (95 %) of large companies in Sweden purchase transport services from LSPs (Lammgård 2007) and the transformation of logistics context and customer demands have fostered an ongoing alteration of the purchasing process (Andersson & Norrman 2002). The procurement process defines the act of obtaining or purchasing goods or services between parties, described as highly complex system (Fitzsimmons et al 1998; Jackson et al 1995). The complexity of the procurement process affects the time, level of details and disciplines involved in each step, as well as the information exchange between supplier and buyer (Axelsson & Wynstra 2002). The process as illustrated by Andersson & Normann (2002) is presented in figure 1 below.

Figure 1. The purchasing process (Andersson & Norrman 2002)

The initial step in the procurement process involves the LSC specifying its needs and desired services. Subsequently, the customer investigates the market and available offerings by conducting supplier assessments, serving as an evaluation base for the primary selection of transporter. Next, the LSC requests for information (RFI) from several LSPs, demanding clarification of offered services. When narrowed the selection down, requirement specifications (RFP) (also referred to as RFQ and/or tenders) are sent to a few LSPs who subsequently qualify and negotiate for the deal. The process as described in figure 1 does not embrace stages in the procurement process after contracting, however the post choice management (including follow up and monitoring) can be considered as a central part of the procurement process (Björklund 2005).

Due to globalization and shifting market conditions and customer orientation the traditional roles of transport and logistics have transformed, creating a complex industry structure (Bohlin & Hultén 2002). Logistics services are performed in the interface between shippers (sellers) and customers (buyers/receivers) where the mission is regulated by mutually agreed upon terms (Aronsson et al 2013). A common tendency in the industry is for shippers to outsource their transport to external parts with the purpose of reducing costs and enabling clearer focus on core businesses (Lundin & Hedberg 2010). The phenomenon is labeled as third party logistics (3PL) and the industry structure is characterized by fragmentation (Sternberg et al 2013) where few large intermediaries (forwarders/LSPs) control majority of the transport market. Yet, their main task is to provide capacity for transportation of goods, which seldom includes own assets (vehicle fleets) and therefore they operate mainly via subcontracting of smaller carriers, transporting on their behalf. Figure 2 illustrates the logistics process in an LSP transport setup (which is in focus in this study) and highlights the complexity of the roles where the forwarder act as a provider (LSP) to the shippers (LSC) but simultaneously operates as a LSC to the carriers (subcontracting).

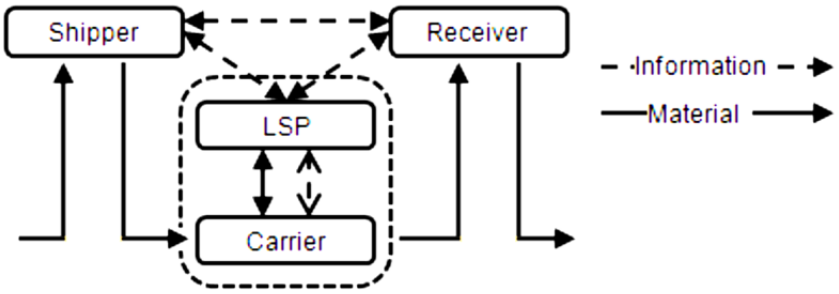

Figure 2. The logistics process in a LSP transport setup (Stefansson 2006)

In this particular study the interface between the shipper (in this study called LSC or transport buyer) and the LSP (also known as forwarder or 3PL) is targeted where the LSC is represented by the food retail- and construction material industry (four companies). The receivers (i.e. the buyers of the goods or final customers) are not included in the study, nor is the interface between forwarder and carriers. The study considers four different groupage missions, operating according to the LSP transport setup described in figure 2. In logistics practice the only attribute separating the four missions apart from each other is the fact that the transports of the food retailers are temperature regulated due to the nature of the goods. Furthermore, the food retailers are a part of closed logistics flows, meaning that no co-loading is allowed and no exchange of vehicles takes place within the mission, whilst the goods of the construction materialist are transported in more open logistics structures.

1.5 Thesis outline

The disposition of the study is structured as followed:

1. Introduction
The introductory chapter introduces the study's scope, environmental relevance, purpose, research questions, delimitations, the studied context and thesis disposition.

2. Research method
The second chapter introduces the research method, provides a coded overview of included corporations & respondents and delivers a detailed description of the data collection and analysis method. In conclusion, a critical evaluation of the execution is provided and ethical concerns of the implementation are deliberated.

3. Frame of reference
The third chapter provides an overview of the findings and conclusions from previous research and defines central concepts used throughout the study.

4. Empirical findings
The fourth chapter presents the empirical findings from the document analysis and interviews.

5. Analysis
The fifth chapter analyses the findings by comparing the result with the substance of previous research with the purpose of answering the research questions.

6. Discussion
The sixth chapter discusses the findings, highlights discovered trends and tendencies, discusses significant researcher insights, elaborates study limitations and proposes further research.

7. Conclusions
The final chapter concludes and summarizes the important findings of the study.

2. Research method

This chapter introduces the research method. Firstly, the initial literature review is described followed by a presentation of the general case study approach. Furthermore, the chapter provides a detailed description of implementation, selection, data collection and analysis method. In conclusion, a critical evaluation of the execution is given.

2.1 Narrative literature review

With the purpose of pin pointing the research area, a systematic literature study was carried out. The focus was to locate a satisfactory amount of research to properly understand the problem area and locate gaps where further research was called for. The literature study contributed to a broad scientific understanding which was used to develop the frame of reference (chapter 3), operating as a fundament for the analysis. The study covered different types of literature with focus on published journal articles, since they according to Patel (1994) provide the latest information. The central academic journals used throughout the study have been: *International Journal of Physical Distribution & Logistics Management, International Journal of Logistics Management* and *Supply Chain Management: An International Journal*. Furthermore, books and reports where used for theoretical references together with official websites providing current national statistics and industrial information (e.g. Swedish Environmental Protection Agency and Transport Administration).

All relevant titles have been systematically stored in tables with short descriptions of the articles main messages. The documentation eased the writing process since the main arguments of the literature was easy to locate. When searching for academic published material, Lund University's official database (LUB-Search) primarily was used together with Google Scholar as a complement. Combined with different Boolean operators (AND; OR; NOT) the search words: *Freight Transport, Purchasing process, Environmental demands, Pricing & Monitoring* were used in different combinations. Moreover, the numbers of hits while combining different search options were documented. From the number of hits in the academic databases it was clear to conclude that limited variety of research discussed the purchasing process of transports and environmental demands in a detailed manner, as recognized by scholars before (Martinsen & Huge-Brodin 2014). This was exemplified by the search words generating between approximate 2-400 hits where only a maximum of ten articles were directly applicable for the purpose of this study, meaning that they to some extent tackled issues directly connected to the research question. With this in mind, the author developed research questions with the intention of contributing to reduce the scientific gaps.

2.2 The case study

2.2.1 Scope

The case study was conducted between January and May 2015 and targets the relationship between one Logistic service provider (hereinafter referred to as LSP) and four Logistic service customers representing the food retail- and construction material industry (hereinafter referred to as Alfa, Beta, Gamma & Delta). The unit of analysis is the stipulated environmental demands of the included LSCs in the purchasing process of transport services. Case methodology was considered as an appropriate method since it according to Meredith (1998) helps the understanding process in a field characterized by complexity, which applies well to the fragmented and outsourced freight transport industry. Furthermore, the methodology is highly suitable in a context where there is a lack of theory (Stuart et al 2002), which indisputably is the case concerning environmental demands in purchasing of transport services. The case study applies a qualitative approach, where the collected data consist of both primary (interviews) and secondary data (research articles, RFQs, agreements, emails, company reports, websites and media articles).

2.2.2 Selection of companies

All included corporations are classified as large companies according to guidelines from the Swedish Companies Registration Office (2012). The targeted LSP is one worldwide and market leading European service provider who offers comprehensive solutions via road, sea, air and warehousing. Furthermore, the LSPs organization structure is characterized by continual optimization and sturdy result orientation. The selection of LSP is fully motivated by its centrality on the Swedish transport market as one of the main actors. Moreover, all included environmental demands originate from Swedish LSCs representing the food retail- and construction material industry where the food retailers are represented by two central Swedish corporations (Alfa and Beta) and the construction materialists by one leading and one upcoming actor (Gamma and Delta). The selection of customers is based on the size of the companies (turnover and employees) and the extent of the cooperation with the targeted LSP. Large companies and clients to the LSP were selected with the purpose of fair comparison. Table 1. below provides a coded overview of the included corporations.

Table 1. Corporations included in the study

Company name (Code in text)	**Industry**
LSP	Logistic service provider
Alfa	Food retail
Beta	Food retail
Gamma	Construction material
Delta	Construction material

2.2.3 Selection of respondents

The selection of respondents is based on what Esaiasson et al (2012) refers to as a centrality, where the aim is to locate key individuals for the purpose of the research questions. Concerning RQ1 exclusively employees from the LSP Company were targeted while RQ2 embodies the transport buyers (LSCs) and the LSP Company. Regarding the characteristics of the demands, the LSP key account managers representing the included LSCs were targeted (hereinafter referred to as respondent A, B, C) together with the LSP sales division director, highest responsible for all included customers (hereinafter referred to as respondent D). Nevertheless, several of the respondents provided interesting input regarding the characteristics of the demands during the interviews and therefore additional respondents are represented in the empirical material. Concerning the price of the demands, the sales division director (D) was exclusevly targeted due to the respondents central position as executive. Furthermore, with the purpose of gaining a broader understanding of the similarities and differences between the missions, the LSP industry expert was targeted (hereinafter referred to as respondent H). Regarding RQ2 the LSP quality manager (hereinafter referred to as Respondent E) and three LSCs were targeted, namely respondents from Alfa, Beta & Delta (hereinafter referred to as respondents I, J & K). One construction material company (Gamma) was excluded from RQ2 due to the fact that the company did not wish to comment upon the monitoring process. Additionally, to obtain a comprehensive understanding of customers daily environmnetal concerns, trends and monitoring, key individuals from the LSP quality department were targeted (hereinafter referred to as respondents F & G).
Beyond the included respondents the author had informal encounters with several (6) external industrial experts during the research process, discussing central sustainability issues, industry structure etc. Table 2 & 3 provides a coded overview of the included respondents where table 2 introduces the targeted LSP- employees, whereas table 3 presents respondents on the behalf the LSCs.

Table 2. Respondents included in the study (LSP)

Respondents (Code in text)	**Role**	**Area of expertise**	**Responsibility**
Respondent A	LSP	Key account manager	Alfa & Beta
Respondent B	LSP	Key account manager	Gamma
Respondent C	LSP	Key account manager	Delta
Respondent D	LSP	Sales division director	Alfa, Beta, Gamma, Delta
Respondent E	LSP	Quality manager	Central
Respondent F	LSP	Contract specialist	Central
Respondent G	LSP	Quality specialist	Central
Respondent H	LSP	Industrial expert	Central

Table 3. Respondents included in the study (LSC)

Respondents (Code in text)	Role	Area of expertise	Responsibility
Respondent I	LSC	Transport developer	Alfa
Respondent J	LSC	Transport manager	Beta
Respondent K	LSC	Transport specialist	Delta

2.2.4 Document analysis

With the purpose of exploring characteristics differences in the environmental demands (RQ1), RFQs and appendixes from all targeted LSCs were collected. Most documentation was provided by each responsible key account manager upon request, while supplementary appendixes were located in the LSP database and management system. With the purpose of investigating differences in continuity of the demands in the RFQ - agreement phase, three of four agreements were provided by the key account managers. The fourth agreement (Gamma) was not provided the author with motivation of confidentiality. However, with the intention of compromising, the author was given permission to ask questions regarding the agreement, but not to analyze the documentation.

2.2.5 Interviews

With the purpose of exploring the price and monitoring procedure of the environmental demands and further gaining a broader understanding of their characteristics, interviews were carried out. Altogether eleven interviews were performed between March and May 2015 with respondents presented in table 2 & 3. Due to the geographical spread within the organizations, some interviews were conducted via telephone or email and therefore vary in extent. However, to systematically and homogenous tackle the interview process, a semi structured four stepped interview procedure was followed:

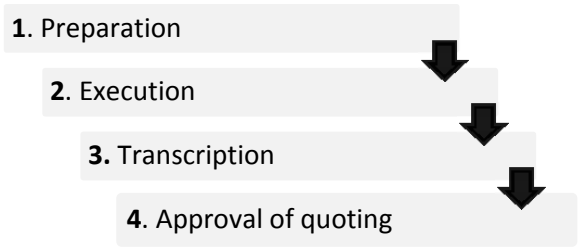

Figure 3. The systematic interview process

During the preparation phase the respondents representing the LSP were located via the LSP database, providing information about specialty and responsibility area. The LSC respondents were located via respectively corporate website, where the aim was to locate company transport specialists. Subsequently, semi structured interview guides were developed and customized to fit the roles of the respondents (Appendix A). When interviews were conducted in person or via telephone, the dialogue was documented with a Dictaphone. The interviews, regardless of execution form were summarized/transcript directly afterwards with the purpose of minimizing the risk of information loss, in accordance to Lantz (2007) recommendations. The compilation was thereafter sent to the respondents for approval.

2.3 Analysis method

Regarding the document analysis all RFQs were primarily analyzed in isolation and thereafter systematically stored in a common file divided into general themes such as industry, turnover, focus, general demands/requests and environmental demands. The primary categorisation provided the author with a clear overview of the general status and priorities of the LSC, which was necessary to be able to assess to what extent environmental concerns were prioritized in the missions. Following, the author created a new file only presenting the LSCs environmental demands, facilitating the process of deducing trends and tendencies in the material. Subsequently, the demands were divided into more detailed categories such as strategic, operative and regulatory demands with motivation of the categories centrality in corporate environmental management (Ammenberg 2004). Next, the material was divided into more specific categories such as reporting, assemblies, education, maintenance & service, product & waste management and technical performance. The classification was based on the RFQ structures, which were strictly followed with the purpose of creating comparable materials. The classification allowed the author to deduce differences and similarities in ambition level and focus of the green demands stipulated by the four customers. Subsequently, the situated demands where matched against the demands included in the agreements with the purpose of investigating to what extent the green requirements were prioritized all the way (i.e. continuity of the demands). The empirical findings were thereafter discussed with the respondents during the interviews with the purpose of validating the substance of the findings, and gaining a broader understanding of similarities and differences.

Concerning the analysis approach for the eleven interviews, the primary step was to reduce the comprehensive material from the transcriptions by selecting material that was directly connected to the research questions. The primary assortment was conducted by processing all transcriptions with the purpose of locating keywords that highlighted the central features of the conversations, also known as coding of keywords (Yin 2014). When presented with distinct keywords and main focus of the interviews, the author attempted to categorize the statements into divisions tackling main message, challenges and possibilities. Subsequently the interviews were compared with and weighed against each other with the purpose of detecting patterns, similarities and discrepancies.

2.4 Critical evaluation

2.4.1 Validity

When applying a qualitative research method, it is essential to thoroughly be able to follow the data collection and analysis process (Bryman & Bell 2002). This was considered by composing a detailed description of the data collection and the methods applied to analyze the empirical material (2.2-2.3), firmly increasing the core validity of the study. Validity of the interviews was considered by informing all respondents about the study scope and scientific nature prior the consultation. This increases validity since the respondents in an early stage were enlightened of what kind of information the author requested, reducing the risk of misinterpretation. Moreover, the external validity of the study, i.e. the possibility to generalize the findings outside the case (Yin 2014) requires consideration due to the study's narrow selection. The empirical findings generates from one LSP company and its customers alone, meaning that the empirical findings have not been validated by additional LSP companies or LSCs, which could jeopardize external validity. However, to investigate the potential for the case´s external legitimacy the author consulted three external industrial experts with the purpose of deliberating the generalizing potential for the empirical findings. All surveyed parties emphasized that resembling LSP networks tend to apply common work processes and cultures, leading the author to be confidante about the generalization potential of the study, meaning that the empirical findings might very likely be valid for other LSPs and their transport buyers.

2.4.2 Reliability

To increase reliability, i.e. minimize errors and biases in the study (Yin 2014), the degree of interview consistency was essential (Kvale 1996). Reliability was considered by usage of semi structured interview guides that followed a common framework, as well as the implementation of a systematic interview process (fig. 3) which strengthened the consistency significantly. Additionally, all interviews were transcript in close connection to the interviews and approved by the respondents, allowing the respondents to add information and/or remove sensitive data which reduced the risk of misunderstanding. Concerning the reliability of the document analysis the findings were discussed during the interviews, with the purpose of reflecting upon the author's conclusions. This strengthen the credibility of the findings since the risk of incorrect conclusions were minimized.

2.4.3 Objectivity

The matter of objectivity needs to be considered since the author was working in close collaboration with the LSP for several months. This increases the risk of "going native" (eg. DeWalt et al 1998; Schwartz & Schwartz Green 1955), and losing the ability to draw conclusions in a neutral and objective manner. The issue was tackled according to Paulsson (1999) recommendations, where receiving guidance has been essential, however all decisions have been taken by the author. Furthermore, the supervision for the study involved industrial mentors, supervisors from Lund University and participation in a student supervision group, which has called for strict objectivity throughout the process.

2.4.4 Ethical aspects

There are several ethical difficulties and considerations related to this study.
First and foremost the study focuses on one LSP and the demands of four of its customers. Consequently, the study holds a sensitive nature from a business perspective since the desired information concerns not only one actor but confidential information between parties. Furthermore, the RFQs necessary to answer RQ1 are not official documents (industrial specific) while agreements are corporate confidential material, not meant for the eyes of external observers. The main ethical challenge was exemplified in the case of RQ1 where the author was forced to change research strategy regarding the question of price to proceed with the study. The primary research strategy was to investigate all agreements including missions, flows and price information with the purpose of calculating and comparing the shipping costs with the environmental demands stipulated in respective agreement. However, the approach was firmly denied by the LSP sales department, demonstrating the sensitivity of the research area. The methodical obstacle was tackled by switching to an interview approach, which was accepted by the LSP sales department.

To avoid and further minimize ethical risk and moral hazard throughout the study, several considerations have been central. Risks were initially reduced by enlightening the respondents of the study's scope and scientific nature, providing opportunities to accept or deny participation on an informed basis, referred to by Esaiasson (2012) as informed consent. Moreover, ethical risks were reduced by offering and ensuring anonymity for all participating parties, which was a prerequisite for implementation of the study. To further strengthen the trust of participants, respondents were provided with consent forms (Appendix B) prior the interviews, clarifying the terms of participation. Concerning the empirical findings from the documents, all specific details have been darkened with respect to corporate confidentiality. Moreover, the industrial supervisors were consulted weekly throughout the data collection, with the purpose of deliberating ethical concerns on a regular basis which minimized the risk of unconscious ethical oversteps. In conclusion the final draft was sent to the industrial supervisors for approval prior publication, allowing final elimination of sensitive information.

3. Frame of reference

This chapter presents and defines important concepts used throughout the study. Since the research questions arise from an impartially unexplored research field, this chapter aims to highlight the few existing findings from previous research and emphasize surrounding literature.

3.1. The corporate social responsibility

"With great power comes great responsibilities"[6]

3.1.1 Doing well by doing good

Scholars have argued that society's increased sustainability awareness has encouraged government regulations and stimulated changes in consumer demands, resulting in amplified stakeholder pressure on corporations (McKinnon & Piecyk 2009). Furthermore, Carter & Rogers (2008) and Murphy & Poist (2003) strains that the practice of responding to environmental concerns in a socially responsible manner has become an important business issue and a fundamental principle of smart management since the beginning of the 21th century. Accordingly, Kiron et al (2015) stresses that majority of corporations now recognizes that sustained success depends upon the economic, social and ecological context in which they operate, corresponding with the idea of the triple bottom line and sustainability (Elkington 1998; 2004). Above mentioned discourses highlights the role of corporate social responsibility (CSR), defined by the European Commission (2011 p. 6) as: "*the responsibility of enterprises for their impacts on society",* - a strategy for meeting society's changing expectations. In the beginning of the 1990-ties Carroll (1991) introduced the pyramid of CSR, demonstrating the basic responsibilities of corporations towards society and stakeholders:

Figure 4. The pyramid of CSR (Modified from Carroll 1991)

The pyramid illustrates that the foundation for corporations is to be profitable and comply with laws and regulations, however when achieved; softer values may be included into business strategies. Yet, the European Commission (2011) stresses the importance of

[6] Voltaire (1832)

integrating environmental and ethical concerns into core strategies in an early stage in close collaboration with stakeholders. On the same note Orlitzky et al (2003) strain that CSR is a highly strategic approach with potential for improving corporate reputation, management and performance, delivering positive effects on risk management, cost savings, access to capital, innovation capacity, customer relationships, goodwill and corporate competiveness (European Commission 2008; Lantos 2001). According to Roa & Holt (2005) and Nishitani et al (2011) a common argument within corporate sustainability for striving for environmental optimization is that improving green performance also will improve economic performance, as enterprises focuses on lean and active minimization of waste of resources. Accordingly, Stank & Goldsby (2000) strain that striving for greener transport- and logistics systems likely will improve the performance of these functions.

3.2 Purchasing and reducing environmental impact

The inclusion of environmental concerns in transport purchasing is discussed under different labels such as environmentally preferable purchasing (Björklund 2005), green purchasing (Mulder 1998), environmental purchasing (Carter & Carter 1998; Zsidisin & Siferd 2001) and sustainable procurement (Walker & Phillips 2009) where offerings and demands have been defined as "*considerations taken in respect of the natural environment in the supply or purchase of logistic services*" (Martinsen & Björklund 2012 p. 3). Nevertheless, Isaksson & Huge-Brodin (2013) argue that that integration of green considerations into logistics service offerings is still in a highly premature stage while Wolf & Seuring (2010) further strains that previous research provides limited proof of environmental issues in practice instituting buying criteria for LSCs.

According to Lieb & Lieb (2010) the increasing demand for freight transports has reinforced stakeholder pressure on LSP and shippers, encouraging corporations to lower the environmental impact of transports. Martinsen & Björklund (2012) further strains that the heighten stakeholder focus creates opportunities for LSPs to work proactively to meet expectations by including environmental issues as value adding service offers. According to Andersson et al (2000) an offering holds two elemental characteristics, its value to the customer and its actual price, which according to Isaksson & Huge-Brodin (2013) constitutes challenges for LSPs when integrating environmental aspects into offerings and quantifying its added value. Lin & Ho (2008) however stresses that majority of LSPs in fact are willing to adapt services to become greener in favor of responding to customer demands, yet Roth & Kåberger (2002) argue that achievement of meeting those demands depends largely on the LSPs knowledge regarding adaptation and development of green services along with ability and general attitude.

Lammgård et al (2010) stresses the purchasing process should be considered as a key field for increasing logistics performance and reaching environmental goals, which according to Walker et al (2009) is due to the fact that shippers can restrict and create opportunities for how LSPs may design transport services, as well as encourage inclusion of environmental criteria in agreements. Nonetheless, Isaksson (2012) acknowledge that transport buyers from different industries exert various levels of pressure on providers regarding green solutions

whilst Lammgård (2007) discovered that large companies rates environmental considerations considerably higher than small companies. Furthermore, a survey study conducted by Isaksson et al (2011) show that customer and management pressure are main industrial drivers for adopting green initiatives, while hinders are associated with lack of customer interest, investments cost, doubtful payback periods and limited access to technology. Furthermore, Evangelista et al (2010) acknowledge that customer pressure is the most important external driver for large companies while regulations is considered most influential factor for small corporations. On a similar note, Pålsson & Kovács (2014) strains that the intention to reduce emissions is by far greatest if a company possess both economic and image motives.

Findings from Wolf & Seuring (2010) further point out that LSPs in general seems to be well ahead of their customers regarding environmental issues, implying a gap between offerings and requirements on the transport market. Santén & Arvidsson (2011) moreover strains that it is common for shippers to lack knowledge about the transport services which they are purchasing. Wolf & Seuring (2010) further discovered that even if LSCs tend to primarily investigate the environmental status of LSPs, the effort seldom influence the content of the final agreements. The authors also detected a contradiction where LSCs stated that they considered purchasing as part of their environmental strategies; however the 3PL/LSPs acknowledged that they seldom or never receives environmental requirements from buyers (Wolf & Seuring 2010). In line with the same reasoning Björklund (2005) argue that LSCs in general are effective at evaluating the transport provider's environmental status during the purchasing process but however strains that only 50 % include them in the agreement, 13 % include how to measure them, and only 2 % include written measures regarding non-compliance. The descending ambition level have had scholars arguing that LSCs tend to show limited interest in environmental solutions if impacting customer cost and time requirements negatively (Nilsson et al 2015). Additionally Björklund & Forslund (2013) discovered that companies including environmental performance in contracts very seldom consider how to measure the performance and monitor the outcome.

3.3 Sustainability information asymmetry

In the theory of economics Akerlof (1970) acknowledge that market economy structures are characterised by information asymmetries between sellers and buyers where sellers holds more knowledge about the quality of offered products and services, driving them to cheat and offer services with reduced quality with the purpose of maximizing profit. The customers, who are unable to assess the quality level of the offering, pay the same price for services with high respectively low quality, creating a quality decline until no trade is able to take place.

The solution for reducing information asymmetries and hindering sellers to take advantage of buyer's unawareness is related to market openness and transparency, fostering good markets characterized by fair competition and high quality (Akerlof 1970). According to Nunn (2011) corporate transparency has emerged as a central concern on the market and has climbed high on the agenda of customers, wanting to assure that what they consume corresponds to their moral and ethical perceptions (Capurro 2005). Lopes et al (2007) further acknowledged that disclosure of social and environmental information is a significant element in corporate strategies, meaning that the success of CSR efforts depends largely upon how corporations mediate and communicate their efforts (GRI 2011). According to Palanski et al (2011) transparency defines the quality that integrates the openness, availability or disclosure of information which according to Kaptein & Van Tulder (2003) & Kaynak & Avci (2012) is a prerequisite for meaningful business relationships, closely connected to corporate ethics, trust and accountability. Additionally, more contemporary research concludes that transparency should be considered as a customer tool enabling "*individuals to protect their interests and collectively to control the organizations that affect their lives"* Fung (2013 p.184) which according to Hess (2007) empowers stakeholders. Furthermore, Tapscott & Ticoll (2003) strains that transparency also functions as a corporate tool which in the future will constitute a key ingredient for success, while corporate opacity will present significant challenges and costs. Accordingly, Granqvist (2012) stresses that players striving for transparency very likely will maintain competitive advantage in the future, enabling better customer service and improving corporate performance.

According to Sternberg et al (2015) the absence of transparency should indisputable be considered as a key sustainability issue in the complex and outsourced transport industry, causing lack of control and allowing LSPs to cheat and offer services with uncertain ethical and environmental quality. The insight is further darkened by the basic characteristics of the low marginal transport industry influenced by fierce competition, which according to Narayanan and Raman (2004) drives providers to act in ways to maximize their profit rather than to maximize supply chain performance. The matter of sustainability transparency (in this study defined as transparency about sustainability considerations) is frequently debated in the SCM literature, highlighting for instance sustainability deficiencies at supplier sites of large merchandise chains (Egels-Zandén & Hansson 2015). Yet, very limited amount of research tackles the issue of sustainability transparency from a freight transportation perspective, which is highly astonishing due to the complexity of the industry structure.

4. Empirical findings

This chapter presents the empirical findings from the document analysis and interviews. Section 4.1-4.2 presents the environmental demands from the included food retailers while section 4.3-4.4 specifies the environmental demands from the included construction materialists. Moreover, section 4.5 presents the findings regarding the price of the environmental demands while 4.6 tackles the monitoring procedure.

4.1 Alfas environmental demands

4.1.1 RFQ structure

Alfa communicates the company's environmental demands in a RFQ with seven accompanying appendices concerning LSP operations, CSR considerations, payments, pricing etc. The RFQ consist of general information about the procurement process, instructions for quotation and assignment specifications. Moreover, the RFQ includes a questionnaire section where the LSP party are obligated to answer questions regarding capacity, flexibility, environmental- and quality certifications, environmental goals, CO2 calculation methods, fuel types, key indicators reporting, systematic improvement work etc. Furthermore, the LSP is indebted to answer questions about usage and control of subcontractors with regards to CSR demands. Alfa additionally provides a multiple-page document of requirements regarding corporate responsibility when purchasing services, including substantial social and environmental demands.

4.1.2 Strategic

Alfas demands have a broad environmental focus and emphasizes on strategic long term commitments, continuous improvements and education. A summary of Alfas strategic environmental demands are presented in table 4 below.

Table 4. Alfas strategic demands

Certifications and goals
The LSP should: • Have an environmental policy • Have an environmental management system (ISO 14001 is preferable) • Conduct a systematic environmental work with measurable goals and time bound activities • Aim to reduce CO2 and other GHG from the entire business • Aim to minimize noise from the business
Education
Employees from the LSP should possess good understanding of: • How their work affect the environment • Actions that can be taken to prevent environmental degradation • How to minimize the damage in case of incident

- All drivers should be educated in ECO-driving

When commenting the strategic demands Respondents G & F strained that a new trend among customers is the call for ISO-certifications. According to the respondents certification requirements has increased steadily the past ten years, which is directly reflected in the LSCs environmental demands. On the same note Respondent D further acknowledge that: *"most customers presuppose that we are ISO-certified, and certifications have for certain become a central element and competitive advantage for us"*. Respondent G further elaborated the trend:

> When customers send supplier assessments to us in the beginning of the procurement process they often focus on ISO-certifications and if we check the box saying that our company is environment- and quality certified, in their mind it usually means that we are fulfilling all other environmental questions and we are not obligated to answer more environmental queries.
> -Respondent G (2015).

4.1.3 Operative

From an operative perspective Alfa demands multiple measures concerning product & waste management, maintenance & service and technical performance. A summary of Alfas operative demands are presented in table 5 below.

Table 5. Alfas operative demands

Product and waste management
Physical products used in the mission shall not include: • Substances included in REACH or Annex XIV • Flame retardants • PVC
LSP should handle waste according to specific guidelines LSP are responsible for hazardous waste management
Maintenance and service
• Environmental labeled products should primarily be used for cleaning and maintenance • Washing halls should be equipped with functioning oil and septic separators • Tire pressure should be controlled and documented quarterly an fulfil the recommendations from manufacturer • Vehicles should be air sprung • Emissions from refrigeration units shall be reduced by using hydraulics, power poles, CO2 heater or other green technology
Technical performance
The LSP shall: • Always use the most sustainable alternative fuel on the market • Actively work to implement alternative fuels • Actively work to replace conventional vehicles with greener alternatives • Work towards the usage of best available technique • Provide vehicles that meet the demands in "environmental zone"

4.1.4 Regulatory

Alfa also apply stringent demands on regulatory measures meaning that Alfa requires complete documentation of measures and deviations as well as quarterly reporting presenting the outcome for environmental parameters. Further Alfa demands regular meetings with the LSP party and includes strict instructions for noncompliance and audits. A summary of Alfas regulatory demands are presented in table 6 bellow:

Table 6. Alfas regulatory demands

Reporting
LSP shall quarterly provide reports regarding key indicators • Fuel consumption (l/kg) • Fuel type • The fuel emission factors • Source of emission factors • Performed work • Allocation method • Specific detail levels • CO2
- All actions should be supported by documentation - All deviations shall be reported and motivated - All incidents that direct or indirect affects the environment should be reported to Alfa
Assemblies
- Alfa and the LSP party shall participate in regular sessions discussing the terms of the cooperation and compliance of the demands
Audits
- Alfa shall perform regular audits on the LSP

When asked to comment Alfas environmental demands, the responsible key account manager stressed that Alfa possesses a" *wide sustainability focus which penetrates the demands and sets the standard for the entire corporation*" (Respondent A). Respondent A further elaborated:

> Alfa is highly ambitious and market leading in demanding environmental considerations from transporters .(…) Alfa can in fact be considered as an outstanding example of a corporation going all the way with demands, execution and monitoring. (…) We have a close collaboration with Alfa and continuous meetings in different settings where we openly discuss the cooperation and all parameters included. This kind of regular and casual collaboration we do not have with Beta, Gamma or Delta. - Respondent A (2015).

4.2 Betas environmental demands

4.2.1 RFQ structure

In the case of Beta the company's demands were located in a RFQ with nine accompanying appendices and twenty-one sub appendixes concerning transport demands, service description, sustainability policy, code of conduct, environmental reporting, compensation and fines, reporting, pricing and payment terms etc. Regarding the environmental demands Beta demands fulfilment of their code of conduct for suppliers including social and environmental factors. Furthermore, Beta requires the LSP to answer firm specific questions and declare for fulfillment degree regarding environmental parameters.

4.2.2 Strategic

Betas strategic demands emphasize on law compliance, application of the precautionary principle and existence of certified management systems. A summary of Betas strategic demands are presented in table 7 below.

Table 7. Betas strategic demands

Strategic demands
LSP shall: • Comply with environmental legislation and take into account the precautionary principle • Respect and work within the limitations of the environment (i.e. climate, water, biodiversity etc.) • Support a precautionary approach to environmental challenges • Design or implement a certified management system which ensures that the criteria of Betas code of conduct for suppliers

4.2.3 Operative

From an operative perspective Beta applies a sturdy focus on technical performance and product & waste management. A summary of Betas operative demands are presented in table 8 below.

Table 8. Betas operative demands

Product and waste management
LSP shall have: • Methods and standards for waste management including the ambition to reduce wastage in production • Hazardous waste management
- Particularly hazardous substances should be used as little as possible with the ambition to be phased out completely - Information regarding health and environmental hazardous substances should be available to all who come in contact with them
Technical performance

• 30% minimum renewable fuels • Maximum vehicle and trailer age • Minimum Euro engine 5 standard • Environmental class fuel • Oils recommended by vehicle manufacturer • Tires without HA-oil • Emissions shall comply with or be better than the minimum standards required by law

4.2.4 Regulatory

From a regulatory perspective Beta focuses on environmental reporting and yearly assemblies with the LSP party. A summary of Betas regulatory demands are presented in table 9 below.

Table 9. Betas regulatory demands

Reporting
LSP shall quarterly provide reports regarding: • Fuel consumption: liter/km • Fuel consumption: per ton/km • Freight distributed by mode in kilometers, ton and fuel type • Vehicle fleet dived on environmental class
Assemblies
- Beta and the LSP party shall participate in yearly sessions discussing the terms of the cooperation

When asked to deliberate the characteristics of the environmental demands emerging from the food retailers Respondent A argued that *"the food retail companies are in fact setting the bar for environmental demands in our industry"*. Respondent D further elaborated the subject by stressing that:

> The demands from Alfa and Beta are quite unique since they to great extent consider the whole supply chain and include for instance product and waste management. (…) Consequently the environmental demands do not solely concern the impact of transports but the entire part of our business and the practices of all included steps. (…) Lifecycle approaches are frequently seen among our food retailer customers, a strategy rarely or never perceived in the demands of other customer groups. (…) Alfa is outstanding in demanding both environmental and social considerations and Beta is for sure the runner up among the investigated corporations.
> -Respondent D (2015).

4.3 Gammas environmental demands

4.3.1 RFQ structure

Gamma communicates the company's demands in a RFQ with four accompanying appendices. The RFQ document consists of descriptive explanations and conditions regarding the procurement process and extent of the desired cooperation. The RFQ emphasizes on practices for payments, shipment statistics, booking and delivery time. Further, one of the appendixes provides an assembled and detailed description of Gammas demands where the LSP party should account for fulfillment degree and provide comments.

4.3.2 Regulatory

Regarding environmental demands Gamma requests a LSP company presentation, where environmental certification and management systems should be declared for, however certifications are not avowed as a direct demand. In fact, only one single environmental demand was located in the RFQ of Gamma as presented in table 10 below.

Table 10. Gammas regulatory demands

Reporting
Monthly, quarterly and yearly monitoring and reporting of key indicators • Delivery precision • Freight hauling/actual weight • Cost/freight weight • Cost/actual weight • CO2 emissions for mission per transported kilo

When asked about the importance of the solitary demand Respondent B strained:

> In virtually every big procurement there is a demand for reporting and monitoring of key indicators, and in the case of Gamma, these indicators are reported once on a yearly basis. (…) It is clear that reporting is the most common environmental demand - Respondent B (2015).

However, when verifying the data in the LSP database there was no indication of Gamma demanding or receiving any explicit environmental reports on a monthly, quarterly nor yearly basis. When consulting the quality specialist responsible for domestic environmental reports on the matter the respondent elaborated:

> The substance of the agreements regarding environmental reports can be taken with a pinch of salt. (…) Occasionally customers will write about environmental reports but then never actually demand them, and more frequently, customers will ask for environmental reporting after a certain amount of time into the cooperation - Respondent G (2015).

Moreover, Respondent G stressed that the yearly reporting mentioned by Respondent B might implicate that Gamma requests a yearly LSP sustainability report, including general information about the LSPs total emissions statistics, but however does not include specific environmental information regarding the missions of Gamma.

4.4 Deltas environmental demands

4.4.1 RFQ structure

Delta communicates the company's demands in a RFQ without any located accompanying appendices. The RFQ provides a description of transport flow, communication, insurance, claims procedure and statistics. Furthermore, a detailed requirement specification is presented concerning contractual principles and conditions for booking, cargo combinations, fuel surcharges, weight, customs, use of subcontractors etc.

In Deltas RFQ, no environmental demands were located. However, when verifying the finding in the LSP database, an email from Delta to the LSP environmental department was located, including environmental queries. The environmental inquiries mentioned in the email where of both strategic and operative character and concerned the LSPs law & regulatory compliance, general euro engine standard, fuel and oil class and questions regarding driver's education in Eco-driving. The fulfillment degree was commented by the LSP environmental specialist and sent back to Delta. According to responsible key account manager, the email should be considered as an additional RFQ (Respondent C). Nevertheless, the email was sent to the LSP a few weeks prior to the conduction date of the RFQ, but yet the environmental inquiries were not included in the main RFQ. When asked about the gap, Respondent C deliberated:

> Generally Delta does not include sustainability demands other than the drivers language abilities and behavior in the RFQ since the drivers are the company's face towards the customers. (…) However, sometimes additional demands appear during the process, like for example call for sustainability reports etc. - Respondent C (2015).

The statement raised questions regarding whether or not the environmental concerns mentioned in the email in fact were included in the final agreement. To investigate this further, the agreement was located and analyzed, concluding that the only environmental demands included in the agreement were of strategic nature, namely compliance of laws, regulations and Deltas code of conduct (which only discusses environmental concerns in relation to law compliance). When questioning the consistency gap respondent C argued that: "*Delta is listed on the stock exchange and will likely receive more environmental related demands in the future*" However, when searching in the LSP database, it was discovered that Delta is in fact receiving environmental reports from the LSP on a monthly basis, even if it is not stated as an environmental demand in the RFQ, nor final agreement.

When asked to summarize the environmental ambition level of Gamma and Delta Respondent D reasoned:

> Gamma and Delta are not nearly as ambitious and does not even play in the same league as the food retailers when it comes to environmental and social demands. (…) The focus from the construction companies is almost exclusively on production solutions. (…) It is clear that delivery time and service quality is stated higher on the company agenda. - Respondent D (2015).

4.5 Pricing the environmental demands

4.5.1 Standard operation procedure

According to Respondent D it is impossible to discuss how the environmental demands affect the price of transport solutions in a detailed manner. This is due to the fact that the LSP does not attempt to allocate additional cost for separate environmental demands, making it unfeasible for the company to connect a price tag to a specific service. The respondent elaborated:

> It is impossible to provide a number or percentage regarding additional costs for environmental demands. (…) We do not provide this kind of service and the tools for doing so are not yet available on the market. (…) Therefor it is impossible, even for one corporation to generalize and claim that for example demanding Euro 5 engines or alternative fuels always will result in a specific price tag. - Respondent D (2015).

When asked to clarify the standard operation of the pricing procedure the respondent expounded:

> In the pricing process we always look at the specific mission and make tailor-made deliberations. If the customer demands falls within the default values, we have a standard price which we have certain calculations for. However, if some demands would to stick out, we will make separate calculations for those values. (…) But it is never possible to generalize; it is always a package price. - Respondent D (2015).

When asking for an example Respondent D stated that the only straightforward price that can be discussed is the price of environmental reports, which are a part of the LSP offer as an additional value free of charge. Moreover, the respondent elaborated:

> For instance, in the case of Alfa, environmental considerations are included in the calculation since it is such a central part of the mission. Here we conduct vehicle calculations to conclude a price. If they for instance do not choose diesel vehicles, or additional options that do not fall within our general fleet capacity, it will certainly result in a different price tag. (…) The prices and calculation tools are based on our fleet and its kilometer price. (…) The ground rule of pricing is however that if the required solution results in increasing cost for us, the price will always be higher towards the customer. For example, if we cannot use our ground fleet, the cost for us will go up and directly reflect upon the customer. (…) That's just a fundamental part of our business. - Respondent D (2015).

Further, the respondent expounded:

> Very commonly the customer demands state that we must use vehicles with minimum Euro engine 3, which we are fulfilling in our own fleet. This means that many customers are receiving greener solutions for free due to the fact that we are developing. (…) If however the demands require us to only use Euro 5 engines and absolutely not Euro 3, the price for the solution will be higher. In this way we are providing incitement for the subcarriers to increase engine standard which will result in a better kilometer price. - Respondent D (2015).

4.5.2 Challenges

Respondent D acknowledged that there are substantial hinders that needs to be considered to fully understand why the LSP does not provide the service in question. Respondent D argued that one major difficulty in achieving sustainability in the freight sector is the fragmentation of the industry. This is exemplified by the LSP being one of the largest actors in the world, but only controlling a few percent of the market shares (Respondent D). The respondent elaborated the industrial challenges further:

> This industry is harshly influenced by competition and our company is extremely result driven. (…) Since we cannot move our production to Asia like everybody else, we are obligated to look over our way of production. (…) The challenge is that is astoundingly easy to get a cheap transport nowadays; however, this might include quality uncertainties and you have no idea what you are paying for. (…) Today, if you own a telephone, PC and a contact book you could in practice be a forwarder. This means that we are competing with these kinds of players when selling our services (…) and of course, if the customers acknowledge that they can save money most will precede with those kinds of offerings. - Respondent D (2015).

When asked to elaborate the reason for the lack of business focus regarding environmental pricing the respondent deliberated:

> The main reason for us not putting a price on environmental demands is that the market has not come that far and is not challenging us to do so. (…) If the market is not challenging us, it is not essential nor profitable for us to work in that direction. For that reason we have not yet constructed calculations based on different environmental demands. However, we will likely do so in the future if we need to. - Respondent D (2015).

Nevertheless, the respondent recognized that main competitors might have come further in the pricing process of environmental demands. When further asked if putting a transparent price on environmental demands in practice would be possible for the LSP, Respondent D expounded:

> Purely mathematical we would be able to construct applicable calculations for some demands since we for instance know the difference in kilometer price between Euro 3 and 5 engines. What we however do not know is how the removal of Euro 3 vehicles would affect the load planning, since we use and optimize the function of several vehicles with varying standards. The removal of Euro 3: s could in fact increase the distance between loading and unloading and consequently environmental demands could theoretically increase the environmental impact. (…) These kinds of factors make it difficult to put a price on environmental demands. (…) - Respondent D (2015).

Moreover, when questioned if a transparent price service possibly could compose an attractive business strategy in the future Respondent D stated:

> My personal opinion is that the market is not mature enough for that kind of service since there still is a clear lack of interest among customers regarding environmental concerns. However, it might be of interest in the future, if the customer's priorities switches. (…) For instance, we provide a green service today where we work to optimize filling degree. For the customers this means that delivery time will be slightly longer, however the service is also cheaper. Yet, the service is selling virtually none existing, clearly demonstrating that lead time is more important than the environment in the eyes of many. - Respondent D (2015).

Respondent D further strained that the majority of LSCs are conveying green demands *"just for the sake of it, since they want to look good towards the final customer"* The respondent expounded:

> We do not have any statistics regarding how many of our customers that are demanding greener services, but the majority to some extent mention it initially. However, the 20-80 rule is applicable among our customers where 20% actually follow the entire way while 80% loses focus further into the negations when price and terms are discussed. When pricing is discussed, most customers tend to reevaluate and reprioritize and recognize that they are more eager to prioritize other factors. (…) It is clear that many factors are" hotter" than sustainability in this industry. - Respondent D (2015).

Similar argumentation was brought forward in the interview with Respondent A, where the respondent highlighted LSCs unwillingness to pay as one central issue for the success of green offerings in the industry. The respondent elaborated:

> A primary issue for LSPs is that customers are requesting sustainable transports but are not willing to pay for them. It is my personal opinion that customers want to look good outwards and want to promote themselves as sustainable, but the price for the new investments are higher that the customers are willing to pay for. – Respondent A (2015).

4.6 Monitoring the environmental demands

4.6.1 Standard operation procedure

As presented in section 4.1-4.4 several of the included LSCs prioritize regulatory demands, and require environmental reports on a regular basis. Furthermore, Alfa and Beta demands regular assemblies with the LSP party where central concerns of the cooperation are discussed (4.1.4 & 4.2.4). However, to fully understand how the customers monitor compliance and measure the environmental outcome, transport specialists from Alfa, Beta and Delta were surveyed. Employees on the behalf of Gamma did not wish to comment upon the monitoring process, and is therefore excluded from the empirical material.

According to Respondent I, Alfa monitors environmental compliance mainly via the fallouts presented in the environmental reports provided by the LSP. The respondent elaborated:

> Our monitoring procedure is based on specific CO2 reports from the LSP. The reporting tools include parameters of the environmental demands applied to the mission and those numbers are compared to the outcome. (…) We monitor the demands on a quarterly basis, however our ambition and goal with the LSP is to follow up on a monthly or ultimately weekly basis in the future. (…) As a supplement we also conduct spot-checks on vehicle performance.
> - Respondent I (2015).

When asking Respondent J, representing Beta to explain how the company ensures fulfillment of the stipulated environmental demands the respondent strained:

> We monitor emissions and tonne-km on a quarterly basis by the reports provided by the LSP. From the reports we can control that the transporter is using the fuel type that is regulated in the agreement. To complement we also conduct sporadic spot-checks on our terminals with the purpose of verifying that the correct Euro engine standard and tire types etc. are used.
> – Respondent J (2015).

In line with the other respondents, Respondent K, representing Delta elaborated the monitoring process:

> Delta monitors several parameters stipulated in the agreements such as delivery precision, billing statistics etc. by reports from the LSP. Furthermore, we are receiving environmental reports on a monthly basis where we are able to follow the environmental status of the mission. Since our demands are not tinted by environmental requirements, the reporting is mostly considered as a supplement where we are able to display the green status of the LSP.
> – Respondent K (2015).

When asked if all environmental demands are equally feasible to monitor Respondent I, representing Alfa elaborated:

> The agreement strain that the LSP should provide solutions that result in CO2/lit levels falling under the maximum values stipulated in the agreement. Alfa does not decide how the LSP shall meet the demands, but the LSP decides what kind of fuels that is suitable for them and simultaneously will meet the environmental demands. - Respondent I (2015).

When asked to deliberate how the LSP perceives the LSCs monitoring procedures the LSP quality manager reflected:

> Some demands like for instance emissions, the customer's monitor according to set intervals. As a complement, occasionally customers perform audits on us. In the case of Alfa, they conduct very thorough audits on a regular basis with highly detailed questions. (…) Similar audits are not performed by the other included customers. – Respondent E (2015).

Additionally when asked to deliberate if the basic differences in logistics design might affect the monitoring process, the LSP industrial expert (Respondent H) elaborated:

> Alfa and Beta are a part of closed flows meaning that the same vehicle fleet always is involved in the mission, and that the goods of those customers are not allowed to be co-loaded with part loads from other shippers or each other. In the case of open flows like Gamma and Delta the goods can always be co-loaded with cargo from others. (…) The closed flows are highly beneficial from a monitoring point of view; however they are more difficult to achieve efficiency in. - Respondent H (2015).

4.6.2 Challenges

When asked to consider if the monitoring procedure contains any strains, Respondent J stressed that some environmental demands are more difficult to monitor than others, and further emphasized that it is not possible for transport buyers to assure 100% compliance of the stipulated demands. The respondent elaborated:

> It is unfortunately not possible for us to assure that every transport, every single day meets the environmental demands due to the amount of transports. However, this issue is stated very high on our agenda and we seek to make progress in the monitoring area. - Respondent J (2015).

Respondent J further highlighted that the monitoring process includes some issues, hampering an effective follow-up process. The respondent elaborated:

> Almost every company involving transports applies their own ways of measuring environmental impacts, and so do we, which means that we always have to take time to adapt the figures. (…) Furthermore, a general observation in the industry is that most transporters are working with stencils and from a reporting perspective we experience that the question of monitoring does not constitute a top priority. - Respondent J (2015).

Respondent I however strained that Alfa does not experience any specific apprehensions in the monitoring process. Yet, the respondent acknowledged that it in fact is problematic to assure complete compliance of the environmental demands. The respondent specified:

> We sincerely hope to be able to assure environmental compliance to 100%. Nevertheless, the exchange of vehicles and fuel type are comprehensive adjustments that take substantial amount of time. Moreover, these parameters are usually connected to expensive investments.
> - Respondent I (2015).

When questioning the LSP quality manager to reflect upon potential issues in the monitoring processes the respondent expounded:

> In completely closed flows like Alfa and Beta it is fairly easy to ensure compliance via repeated audits, spot-checks etc. However, in the open or semi open flows; it is in fact more challenging to ensure complete environmental compliance for both parties, which constitutes a large problem. - Respondent E (2015).

5. Analysis

This chapter combines the empirical findings and previous research with the purpose of answering the research questions. The first section (5.1) addresses the characteristics of the demands by analyzing consistency, ambition and focus with the purpose of deducing industrial differences. Section 5.2 further analyses the question regarding price of the demanded environmental solutions, while the third section (5.3) analyses the findings from the monitoring question by analysing the substance of the interviews. Each section further delivers a short evaluation of main analytical challenges.

5.1 Characteristics

5.1.1 Analytical challenges

The primary strain in analyzing differences in the stipulated demands is connected to the structure variety of the RFQs (i.e. the way the demands were presented). From the document study it is evident that the content and appearance of RFQs vary to great extent. In the empirical material this is exemplified by an email filling the role of a second RFQ (Delta) as well as the document variations where some RFQs solely mediate direct requirements while others act as questionnaires, serving as a fundament for evaluation and comparison between different LSPs. The inconsistency hampered the analysis process since the author had difficulties in relating to the material and finding a common base for analysis. The variance is noteworthy since the confusion experienced by the author is likely to some extent also be perceived by the actors working in procurement processes. The observed issue was confirmed by the sales manager who recognized that "*there are no standards for RFQ and tenders, the execution is strictly up to the customer, which sometimes can cause irregularity and confusion*" (Respondent D). The author was not able to authenticate the observation in previous research in a more detailed manner than the procurement process being described as a complex procedure (Fitzsimmons et al 1998). Whether or not the matter poses significant practical inconveniences is not settled in this study. However, if that would be the case it might be momentous to develop EU standards for RFQ/tenders.

Additionally, the amount of documentation provided by the key account managers varied greatly as illustrated in the case of Delta where one document only was provided the author while Betas documents altogether included thirty-two documents. This was further exemplified by the key account managers for Alfa and Beta providing the author with COCs, while no COCs was received on the behalf of Gamma and Delta despite of their existence. In this particular case the author could locate the documentation in the LSP database, however it arises questions concerning if additional documentation unconsciously have been excluded from the study. If so, it could mean that the findings might not entirely reflect the reality.

5.1.2 Consistency

When comparing the environmental demands from the food retailers in the RFQ phase with the environmental parameters included in the final agreements, there correlation was extremely high (meaning that all, or virtually all parameters in 4.1 & 4.2 where included in the agreements) as correspondingly confirmed by respondents A & D. Respondent A further labeled Alfa and Beta as ambitious corporations and *"two of those customers going all the way*" indicating a genuine interest in, and priority of environmental concerns. Regarding the construction materialists, Delta demonstrates inconsistency since the environmental demands stipulated in the second RFQ (email) were not included in the final agreement, resulting in Delta not demanding any environmental considerations except from law compliance. Nevertheless, it is important to consider that although the environmental concerns were not prioritized in the agreement, the fulfillment degree commented in the email might (or might not) have been of importance in Deltas evaluation and final choice of LSP in the negotiation process (fig 1). Additionally, inconsistency was detected since Delta does not demand environmental reporting in the agreement, but is receiving reports anyway on a monthly basis (Respondent G). In the case of Gamma, the consistency of the single environmental demand (monitoring of key indicators) was controlled in consultation with Respondent G, discovering that Gamma does not demand any explicit environmental reports from the LSP. The lesson learned, as discovered in the document study and validated by Respondent G, - environmental demands may naturally emerge or dissolve throughout the collaboration.

The finding of the construction materialists are in line with the result of Wolf & Seuring (2010) and Björklund (2005) illustrating that environmental ambition tend to decrease in the final stages of the purchasing process. Björklund suggest that only 50 % of shippers include green parameters in the final agreement, agreeing very well with the result of the document study where 50 % of the sample followed through (Alfa & Beta) while 50 % displayed clear consistency shortcomings (Gamma & Delta). Nevertheless, the interviews provided a somewhat darker picture where Respondent D advocated a 20- 80 % rule where only approximately 20 % of customers actually include environmental demands in the final agreements. The discrepancy between the document findings and the interview has the author wondering whether the narrow selection in fact is creating a misleading and slightly euphemistic picture of reality, or if Respondent D is simply pessimistic. Nevertheless, in an informal conversation with an industrial expert, the insight was further strengthen by the expert straining that 95 % of LSCs environmental interest dissolves prior the contracting phase. Due to the empirical variations it is not rational to suggest a precise level of ambition decline. However, since the surveyed experts are managing customer demands on a regular basis, the chance of the high frequencies being valid is highly feasible. The clear consistency gap -regardless of its quantity is highly problematic since it contributes to environmental demands completely losing their significance if not included in the final agreements. Moreover, the environmental considerations stipulated in the agreements might not completely be reprehensive for practices applied or efforts made throughout the procurements, like for instance in the case of Delta.

The gap exemplifies that environmental demands tend to fall short when there is a possibility of needing to pay for them. The conclusion was embodied by Respondent A arguing that willingness to do well in fact is well established among LSCs, however the willingness to pay for the new investments is nearly non-existing. Further, Respondent D acknowledged that customers tend to reevaluate and prioritize other factors further into the procurement process. The finding is not astonishing but in fact corresponds well with previous research demonstrating that although demands for sustainability in general is increasing, any real interest in environmental solutions that impact the cost and/or time requirements negatively, is not yet a reality (Nilsson et al 2015). Having said that, it does not mean that LSCs do not value sustainability, what it however means is that they do not value it enough to pay for it. The findings is highly relatable to the insight of Anderson et al (2000) signifying that an offer possesses two characteristics- its direct price and its actual value to the customer, which in this study (construction materialists) is exemplified by the value of the green considerations being outshined by monetary ideals as formerly acknowledge by Vasileiou & Morris (2006).

The reluctance to pay might tentatively be connected to the fact that the environment traditionally is considered as a common resource "free of charge", which paradoxically could be regarded as one of the main reasons behind global environmental issues and overexploit, as demonstrated by Hardin (1968) in *Tragedy of the commons*. The reluctance to pay is problematic since basic business principles are founded on profiting (Eklund 2013) where adding softer values into strategies traditionally are considered as supplementary (Carrol 1991). This would consequently mean that corporations will not be able to develop and provide the market with sustainable service offers if customers are not willing to assist the additional cost, resulting in the customer's fundamental role becoming a direct threat for the greening of the industry. The insight is further poorly lit when considering the recent downturns in the global economy, which very likely can contribute to environmental concerns to a greater extent being neglected in favor of economic aspects in the near future (Arvidsson et al 2013).

The finding is significant since previous research strain that corporate sustainability work should be considered an important part of business, not because it's a trend, but because for some customers and investors it is a requirement, turned competitive advantages (Orlitzky et al 2003; Arvidsson et al 2013). Nevertheless, it is indispensable to state that if the majority of LSCs in fact do not value environmental services, it is highly unlikely that offers in that direction will constitute economic benefits for the LSP since successful service providers are characterized as one *"who are able to zero the gap between required service and the service delivered"* (Kumar & Kumar 2004 p.316). The key issue could thus be connected to the statement from Respondent D claiming that "*the customers' priorities must shift*" and "*many things are hotter than sustainability in this industry*" implying a gap between offerings and requirements on the transport market as formerly discovered by Wolf & Seuring (2010). The findings are fundamental since previous research strain that buyers constitute the most influential actors in market economies (Sternberg et al 2015). This arise apprehension since the result of this study (and others before) exemplify that majority of LSCs do not prioritize sustainability, thus are not pushing the market in a sustainable direction. If 80-95% of the

interest in environmental concerns dissolves in the final stages of procurements, it would consequently mean that the freight transport industry's road towards environmental optimization lies solely on the shoulders of the extremely few customers that push the market forward, combined with widely applicable environmental law compliance with extensive room for interpretation. In the authors mind this is not an optimistic insight and the detected indifference forces the author to suspect a slight overconfidence in customers' role as drivers for sustainability as also discussed by Pålsson & Kovács (2014). With this in mind, the author recognizes that legalization on EU level might possibly be the most effective way to force environmental considerations in the highly competitive, fragmented and time-constrained freight industry. Following this regulatory approach, the competition would be regulated by leveling the market for all players, where all must operate according to the same rules and more stringent environmental regulations.

Nevertheless, on a slightly more optimistic note, the findings interestingly displayed extremely high consistency among the food retailer's. Would the inclusion of additional food retailers in the study indicate similar results, it could possibly challenge Björklund (2005) results regarding this specific industry, indicating a boost of environmental considerations the past ten years. Yet, important to consider is that Alfa and Beta might possibly be examples of extremely ambitious corporations, which might in fact not represent the entire food retail industry. Hereinafter when discussing the ambition level, focus, price and monitoring of the environmental demands, the author refers to the environmental demands that went all the way.

5.1.3 Ambition

The LSCs environmental demands (4.1-4.4) demonstrates that the majority (even if only initially) involves or requires green considerations (to some degree) in the cooperation with the LSP. The discovery challenges the findings of Wolf & Seuring (2010) straining that LSPs seldom or never receives environment-related requirements from buyers, indicating an amplified stakeholder pressure on LSPs and shippers as previously discovered by Lieb & Lieb (2010) and McKinnon & Piecyk (2009).

The empirical findings of the food retailers indicate high ambition in demanding environmental considerations, as correspondingly verified by all Respondents. The findings demonstrates that Alfas has the clearest sustainability focus which permeates the demands and "*sets the standard for the entire cooperation*" (Respondent A). The findings were further validated by Respondent D & A labeling Alfa as "*market leading*" and "*driving*". Furthermore, Beta was labeled *"the clear runner up among the four"* (Respondent D) and Respondent A stated that "*the food retail companies are in fact setting the bar for environmental demands in our industry"*. Additionally, several respondent strained that the environmental dimension of the cooperation was a prerequisite for the food retailers final choice of transporter, strongly contributing to challenge the findings of Wolf & Seuring (2010) signifying that there is limited evidence of environmental offerings in practice instituting buying criteria for LSCs. From the findings it can manifestly be concluded that the food retailers overshadow the construction materialists in demanding environmental

considerations, as also verified by Respondent D arguing that: "*Gamma and Delta are not nearly as ambitious and does not even play in the same league as the food retailers*". Furthermore, the respondent acknowledged that green demands emerging from majority of LSCs might possibly be *"just for the sake of it, since they want to look good towards their customers"* with regards to the poor consistency revealed by the author.

The findings demonstrate that LSCs are putting various level of pressure on LSPs with regards to environmental solutions, as previous granted by Isaksson (2012). The distinct ambition variations however arises queries regarding the cause for the discrepancies. In terms of size all included LSCs are estimated as large companies (2.2.2), however the food retailer's turnover and employees exceeds the included construction materialists. Additionally, the food retailers are larger customers to the LSP (Respondent D), meaning that the mission includes higher volumes. Tendencies of the empirical material indicates that environmental demands in fact are more common among larger customers meaning that company size might constitute an important factor for the ambition of green demands, corresponding well with the result of previous research (Lammgård 2007; Evangelista et al 2010). Yet, it is also imaginable that the variations might be connected to completely different factors, as acknowledge by Respondent D:

> I think that the difference in ambition directly is connected to the phenomena of trademarks. I believe that the food retailers are experiencing great pressure from the final customers who are putting enormous demands on the retailer's trademarks and the ethical values on which they should operate. They are very keen on protecting these kinds of trademarks.
> - Respondent D

From this perspective, it can be argued that LSCs operating directly towards the final consumers distinguish themselves when it comes to integration of softer values into business strategies. Yet, both included industries operate towards final customers, vigorously reducing the credibility of the generalizing theory. What although could be significant is that Alfa and Beta are typical examples of corporations naturally retaining a central and "everyday role" in the lives of all. This could mean that the customers of daily goods acknowledge and value sustainability higher, and to a higher degree force sustainable considerations from corporations that affect their lives. In line with the same reasoning, the customers of construction material are likely nowhere near as regular, meaning that environmental considerations might not constitute a primary selection criteria when purchasing storage material every 30th year. From a slightly different perspective it is also possible that the food retailers are operating under stringent legalization in comparison to the construction materialist due to the nature of the goods (requiring temperature regulations and rapid delivery), which likely reflects upon the demands on transporters. Regardless of the cause for the varying ambition levels, the findings interestingly enough directly challenges the results of Lammgård (2007) arguing that manufacturing companies (Gamma & Delta) in general rate environmental considerations higher than wholesale companies (Alfa & Beta), which indisputably is not the case in this study.

5.1.4 Focus

Several specific demands concerning environmental management systems, vehicle performance, waste management, service & maintenance and monitoring were located in the case of Alfa and Beta and the requirements emphasizes on usage of alternative fuels. The demands hold a wide focus and consider the whole supply chain, thus not only the role of the actual transports. The finding was validated by Respondent D who argued that *"lifecycle approaches is frequently seen among food retailers, a strategy rarely or never perceived in the demands of other customer groups"*. Well corresponding with the statement, matching demands was not situated in the requirements of Gamma or Delta where the primary focus concerned service, quality and delivery time. In fact, the only environmental demand conveyed by the construction material companies is reporting of key indicators and law and regulation compliance. The result is not astounding but agrees well with previous research demonstrating that efficiency and service constitute central selection criteria's when purchasing transport services (Lammgård et al 2013; Laitila & Westin 2001; Whyte 1993). The elementary focus of the construction materialists is interesting since law and regulation compliance apply to all corporations on a mandatory basis, and could consequently be considered as a basic prerequisite and not a corporate initiative (thus pointless to demand). Further Respondent C, representing Delta acknowledged that the only sustainability demand presented in the company's main RFQ is driver abilities and behavior since they are the *"companies face towards the customers"*. The finding is noteworthy since it from a practical perspective demonstrates that image related issues tend to overshadow environmental concerns.

Furthermore, reporting of key indicators was labeled as the most common environmental requirement (Respondent B) and is demanded in all agreements except from Gammas on a quarterly (Alfa & Beta), respective monthly basis (Delta). The finding is noteworthy since the environmental reports provided by the LSP are free of charge (Respondent G & D), indicating a genuine lack of environmental interest in the case of Gamma that cannot be discharged using expenses as an excuse. Moreover, the demands from Alfa and Beta conveys the utilization of environmental management systems, which according to Respondent F & D is a prerequisite for most Swedish customers, who expect providers to be ISO-certificated which according to Respondent E in the customers minds equals: *"that we are fulfilling all other environmental questions"*. Yet, ISO- certifications per se ensures a strategic and structured environmental (and/or quality-oriented) corporate work that is being monitored by an external part (Ammenberg 2004). However, certifications do not force corporations to work with a predetermined or distinct area, nor forces specific ambition degrees, but operates mainly on the pursuit for continuous improvements. This could crassly mean that corporations might apply a strategic waste disposal work to obtain ISO-certifications, but have severe shortcomings in several other fields. From this perspective it occurs to be a common industrial misunderstanding that ISO- certifications per se ensures a perfect or even sufficient corporate (LSP) environmental work. It is thus very imaginable that the industry is experiencing an exaggerative confidence in the substance of ISO certifications.

5.2 Price

5.2.1 Analytical challenges

The primary strain in exploring how the environmental demands affect the price of the transport solutions is connected to the envisioned research strategy firmly being denied by the LSP sales department (see 2.4.4). The blockage is remarkable since it unmistakably demonstrates the sensitiveness of the research question, indicating that the desired information (if used in an incorrect manner) could harm the LSPs competitive abilities. The methodical obstacle was tackled by switching to an accepted interview approach, indicating that the LSP wanted to fully control the information flow. Consequently, it is essential to consider that the empirical data might not fully correspond with the information the author would have received by implementing the first research strategy.

5.2.2 Putting a price on the environmental demands

The findings display that the LSP claim to not apply procedures to allocate additional costs for environmental demands. According to Respondent D this is due to the fact that *"the tools for doing so are not yet available on the market"* and "*the market is not challenging us to do so*", which according to the respondent equals that it is not necessary, nor profitable to work in that direction. The statements are interesting since the respondent further acknowledged that *"in the pricing process we always look at the specific mission and make tailor-made deliberations (...) if some demands would to stick out, we will make separate calculations for those values".* The contradictory statement is noteworthy since it signifies that the LSP does in fact implement separate calculations for demands not falling under the default values and offered general fleet. The insight leads the author to suspect that the LSP most likely conducts calculation (or at least are able to) based on environmental demands, but have no desire to share the information due to corporate confidentiality and competitive motives.

Nevertheless, despite the findings disappointedly enough not resulting in upfront price tags of the stipulated green demands, it can clearly be concluded that environmental considerations generate increasing cost for LSCs, assuming that the demands falls outside the frame of the LSPs general fleet (Respondent D).With the basic understanding that the LSP general fleet is based on conventional diesel (Respondent H) and guarantees 100 % fulfilment of Euro 3 engine standard and lower (Respondent D) it can logically be argued that it is likely for ambitious environmental requirements to fall outside the default value offerings, and thus be considered as *"demands that stick out"* (Respondent D).This is due to the fact that Euro 3 engine standard came in force in 2000 (European parliament 1998) and has since been replaced with several newer and more environmental efficient standards (4, 5, 6) combined with the increased focus on alternative fuels as distinguished in the case of Alfa & Beta. The basic rule as advocate by the sales director is; if the required solution results in increasing cost for the LSP, -the price will always be higher towards the customer. The insight was further confirmed in an informal discussion with a former subcarrier to the LSP, straining that customer's demands that directly affect the technical performance of vehicles, almost exclusively result in a few percentage price increase.

Moreover, the findings point out that offering a transparent price service does not appear to constitute an attractive business strategy for the LSP since "*the market is not mature enough for that kind of service since there still is a clear lack of interest among customers"* (Respondent D), highlighting that the LSP do not believe in the potential of transparent services due to market conditions. The finding is interesting since research implies that transparency is be the most effective solution for markets striving for good quality and fair competition (Akerlof 1970) and will be essential for successful and profitable businesses in the future (Tapscott &Ticoll 2003), but yet is not sought-after on the LSP agenda. Moreover, several informal discussions with industrial experts highlighted that transparent services are highly sought after by LSCs, which directly contradicts the "immature" market stage as portrayed by the LSP sales director.

The reluctance to offer transparent services in general might possibly be connected to the fact that transport companies likely are operating in ways to maximize profit rather than to maximize supply chain performance (Narayanan & Raman 2004), or the fact that corporations traditionally have resisted calls for increased supply chain transparency claiming that it could harm competitive advantages (Doorey 2011). Accordingly, it is possible that the LSP recognizes a transparent price services as equal to discloser of corporate secrets which in worst case scenario could highlight lack of performance and bring end to business areas as described by Gustafsson (2004). Furthermore, the unwillingness to offer a transparent service or green services in general that are not directly forced by the market is likely connected to the characteristics of the transport market, where fierce competiveness and extremely low marginals are central features. Moreover, the players included on the transport market needs consideration since as acknowledged by Respondent D: *"it is astoundingly easy to get a cheap transport nowadays (...) if you own a telephone, PC and a contact book you could in practice be a forwarder (...) and we are competing with these kinds of players when selling our services"*. Respondent D further strained that *"since we cannot move our production to Asia like everybody else, we are obligated to look over our way of production"* which in practice specifies that LSPs, due to the included actors on the market, are forced to lower prices (and environmental/social quality) to be able to compete with less serious players. This is highly problematic since it drives a vicious circle of opacity and unsustainability, severely injuring both environmental and social values.

5.3 Monitoring

5.3.1 Analytical challenges

One construction material company (Gamma) was excluded from RQ2 due to the fact that the company did not wish to comment upon the applied strategies for monitoring. The exclusion is unfortunate since closed logistics flows (Alfa & Beta) are overrepresented in the empirical findings while the monitoring process of the open flows is based on the findings from one company alone (Delta). Nevertheless, despite the exclusion of Gamma, there is no reason to suspect that the inclusion of additional missions representing open flows would affect the result of RQ2 since the interviews repeatedly displayed that large customers tend to monitor in similar conducts. Moreover, the reluctance to elaborate applied practices is noteworthy since the documents findings disclosed that Gamma, despite of demanding environmental reporting in the RFQ phase, is not receiving any explicit environmental reports from the LSP (4.3). This, combined with Gammas rejection to remark the process, leads the author to conclude that Gamma does in fact not apply any strategies to monitor the environmental status of the LSP. The finding is interesting since Respondent I stressed that monitoring seldom constitute a top priority in the industry, agreeing well with the findings of previous research (Björklund & Forslund 2013; Björklund 2005). The insight was further deepened in informal conversations with carriers, claiming that extremely few customers actually monitor their green demands. Furthermore, one carrier highlighted that their management never have received specific requests from customers, wanting to assure environmental compliance.

5.3.2 Monitoring the environmental demands

The findings demonstrate that LSCs (Alfa, Beta & Delta) monitor environmental compliance mainly via the environmental reports provided by the LSP Company on a quarterly respectively monthly basis. The reports present figures portraying the outcome for key indicators (such as CO2 and tonne km) which are weighed against the goals stated in the agreements (Respondent J). Respondent K, representing Delta further argued that even if the company does not demand specific environmental commitments, the monthly report functions as a supplement *"to display the green status of the LSP"*. Nevertheless, the only environmental demand emerging from Delta is law compliance, which unlikely is feasible to monitor via environmental reporting, leading the author to suspect that Delta demands reporting mostly due to the convenience of the free service, or perchance due to curiosity rather than regulatory motives.

As a complement, Respondent I &J further strained that spot-checks are conducted sporadically on terminals with the purpose of verifying that vehicles meet the regulated environmental performance. The empirical material does however not specify in what time-span "sporadically" fall under, and the respondents provided no clarification on the topic, meaning that it is not possible to determine whether spot-checks are conducted on a fairly regularly basis or extremely seldom. Furthermore, the agreements of the food retailers displayed that Alfa & Beta demands assemblies with the LSP party on a yearly (Beta) and more regular basis (Alfa). During the interviews Respondent A touched upon the subject of Alfa claiming that *"Alfa can in fact be considered an outstanding corporation going all the*

way with demands, execution and monitoring". Accordingly, Respondent I acknowledged that Alfa do not perceive any shortcomings in the monitoring process which likely is connected to the parties comprehensive cooperation as described by Respondent A arguing that the LSP and Alfa *"have a close collaboration and continuous meetings in different settings where we openly discuss the cooperation and all parameters included".* Moreover, Alfa conducts complementary audits on a regular basis (Respondent E). Regarding Beta, assemblies are similarly stated as a regulatory demand, however Respondent E strained that equally regular, open and casual meetings as with Alfa are non-existing among the other customers, which according to Respondent D is due to the fact that they *"are not coveting it*". Moreover, Respondent E stressed that no audits tackling the environmental demands are conducted on the behalf of Beta, Gamma nor Delta. In the case of Gamma & Delta no requests for assemblies were found among the regulatory demands, signifying that any real interest in the resistance of the environmental demands and the green status of the LSP is limited, once again highlighting that the environmental requirements might just be *"just for the sake of it"* as acknowledge by Respondent D. The findings signify that the level of transparency in the collaboration might have an effect on the resistance of the environmental demands and the perceived satisfaction level of the collaboration. The finding is noteworthy since it from a practical perspective exemplifies the centrality of openness for successful business relationships built on trust and accountability as previously described by Kaptein & Van Tulder (2003) and Kaynak & Avci (2012).

Nonetheless, the spot- checks, assemblies and audits of the food retailers were described a complementary, meaning that the customers primary monitoring is based on one report provided by the LSP party, in a "one way" and passively manner. This signifies that the transport buyers put substantial amount of faith in the rightness of the provider's compliance and trustworthiness of the figures portrayed in the reports. The finding is unsettling for numerous of reasons. Firstly, the indefectible trust in the rightness of the LSP is problematical since markets economies are characterized by information asymmetries between sellers and buyers as portrayed in the interviews and previously granted by Akelof (1970). In practice this could crassly mean (although not discovered in particular in this study) that LSPs are provided with opportunities to cheat, deliver services with less environmentally preferable standard, and twist the figures without the customer's knowledge. Secondly, from an entirely opposite perspective the clear customer focus on environmental reporting requires deliberation since the LSP by no means is able to assess to what extent the customers value the contents of the reports. This could in practice mean that customers are requesting reports due to the convenience of the free service, but adds no particular value to them (which might possibly be the case with Delta). In an informal conversation with a LSP employee the individual confirmed the apprehension by acknowledging that he at one point accidently attached the wrong figures to an environmental report; however the LSC did not return with inquiries. Lastly, the finding is troubling since Respondent G emphasized that *"the substance of the agreements regarding environmental reports can be taken with a pinch of salt",* which is highly remarkable since the contracting phase is the bearing stage on which the entire cooperation lies (Andersson & Norrman 2002) and according to the tendencies in the empirical material, - the foundation for transport buyers monitoring. Furthermore, the focus

on environmental reports requires deliberation since the fulfillment degree of green demands concerning for instance maintenance & service, education and product & waste management are not declared for in the environmental reports, which only include outcomes for key indicators such as carbon dioxide, tonne km, weight, costs, fuel consumption and environmental vehicle class (table 6, 9 & 10). Moreover, Respondent I recognized that LSPs in general tend to apply individual stencils for measuring the environmental impact of their transports. This is problematic since the figures requires constant adaption and simultaneously sharply decreases the comparability potential of environmental outcomes among LSPs and carriers.

Moreover, both Respondent I & J strained that under current circumstances it is not possible for LSCs to assure 100% compliance of the environmental demands due to the fact that the required solutions takes time to establish, in combination with the large amount of transports on a daily basis. Both respondents expressed anxiety concerning the lack of control where Respondent J strained that the issue is highly stated on the corporate agenda while Respondent I stressed that Alfa is working actively to apply more regularly monitoring routines with the purpose of sharpening the follow up. Nevertheless, Respondent I recognized that LSCs do not regulate how the LSP designs the transport setup, but only considers that the solution is meeting the environmental requirements stated in the agreements. This raises apprehension since the statement designates that transport buyer's knows little about how the transport mission is performed, as previously acknowledge by Santén & Arvidsson (2011) claiming that customers in general holds very little knowledge about the included transports throughout a products lifecycle.

In addition, the basic difference in logistics practice requires consideration since the goods on behalf of Alfa and Beta is transported in closed flows while Delta is a part of an open logistics structure (1.4). Respondent E & H strained that closed flows by far are easier to assure compliance in, while Respondent E elaborated that open flows in general are more complicated to monitor since regular exchange of vehicles and co-loading are central elements. The revelation ought to function as an incitement for customers in open flows to more thoroughly prioritize the monitoring processes. Moreover, Respondent H strained that although closed flows are beneficial from a regulatory perspective, they are less flexible and more difficult to achieve efficiency in due to the fact that no co loading is permitted. In practice this means that it is challenging to achieve high filling degree, which in the literature is described as a central approach for maximizing existing resources, by increasing transport work without increasing traffic work (vehicle km) and thus limiting the environmental impact of transports (Lumsden 2012). The insight is rather remarkable and discloses a clear paradox where closed flows are highly favorable from monitoring perspective, assuring compliance of the environmental demands, but contradictory enough result in less environmentally friendly transports in the long run since more half empty trucks are operating on the roads. From this perspective it can be argued that LSCs when demanding closed flows, vigorously restricts the LSPs possibilities to achieve logistics optimization, even if initially and genuinely having the environmental status of the mission in mind.

6. Discussion

This chapter discusses the substance of the empirical findings and highlights important researcher insight and detected trends. Further, to properly evaluate the weight of the findings, limitations and challenges of the implementation are discussed and further research is proposed.

6.1 Answering the research questions

This study has from a practical perspective illustrated differences in environmental demands emerging from two central LSC industries, portrayed central market issues for the success of environmental initiatives in the freight industry, as well as disclosed strategies for monitoring of environmental demands. From a theoretical point of view the findings should be regarded as a contribution to the theory of environmental purchasing in the field of logistics, highlighting beforehand neglected inquiries. Moreover, from a practical sustainability management perspective, the findings generating from this study can be considered a guide for large LSPs, craving a deeper understanding of customer demands and issues related to the purchasing process. The study's environmental potential is noteworthy since environmental purchasing/sustainable procurement is a pursuit for sustainable development objectives throughout the purchasing process by balancing economic, environmental and social values and achieving a more sustainable freight transportation system.

Regarding RQ1 the analysis demonstrates that the characteristics of the environmental demands differ a great deal in consistency, ambition and focus between the investigated industries. From the empirical material it can be concluded that the food retailers are highly ambitious in demanding environmental considerations whilst any real interest among construction materialists appears to be limited. The concrete finding is grateful since it provides the LSP with an indicator of towards whom sustainability efforts should be directed. Moreover, the straightforward and slightly disappointing answer on the subject of price is that it is not possible to for certain distinguish how environmental demands affect transport solution price under conditions given the author. The reason for the question falling flat is: (1) the LSP claim to not offer the service and strains that the tools for doing so are not yet available on the market and; (2) the author was denied the option of performing own calculations based on the four agreements. However, despite the undesirable outcome for this particular study, the finding is in fact highly important and illustrates the basic challenges of the industry, where LSPs do not find new solutions or service offerings rational or profitable if not forced and regulated by the market.

Regarding RQ2 the findings demonstrate that the LSCs monitor compliance mainly via the environmental reports provided by the LSP, indicating that the customers put substantial amount of trust in the rightfulness and honesty of the LSP. As a complement the food retailers occasionally conduct spot-checks with the purpose of reassuring vehicle performance and engages in assemblies with the LSP, which likely is connected to the beneficial environmental status of the missions. Furthermore, the empirical findings point out that Alfa conducts yearly

audits of the LSP, tackling the terms of the cooperation which likely contributes to the mutually perceived constructive cooperation.

To summarize the environmental ambition level of the included LSCs, and account for the customers monitoring efforts (passively and actively), figure 5 below summarizes the empirical findings of the study. The size of the arrows indicates the customer's ambition level in each step of the purchasing process.

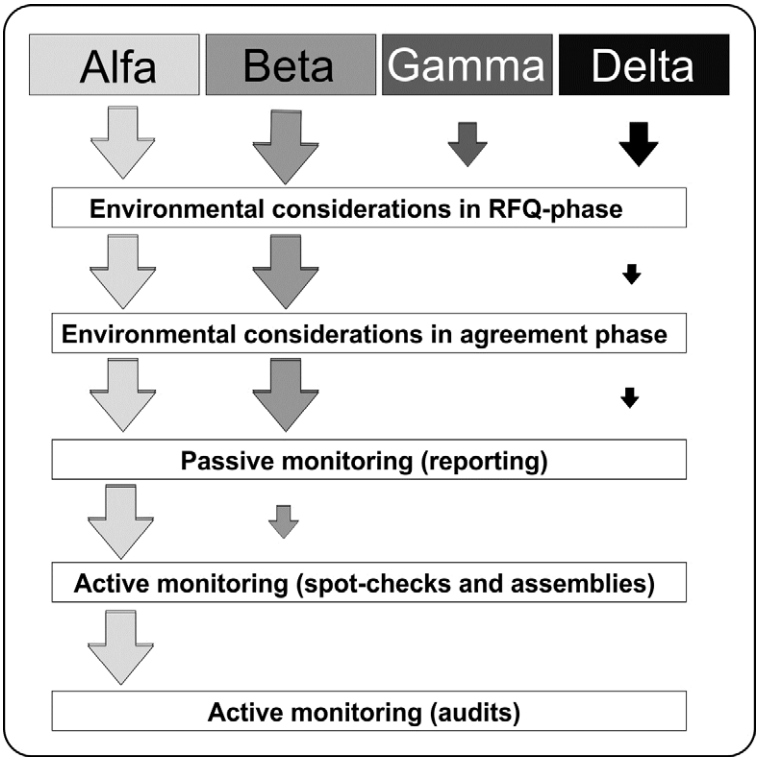

Figure 5. Summary of the LSCs environmental ambition level

In the case of Delta, the environmental requirements included in the second RQF (email) are accounted for in the figure due to fair comparison of actual corporate efforts and initiatives throughout the purchasing process. The declining ambition level of Beta in the active monitoring stage signifies that the company does not engage in equally regular assemblies with the LSP as Alfa.

6.2 Trends and tendencies

Although not in focus in this particular study, the empirical findings disclosed the presence of a new customer trend, displaying that inclusion of social demands has increased more rapidly than environmental requirements. Respondent F strained that "*this is exemplified by the increased incidence of COCs which customer demands our compliance of"* while Respondent D further labeled the trend as an *"increasing demand for logistics with heart",* signifying that the incoming demands to greater extent include restrictions for driving hours, detailed working conditions, rules for subcontractors, child labor, corruption etc. The finding is noteworthy since the social dimension of sustainability seldom is included in sustainability research in general (Hahn & Kühnen 2013) and logistics sustainability research in particular (Björklund 2010), but yet appears to stand high on the LSC agenda. The social dimension was further acknowledged in several informal discussions with industrial experts and carriers labeling large LSPs in general as *"heartless"* having "*no respect for human values"* and *"ethical catastrophes".* The cause for the social upswing is not verified in this study, but might very possible be connected to the increased media surveillance, which recently and repeatedly have highlighted social deficiencies in the freight transport industry (eg. Proffs Magazine; HD 2014; SVT 2015) which easily could endanger trademarks of corporations linked to the LSPs. The detected social focus generating from this study ought to act as a wake-up call for the industry in general and provide incitement for large LSPs in particular to more efficiently tackle social issues, and to greater extent include them as strategies in their corporate priorities.

Moreover, all respondents referred to Swedish LSCs as being highly ambitious in including CSR aspects and environmental concerns into business strategies compared to foreign clienteles. This was said to be exemplified by environmental demands overall being higher for domestic transport compared to import and export where greater focus is directed towards delivery time. Nevertheless, the declarations say nothing about Swedish corporation's environmental ambition level while exporting, meaning that it is possible that corporations tend to direct more attention to the well-being of their own countries. The argument corresponds to the well-established "not in my back yard" attitude, which is considered as one of the main challenges for reaching global sustainability (Wright & Boorse 2010).

Furthermore, an interesting insight generating from the interviews is that "CSR" and "sustainability" is not perceived in an equal manner, as stated by others before (Votaw 1973 p. 11) exemplifying that *"is a brilliant term, it means something, but not always the same thing for everybody".* The interviews displayed that the terms are either perceived as highly abstract, (meaning that everybody is discussing them but nobody knows what they mean), or far to concrete where the industrial focus lies solely on ISO-certifications and CO2, neglecting other factors such as noise, particles, acidification, eutrophication and social concerns. The finding demonstrates the basic struggle of sustainability research from a practical perspective and displays that even in one company; in one specific industry-cloudiness is obvious. The insight is problematic since it could jeopardize the operational and organizational significance of the conceptual strategies (Van Marrewijk 2003).

6.3 Researcher insights

The author was well aware of the sensitivity of the research questions prior the execution, however, the data collection turned out to be more challenging than anticipated, which was astounding since anonymity was guaranteed all parties. With regards to the ethical challenges related to this study and the sensitiveness of the research questions it is important to consider that the outcome for the RQs in general, and the question of price in particular might have resulted differently had the author not been an external part. What speak against the findings not entirely adding up to reality is the fact that the author offered the LSP a specific corporate report, including all exact data (while the thesis publication intended to present fictive figures only), which logically argued would constitute highly attractive information for the LSP. Nevertheless, the author cannot with 100 % certainty settle if the result regarding the price of the environmental demands arises from the indefectible truth, insufficient knowledge or an unwillingness to share corporate information with a researcher. The methodical challenges of the study exemplified the opacity of the industry from a practical perspective, an experience unattainable to fully gain by theoretical reading. The difficulties resulted in the study not including all desired information, causing in the weight of the empirical findings to not entirely add up to the expectations and ambition level of the author.

The strains however undeniably resulted in some important researcher insights, having the author conclude that research in an industry characterized by fierce competition and lack of transparency in fact is highly challenging. Moreover, the study contributed to a broad understanding of the complexity of the logistics industry, as well as a newfound respect for the challenges within in the research field of logistics environmental optimization. This was exemplified by in practice encountering central industrial issues such as customer's unwillingness to pay, and the fact that it is astoundingly easy to obtain a cheap transport, compelling transporters to constantly lower prices and act in ways to maximize performance rather than to aim for supply chain sustainability. From this perspective it is likely that providers take advantage of the information asymmetries on the market where transport buyers are not aware of the quality differences, enabling providers to (without the customers knowledge) lower the ethical and environmental quality of the transport service with the purpose of saving money (causing a form of plausible deniability). This is problematic from numerous perspectives, not only since it drives usage of less environmentally friendly vehicles, but also since it drives an unethical labor development where foreign drivers are recruited due to convenience of their cheap services, and are obligated to work under time-pressed schedules to meet delivery demands, -severely affecting the traffic safety.

The newfound insights raise questions regarding the actual societal duties of businesses. Considering that corporations primary responsibility is to profit, it can logically be reasoned that the main societal responsibility of the LSP is to make money. Since the LSP is well familiar with the fact that environmental concerns seldom are prioritized "all the way" by LSCs, why should they from a strategic approach "waste time" and actively work to promote environmental services since it is evident that most customers are not willing to pay for the investments? From this aspect, the societal responsibilities of transport companies (and

private sector in general) can be considered a buzzword, since it all comes down to making the fattest buck and competing on a fierce and time-absorbed market. - A vicious circle of greed is created, which in no way benefits the quest for sustainability. Furthermore, the findings are melancholy since the markets clear obliviousness shows that when presented with freedom of choice, most tend to not prioritize sustainability, leading the author to unenthusiastically conclude that democracy might in fact be the foremost threat for the environment and the battle against climate change.

6.4 Limitations & generalization potential

There are several limitations related to this study. First and foremost the findings are based on empirical data from one single LSP and could consequently be limited to specific organizational circumstances. For instance, as mentioned by Respondent D, competitors might be ahead in the process of pricing of environmental demands, meaning that inclusion of an additional LSP might show different results, decreasing the study's external validity. However, when consulting three external industry experts (without connections to the investigated LSP) they argued that practices and cultures vary very little between large LSPs, firmly increasing the generalizability potential for the case study findings.

Moreover, the included demands all arise from Swedish customers and the Swedish division of the transport company, meaning that the result might be restricted to domestic circumstances. This is noteworthy since several respondents strained that Swedish corporations are highly ambitious in tackling sustainability issues compared to foreign, signifying that the result of this study might be misleading outside national boundaries. Moreover, the demands all emerge from two specific industries of LSCs, represented by merely four companies. The narrow selection was essential to fit the frame of the thesis, but contributes to restrictions since the selection might be far to narrow to detect any real patterns. Although several differences were distinguished, the result of this study does not provide the possibility to generalize, nor draw credible and justifiable conclusions regarding the entire food retail nor construction material industry. Accordingly, the ambitiousness of Alfa and Beta and the obliviousness of Gamma and Delta must be weighed against the extremely narrow sample, meaning that the companies might, (or might not) be typical examples of environmentally conscious/unconscious corporations (which appears likely in the case of Alfa and Beta). Consequently it is problematical to settle whether the demands vary due to actual industrial deviations, or are simply a matter of coincidence.

6.5 Suggestions for further research

The study was developed with the intention of contributing to the research field of environmental purchasing by investigating a fairly unexplored research area from an LSP perspective. Nevertheless, the study faces several limitations, simply providing the author to superficially examine the research area. Accordingly, the study should be considered as a pilot study, surfacing interesting questions and generating openings for further and deeper analysis from different academic perspectives.

To reduce uncertainties and limitations of the study, further research is called for. To develop the case study further it would be interesting to include additional LSC demands in the study, facilitating detection of patterns, which could either validate or reject the empirical findings regarding characteristics. Furthermore, since other LSPs might (or might not) have come further in investigating how environmental demands affect transport solution price, it would be interesting to apply similar research questions to an additional LSP. Moreover, it would be highly stimulating if researchers would succeed in analyzing price information in final agreements, and with access to this data conduct calculation examples on the different agreements and environmental demands. With this information it would be inspiring to in practice attempt to deduce differences between various shipments, level the green demands and provide the market with a transparent price. Lastly, with consideration to the recent revelation of social dumping in the industry, and the clear social upswing detected in the study, it would be motivating to deeper investigate and apply similar research questions on the social demands stipulated in the purchasing process of transport services.

7. Conclusion

The final chapter concludes the important findings of the research study.

Environmental implications of the study:

- Food retailers are highly ambitious in demanding environmental considerations when purchasing transport services. The demands show extremely high consistency and embrace a lifecycle approach. The construction materialists show limited interest in environmental concerns and prioritize production solutions, service and law compliance. The demands demonstrate a decreasing ambition level in the final stages of the purchasing process, signifying that customers tend to not prioritize environmental requirements if negatively affecting the solution price or lead-time

- Environmental demands may naturally emerge or dissolve throughout the purchasing process and the level of transparency of the collaboration appears to have an effect on the resistance of the green demands and the satisfactory level of the cooperation

- Customer's unwillingness to pay for environmental optimization, the fragmented and opaque industry structure and the time-oriented nature constitutes central issues for the greening of the industry since they drive unsustainable and profit-oriented decisions

- The industry is likely experiencing an overconfidence in customer's role as drivers for sustainability, leading the author to conclude that regulations on EU- level might be the most efficient measure for reducing the environmental impact of the freight transportation industry

- It is not possible to accurately distinguish how the environmental demands affect the price of the transport solutions due to the attitude of the LSP, the markets characteristics and methodical obstacles of the research study. The findings however indicate that environmental demands will generate a price increase, if falling outside the general vehicle fleet of the provider

- LSCs monitor compliance of environmental demands mainly via the environmental reports provided by the LSP, combined with sporadic and complementary spot-checks, assemblies and audits. The findings signify that LSCs put substantial amount of faith in the rightness of the provider, which is problematic due to the existing sustainability information asymmetries on the market

- In logistics practice, closed flows are advantageous from a monitoring perspective due to the lack of co-loading and vehicle exchange, but restricts opportunities for LSPs to optimize filling degrees, vigorously reducing the environmental status of closed flows

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Appendices

A. Interview guides

1. Säljavdelning (key account)

- Vad är din uppfattning kring förekomsten av miljökrav i upphandlingsprocessen?
- Vad är det vanligaste förekommande miljökravet från kunder?
- Vad är din uppfattning rörande kontinuiteten i RFQ/ Avtal fasen?
- Vad anser du om XX förmåga att ställa miljökrav vid transportköp?
- Anser du att de miljökrav som XX ställer i RFQ fasen stämmer bra överrens med de miljökrav som representeras i avtalet?
- Tycker du dig kunna se någon skillnad/mönster på vilka kunder som ställer högre miljökrav än andra? Vad tror du detta beror på?
- Vad är din uppfattning kring kunders betalningsvilja rörande miljökrav?
- Har du någon uppfattning kring hur miljökrav prissätts i avtalen?

2. Säljledning

- Vad anser du om LSP kunders fallenhet att ställa miljökrav?

– Har miljökraven ökat, minskat? Vad tror du detta beror på?

– Om du upplever en ökning, är det för att fler kunder ställer krav eller för att samma kunder ställer mer omfattande krav?

– Ungefär, hur stor andel av kunderna ställer idag miljökrav? (%)

– Vad anser du om Alfa, Beta, Gamma och Deltas fallenhet att ställa miljökrav?

- Tycker du dig kunna se någon skillnad/mönster på vilka kunder som ställer högre miljökrav än andra?

– På vilket sätt skiljer kraven sig?

– Vad tror du skillnaderna beror på?

- Vad är din uppfattning kring kontinuiteten i RFQ/tender-Avtal fasen? Det vill säga, följer miljökrav som ställs initialt ofta med in i de slutgiltiga avtalen?
- Hur värderas miljökrav i prissättningen?

– Är det möjligt att sätta ett pris på miljökrav?

– Vad styr prissättningen?

- Hur mycket varierar priset för de kunder som ställer miljökrav och de som inte gör det? (Vad är merkostnaden? %)

– Finns det möjlighet att urskilja att en viss service/kravställning resulterar i en viss typ av prislapp?

- Vad för sorts service får kunden om denna inte ställer miljörelaterade krav?
- Vad är din uppfattning kring kundernas betalningsvilja för miljökrav?
- Hur ser du på miljötjänsten som LSP tillhandahåller?

– Säljer tjänsten aktivt eller finns den med som ett ”kuttersmycke” i portföljen?

– Hur stor andel av bokningarna görs med miljötjänsten?

3. Kvalitetsavdelning

- Vad är din uppfattning kring förekomsten av miljökrav från kunder?
- Går det att utläsa någon trend på vad för slags hållbarhetskrav kunderna prioriterar?
- Går det att utläsa skillnader/mönster på vilka kunder som ställer högre miljökrav än andra?
- Hur följs miljökraven upp under samarbetet?

– Upplevs någon problematik i detta steg?

4. Kunder (Alfa, Beta & Delta)

- Hur följer ni upp att miljökraven ni ställer på LSP genomförs?
- Ser ni någon problematik i uppföljningen?
- Är alla miljökrav lika enkla/svåra att kontrollera?
- Är det möjligt för transportköpare att med 100 % säkerställa att miljökraven går hela vägen?

B. Consent form

Medgivande formulär

Berörda parter

XXXXXX

Evelina Weich, Lunds universitet

Jag, …… samtycker till att medverka i en forskningsstudie i Miljövetenskap för Lunds universitet.

Studiens syfte och vetenskapliga natur har förklarats för mig muntligt och/eller skriftligt.

Jag medverkar frivilligt.

Jag tillåter att min intervju med Evelina Weich spelas in.

Jag förstår att jag har rättighet att närsomhelst dra mig ur studien.

Jag förstår att medverkan inkluderar fullständig anonymitet och att min identitet och diverse företagsnamn kommer att benämnas vid kodnamn i studien.

Jag förstår att utdrag från min intervju kan komma att citeras i studien om tillåtelse ges nedan: (Var god kryssa i en ruta)

Jag tillåter att utdrag från min intervju citeras [ ]

Jag tillåter INTE att utdrag från min intervju citeras [ ]

Signatur [respondent]…… Datum…….

Signatur [forskare] Evelina Weich…..…… Datum 2015.xx.xx