Logistics Service Providers’ Environmental Management

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Abstract

This thesis aims to give a holistic description of logistics service providers’ environmental management, which has been lacking in literature. The aim is also to analyse how the logistics service providers’ environmental management provides value to their business, and to discuss its role in their business. This research contributes to the literature on green logistics, which regard the environmental sustainability related to logistics systems but largely lacks the logistics service providers’ perspective. The results support logistics service providers, who meet increasing demands on environmental sustainability, by providing a basis for discussion of how to work towards increased environmental sustainability in their business. It can contribute to discussions, evaluations and understanding of the role of environmental management as value-creating and strategic for the company.

In order to explore what logistics service providers’ environmental management actually is, case studies of three different types of logistics service providers are carried out, and the environmental management of these companies are described in separate appended reports.

This research is of an explorative nature and the research design has been developed in parallel with conducting the research. The researcher’s personal background thinking behind the research questions and purpose is also presented in addition to describing the research process, as it has impacted the research process. The analysis is inspired by the resource-based view. A literature framework on corporate environmental management and the resource-based view has been formed to provide a background for performing the case studies and to help structure the descriptions and analyses.

The logistics service providers’ environmental management is related to compliance, internal efficiency and competitiveness. The analysis results show that environmental management to a great extent seems to be only of implicit interest for competitiveness at present and more to concern future competitiveness. A large part of meeting customers’ environmental demands today involves logistics service providers proving to their customers that they have an environmental effort, more or less regardless of what it actually includes.

In order to further explore the value of environmental management, to show it more explicitly, the logistics service providers’ ability to cope with change regarding increased environmental demands is analysed. In this analysis, elements of dynamic capabilities in the companies’ environmental management are identified and presented.

This research has generated several ideas for future research, first and foremost relating to organizational development of environmental management among logistics service providers and the development of more environmentally sustainable logistics services.
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1. Introduction

This thesis concerns environmental management at logistics service providers. The overall focus is on the role that environmental management has in logistics service providers’ business and aims to provide a basis for potential development of their work on environmental issues. The thesis is based on case studies of logistics service providers’ environmental management, which are reported of in the appendix.

This research is inductive and the introduction begins with a presentation of the research questions and their practical relevance in section 1.1. More background to the research questions can be found in the methodology section, 3.3. Building on the research questions, the purpose of the thesis is elaborated in section 1.2. The aim of the present research is to contribute to the literature on Green Logistics and the relevance of the research questions and purpose of this literature are presented in section 1.4. The structure of the thesis is described in section 1.5.

1.1 Research questions

Like many other companies, logistics service providers’ work with environmental issues related to their business. That they do perform environmental measures is evident from industry journals and in their marketing. The companies’ Internet homepages often have links to information, for example about their environmental policy. Launched in 2008, the logistics service provider Alltransport’s sustainability report began as follows according to the preface by the company’s CEO:

“This year's big investment. During 2008, the environmental trend has been further strengthened where authorities, media and the various political parties are competing against each other in going a long way in environmental issues. In recent years it has focused to a great extent on carbon dioxide (CO2) emissions. This has increased interest in the environment among the public, the business community and society at large. Alltransport’s Board has for several years decided to put major resources into developing its own sustainability report and making all staff aware of it. Our view is that long-term environmental management is the only sustainable way.”

(Alltransport’s Sustainability Report 2008, author’s translation)

Even though you sometimes hear or read about specific action taken, for example to decrease the environmental impact of transportation, you are seldom given the whole picture of what logistics service providers actually do when they work on environmental issues. What is the perceived interest of their stakeholders and what do they do to respond to it?

Corporate environmental management helps companies ensure that commitment to environmental improvement exists in their business (Welford, 1998). Depending on how

1 The term logistics service provider is defined in section 1.3.

2 For example the Swedish business magazine Inköp + Logistik
the work on environmental issues has developed, different parts of the organization and business may be involved. Managing environmental issues in corporations might concern overall strategies, decision-making, organization, communication and tools to be used by organizations in their work towards environmental sustainability (Ammenberg, 2004).

Many organizations, have adopted standardised environmental management systems (EMS) in order to steer and control their organization’s environmental efforts. An EMS can help companies get their papers in order and check that they are observing laws and regulations concerning their facilities and material flows. EMSs are built round the concept of environmental aspects: elements of an organization’s activities or products or services that can interact with the environment (ISO 14001:2004, 3.6). Environmental aspects can be divided into operational, related to the flow of materials and energy, and aspects of management, or organizational, that can for example be related to decision-making or lack of knowledge (Ammenberg, 2003).

Using a standardised EMS to some extent means presenting the organisation’s activities according to the standard and also to some extent adjusting the organisation’s activities according to the standard (Brunsson, 1998). The EMS supports environmental management but use of the system is developed and adjusted in the context of each company and its effects may be very different from one company to another.

Environmental management systems aim at work towards continuous improvements. An EMS can also be used to make people aware of environmental issues related to the core of a company’s business. It can also be used as a tool for communicative action and organizational learning. It is, though, important to note that it is not the EMS in itself, but a reflective and innovative use of EMS that can enhance communicative action and organizational learning in favour of increased environmental sustainability. Unfortunately, administrative EMSs have traditionally been understood as technical tools for analytical management action, which has inhibited creativity and possibilities to make environmental management dynamic, flexible, adaptive and successful. (Burström von Malmborg, 2002)

Regarding logistics service providers’ environmental management, if reflecting over the above, the following question seems unavoidable:

1. What is logistics service providers’ environmental management?

Environmental management can contribute to value in companies in several ways. As regards the logistics industry, it has been recognized that work towards environmental sustainability can lead to intangible benefits such as image and reputation enhancement in firms (Rodrigue, 2001; Kohn, 2008), for example by the use of EMSs (Rodrique et al, 2001). Reinhart (1999) suggests that managers should look at environmental problems as business issues and further suggests that companies integrate the environment into their business thinking through five possible approaches; differentiating products, managing competitors, cutting costs and saving the environment at the same time, management of risks and redefining competition in their markets. The approaches are suggested to help managers apply traditional business principles to environmental problems, and enable them to deliver increased value to shareholders while making improvements in their environmental performance (Reinhardt, 1999). This leads to the second question:
2. How does environmental management contribute to value in logistics service providers’ business?

In the next section, the questions presented here will be further discussed and the purpose of this thesis elaborated and motivated.

1.2 Elaboration of purpose of this thesis

The research questions presented in section 1.1 have a relevance to literature on green logistics, see section 1.4, the aim of which is to contribute with the research presented in this thesis.

The first research question:

1. What is logistics service providers’ environmental management?

relates to an interest in exploring what logistics service providers actually do when they work on environmental issues. This is done by carrying out case studies of the environmental management of three logistics service providers, see further section 3.4. The interview questions for the case studies are elaborated in the section on research approach, 3.4.1. Environmental management at the three logistics service providers is then described in case study descriptions, which are included in the appendix.

The second research question:

2. How does environmental management contribute to value in logistics service providers’ business?

will be answered by analysing what can be seen as valuable in the case study companies’ work on environmental issues. The choice of theoretical basis for this research is presented in the research approach chapter, see section 3.2.2, and the theory of the resource-based view is used as a basis for structure and as a handrail for the analysis in this research. The results from the analysis of values, see section 4.4, motivates a further analysis of the elements of dynamic capabilities related to the companies’ work on environmental issues, which is explained along with the research approach for analysis in section 3.5.

Returning to the discussion of corporate environmental management, it is recognized that environmental management can contribute to companies’ business in different ways (Burström von Malmborg, 2002; Rodrigue, 2001; Kohn, 2008; Reinhardt, 1999). For example, Porter and Kramer (2006) suggest that companies might find corporate social responsibility to be a source of opportunity, innovation and competitive advantage. But despite the potential to utilize environmental management for competitiveness, it has been recognized that the international standards that have been introduced to accredit companies’ environmental programmes and help customers ensure that suppliers have the required environmental credentials, have become more of a business qualifier than competitive differentiator (McKinnon, 2010).

Dunphy et al (2007) show different roles that work on environmental sustainability issues can have in organizations; from compliance to strategically integrated in the company’s

3 Corporate social responsibility includes work towards environmental sustainability.
They refer to a model of stages through which organizations progress towards both human and ecological sustainability. It is a progression from companies reacting with active antagonism through indifference, to a strong commitment to actively furthering sustainability values not only within the organization but also within industry and society as a whole. The stages presented by Dunphy et al (2007) are rejection, non-responsiveness, compliance, efficiency, strategic proactivity and the sustaining corporation. It has been suggested that for a company wanting to extract more value from the adoption of practices related to environmental management, it is necessary to make the environment a key element in the business model (McKinnon, 2010).

The author of this thesis believe that environmental management will develop further in the companies that manage to connect their environmental work to their business model. Whether, and in what way, logistics service providers’ work on environmental issues is connected to their competitiveness is not known – and it needs to be known as a basis for discussing the potential development of their environmental management. A company’s environmental work is dependent on what resources the company possesses and what they do with these resources. The resource-based view connects resources, or bundles of resources, to competitiveness. According to the resource-based view, those resources that have a character of being valuable, rare, perfectly imitable and organizational can be sources of sustainable competitive advantages (Barney and Clarke, 2007). Knowing what is valuable in the companies’ environmental management ought to give some indication of the role of environmental management in the companies’ business as a source of competitive advantage, if the environmental management is analysed in alignment with the resource-based view.

The reasoning above leads to the purpose of this thesis:

To describe the role of environmental management in logistics service providers’ strategic development.

This research is a first step towards evaluating the logistics companies’ environmental management and its role in keeping the company competitive. An indirect purpose of this research is to provide a basis for further research concerning logistics service providers’ potential to develop their environmental management. Such research is perceived as very important as regards reducing the environmental impact of logistics and transportation. The purpose presented above is relevant for research contribution to the green logistics literature. Little can be found in the green logistics literature from the perspective of the logistics service providers as regards their role in reducing the environmental impact of logistics, see further section 1.4.

1.3 Definitions and explanations

The research behind this thesis is primarily directed towards logistics service providers’ environmental management, with an interest in the future development of environmental management in these companies. Theoretically it is directed towards Green logistics literature, see section 1.4.

In this research, a logistics service provider is a company that provides logistics services. There are many different definitions of the term logistics service provider, for example the Council of Supply Chain Management Professionals (CSCMP) define it as “any business
which provides logistics services. Includes those businesses typically referred to as 3PL, 4PL, LLP, etc. Services may include provisioning, transport, warehousing, packaging etc” (CSCMP, 2011). In this thesis logistics service providers refer to the three case companies which all resemble to the definition of CSCMP. More specifically, using the definitions by Stefansson (2005), the case companies Alltransport and Jetpak resemble more to what he defines as having the role of logistics service providers, and talks about as companies that provide “diverse services in addition to transportation services. These are cross-docking at terminals or consolidation services at distribution centres, storage or integrated-logistics value-added services at warehouses and distribution centres. The scope of the services, both physical and administrative, spans the activities that need to be carried out in the distribution network structure, transportation network structure and transport structure…”, while the case company DGFSE most resemble to what Stefansson call logistics service intermediaries (LSI’s) which he describes as: “do not physically handle the goods themselves but administrate the different logistics activities. In addition to the administration, they design logistics setups, implement the setups, design information systems to administrate the operations, etc”, and further: “The scope of the LSI’s services spans the administrative activities that need to be carried out…” (Stefanson, 2005). In this thesis, the three case companies Alltransport, DGF SE and Jetpak are called logistics service providers.

This research concern the case companies viewed from inside, through interviews with employees. No information is collected from the logistics service providers’ customers or competitors. When discussing the customers demand, it is the perception of the customers demand from the logistics service providers’ view that is presented.

Environmental management is described in chapter 2.3.

Environmental effort refers to a company’s environmental management.

Work towards environmental sustainability refers to the environmentally related part of sustainability as aligned with the concept of sustainable development as defined by the World Commission on Environment and Development (1987).

This research to a high extent refers to the resource-based view, which is presented in chapter 2.1. It also refer to the concept of dynamic capabilities, described in section 2.1.3.

What is seen as resources in this research is presented in section 3.2.

The environmental impact of the case companies environmental management is not measured or evaluated in any way in this research. There is no evaluation of the companies’ profitability either. All investigation and evaluation of financial resources are also left out from this research.

The logistics service provider is viewed as a system where the internal parts are interconnected more or less in concert to work according to the companies’ strategies and to achieve the companies’ goals. As shown in Figure 1, the system of the logistics service provider generates an output in the form of an offering. Within the system of the logistics service provider there are different kind of resources that are more or less utilized when the daily tasks of the logistics service providers are being performed; physical, informational, human, knowledge, relational and organizational resources (for choice of resource types see section 3.2). These resources are seen as belonging to the system; instead of for example seeing the company’s relations as something that exists outside the
company the relational resource is seen as an internal part of the company, even if the other part of the relation actually exists outside the company. The company can exchange resources with its environment.

Figure 1 The logistics service provider and its resources.

The company's environmental effort is seen as spread out and more or less related to the company's different resources.

The organizational resources and the human beings have the abilities to exploit resources and to reunite resources in new combinations.

The offering of services is seen as including the service that the customer buys, the sales procedure and the development of the service.

In order to achieve a holistic picture of the environmental work of logistics service providers, in an as structured way as possible, this research takes stance in the environmental management. By utilising the fact that all case companies have environmental certificates, and looking into the common documents of companies with these certificates, a basis for understanding and discussing the environmental work with interviewees without missing relevant parts was set.

1.4 Relevance to green logistics literature

The relevance of the purpose of this thesis to research literature is presented below. The relevance is sought and found in the logistics literature, more specifically in the logistics literature that concerns environmentally sustainability, often termed literature on green logistics. Green logistics literature mainly focuses on aims to reduce logistics-related environmental impact, but there are also references to social and economic sustainability aspects in this literature (McKinnon, 2010). The following presentation of the literature
first takes a wide perspective on green logistics research and then narrows down to focus on what is most relevant to the subject of this thesis.

In the context within which research on green logistics has developed, research on logistics has developed to extend its original focus on the outbound movement of finished products, physical distribution to companies’ entire transport, storage and handling systems (integrated logistics) and to the interaction with businesses upstream and downstream (supply chain management) which has also expanded the scope for green logistics research in terms of the functions, processes, and relationships investigated (McKinnon 2010).

McKinnon (2010) groups green logistics research under the headings of: reducing freight transport externalities, city logistics, reverse logistics, corporate environmental strategies towards logistics, and green supply chain management. He also adds how the trends in research perspectives on these topics have developed from public to private, operational to strategic, and local to global (McKinnon 2010).

The purpose of this thesis is related to the logistics service provider as a corporation, seen from the company perspective and the literature on corporate environmental strategies towards logistics and green supply chain management would thus be the literature most likely to be relevant to aim to build on further. Interestingly, the green logistics research on corporate environmental strategies towards logistics and green supply chain management focuses to a large extent on manufacturing companies and more product-related suppliers (Kovács, 2008; Krause et al, 2009; Pagell et al, 2010), but very little on logistics service providers. For example, Murphy and Poist have investigated the use of different green logistics strategies in manufacturing and merchandising companies (Murphy and Poist, 2000). Another example is Wu and Dunn who demonstrate that environmental issues can impact numerous logistical decisions in manufacturing companies, throughout the value chain (Wu and Dunn, 1995). One reason for this might be that product-related suppliers are often seen as primary suppliers in supply chains, while for example transportation providers are seen as supporting members of a supply chain (Spens, 2002). It is evident that research with the aim of this thesis could fill a hole in green logistics research. A contribution of research on what the logistics service providers can do to decrease environmental impact is very relevant since their services are an important part of supply chains’ contribution to environmental impact.

Widening the perspective to all green logistics literature, several topics in research on green logistics are connected to the research presented in this thesis. These topics concern environmental impact from logistics that are directly connected to the operations of logistics service providers.

Issues include the ways to reduce the environmental impact of transportation – through development of technology and use of ICT. McKinnon examines the opportunities for reducing the environmental impact of freight transport by altering three critical ratios: transport intensity in total tonne-kilometres per output, modal split between road and other less environmentally damaging modes, and vehicle utilization in vehicle kilometres per tonne kilometres (McKinnon, 2003).
Other topics concern the connection between the ways to decrease environmental impact and the possibilities to also save money or not lower the level of customer service. Sometimes greening logistics and increasing profit can go hand in hand, when increasing operative effectiveness and saving costs by saving fuel. Backloading initiatives, computerized vehicle routing and shared-user distribution, have been recognized to yield both economic and environmental benefits in freight transport operations (McKinnon, 2003).

Blinge and Lumsden (1996) divide influence on the environment from the transportation sector into two groups of elements in respect of their connection to costs and service level. Elements related to the level of technology of the vehicles, type of fuel, road conditions and combined transport can be adjusted without changing the service level and frequency of delivery for the customer, but the changes will result in increased transport costs since substantial investment will be needed. The other group of elements, consolidation, return loading, route planning, ordering system, packaging and handling, driving behaviour, and information technology, can be used to increase the transport work in tonne-kilometres while not increasing the transport in vehicle-kilometres. The latter group are considered difficult to adjust without compromising customer service. (Blinge and Lumsden, 1996)

Literature from the view of logistics service providers' customers highlights several measures to reduce environmental impact; inter-company collaboration both vertically and horizontally to decrease emissions (McKinnon, 2008), standardization, visibility support systems for better planning and flexible understanding of transportation and warehouses, e.g. virtual warehousing (Aronsson and Huge-Brodin, 2006), and the use of telecommunication technologies and the role of innovative management ideas to achieve more efficient loading, scheduling and routing (Wu & Dunn, 1995). It has also been recognized that there is a need to re-evaluate where facilities are located, whom they cooperate with, what technology is used, and the whole logistics structure (Wu and Dunn, 1995). Murphy and Poist (2000) suggests, for the customers of logistics companies, twelve different environmental strategies across logistical functions; recycling of materials, reducing consumption, reuse of materials, conduction of environmental audits, publicizing environmental efforts and accomplishments, increasing education and training of company personnel, redesigning logistical system components for greater environmental efficiency, promoting industry cooperative efforts, use of outside or third parties to manage environmental issues, rejection of suppliers who lack environmental concerns, hiring or promoting environmentally conscious personnel, encouraging greater governmental involvement or regulation (Murphy and Poist, 2000). Several of these strategies are also applicable to logistics companies or open up for collaboration with logistics companies in order to lower environmental impact.

Several paradoxes in green logistics have been recognized, changes that lead to sub-optimizations and decreasing environmental impact in one part of the value chain while increasing it in another (Rodrigue, 2001). For example, the inter-functional relationship between transport and other activities such as production, procurement, inventory management, warehousing and sales delimiting the utilization of vehicle capacity are reasons why firms face trade-off decisions when creating their logistics structures (McKinnon, 2008). For example, centralisation has often led to increased freight
movements and pollution (Wu and Dunn 1995), but has in some cases proved to facilitate measures to decrease pollution (Kohn, 2008). The need for a more holistic view of the effects of activities on freight transport and related externalities has been suggested by several researchers (McKinnon, 2003; Blinge and Lumsden, 1996).

During recent years, when the scarcity of studies on logistics service providers environmental work has been increasingly recognized, some new research findings on the subject have been published. Wolf and Seuring (2010) recognized in their research, based on case studies of logistics companies and shippers, that the environmental impact is almost not incorporated as a purchasing criterion at all when third party logistics services are bought. Martinsen (2011), who study the environmentally related contents of logistics services, conduct case studies and questionnaire survey of both logistics service providers and their customers. She concludes that there are mismatches between the supply of and demand for environmentally related content in logistics services, that the logistics service providers include more in their offerings than the shippers demand, and further connects the matches and mismatches to the relationships between shippers and logistics service providers (Martinsen, 2011). Isaksson (2012) describes how the effects of different factors on the adoption of green initiatives among logistics service providers are reflected in their service offering. She conducts case studies and a survey study investigating LSPs in the Swedish market and identifies different kinds of triggers, drivers and barriers (Isaksson, 2012).

Linnenluecke et al (2009) use survey forms to study the organizational culture of a large Australian corporation in the transportation industry. Their study indicates the differences in how employees understand corporate sustainability and that these differences can be explained by the presence of organizational subcultures and the differences in employee awareness of the organization’s sustainability practices.

A more holistic picture of environmental management from the perspective of the companies that provide logistics services is not yet presented in literature. The companies’ work on environmental issues delimits their potential to provide environmentally superior logistics services. The literature described above therefore needs to be complemented with research about logistics service providers’ environmental management to provide a basis for further studies of the potential to improve the environmental performance of logistics services.

1.5 Guide to the core of this thesis

This section is written as a complement to the index in order to help the reader find its way through this thesis and understand it more quickly.

The purpose of this thesis is presented in section 1.2, and it builds on the research questions. The Conclusions and discussion chapter 6.1 as well as section 6.2 on contribution answer to the purpose.

This thesis is mainly inductive and it is based on three case studies of logistics service provider's environmental management. The background to this research is presented primarily in chapter 1, but there is also a further background presented in chapter 3.1. The relevance to research literature is presented in chapter 1.4.
The research questions are presented already in the first section, 1.1.

The first research question is answered by the three reports describing the three cases companies' environmental management, which can be found in the appendix.

The second research question is answered by the analysis made in Chapter 4 and also followed up with further analysis in chapter 5. The further analysis is a consequence of the results of the first analysis, which is explained in section 3.5 on Analysis in this thesis.

Chapter 1.3 on Important explanations clarifies perspective and delimitations as well as definitions of basic relevance to this thesis.
2. Literature framework

In this chapter, the theory and literature used in conducting the research behind this thesis is presented. For further explanations of choice of literature framework, see section 3.3 in the chapter on research approach.

This chapter starts with a presentation of the resource-based view and aims to explain the breadth of the information that was sought concerning the environmental management during the case studies. The analysis is in this thesis is also carried out in alignment with the resource-based view as well as literature on capabilities, which is also presented here. Section 2.2 consists of examples from the literature of the six types of resources chosen to clarify what is seen as resources in this research.

The last part of this chapter, section 2.3, literature related to corporate environmental management is presented. The aim of this part is to give a background understanding of environmental management since it is in focus in the case studies, and also to show examples of literature on how environmental management can be related to the core business of a company, value creation and strategy.

2.1 Resource based view and capabilities literature

In the literature on the field of strategic management two explanations of the differences in firm performance have been developed. Porter (1981) focused on the impact a firm’s market power has on the ability to raise prices above a competitive level. The second explanation was more focused on the differential ability of some firms to more effectively and efficiently respond to customer needs (Demsetz, 1973). The resource-based view theory has been developed from the second explanation and focuses on efficiency theories of sustained superior firm performance (Barney and Clark, 2007).

Research on sources of sustained competitive advantage has focused on isolating a firm’s opportunities and threats, describing its strengths and weaknesses or analysing how these are matched in order to choose strategies (Barney, 1991). The focus on how a firm’s opportunities and threats in its competitive environment can favour high levels of firm performance has been described for example by Porter (1980). Porter (1980) describes how the attributes are of an attractive industry where opportunities are greater and threats are less. The environmental models that focus on opportunities and threats connected to competitive advantage have assumed that resources that companies need are available on the market, that these resources are homogenously distributed in the market and also highly mobile (Barney, 1991). The models that instead focus on the firm’s strengths and weaknesses, connected to competitive advantages, focus on the differences of companies when it comes to the strategic resources that they control and assume that resources are heterogeneously distributed in the market and that they are not perfectly mobile (Penrose, 1958; Barney, 1991). While the environmental models isolate those firm attributes, resources, that exploit opportunities and/or neutralize threats, the resource-based model suggests what additional characteristics these resources must possess if they are to generate sustained competitive advantage (Barney, 1991).

Taking a stance on the assumptions that companies are heterogeneous in respect of the strategic resources they control and that these resources are not perfectly mobile (Barney,
the resource-based view (RBV) considers firms as bundles of resources (Wernerfelt, 1984), and views a firm’s bundles of resources as possible sources of sustainable competitive advantage (SCA) (Barney, 1991).

A firm can be seen as having a competitive advantage when it implements a value-creating strategy that is not simultaneously being implemented by a current or potential competitor (Barney, 1991). When a valuable resource is heterogeneously distributed across competing firms the resource will be a source of at least a temporary competitive advantage for the firms that possess it (Mata et al, 1995). If the situation is as such that other firms are also not able to duplicated the benefits of the strategy, and contingent efforts to duplicate the advantage the strategy creates have ceased, then the firm has a sustainable competitive advantage (Barney, 1991). This sustainable competitive advantage can disappear if major shifts that are not anticipated occur in an industry structure and redefine what are strengths and weaknesses in resources (Barney, 1991).

The resource-based view of the firm aims at examining how the assumptions of heterogeneity and immobility of resources among firms contribute to create sustained competitive advantages (Barney, 1991). Peteraf and Barney (2003) define competitive advantage as something a company has if it is able to create more economic value than the marginal, break-even competitor in its product market. Barney and Clark (2007) develop a framework, the VRIO framework, which can be used to analyse the potential of a company's resources as sources of SCA. The framework expresses four key parameters concerning the firm’s resources, value, rarity, imitability and organizational character, that can show the resources’ return potential and whether the resources can be sources of SCA (Barney and Clark, 2007). A company needs to be able to organize itself to take full advantage of its valuable, rare, costly-to-imitate resources and capabilities, and the organization can therefore be seen as an adjustment factor in the VRIO framework (Barney & Clark, 2007). The VRIO framework will be further described below.

2.1.1 Resources
The term resources has been interpreted by many authors (Barney, 1991). Barney and Clark (2007) refer to several authors in their description of the emergence of the resource-based theory and establish the fact that a variety of authors have generated lists of firms’ resources, capabilities and competencies that enable them to conceive and implement value-creating strategies. For example, Barney considers firm resources to be “all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness” (Barney, 1991). Helfat et al (2007) view resources as something the company can draw upon to accomplish its aims, and see this definition as consistent with the definition of the word resource in most English dictionaries. Barney and Clark (2007) classify firm resources into physical capital resources, financial capital resources, human capital resources and organisational capital resources.

2.1.2 Capabilities
Capabilities are a type of resources, if resources are seen in a general sense as something that the organization can draw upon to accomplish its aims (Helfat et al, 2007). As with
resources, several definitions and understandings of the concept of capabilities exist. Capabilities have been defined as “complex bundles of skills and collective learning, exercised through organizational processes, that ensure superior coordination of functional activities” (Day, 1994). Grant (1991) sees capabilities as routines or interactions of routines. Further, Grant (1991) describes organizational routines as regular and predictable patterns of activities that are made up of a sequence of coordinated actions by individuals, and sees the whole organisation as made up of a huge network of routines.

In order to group different types of capabilities, Helfat et al (2007) entitle the type of capabilities that an organisation uses in an effort to earn a living in the present as operational capabilities and the capabilities that can be used to modify the resource base as dynamic capabilities. Day (1994) uses the term distinctive capabilities to describe the kind of capabilities that make a disproportionate contribution to provision of superior customer value from the customer’s perspective or permits the business to deliver value to customers in an appreciably more cost-effective way (Day, 1994).

2.1.3 Capabilities and Change

The RBV is in itself static; the meaning of sustainability in sustained competitive advantage is not of the period of calendar time during which a firm enjoys a competitive advantage (Barney, 1991). Instead, the focus is on equilibrium in the competitive situation in the market and unanticipated changes in the economic structure of a market may alter the value of a resource as a source of sustainable competitive advantage (Barney, 1991).

In order for companies to both adapt to and exploit changes in the business and external environment, as well as to seek opportunities to create change through technological, organizational or strategic innovation, Helfat et al (2007) suggest that companies must develop dynamic capabilities to create, extend and modify their resource base and thereby the ways in which they make their living. The resource base includes resources in the most common sense of the word, the tangible, intangible and human assets and also well as capabilities and dynamic capabilities which the organization owns, controls or has access to on a preferential basis. (Helfat et al, 2007)

Create refers to all forms of resource creation in an organization, including obtaining new resources through acquisitions and alliances, as well as through innovation and entrepreneurial activity. Extend refers to extending the resource base with more of the same resources, for example to promote growth in an on-going business. The resource base can be Modified in order to change the business, including responding to changes in the external environment.

In the definition by Helfat et al (2007) purposefully refers to the fact that the dynamic capabilities reflect some degree of intent. Dynamic capabilities are therefore separated from organizational routines, which consist of rote organizational activities that lack intent (Dosi et al, 2000). Intent in this case incorporates for example the emergent streams of activity that have some implicit aim, even if not fully planned, and emergent activity within an organization includes the actions of managers lower down in the organization who make decisions in reaction to changes in the external environment even when top management has not explicitly directed the managers to take these steps (Mintzberg and Waters, 1985).
The definition by Helfat et al 2007 includes aspects of search and selection. Resources need to be sought and selected. Decision-making, occurring both in groups and teams as well as by individuals, is seen as a vital part of search and selection and "owners" of dynamic capabilities. The role of individuals suggests the importance of understanding managerial decision-making under conditions of change (Helfat et al, 2007).

The definition above incorporates the search and selection aspects of dynamic capabilities (Helfat et al, 2007):

- Search and selection of acquisition candidates
- The creation of resources through new product development similarly involves search for and selection of new products to introduce
- The search and selection through alliances and to any number of other dynamic capabilities directed towards resource creation
- To be able to extend the resource base there is a need to select which ones to enhance
- Modification of the resource base needs search and select modifications
- Also to exit resources, in modifying resource base, involves dynamic capabilities.

The role of individuals suggests the importance of understanding managerial decision-making under conditions of change. Search and selection entails decisions and decisions can be made in groups, such as top management or other groups, or fall to individuals.

Dynamic capabilities pertain to both an organizational unit and an individual decision-maker within the organization. (Helfat et al, 2007)

The definition by Helfat et al (2007) presented above is just one of several different definitions and understandings of the concept of dynamic capabilities in literature. What Helfat et al (2007) did in their book was to summarize the knowledge so far of the development of the concept of dynamic capabilities. Teece, Pisano and Shuen (1997), for example, define dynamic capabilities as the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments. In their paper they try to identify the dimensions of firm-specific capabilities that can be the sources of advantage and explain how combinations of competences and resources can be developed, deployed and protected. Eisenhardt and Martin (2000) view dynamic capabilities as processes and explicitly add the creation of market change in their definition: “The firm’s processes that use resources specifically the processes to integrate, reconfigure, gain and release resources to match and even create market change. Dynamic capabilities are thus the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve and die”.

Later on, Teece (2007) divided dynamic capabilities into the capacities to sense and shape opportunities and threats, to seize opportunities and to maintain competitiveness through enhancing, combining, protecting and when necessary reconfiguring (managing threats/transforming) the business enterprise’s intangible and tangible assets. Teece (2007) describes capabilities to sense as capabilities that concern analytical systems and individual capacities to learn and to sense, filter, shape and calibrate opportunities. The capability to seize concerns enterprise structures, procedures, designs and incentives for
seizing opportunities. *Managing threats and transforming* is about continuous alignment and realignment of specific tangible and intangible assets. (Teece, 2007)

To qualify as a capability and not only as ad hoc problem-solving, dynamic capabilities must contain some patterned element (Winter 2003). Innate talent that derives from the patterned experience of the individuals involved in the decision-making or deployment of the capability is not seen as a capability (Helfat, 2007).

**Integrating market sensing capabilities with inside capabilities**

Capabilities can be seen as corresponding more or less to processes oriented towards the inside of the company, the outside of the company, or processes spanning in-between and focused on integrating the inside and outside of the company (Day, 1994). According to Day (1994), it is the capabilities that enable the activities in a business process to be carried out.

Processes related to the inside of the company concern for example manufacturing, logistics, and human resource management. More specifically, the processes of human resource management for example can concern recruiting, training and motivating employees. Processes related to the outside of the company can concern for example anticipation of market requirements ahead of competitors, and creating durable relationships with customers, channel members and suppliers. Finally, processes that can be seen as spanning and integrating the inside and outside of the company concern for example strategy development, new product and service development, price setting, purchasing and customer order fulfilment, see Figure 2. (Day, 1994)

![Diagram](image)

*Figure 2 Classification of capabilities related to their correspondence to processes with internal or external orientation (adapted from Day, 1994, p.41).*
Day (1994) emphasizes that companies need to have matching outside-in capabilities to sense external possibilities and inside-out capabilities to be able to decide how to best exploit the external possibilities.

The spanning processes can be used to satisfy the anticipated needs of customers that have been identified by outside-in related capabilities. Managing the horizontal processes with the goal of meeting customer needs, the objectives must be emphasized throughout all of the processes involved, regardless of whether the objectives concern quality, delivery time or efficiency of performance, so that everyone involved in the processes can focus on delivering the right value. Further, the objectives can be followed up using measurements and control systems that monitor the progress. There also needs to be a process owner, who can have an overall view of it and who can focus on making the process work efficiently. Managing the processes this way also includes making information visible to all team members so that everybody affected by certain information can access it instead of information belonging to certain steps in a hierarchy. This information can concern for example order requirements, delivery status or parts availability.

Difficulties in managing a process involve managing some activities that might be obscured from top management because they take place routinely and at the same time there is a risk that unrealistic promises can be made to customers and blame for promises that are not kept passed around. There are also connections between processes so that one process’s performance depends on another process’s performance.

Market-driven firms have superior market sensing, customer linking and channel bonding capabilities, and all of their processes can be seen as shifted towards the externally related end in figure X. The marketing orientation represents superior skills in understanding and satisfying customers. In these companies, the processes underling their superior capabilities are well understood and effectively managed and deliver superior insights that inform and guide both the spanning and inside-out capabilities.

The market-driven firm can anticipate more accurately the responses to actions designed to retain or attract customers, improve channel relations or thwart competitors. They can act on information in a timely coherent manner. The anticipatory capability is based on superiority in each step of the process through (Day, 1994):

- Open-minded inquiry
- Synergistic information distribution
- Mutually informed interpretations
- Accessible memory.

### 2.1.4 Evaluation of resources using the VRIO framework

The VRIO framework consists of four characteristics that firm resources must possess in order to generate sustained competitive advantage (Barney and Clarke, 2007). The four resource characteristics are; valuable, rare, imperfectly imitable and enabled by organization to be exploited. These are described in more detail below.
The characteristics can be thought of as empirical indicators of how heterogeneous and immobile a firm’s resources are, and thereby how useful these resources are for generating sustained competitive advantage (Barney and Clarke, 2007).

Resources need to be evaluated in the context of a company’s strategies and environment. The reason for this is that it is the usefulness of a resource to exploit opportunities or neutralize threats that can make it valuable to a company in implementing strategies and improving the firm’s performance. Without the ability to exploit opportunities and neutralize threats the characteristics of rareness and imitability is not enough to make a resource useful to the company and sources of competitive advantages. (Barney, 1991)

**Valuable**

When a resource that is put to use by a company increases customers’ willingness to pay or decreases the company’s cost, or both, the resource increases the economic value the firm creates, which makes the resource valuable (Barney and Clark, 2007). A valuable resource can be a source of competitive advantage when it enables the company to conceive of or implement strategies that increase the company’s efficiency and effectiveness (Barney, 1991).

The excess return caused by more efficient usage of resources, the economic rent, is the value created by the resources (Olavarietta and Ellinger 97). Rents can be caused both by the more efficient use of resources than competitors and more strategic monopoly situations, which means both sorts of rent are created at the same time (Olavarietta and Ellinger 97).

**Rare**

If a resource or bundle of resources is not rare, then many companies in a business can obtain them. As long as the number of firms that possess a particular valuable resource, or bundle of resources, is less than the number of firms needed to generate perfect competition dynamics in an industry, that resource has the potential of generating a competitive advantage. When a large number of companies can obtain a certain resource, or bundle of resources, that is useful to implement certain strategies, then the resource, or bundle of resources, cannot be a source of competitive advantage since many companies could use the resource or bundle of resources to implement the same strategies. (Barney and Clark, 2007)

**Imitable**

Valuable and rare organizational resources can only be sources of sustained competitive advantage if they cannot be duplicated or substituted by other firms. There are three reasons why firm resources can be imperfectly imitable, or costly to imitate (Barney and Clark, 2007): that a firm has obtained a certain resource can depend on unique historical conditions, the link between a firm resource and the firm’s sustained competitive advantage can be causally ambiguous, and the resource can be socially complex.

The link between the resource possessed by a firm and a firm’s sustained competitive advantage is causally ambiguous when there is a difficulty to understand the link, which also makes it difficult to duplicate that resource. Once a competitor understands such a
resource’s link to competitive advantage, knowledge about the link will be spread in the industry and causal ambiguity will be eliminated along with imperfect imitability. (Barney and Clark, 2007)

Reasons why resources like capabilities can be hard for management to identify are that they are deeply embedded within the fabric of the organization, and they can be obscured since their knowledge component to a large extent is tacit and dispersed (Day, 1994). Barney and Clark (2007) refer to different situations in which managers can have difficulties to understand the sources of competitive advantage; examples include when resources and capabilities are taken for granted, organizational characteristics or invisible assets (Itami, 1987) such as teamwork among top managers, organizational culture, and relationships with suppliers and customers. Barney and Clark (2007) conclude that whenever the sources of competitive advantage are widely diffused across people, locations and processes in a firm, those sources of competitive advantage will be difficult to identify and costly to imitate.

Barney and Clark (2007) present a range of different examples of social complexity from research literature, and discuss several reasons why a firm’s competitive advantage generated by socially complex resources can be difficult to imitate. For example they list interpersonal relations among managers in a company, companies’ culture and reputation, and discuss the difficulties in copying these in a systematic way. They conclude that when companies’ socially complex resources are not subject to direct management, these resources are imperfectly imitable. (Barney and Clark, 2007)

When two slightly different resources, or two completely different resources, can be used to conceive and implement the same strategies that could lead to a competitive advantage, these resources are substitutes for each other. When there are strategically equivalent substitutes for a resources that are valuable, the resources are neither rare nor imperfectly imitable and therefore cannot lead to SCA. (Barney, 1991)

Organizational

A company needs to be organized to exploit the potential offered by its resources, otherwise it will not be able to make use of the valuable, rare and imitable resources as sources of sustained competitive advantage (Barney & Clark, 2007). Organizational components that can influence a firm’s ability to exploit its resources are for example formal reporting structure, explicit management control systems and its compensation policies. These components often have no ability of its own to realize sustainable competitive advantage and are therefore often called complementary resources and capabilities.

2.2 Resource types

In this section the resource types chosen for this research, see chapter 3.2, will be discussed, examples of their characteristics will be given and their value, inimitability, rareness and organisational character will be described.
2.2.1 Physical

Physical resources are tangible things such as for example plant, equipment, land and natural resources, raw materials, semi-finished goods, waste products and by-products, and for example unsold stocks of finished goods (Penrose, 1959).

Some resources are quickly and completely used up in the process of production. Some are durable and continue to yield substantially the same services for a considerable period of time and some are transformed during production into one or more intermediate products which can themselves be considered resources of the firm once they are produced. Some resources are acquired directly in the market and some that are produced within the firm can neither be purchased nor sold outside the firm. Things that a firm buys, leases or produces are part and parcel of a firm’s operations and with the uses and properties with which the firm is more or less familiar. (Penrose, 1959)

Physical resources are required to deliver products to customers; access to these resources is connected to the ability to maintain control of logistics activity and improve the reliability and the speed of delivery. Typical logistics physical resources mentioned in literature are for example logistics hubs, warehouse capacity and transport vehicles. Logistics companies have access to different types of resources at different levels. Some have strategic statements that they would never possess a high level of physical resources. Some logistics companies own their own trucks while others that are light-asset companies, for example forwarders in the logistics field, need to access physical resources through partnerships and contract agreements to be able to provide logistics services. (Yew Wong and Karia, 2010)

Some physical resources like vessels and cargo planes can be costly to imitate due to the need for high capital investments (Yew Wong and Karia, 2010). Barney and Clark (2007) suggest that even though resources such as for example physical technology or complex information management systems are by themselves typically imitable, since other firms can buy them, the exploitation of the technology can for example involve socially complex resources. The socially complex resources can in this case be for example social relations, culture, and traditions. If the social relations are valuable and rare and no substitute exists and they are not subject to imitation, they can be sources of sustained competitive advantage (Barney and Clarke, 2007).

2.2.2 Informational

The literature on informational resources to a large extent concerns information technology and systems. In literature concerning information technology (IT) and its role in creating superior firm performance, Bharadwaj (2000) identifies resources in IT infrastructure, human IT skills, IT-enabled intangibles and IT as an organizational capability created by synergies of IT resources and other organizational resources and capabilities. Further, Bharadwaj (2000) finds the relationship between superior IT capabilities and superior firm performance to be positive and significant.

Feeny and Willcocks (1998) identify nine core information system (IS) capabilities:
• IS/IT leadership that integrates IS/IT with business purpose and activity,
• Business systems thinking that through understanding of the current organization enables envisioning of the business process that technology makes possible
• Relationship building between users and IT specialists in order to enhance users understanding, ensuring users ownership, satisfaction and engagement.
• Architecture planning that considers the present and future business needs and also shape the IT infrastructure
• Making technology work by the combination of ability to rapid handle problems and insight of an architecture planner
• Managing the IS/IT sourcing strategy that meets the business’ interests
• Contract Facilitation in order to ensure success of existing IS/IT service contracts
• Contract monitoring to protect the business position
• Vendor development by identifying potential added values to maximize contribution of existing suppliers.

Although technical IT skills are not likely to be a source of sustained competitive advantage, Barney and Clark (2007) note that they can be a source of temporary competitive advantage. Mata et al (1995) conclude from their review of IT literature that among several attributes of IT, only IT managerial skills are likely to be a source of sustained competitive advantage (Mata et al, 1995). According to Ray et al (2005), superior relative process performance of IT rests less on the level of IT spending or on the technical skills of the IT staff and more on how these resources are deployed in a firm-specific manner in general and on creating effective partnerships between IT and business managers in particular.

Barney and Clark (2007) also suggest that IT managers should seek to develop close working relationships with managers in other business functions and in other firms. These kinds of relationships can be difficult to build and maintain, but they can enable the IT function to leverage its technical IT skills to address real business problems. IT managers’ relationships, when developed, are heterogeneously distributed across a firm’s competitors and are likely to be source of at least temporary competitive advantage. Since IT managerial skills and the above mentioned relations are both slow to evolve, a firm which has developed these skills can have a competitive advantage over firms that have not yet developed them and instead have difficulties in imitating the ones that have. Since relationships are socially complex and likely to be imperfectly mobile, they can thus be sources of sustained competitive advantage. (Barney and Clark, 2007)

Barney and Clark (2007) present the same conclusion and suggest that firms not only can invest in IT but also should identify ways to create a firm with IT capability. They also point out that in order for managerial IT skills to leverage the relevant technical IT skills, the latter must exist in the company (Barney and Clark, 2007).

According to Bharadwaj (2000), IT can be seen as a resource that generates competitive value only when it leverages or enables pre-existing firm resources and skills, for example: customer orientation, knowledge assets and synergy (Bharadwaj, 2000). The resource-based theory suggests that the search, by researchers, for IT-based sources of sustained competitive advantage should focus on the process of organizing and managing IT within firms (Barney and Clark, 2007).
2.2.3 Human

Barney and Clark (2007) examine the role of human resources in a firm’s competitive advantage, by using the resource-based theory. They define human resources as all of the knowledge experience, skill and commitment of a firm’s employees, their relationships with each other and with those outside the firm. Regarding a firm’s HR practices they define these as all of the programs, policies, procedures and activities that firms use to manage their human resources. (Barney and Clark, 2007)

Wright et al (1994) conclude that human resources are always a potential source of sustainable competitive advantage (SCA), but adds that not every firm manage to develop their human resources to SCA through imitating certain HR practices, since human resources are characterized by causal ambiguity, social complexity and unique historical conditions.

According to Barney and Clark (2007), the HR function, in order to provide the firm with resources that are VRIO, should focus on developing employees who are skilled and motivated to deliver high-quality products and services, and managing the culture of the organization to encourage teamwork and trust. They also add that the HR functions focus more attention on developing coherent systems of HR practices that support these aims. Since developing firm-specific skills is one way to work towards sustainable competitive advantage, it is important that firms consider the specificity of their training and development activities when they consider outsourcing them. (Barney and Clark, 2007)

According to Barney and Clark (2007), HR activities that are valuable but not rare, or valuable and rare but imitable, are not to be ignored in companies strive for competitive advantages. These activities must be performed by the HR function in order to maintain competitive parity or to provide temporary competitive advantages and avoid competitive disadvantages. In order to attract competent employees, it is important that companies provide their employees with necessary training and development so that they are ensured marketability to other firms (Barney and Clark, 2007). Barney and Clark (2007) further state that even though general skills are applicable across organizations they can be a source of competitive advantage if the highest level of general skills is obtained. General skills add value and are rare at the highest level. (Barney and Clark, 2007)

2.2.4 Knowledge

Leonard-Barton (1992) adopts a knowledge-based view of the firm and defines a core capability as the knowledge-set that distinguishes and provides a competitive advantage. She provides four dimensions of this knowledge-set of capabilities: they are embodied in employee knowledge and skills, embedded in the technical systems, in managerial systems that guide processes of knowledge creation and control, and finally in values and norms that can be associated with the various types of embodied and embedded knowledge as well as the processes of knowledge creation and control. Both knowledge of firm-specific techniques and scientific understanding are part of employee knowledge and skills. Knowledge embedded in technical systems, like in physical production or information systems, can be results from years of accounting, codifying and structuring the tacit knowledge in people’s heads, and be both in the form of different kinds of collected data concerning production and in the form of procedures. The knowledge component found
in managerial systems can represent both formal and informal ways of creating knowledge, which can be done through sabbaticals, apprenticeship programs or networks with partners, and of controlling knowledge, like for example incentive systems and reporting structures. Knowledge can exist in values and norms through the values assigned within the company to the content and structure of knowledge, the means of collecting knowledge and of controlling knowledge. Knowledge can also for example exist in the values that form the architecture of information systems, for example it can concern the tradition of individual or centralized control over information, where organizations choose an architecture that allows more or less autonomy at each work node. (Leonard-Barton, 1992)

Zollo and Winter (2002) connect practical operational experience with upgraded competitive advantage in their model of deliberate learning. They describe both learning mechanisms related to passive experiential processes of learning by doing and more deliberate cognitive processes that have to do with the articulation and codification of collective knowledge. The first kind of mechanisms are connected to the operational functioning of the firm through staff and line activities, operating routines, the latter to the modification of operating routines which they identify as dynamic capabilities. (Zollo and Winter, 2002)

Watkins and Marsick (1993) describe learning as a continuous strategically used process that is integrated with and running parallel to work, that changes the perceptions, behaviours, beliefs, mental models or paradigms, strategies, policies and procedures of people and organizations. Further, they describe the learning organization as an organization that has embedded a continuous learning process within its structure and that has an enhanced organizational capacity to change or transform (Watkins and Marsick, 1993). For further reading about the character of the learning organization, see paragraph 2.2.6.

2.2.5 Relational

In their article on logistics service providers’ competitive advantages, Yew Wong and Karia (2010) view relational resources as the ability to build and maintain long-term working relationships with key suppliers and customers in such a way that the relationship is hard for other actors to easily replace.

Collaboration provides access to relational resources. Mentzer et al (2000), who investigate supply chain collaboration find the following enablers of supply chain collaboration: common interest, openness, recognizing who and what are important, mutual help, clear expectations, leadership, working together and adjusting to one another, cooperation instead of punishment, trust, benefit sharing and technology. They also recognized that collaboration was characterized by sharing of information, knowledge, risk and profits (Mentzer et al, 2000).

The relationship with the customer can also constitute a resource for a company. Yew Wong and Karia (2010) recognize that many logistics service providers have attempted to build collaborative relationships with their customers, and this type of relationship has been recognized as the main reason for success in winning new contracts and securing long-term or continuity of contracts. Further, asset-specific investments and knowledge
of customers’ operations acquired by logistics service providers have turned into distinctive capabilities that customers appreciate (Yew Wong and Karia, 2010).

Edvardsson (1997) recognizes customers as resources of service development, through their knowledge, ability to assimilate information, the equipment the customer uses and the customer’s administrative routines. For the customer to be able to contribute to a process of service development it is important that the service system is designed in a way that makes it easy for the customer to take part in and contribute to the process. The customer needs to be involved, and also to be trained to be involved, as a co-producer of the service. Further, Edvardsson suggests that marketing needs to include more than advertising and sales visits; it needs to include the design of invoices, dealing over telephone, information material, image through media and the perception of the customer and the customer process. (Edvardsson, 1997)

Stefansson (2005) investigate the role of third party service providers; carriers, logistics service providers, and logistics service intermediaries, and finds a foundation in that activities performed by two parties can be adapted to each other so that their combined efficiency is improved. Carbone and Stone (2005) finds the following objectives behind the creation of horizontal logistics alliances that involve different third party logistics providers; support of European networks, new competencies, and new geographical markets. In addition, Yew Wong and Karia (2010) recognized that asset-light logistics service providers set up alliances or contracts with asset-based service providers to achieve global network coverage.

Since relationships are socially complex and likely to be imperfectly mobile, they can thus be sources of sustained competitive advantage (Barney and Clark, 2007).

2.2.6 Organizational

The Star Model (Galbraith, 2002) shows organizations as consisting of structure, which determines the location of decision-making power, processes of information and decision-making, reward system, which is related to the motivation of people to perform and address organizational goals, and people, which is related to human resources and has an influence on the skills and mind-sets of employees. The Star Model links strategy to organizations and according to Galbraith (2002) the four dimensions of organizations must be consistent with each other and with strategy.

Organizational resources’ significance for the company’s development is studied in the field of learning organizations. Watkins and Marsick (1993) suggest that the learning organizations often share the following features: leaders who model calculated risk taking and experimentation, decentralized decision-making and employee empowerment, skills inventories and audits of learning capacity, systems for sharing learning and using that learning in the business, rewards and structures for employee initiative, consideration of long-term consequences and impact on others’ work, frequent use of cross-functional work teams, opportunities to learn from experience on a daily basis, culture of feedback and disclosure.

As mentioned earlier in section 2.1.4 on the character of organizational resources, these kinds of resources are often seen as complementary to other resources and capabilities
since they cannot realize sustainable competitive advantage by themselves (Barney and Clark, 2007).

2.3 Corporate Environmental Management

Corporate environmental management (CEM) helps companies ensure that commitment to environmental improvement exists in their business (Welford, 1998). CEM concerns overall strategies, decision-making, organization, communication and tools to be used by organizations in their work towards environmental sustainability (Ammenberg 2004).

CEM can be seen as divided into two parts: organizational and operational. The organizational part relates to decisions and priorities concerning the company’s relations to its surroundings, its stakeholders and not physical circumstances. The internal elements related to the organizational part are: managing, management systems, organization, distribution of responsibilities and authority, instructions, routines, communication, documentation, education, control and measures within the organization. The external elements related to the organizational part may be communication and documentation, consultation, surveillance, externally bought services, environmental reports and audits, licence applications. They may also be analysis of market and competition, identification of stakeholder demands, marketing, profiling and environmental certificates. Operational environmental management focuses on tools for information to manage decisions and priorities concerning material and energy flows connected to the organization, its production and the lifecycle of products and services. (Ammenberg, 2004)

A presentation of environmental management systems is given below, which concerns the structuring and implementation of environmental management within an organization. The aim is to give a broad picture of what environmental management means. There then follows a presentation of literature on the links between environmental management and companies’ core business and strategies.

2.3.1 Environmental management systems

An environmental management system, EMS, concerns enabling implementation of environmental management within an existing organizational structure to ensure that the organization develop an environmental policy, establish its objectives, resources, responsibilities, practices, procedures, processes, and take action needed to determine and implement an environmental policy (Welford, 1998; ISO 14001:2004). In addition, an EMS can also be seen as a tool for communicative action and organizational learning; it can make people aware of environmental issues related to more or less everything in a business and also help people to relate environmental issues to the core business of the organization (Burström von Malmborg, 2002). To a high extent, an EMS becomes what the company that utilizes it makes of it and the motives for using EMS may have important influence on the results (Ammenberg, 2003).
Common reasons for implementing an environmental management system are (Ammenberg, 2004):

- economic reasons (cost reductions and increased income)
- communication (easier communication with authorities)
- competence (to better utilize employees competencies)
- competitive arguments (to seem better or as good as competition)
- customer demand, marketing arguments (trustworthiness and image)
- environmental reasons (to decrease environmental impact and increase environmental performance)
- demands from authorities, and limitation of risks (improved handling of risks related to the environment).

There are several standards for EMS, the most well known being ISO 14001 and Eco-Management and Audit Scheme (EMAS). These two standards are very similar. According to Welford (1998), the most explicit difference is that EMAS is actually not really a standard but a regulation, and that it is only possible for EU countries to participate in EMAS. EMAS also requires initial environmental review and publication of environmental statement and independent verification, which is not required for ISO 14001 (Welford, 1998). Below the focus will be on ISO 14001 since it is the standard used by the case companies in this research. There will be some focus on environmental aspects and the PDCA cycle in order to describe how environmental management systems work. In addition there will be some reflections on the participation of employees in the work with environmental management. Finally there will also be some reflections on the actual environmental benefits related to the use of EMS.

**ISO 14001**

The aim of the ISO 14001 standard is: “... to support environmental protection and prevention of pollution in balance with socio-economic needs” (ISO 14001:2004). In the Swedish requirements and guidance for the use of the EMS standard ISO 14001, EMS is defined as part of an organization’s management system used to develop and implement its environmental policy and manage its environmental aspects (ISO 14001:2004, 3.8). Environmental aspect is a concept, that standardised environmental management systems are built around (Ammenberg, 2004; Welford, 1998).

**Environmental aspects**

Environmental aspects are defined, in the dominating standards, as elements of an organization’s activities or products or services that can interact with the environment (ISO 14001:2004, 3.6). The purpose of the concept is to put the organization’s operations at the centre, to provide a better understanding of what in their business causes environmental impacts and consequences (Ammenberg, 2004). Environmental aspects are identified, analysed and quantified during an environmental investigation of the business (ISO 14001:2004, 4.3.1). With this knowledge, companies can prioritize in their environmental work, and their management system can be modelled to steer the activities that are most important from an environmental point of view (Ammenberg, 2004).
Environmental aspects is a concept that is not used unequivocally, which is also true of many other concepts within environmental management. Environmental aspects are connected to activities, but also to environmental influence and impact, see figure X. For example, transportation is an activity that is a source of emissions to air, which can be considered an environmental aspect. The environmental aspect of emissions to air is the source of increased amounts of a certain gas in the atmosphere, which can be seen as an environmental influence. The environmental influence can lead to environmental effects such as the greenhouse effect for example. (Ammenberg, 2004)

![Diagram showing the connection between activities and environmental impact](image)

Figure 3 The connection between activities and environmental impact (adapted from Ammenberg, 2004).

Environmental aspects are often divided into different categories depending on their characteristics. Common categories are direct, indirect, operational (also referred to as hard), organizational (also referred to as soft) and risk aspects (Ammenberg, 2004). These categories overlap each other, but they are useful to develop an understanding of what environmental aspects can be and will therefore be described below.

Direct environmental aspects are characterized as being easy to control and affect, while indirect aspects are less under the control of the company in focus. The former might for example be in-house transportation while the latter might be external transportation related for example to customers’ transportation of goods from the company in focus. It can be negative to split up aspects into for example the category indirect environmental aspects since that might lead to these automatically being regarded as less important. Operational environmental aspects are often related to flows of material and energy from which the environmental influence is relatively well known. Organizational environmental aspects are related to the organization and are also more difficult to clearly connect to environmental influence; they can be related for example to management, decision-making, distribution of responsibilities, routines, knowledge or competencies. Organizational aspects can have an influence on the operational aspects. Some companies leave out the organizational aspects during their environmental investigation since they believe there are standard demands for how to handle these anyway, for example the company has to identify laws and regulations and distribute responsibilities. Other companies believe organizational aspects are important to map to be able to create a well-functioning EMS. Risk is related to areas in the business where there is a potential risk of negative environmental influence, for example if a pipeline breaks and a liquid leaks out and pollutes the environment. (Ammenberg, 2004)

For some businesses organizational aspects are more important than operational, for example in banks, insurance companies, service companies and authorities, since the operational aspects affected by these businesses are mostly located in other organizations. Nonetheless, these can be the most important to work with since they affect investments which increase the profits of other more or less environmentally friendly organizations,
knowledge which influences how people act overall, decision-making that affects infrastructure development. (Ammenberg, 2004)

The definitions of environmental aspects in the ISO 14001 and EMAS standards enable the use of both positive and negative environmental aspects and although it is less common it happens that environmental impacts that lead to environmental improvements are included in registers (Ammenberg, 2004). It has been suggested that research is lacking concerning the process of identification and assessment of environmental aspects in an EMS context (Zobel and Burman, 2004).

When the environmental aspects have been identified, the standard requires that a systematic evaluation of the aspects take place, which should result in identification of significant environmental aspects. It is these that the environmental management system is to manage, and it is around these aspects that environmental goals will be formulated and presented in an environmental aspects register. The environmental aspects register usually shows which activities and environmental influence they are connected to, as well as routines and goals concerning the significant environmental aspects. The evaluation of significant environmental aspects can focus on their degree of environmental influence, the company’s possibilities to manage to improve regarding aspects, and other more business-related criteria like image and stakeholder interests. There are no recommended or generic ways to perform the evaluation. (Ammenberg, 2004)

**The PDCA cycle**

Environmental management system standards are built on the Deming cycle, or PDCA cycle (Plan Do Check Act). The Plan phase concerns identification of environmental aspects, laws and other regulations and demands, environmental goals and environmental management programme. It is common to compile information about environmental aspects and related laws, regulations and goals in an environmental aspects register. This is also when the environmental policy is formulated and the significant environmental aspects determined. The second phase concerns the organizational structure and distribution of responsibilities, creation of routines, education, awareness and competencies, communication, documentation, document management, operations management and emergency preparedness. The third phase relates to control and corrective measures like monitoring and measurement, deviations, and reporting of audit records. Finally, the fourth phase relates to the management review and gives feedback to new planning of work, thus facilitating continuous improvements. (Ammenberg, 2004)

**Employees and Culture**

Ammenberg (2004) accentuates the importance of engaging the employees in an EMS, for them to feel appreciated and that their opinions are cared about. The employees need to know their tasks, the motives behind them and also find their tasks motivating. It is important that the management of an organization show that they stand behind the environmental work and support active participation. The employees need to have knowledge, and often to be educated, about the environmental issues and about how the organizations different parts contribute to environmental influence. The culture within an organization can have great influence on the success, and it has been recognized that for
example older companies with older employees can have greater difficulties in performing changes. (Ammenberg, 2004)

**Environmental Performance**

There have been many misunderstandings that EMS leads to positive environmental effects or constitutes proof of a certain environmental quality level, and knowledge concerning what standardised EMS is, is still lacking in society. However, an EMS is no guarantee of better environmental performance or decreased environmental impact (Ammenberg, 2003). It is interesting to note that there have been no demands that an organization has to succeed with their environmental goals to keep their certificates; it is enough that the organization can show that all in all it is continuously improving its environmental performance (Ammenberg, 2004). In addition, it has been recognized in research that many companies seem to have their environmental management system just to improve their image and seem to care less about achieving environmentally related improvements (Ammenberg, 2003).

2.3.2 Environmental Management and Strategy

In 1999, Reinhardt published an article on the issue that debates whether businesses’ environmentally related measures had been framed on the issue of: “whether it pays to be green”, i.e. invest in environmentally related improvements. Reinhardt's article is now one of several that enlighten ways that businesses can benefit from environmentally related investments (Reinhardt, 1999).

Managing a company, it is natural to find environmental measures that benefit both society and the company’s profitability are most interesting. Better utilization of resources can pay off as environmentally related investments, and might be the best choice for some companies. Others might benefit by creating competitive advantages from obtaining certification of EMS and yet another might benefit most from providing some eco-labelled products. (Orsato, 2006)

Below, literature on how work with environmentally related issues can be connected to companies core businesses and strategy will be presented. There will also be a presentation of the Natural Resource Based View, which combines literature on different fields that is also combined in the research behind this thesis; the resource-based view and environmental management. Finally, some remarks from the literature on the benefits and difficulties regarding integrating environmental thinking in businesses will be presented.

**When does it pay to be green?**

Managers of companies are most interested in identifying circumstances under which management of environmental issues can be related to competitive advantages. Reinhardt (1999) suggests that environmentally related investments should be made for the same reasons that other investments are made because of expected returns or reduced risks. He presents five different approaches to integrate environmental considerations as a part of the business thinking (Reinhardt, 1999):
Environmental differentiation
Managing competitors through work with for example environmental standards
Cut internal costs and environmental performance simultaneously
Managing environmental risk
Redefining competitive rules on the market by environmental challenges.

Differentiation is seen as being able to do either through creating products, employing processes that offer greater environmental benefits or impose smaller environmental costs than those of competitors. These measures can raise the costs of the company but also make them able to increase the prices towards customers or increase their market share. Further, Reinhardt (1999) lists three conditions required for success with environmental product differentiation: that customers are willing to pay for products with less environmental influence, that the company can communicate its product’s environmental benefits in a credible way, and that the company can protect itself from imitators long enough to make a profit on related investment. (Reinhardt, 1999)

Orsato (2006) presents four types of competitive environmental strategies with the aim of helping managers transform their investments into sources of competitive advantage: eco-efficiency, environmental cost leadership, beyond compliance leadership, and eco-branding. Hart and Milstein (2003) present a framework for companies’ sustainable strategies that link efforts towards sustainable development with shareholder value, and call the results of the strategies sustainable value. The four different strategies are referred to as: clean technology, sustainable vision, pollution prevention, and product stewardship (Hart and Milstein, 2003). Further, Hart and Milstein (2003) suggest that companies address the drivers behind all four strategies in their work towards sustainable development.

Natural Resource Based View of the Firm

In 1995, Hart presented a theory of competitive advantage that inserted concerns of the natural biophysical environment into the resource-based-view of the firm and developed the natural-resource-based view, NRBV, of the firm (Hart, 1995). Hart argues that one of the most important drivers of new resource and capability development for firms will be the constraints and challenges posed by the natural biophysical environment. Hart (1995) speaks of a paradigm shift, referring to the fact that many of the past economic and organizational practices are not environmentally sustainable. NRBV includes three different environmental strategies: pollution prevention, product stewardship and sustainable development.

In Hart’s conceptual framework he connects the strategic capabilities of pollution prevention to the environmental driving force of minimizing emissions, effluents and waste, to the key resource of continuous improvement and to the competitive advantage of lower costs. Likewise he connects the strategic capabilities of product stewardship to minimizing life-cycle cost of products, to the key resource of stakeholder integration and the competitive advantage of pre-empting competitors. Finally, he connects strategic capabilities of sustainable development to the key resource of minimizing the environmental burden of firms’ growth and development to the competitive advantage of shared vision and future position. Hart also develops propositions around these three
strategies and their contribution to sustained competitive advantage. Two of his propositions, 2a and 3a, read as follows (Hart, 1995):

For example since product stewardship implies an organizational ability not only to coordinate functional groups within the firm and to integrate perspectives of external stakeholders into the design and development the following proposition is developed: Firms with demonstrated capability in cross-functional management (socially complex skills) will be able to accumulate the resources necessary for product stewardship more quickly than firms without such prior capability.

Based on a discussion of what a sustainable-development strategy renders in by a strong sense of social environmental purpose, it is also proposed that firms that have a demonstrated capability in establishing shared vision (rare skills) will be able to accumulate the resources necessary for sustainable development more quickly than firms without such prior capability.

Hart further discusses the interconnectedness of the three strategies and develops even more propositions. Based on their path dependence and embeddedness Hart proposes links between capabilities in different kinds of environmental work and how these capabilities can enforce each other, or be enforced by other overall capabilities. (Hart, 1995)

**Benefits and Barriers**

In literature, both benefits of implementing work with environmental issues in the business have been recognized. Willard (2002) presents seven bottom-line benefits of including environmental and social sustainable development strategies in the business. The benefits are related to human resources, benefits related to environmental sustainability and to profits (Willard, 2002):

- Easier hiring of the best talent
- Higher retention of top talent
- Increased employee productivity
- Reduced expenses for manufacturing
- Reduced expenses at commercial sites
- Increased revenue/market share
- Reduced risk, easier financing.

Savings are suggested to be possible through internal communication and educational investments in sustainable development (Willard, 2002).

Reinhardt (1999) highlights the fact that there is a risk in treating environmental problems mainly as matters of social responsibility since that way of thinking might overlook opportunities and risks with such problems. Instead he suggests that treating environmental issues more like business issues can instead increase creative problem-solving and generate better bottom line results (Reinhardt, 1999).

Even though several benefits might act as drivers to integrate environmental thinking in the business, there can also be difficulties. For example, there may be barriers to changing
the way a firm’s strategic decisions are made when aiming to increase environmental considerations. The barriers may be industry-related and concern for example configuration of current operations, competitive pressures or regulations, but also more related to the organization’s employees’ attitudes, poor communication, past practice and inadequate top management leadership. (Post & Altman, 1994).
3. Research approach

This chapter begins with two sections, 3.1 and 3.2, written by the researcher in a more personal, slightly narrative way. The first concerns the researcher's personal thinking behind the research questions, and the second focuses on describing the research process. The aim is to, in a light-hearted way, give the reader both scientifically interesting information, as well as a feeling of how this research was conducted. From section 3.2 on the research process, there are references forward to the rest of the sections in the methodology chapter.

The methodology chapter is written to explain the motives behind the different choices that have been made and provide an understanding of the development of this mainly inductive research that is based on case studies. Choices related to literature, both for the frame of reference and chapter 1.4 on green logistics, and literature reviews are presented. The case studies of the three logistics service providers are described, including how the case study material was handled until the reports in the appendices to this thesis were finished. There are also descriptions of how the analyses, presented in chapters 4 and 5, were carried out. The chapter ends with concluding reflections concerning the quality and credibility of this research.

3.1 Behind the research questions

This thesis is based on case studies, focused on what logistics service providers do when they carry out environmental management. Little was known about the holistic picture of what logistics service providers’ environmental management is and the questions that this research is based on therefore are very much open and explorative, as are the questions posed during the semi-structured interviews when performing the case studies. This research is inductive; exploring reality, compiling the information and structuring it depending on its contents, and analysing it to see what is found to add to green logistics literature. Nonetheless, as when carrying out observations, the gathering of information from the companies is selective.

Observation is selective; it needs a chosen object, a definite task, an interest, a point of view and a problem (Popper, 1963). The chosen objects are clearly the case companies’; the task is the questions that are presented in chapter 1, as well as the view and the problem. Nevertheless, I am sure my personal interest has to a great extent influenced my choices of focus when I look at the object and the problem I see. I will therefore now try to describe my personal background thinking behind the research questions in focus in this thesis and the interview questions I developed and chose for the case studies. My aim is to improve the possibilities for deeper understanding of the thinking behind this thesis and to increase the scientific level of the research by providing this text.

This thesis is to some extent unavoidably based on my prejudices and experiences. I have been in contact with the logistics and transportation industry through earlier employment at warehouses, a warehouse office and when working with equipment control at an agent for a shipping line. I also have some experience of working with environmental management systems according to ISO 14001 at a job as an apprentice. Since then I have had some knowledge about how these systems work and the differences in the ways they are used. I have also had an interest for environmental issues since my years at secondary
school. My experiences had led me to believe that there might be green-gold measures (McKinnon, 2010) left to reap benefits from for logistics service providers.

Something that I dislike very much, and that I also believe is common in many industries, is greenwashing (Dunphy et al, 2007) and visions, expressed as policies or accentuated values, that are not integrated into the daily work in organizations and thereby not really given priority to. I thought perhaps lack of knowledge and understanding might be the reasons. Further, I believe this makes it unnecessarily difficult to utilize the potential of employees to contribute to fulfilment of visions, policies and values.

I also believe it is important to consider the fact that it would be difficult to get any company interested in carrying out work of any kind that they could not see any benefit from. I believe companies want to give priority to tasks that influence their competitiveness in a positive way.

I wanted to investigate the real situation of logistics service providers related to my own background thinking that I described above. To be able to do that, to analyse the connections to competitiveness and the strategic use of environmental management in these companies, I knew that I must first have a clear and as objective description as possible of what environmental management at logistics companies actually is. This is why my personal aim for this thesis is to investigate what logistics service providers’ environmental management actually is, and to try to capture the width of resources utilized in the companies work with environmentally related issues.

3.2 Research Process

This research starts with an interest in the purpose presented in chapter 1 in this thesis:

To describe the role of environmental management in logistics service providers’ strategic development.

It was very clear that to be able to analyse the role of logistics service providers’ environmental management, it was necessary to first describe a holistic picture of what the environmental management of logistics companies actually is. Case studies of logistics service providers were motivated, see further section 3.4. It was also clear that a way to relate environmental management to companies’ money earning was needed.

First I studied literature on business models. Inspired by recent dissertations at Linköping University and from discussions with researchers there I thought this literature could provide a wonderful solution for analysing the environmental work. Having written a first conference paper, together with my supervisor, about business models and logistics companies environmental work (Maack and Huge-Brodin, 2009), I went to the NOFOMA 2009 conference to present the paper. There I also discussed with other researchers who used literature on business models in their research. Sadly, I did not succeed in finding literature on business models suitable for my purpose.

At the time this research started, the Resource-Based View (RBV) had been and was being used by several researchers at the Division of Logistics Management at Linköping University. I had read about RBV in earlier dissertations and during a PhD course on Logistics Strategies held by my supervisor. My supervisor one day suggested using the
resource-based view to study what was included in environmental management and to be able to relate it to competitiveness. I was very happy for this splendid idea!

Knowing some structure was needed to study companies’ environmental management, I already had some knowledge concerning environmental management and I left my office and ran up the stairs to the Division of Environmental Technology Management. There I found help and guidance concerning literature on environmental management.

My thought was at first to make a compilation thesis and the research questions were first formed in a slightly different way to how they came to be finally expressed in this thesis. This led to the writing of three conference papers during spring 2010. The first paper (Maack et al, 2010) concerned the resources utilized in environmental management at logistics service providers. The second paper (Maack and Huge-Brodin, 2010), presented at the EUROMA conference 2010, concerned the resources utilized in the environmental management that was reflected in the services offered to customers. These two papers came to conclusions that led the researcher to deepen the study of the human resources and a few extra questions were therefore added in the protocol (Yin, 2009) used in the case studies, even though the first case study had already been made. The interviewees in the first case study were contacted and asked these new questions over the telephone. The third paper (Maack et al, 2010) that spring, presented at the 2010 LRN conference, focused on the case companies’ capabilities related to utilizing the individual employees’ skills, knowledge, experience and networks in environmental management.

Before the first case study started, a protocol with questions for the case study interviews was developed. The protocol was developed using the research questions and resource types in focus as the basis. The interview questions are presented in appendix 1. The development of the protocol is described below in section 3.4.3. In addition to performing interviews, a discussion was held with the environmental manager at each case company. The discussions concerned the overall environmental management of the companies and started off by looking at their environmental aspects register. Information was gathered about the environmental aspects register, what the companies saw as overall environmental aspects and what the measures for these in the form of goals, routines, and activities were. For this discussion, I felt that my background understanding of environmental management as well as knowledge I gathered by reading about the subject, see frame of reference paragraph 2.3, was very useful.

During all of the time that had passed since the decision to use the resource-based view, I had tried to read as much as possible about it. I started out with the frame of reference of a dissertation that had been written by a senior researcher at the division and also asked for tips from the specific researcher. As the three conference papers were written during spring 2010, there was a parallel development in the researcher’s knowledge of literature on the resource-based view and capabilities.

In conjunction with writing the abstracts for the first and second conference papers during the early spring of 2010, literature searches related to the subjects of these papers were conducted. The literature searches can be found in section x, referred to as the first and second literature search respectively. During the period of the first literature search a then not yet published article was found that turned out to be of great use. The article concerned the competitive advantages of logistics service providers and the subject was
approached using the resource-based view (Yew Wong and Karia, 2010). This article is referred to several times in this thesis; it was of great use in dividing resources of different types into groups. In order to capture an appropriate width of resources that could also be sources of competitive advantages, for the descriptions of environmental work, there was a need to substantialize the types of resources that were searched. Yew Wong and Karia (2010) refer to the physical, human, informational, knowledge and relational resources. In the research presented in this thesis, there is a focus on what the inclusion of environmental management by a logistics service provider aiming at developing its environmental management. For this reason, organizational resources like for example routines and related to capabilities to change, are also of interest. Altogether for the focus of the research presented in this thesis, six types of resources were chosen: physical resources, human resources, and informational resources, resources related to knowledge, relational resources and organizational resources. The reference list in the article by Yew Wong and Karia (2010) was a useful starting point to find literature on the different types of resources.

By the time of the third conference in 2010, the second and third case studies had started. It turned out to be difficult to compile the interview material into reports. At first the plan had been to present the information as groups of different resources used in the environmental management. I felt the difficulty lay in the connection between the resources used in the companies’ environmental management, and the need to describe the sense, link and coherency of the resources. I finally decided to write the case reports in a slightly more narrative style and to append them in a monograph thesis.

It was decided to perform the analysis in alignment with the VRIO model of the resource-based view; see sections 2.1.4, but to focus mainly on the value part, see further paragraph 3.5. The first and second case study analyses were performed in parallel, followed by the third case study. The result of this analysis is what is presented in chapter 4, concerning what parts of the case companies’ environmental work are seen as valuable.

While working with the empirical information and performing the analysis related to value, it became clear that a large part of the companies’ work on environmental issues was of more implicit value to the customers. The customers mostly seem to ask for some sort of proof that a credible environmental effort exists at the companies. At the same time, many different explicit parts of the environmental work were seen as valuable to the business, see chapter 4. The case companies also believed they needed to work with environmental management since they believed in increased environmental demands in the future. This led to a second analysis of the case reports, focusing on the companies strives to cope with increased environmentally related demands in the future. The analysis was motivated and carried out as described in section 3.5 and focused on what elements of dynamic capabilities could be recognized in the case companies’ environmental management, which is presented in chapter 5.

During the time this research was carried out, a great deal of interesting literature was found, for example when I looked up references in interesting articles. Some of this literature will be used when discussing the conclusions in this thesis and developing the suggestions for further research.
3.3 Literature choices and reviews

Literature studies were made in order to confirm that the research questions developed in chapter 1.3 could complement existing literature. The literature that was studied concerned green logistics and logistics service providers. This will be further presented below. Choices and search of literature on corporate environmental management and the resource-based view, which were needed for the frame of reference, method and background, are also presented below.

3.3.1 Green Logistics

This thesis concerns logistics service providers’ environmental work. Providing logistics services is perceived to be these companies value proposition (Chesbrough, 2007). The green logistics literature relates logistics to sustainable development, which includes environmental issues related to logistics services. Since logistics companies create the logistics services, their choices of environmentally related efforts is of interest to green logistics literature and it was therefore decided that this thesis should contribute to green logistics literature.

Literature on green logistics was studied during a PhD course in green logistics literature. This literature was utilized for finding more literature in the field, by looking up references in articles, when writing three conference papers on the subject of this thesis during in spring 2010.

3.3.2 Literature reviews

This thesis concern logistics service providers, their resources and their offering with focus on their environmental management. To find relevant literature, relevant for the subject of this thesis, regarding logistics service providers, two more structured literature reviews were made. The aim was to find literature on logistics service providers that focus on their resources and on their offering, and further to see if this literature regarded environmental issues.

Two literature searches were made in the business research database Business Source Premier using search mode find all my search terms, using the roots of the search words combined with truncation. The articles that were searched were peer-reviewed articles in academic journals. The headlines and abstracts of the article hits were read and it was decided whether the articles concerned logistics companies’ resources; if they did they were considered relevant hits. The focus was on transport of goods, and articles concerning passenger traffic, tourism or efficiency of specific operations were not considered relevant.

The search words for the first literature search were resources and capabilities combined with each of the following terms: logistics provider, logistics company, logistics firm, TPL, 3PL, Transport company, transport provider, transport firm, hauler and road carrier. The literature search was made during the period from 19 January to 3 March 2010. At the time for the literature search the researcher had not yet decided to refer to the companies that provide logistics services as logistics service providers, but instead referred to them as logistics companies. The two literature reviews together should nonetheless cover relevant articles.
Many of the relevant article hits, which were around 59, considered logistics companies’ resources very implicitly and it was also difficult to decide where the border was between relevant and not relevant, and the results are therefore not presented further here. Nonetheless, they provided the researcher with valuable knowledge and understanding to be used indirectly in the analysis. The relevant article hits were then evaluated concerning their content of environmental sustainability. There were two articles that concerned environmental work or sustainability related to logistics companies’ resources. One concerned supply chain management and the other outsourcing.

The second literature search used the search words offer and service combined with each of the following terms: logistics provider, logistics company, logistics firm, TPL, 3PL, Transport company, transport provider, transport firm, hauler and road carrier. The second literature search was made between 12 and 13 April 2010.

The abstracts were inspected, and the articles were considered relevant if they seemed to address logistics companies’ service offerings. Out of the article hits, 22 articles were considered relevant and many of these were represented several times in the article hits. Those articles are primarily based on surveys, some are conceptual and two are multiple case studies. Some of the relevant hits present lists of different services provided by logistics companies, or guidelines for development, but in most of them data is collected from the customers side. Two articles (published in 2008 and 2010) are based on multiple case studies where some represent logistics companies. The relevant hits were read and considered useful if environmental considerations were included. Only one article found in this literature search clearly concerned the environmental content of a logistics service provider’s offered services.

### 3.3.3 Corporate Environmental Management

Literature on corporate environmental management was chosen since this literature concerns environmental management within organizations, including companies. This literature was used primarily to create a background understanding of what work with environmental issues in companies can be, so that the research and related case studies were to include all relevant parts of environmental management of logistics companies. This literature was also used to find knowledge about the connection between environmental management and competitive strategies.

Suitable literature related to corporate environmental management was chosen with the help and advice of researchers at the Division of Environmental Technology and Management at Linköping University. The literature that was primarily needed within the area for this thesis was to a great extent basic literature or literature very well known to researchers within the field of environmental management.

Literature related to environmental management refers to a very wide field of literature. In literature on corporate environmental management many concepts are covered and there is no prevailing definition nor any unified theoretical constructs (Ammenberg, 2003). In this thesis, the literature chosen is relevant to the part of the literature related to environmental management that concerns environmentally conscious management of society and/or different organizations, which are seen as the most relevant to environmental management systems (Ammenberg, 2003).
In the final discussions in the thesis more literature on and related to corporate environmental management is added. This literature is not presented in this theoretical framework since it is not needed for background understanding or analysis. Instead it is literature that was searched for and found by interest during the work with this research, and it is primarily used for discussion of conclusions to build up for propositions for further research. This literature refers more to development of environmental management.

3.3.4 Resource-based view and capabilities literature

Literature on the resource-based view has been used for structuring and clarifying the scope and perspective of this research, as well as inspiring the analysis model.

The reason why the resource-based view is chosen for framing this thesis is that it can connect the resources that are utilized in logistics service provider’s environmental management with the logistics service provider’s competitiveness. It has been suggested that focus on resources is suitable when studying companies environmental work (Ammenberg, 2012). The intention with this research is to study what logistics companies actually do when they carry out environmental work and connect it to what they earn money on doing. In line with the resource-based view, this research view logistics service providers as bundles of resources that can be sources of sustainable competitive advantage (Barney, 1991). The resources may also be utilized in the logistics service providers’ environmental management.

In this research the aim was to first describe the environmental management of logistics service providers to see how their environmental effort was valuable to their business. The analysis was to be made in line with the resource based view. In order to have an understanding of the width of resources that could be relevant as valuable and sources of competitive advantage, literature was sought on different resource types. The understanding of what resources that could be relevant also was a useful background understanding regarding what to include when performing the case studies. An article on competitive advantages of logistics service providers’, that uses the theory of the resource based view for connecting the logistics service providers’ resources to competitiveness, has inspired this research both concerning the specific ation of what kind of resources that are in focus, as well as the further choice of literature concerning resources (Yew Wong and Karia, 2010). The search for literature on different types of resources took off in the references used by Yew Wong and Karia (2010).

The literature on dynamic capabilities regards strategic change and complements the resource-based view with a change related perspective. The RBV is in itself static, and it’s focus is related to equilibrium in the competitive situation (Barney, 1991). Helfat et al (2007) suggest that companies need dynamic capabilities to cope with change in the business and external environment. Increased environmental demands from logistics service providers customers is a change that the logistics service providers need to cope with, why literature on dynamic capabilities is seen as useful to this research.

Earlier, Hart (1995), has shown the applicability of the resource-based view on business related environmental issues, see further chapter 2.3.2. On the 23rd of September 2012, Hart’s article from (1995) had been cited 196 times in the research database Business
source premier. In 2011 the article was followed up with a new article by Hart and Dowell (2011): “A Natural-Resource-Based View of the Firm: Fifteen Years After”. In the latter article, the authors conclude that the argument presented in Hart’s earlier article from 1995 has grown stronger, and consider how the natural-resource-based view can benefit from recent work in dynamic capabilities.

The articles by Hart suggest that the use of the resource-based view is useful studying corporate environmental issues. Further, the resource-based view suggests efficient and effective exploitation of heterogeneous and immobile resources (Demsetz, 1973), and failure to exploit the resource advantages has suggested neither to be efficient nor maximize social welfare (Barney and Clark, 2007). According to Barney and Clarke (2007) the resource-based model suggests that strategic management research can be perfectly consistent with economists traditional social welfare concerns. Seeing social welfare as related to sustainability, the resource-based view should be suitable to align with research regarding to environmentally sustainable development.

The RBV literature is also much used by the division of Logistics Management at Linköpings University which added to knowledge about it. The researcher took a PhD course in Logistics strategy, where literature on competitiveness and strategy from for example literature on the resource-based view was included. By reading dissertations from the Logistics division at Linköping University that referred to a high extent to the resource-based view, and also talking to researchers at the division, references to literature on the resource-based view were found and followed up.

### 3.4 Case studies

This research is inductive, and the first research question aims at exploring the environmental management of logistics service providers to see what it is, and then to describe it in order to enable the analysis according to the second research question. There has been a limited amount of empirical research on logistics service providers (Murphy and Poist, 2000), and even less on their environmental management. Due to these reasons case studies are suitable (Yin, 2009).

Three case companies were chosen, all of them logistics service providers but with different resource bases: Alltransport, DHL Global Forwarding Sweden (DGF SE), and Jetpak. The company Alltransport is a regional Swedish haulier co-op, owned by its hauliers, and the business area Fjärr och Distribution (F&D) focus on far distance transport and regional distribution services in Östergötland. DGF SE is a Swedish company that is part of a global organization that provides forwarding services by air and sea world wide, and Jetpak is a franchise organization that provides express deliveries by road and air throughout the Nordic countries.

All three companies are known for their environmental management and have been in contact with the green logistics project at the division of logistics management at Linköping University when the case studies were to begin. Since they were interested in the green logistics project and wanted contact with the research division, the companies were also open to having researchers from the logistics management division visiting them and wanted to contribute with empirical information to the research project.
3.4.1 Preparing interview questions

During the preparation for the interviews, interview questions were developed. The interview questions are aligned with the research questions in order to collect information for describing the environmental work of the logistics service providers'. The motives for the interview questions based on knowledge of corporate environmental management are presented below.

The question of what kind of information that the aim was to gather during the discussions held with the environmental managers is presented first.

Then follows a section that shows the relevance of the questions that were developed for all of the semi-structured interviews. The protocol of interview questions that were used as a reminder and for structure during the interviews is presented in appendix 1. The book *Miljömanagement* (Environmental Management) by Åmmenberg (2004, 2012) was used a great deal during the process of developing the questions, partly as a source of inspiration but also to ensure the validity of the questions.

For further understanding environmental work, which it is the aim to describe in this thesis, see the frame of reference on corporate environmental management in section 2.3.

3.4.2 The discussions with the environmental managers

In order to capture a holistic picture of the environmental work at the logistics service providers', discussions were held with the environmental managers separately from the interviews. These discussions to a large extent concerned the companies’ environmental aspect registers.

Environmental aspects registers are constructed when companies start to work towards environmental certificates according to environmental standards. Companies then perform environmental investigations and compile the areas in which they influence the environment and in which they are affected by environmentally related laws and regulations into a register. In the register it can be made obvious what is needed by the company to assure compliance. The register usually shows the environmental aspects that are identified and which activities and what environmental influence they are connected to. It also shows the goals and routines concerning the most important aspects to the company, called significant environmental aspects. In all, the environmental aspects register shows what aspects and environmental influence the company aim to take responsibility for.

The environmental managers were asked for the companies’ environmental aspects registers and descriptions of what was in them. The discussions concerned the environmental aspects, which of them that were seen as significant, and the activities, goals and routines created around them.

3.4.3 The interview questions

In order to capture each interviewee’s view of the environmental work, interview questions were developed and put together in a protocol, see appendix 1. The aim of the protocol was to help the interviewer remember to ask all questions needed to answer the
research question and it was developed inspired by Yin (2009). The aim of the questions was to capture the whole of the companies’ environmental work. Since the research in the phase of conducting the interviews was explorative (reference), aiming to capture whatever the interviewees might talk about the environmental work from their point of view, the questions were to be open and to be followed up by discussion; i.e. the interviews were in-depth interviews with open-ended questions capturing facts as well as opinions (Yin, 2009).

Capturing the wide picture

In order to help the interviewees consider all that the environmental work could concern, it was decided to present the six types of resources chosen to focus on in this research, see paragraph, 3.1, as possible resources of the company to reflect upon when the interview questions were posed. By presenting the six types of resources, it was possible to avoid the interviewee forgetting to consider for example human resources related to the environmental work as a resource, and instead just focus on for example the physical resources like trucks that might be the most evident resource related to environmental management at many logistics service providers.

If the interviewees needed some examples of what was meant with each of the resource types, the researcher presented examples of logistics-related resources. The examples, based on three articles and sorted into the six types of resources by the researcher, are presented in appendix 2.

In order to really capture all that the environmental work could concern in the company, and whether the environmental work was connected to what was seen as valuable resources, questions were developed around both what the companies’ resources were and which the companies’ important resources were. These questions were posed without focus on the environmental work.

To gather information about what the companies’ environmental management, questions were developed concerning which company resources that were represented in their environmental effort. In order not to fail to capture all relevant resources, the questions also concerned how these resources were related to the environmental effort. The resources could for example be more directly connected to the environmental influence from the business, but could also be utilized in carrying out environmental work. Resources related to environmental work could be environmental aspects (see section 2.3.1), or used in carrying out measures to decrease environmental impact related to environmental aspects, especially since there are different interpretations of environmental aspects (Ammenberg, 2004).

Organizational and operational

Asking the interviewees about the company’s environmental work, different kinds and levels of environmental work were considered possible to find. Some of the environmental work could be more related to operations, and might consider tools for information, to manage decisions and priorities that for example relate to environmental influence from transport and logistics operations. The kind of environmental work that was sought in this case was more directly related to the material and energy flows that are connected to the organisation's production of services. It is to this, more operative, work
that physical resources were likely to be related; for example the trucks carrying out the transport and the fuel consumed.

Another part of the environmental work, relates more to the organisational kind of resources. It concerns the decisions and priorities concerning the company's overall organisation, management and stakeholders. It includes for example the distribution of responsibilities and authority, instructions, routines, communication, documentation, education, and the control and measures within the organisation. It can also be related to for example communication, documentation, consultation and surveillance, externally bought services, environmental reports and audits. In order to capture the role of the resources represented in the environmental work, questions were also posed concerning which resources of the company were seen as most important or valuable in the environmental work.

**The offer**

The environmental management can also be related to the offer. Related to the offer is the utilization of different kinds of physical resources, by the carrying out of operations in order to provide services. Analysis of market and competition, identification of stakeholder demands, marketing, profiling and environmental certificates, links to organisational and informational resources related to the offer. Marketing and identification of stakeholders’ demands can involve capabilities in reading the market. It can also involve relational resources, such as participation in networks in order to follow and affect the development of more environmentally sustainable solutions for operations. Organisational resources related to environmental considerations can also be utilized to develop the offer. Human and informational resources can be utilized during sales procedures, when sales personnel for example work together with environmental managers towards customers and show customers information about the offer. The questions developed related to the offer aimed to capture a picture of when environmental work was considered in interactions with, or shown to, customers in different ways. First there were questions about what the offer included. The questions were also related to the creation of the offer and the interviewees’ thoughts on the development of the offer. These questions were followed by questions concerning how the environmental work was related to the offer.

**Environmental management and strategies**

Environmental work can have a more or less strategic role in companies; sometimes it becomes a side-track, sometimes it is linked to the core of the business. It can be seen as an area where the aim is compliance to laws and regulations and marketing the handling of risks in order to be perceived as credible by stakeholders. Environmental work can be important to a company’s profile, for example when a company manages to differentiate its business from competitors’ by providing more environmentally friendly services. Sometimes more environmentally friendly services go hand in hand with higher efficiency in the use of resources and lower costs, and thereby increased competitiveness. For the interviews, questions were developed concerning whether the role of the environmental work related to the company’s strategies.
Employees, goals and routines

Although it is important to engage employees when working with an environmental management system, it is not always easily achieved. Sometimes the employees have trouble finding time for more strategic work, since they are overwhelmed by tasks related to daily operations. It is therefore of interest to try to capture the daily work of the employees and whether it includes work linked to environmental strategies. The individual employees need to have knowledge about the environmental issues overall, and also how the organisation overall influences the environment and how a department in focus can contribute to this influence. Education can be needed to increase and develop the employees’ knowledge. The interviewees were asked about their role in the organisation, whether they had environmental education and how they came into contact with the environmental work. Interview questions were developed concerning whether there were goals and routines, or incentives to create goals and routines, linked to environmental work.

The culture within an organisation can have great influence on the success of an environmental management system, for example old companies with older employees can have greater difficulties in performing changes that might be needed. In order for the employees to be engaged in the environmental work, they need to know their tasks and the motives behind them, they need to feel appreciated, that their opinions are cared about. It is important that the management of an organisation show that they stand behind the environmental work and support an active participation. The management should also show themselves as role models in their actions. The involvement of employees, the role that management takes, and the culture within an organisation are very much related to both human resources and organisational resources. Interview questions were developed concerning whether the interviewees for example thought there were incentives for them to actively participate in creating routines within the company, and whether there were incentives to engage in environmental management. It is also interesting to know whether the employees feel that their overall knowledge, skills and experiences of interest related to the business, are put to use in the company’s environmental work, why questions were developed concerning that too. The interviewees were also asked whether they saw potentials for the company to increase the utilization of the personnel’s competences.

Driving forces

Different resources can drive the environmental work. The driving force can come from owners of a company or for example enthusiastic individuals who push the environmental work forward. What drives the environmental work can be linked to relational resources, such networks or customers for example. Customers can demand environmental work, but also contribute with knowledge and ideas during discussions. The questions developed for the interviews around what the interviewees see as the driving force in the company’s environmental effort and what they might see as driving themselves personally to environmental management work.
Secondary data

Policies that are formed affect the perception of the organization by both internal personnel and external stakeholders. Secondary data was sought concerning the companies overall strategies and policies, with the focus on environmental management and values.

3.4.4 Gathering and compiling the empirical information

The case studies were performed during slightly different phases of the research process. The Alltransport case study was the first that was started and the first interviews were therefore complemented with second interviews. The DHL interviews were performed after the Alltransport interviews, and the Jetpak interviews during the period of the DHL interviews.

When the questions were posed, the interviewees were told to answer them from their perspectives and beliefs. For example, when questions concerning what they believed were resources in the company, they were asked to try to focus on what they thought of as resources, or important resources, for the company and its business.

All interviews began with an introduction of the researcher and the project the researcher was connected to. The reason for performing the interviews was explained, together with information about the aim to use the empirical material in a thesis. The interviewee was asked if it was allowed to record the interview. The interviewee also got information about how the transcribed empirical material would be handled and the interviewees were told they would have the opportunity to comment on the material personally before a compiled case report would be sent to the contact person at the company for approval before publication. The interviewees were asked for permission to contact them after the interview if more questions arose. They were also asked for additional data of interest and to tell the researcher if there were any parts of the interview that were not their field or that they had difficulties answering. If so, they could tell the researcher and help the researcher focus on the area in which the respondent had relevant information.

When the case study material was organized into a descriptive report, it was to a large extent through sorting contents by highlighting words in the transcribed data and sections that concerned the same thing so that they ended up beside each other. The order between the sections is primarily of unsequenced structure (Yin, 2009). The order chosen was influenced by an ambition to try to sort the text in such a way that the report describes the overall company and context of the environmental management first and the environmental management in the business in the specific part of the company in focus is presented in more detail at the end of the report.

3.4.5 Case company Alltransport

An initial meeting was held with the Environmental Manager at the company, during which a senior researcher and another PhD student accompanied the author of this thesis. During the meeting, the PhD students told the Environmental Manager about their interests in their research, and all attendees discussed which members of the staff would be of most interest to interview related to the PhD students' questions. The author
of this thesis presented her interest in the company’s resources utilized in its environmental work, and her overall interest in environmental management within the company. The other PhD student’s research was focused on the services offered by transportation and logistics companies. It was decided that the case studies’ focus should be on the business area Fjärr and Distribution (F&D) at Alltransport. The PhD students were in the same project and would perform the interviews together.

It was decided to interview the CEO, the Environmental Manager who was on group level, and the staff at F&D consisting of one business area manager and two sales employees. The plan was also to interview an administrator, in the case report called the registrator, who worked with compilation of emissions data for customers, but this interview was later not possible to perform.

The interviews at Alltransport were carried out on two occasions, when the PhD students visited the company. The interviews were performed with each interviewee separately; the PhD students performed each interview together. The dates when the interviews were held can be found in the reference list in the case report.

The questions that were asked during the interviews are presented in appendix 1. In addition to talking, paper and a whiteboard were used during the interviews. The whiteboard was used for example when the employees explained the organisation. Paper was used when discussing resources. The interviewees were told to use the paper to write down what they saw as the company’s resources and to write them closer to the circle’s centre the more power or ownership the company had over these resources from their point of view. The resource that the company had less ownership over but still had access to was to be painted in circles with a longer radius from the circle’s centre. In this way, some employees were thought to start thinking of more resources than they would usually have, for example resources in networks were painted far from the centre while trucks were painted closer to the centre.

The author of this thesis had a second meeting with the Environmental Manager that was more of a discussion primarily focused on the company’s environmental aspects register. The aim of this meeting was to increase understanding of the company’s overall environmental work. This interview took place at the university.

All interviews were recorded. The recordings were transcribed and coloured in different colours representing each interviewee. Each interviewee had the text from their interview sent to them via email so that they were able to give comments on the text before it was published. The texts were compiled into a document to begin forming a report. Words representing the head subject in paragraphs and subparagraphs were marked and then the paragraphs were sorted and organized next to others concerning the same subject. The structure of the report thus grew out of the sorting of contents. Secondary data in the form of the environmental aspects register, sustainability report and annual report as well as the company’s Internet homepage were also utilized when compiling the case report, see the case report’s reference list.

The questions related to the individuals’ experiences, background and how they felt that their competences were utilized in the business, see appendix 1, were thought of after the interviews had been made. These questions were later posed over the telephone, and the
answers were written down during the dialogue. The notes were sent to the interviewees for confirmation that they were accurate. The notes were then coloured and used together with the texts from the earlier interviews as described above.

3.4.6 Case company DHL Global Forwarding Sweden

An initial meeting was held at the company, which was attended by the author of this thesis, a senior researcher and another PhD student from the university. From the company, the Environmental Manager and a temporary trainee attended. At this meeting the author of this thesis presented the aims of the research and her desire to interview employees at different levels in the hierarchy, managers and their subordinates from the highest level to operational sales personnel, and the Environmental Manager. From the discussions at this meeting it also became clear that the environmental managers from the four different Swedish divisions within the company had communication and exchanged thoughts and information with each other, and interest in also interviewing them was expressed.

During the period of the interviews some personnel proved not to be available for interviews and the final group of interviewees was therefore slightly different to what was originally desired.

The first interview was held with the Environmental Manager and concerned the overall environmental management. The interview took one hour and was held on 25 April 2010. After that, interviews were held with the Environmental Manager, the senior supply chain advisor, the director of LLP and the environmental managers of DHL Express Sweden and DHL Freight Sweden using the protocol in appendix 1. The dates of the interviews can be found in the reference list of the report.

All interviews were held using speakerphone and were recorded. The recordings were transcribed and coloured in different colours representing each interviewee. Each interviewee had the text from their interview sent to them via email so that they were able to give comments on the text before it was published. The texts were compiled into a document to begin forming a report. Words representing the head subject in paragraphs and subparagraphs were marked and then the paragraphs were sorted and organized next to others on the same subject. The structure of the report thus grew out of the sorting of contents. Secondary data from the company’s Internet homepage, environmental aspects register and other documents were added to frame the company’s environmental effort.

Finally, the finished report of the empirics was sent to the Environmental Manager for approval for publication.

3.4.7 Case company Jetpak

A meeting was held at Jetpak’s office in Stockholm. The researcher participated along with a supervisor from the Division of Logistics Management at Linköping University, as well as another PhD student from the same research project. The Jetpak representatives who were present were the CEO of Jetpak Sverige, the Business and Service Development Manager, the Manager of Service Development, and the Nordic HR Manager who was also responsible for the environmental work at Jetpak. During the
meeting the Jetpak attendees had several presentations of their organisation, business and environmentally related work, and the researchers from Linköping University presented their research. The researcher, who wrote this thesis, presented her interest in logistics service providers’ environmental work and in performing case studies. For example she presented her interest in performing interviews with employees at different hierarchical levels. It was decided that a case study would be performed.

The case study began with the researcher, accompanied by another PhD student with interest in the company but without a research agenda of their own, meeting with the Nordic HR Manager and the Process and Quality Manager at Jetpak’s office. The Nordic HR Manager was responsible at group level for the environmental work at Jetpak and the Process and Quality Manager was responsible for communicating environmental work with partners. 20% of his employment concerned quality and environmental management. During the meeting, discussions were held concerning Jetpak’s overall environmental work, for example concerning how it has developed, its organization and goals for their environmental management. The discussions also concerned which other employees would be of interest for the researcher to interview about Jetpak’s environmental effort. The discussion was recorded and transcribed and the text sent to the Process and Quality Manager for fact checking and approval to be used.

Directly after the discussion separate interviews were held with the Nordic HR Manager and Process and Quality Manager respectively, using the interview guide in appendix Z. The researcher also presented the six resource types; physical, informational, knowledge, human, relational and organizational resources, that are in focus in this research, and asked the interviewee to reflect on different types of resources that were of importance to Jetpak.

Paper were used when discussing resources during the interviews, as an aid for the interviewees to show their view of the company’s resources, if the interviewee wished. The interviewees were told to use the paper to write down what they saw as the company’s resources, and write them closer to the circle’s centre the more important they were seen or the more power or ownership the company had over these resources from their point of view. The resource that the company had less ownership over but still had access to was to be painted in circles with a longer radius from the circle’s centre. In this way, some employees were thought to start thinking of more resources than they would usually have, for example resources in networks were painted far from the centre while trucks were painted closer to the centre. The interviewees chose to use the paper differently; one of them painted all resources he thought were more or less important to Jetpak in circles with different radius and then underlined the resources he also felt were important in the environmental work. Another interviewee made a hierarchy from the centre of a circle of which of the six research types presented by the researcher were resources that he saw as most important to Jetpak, and gave examples of the specific Jetpak resources he thought of for each resource type.

The case study continued with interviews, during a third visit to the Jetpak office, using the interview guide in appendix Z, with the CEO of Jetpak Group, the CEOs of Jetpak Sverige, the Manager of Business and Service Development and the Service Development Manager.
To capture the actual daily business of Jetpak, interviews were held with the two CEOs of Jetpak’s partners respectively: Jetpak Luleå and Jetpak Växjö. These partners were chosen during discussions with the Nordic HR Manager and Process and Quality Manager, since these partners were seen as two good representatives of Jetpak, but with different businesses and different focuses in their environmental work. During these interviews appendix Z was also utilized. The interviews with the CEOs of partners were performed as phone interviews, using speakerphones and recorders to tape the interviews.

The researcher took notes during the interviews, and all interviews were recorded and later transcribed. The transcribed text was partly shortened by the researcher and then sent to the interviewees for them to check the facts in the texts. Part of the recorded material, from the interview with the Process and Quality Manager, was damaged and a follow-up telephone interview was held with the Process and Quality Manager.

Some secondary data was used; the brochure on Jetpak’s values called Jetpaks vägvisare, and also information from Jetpak’s Internet home page.

The texts were coloured, one colour for each interview, and then copied into the same document to form a report. The text was then sorted, based on content, and the structure of the report grew out of its contents. It was decided to keep the presentations by the two partners separate, since it was thought that their differences and their priorities in their environmental work needed to be understood in the contexts of their respective businesses.

Secondary data from Internet homepage, environmental aspects register and other documents were added to frame the company’s environmental work.

Finally, the finished report of the empirics was sent to the company for approval for publication.

3.5 Analysis in this thesis

Below the method for the analysis, which is done in two steps, is described. The result of the first part of the analysis is presented in chapter 4, and the result from the second part is presented in chapter 5. It is the case companies’ environmental management described in the case reports in appendixes 3, 4 and 5 that is analysed in this thesis. It is the company or business area in focus in each case report that is analysed.

Analysis part 1, presented in chapter 4

The first analysis is of the value of the environmental management to logistics service providers. The analysis is inspired by the VRIO model of the resource-based view, see section 2.1.4, but with focus on the V for value. It starts with looking through the case reports after resources, of use in the environmental work, that are valuable. Resources are seen in the most general sense of the word, as described by Helfat et al (2007), and include physical, informational, knowledge, human, relational and organizational resources. Resources here include capabilities and dynamic capabilities in line with Helfat et al (2007). Seen as valuable in the analysis are those resources that are mentioned by the interviewees as important, strengths in, or valuable for the company’s business. Seen as valuable in the analysis are also the resources in the environmental work that, from the
author’s point of view, enable the company to conceive of or implement strategies that increase the company’s efficiency and effectiveness, decrease the company’s cost or increase customer’s willingness to pay or in another way increase the economic value the firm creates.

Something that is claimed as a valuable resource but not expressed as existing is not seen as a valuable resource in the analysis. For example one interviewee expressed that customers can be valuable to try out new ideas with, but if there is no examples during the interviews of this having been done it is not seen as a valuable resource in the analysis.

It should be noted that in this research the discussion of perceived value of the customer is seen from the logistics service provider’s point of view.

There will be reflections on the rareness, inimitability and organizational character of some resources when the empirical information indicates also these characters.

**Analysis part 2, presented in chapter 5**

In the summary in chapter 4.4, it is evident that the logistics service providers’ environmental effort is more comprehensive than what is of explicit value to the companies’ competitiveness. A large part of meeting customer’s environmental demands is that the logistics service providers tell the customers about the environmental management to show that it exists, more or less regardless of what it actually includes. The environmental effort is of more implicit interest to customers today and to a large extent related to future competitiveness. Sales employee 1 and the Environmental Manager at Alltransport express their view on the customer’s interest in the company’s environmental management:

“If we are selling services to a larger company then it is good to have this in the baggage, a good environmental management. I do not believe… they look in detail at exactly what we do, but that we are carrying out environmental management anyway.”

*(Sales employee 1, Alltransport, author’s translation)*

"But I believe that what the customers appreciate most is that you deliver something comprehensible.”

*(Environmental Manager, Alltransport, author’s translation)*

At the same time the logistics service providers seem to find the environmental management important for them to stay competitive in the future. The case companies all believe the demands of environmental performance will increase in the future. They believe the reason for their environmental management to some extent is due to their thinking of competitiveness not in the present but in the future, which can be recognized in the case studies from declarations of why their work with environmental issues is important: “not to lose competitiveness in the future”, “to create competitiveness”, “to make this our competitive advantage”.

To further analyse how the environmental management is of value to the logistics service providers business overall, it is relevant to study how it concerns efforts related to the future; to cope with change represented by increased environmental demands. The second analysis in this thesis, presented in chapter 5, is hence initiated by the results of
the analysis in chapter 4, along with statements like for example the following in the case studies:

"But without the environmental considerations or the sustainability view, we will lose competitiveness in the future. It is the companies that are in the forefront, that clearly show what they do and do not do, how you work, which possible improvements you do and so on. It is those that will be winners in the end, because suddenly the customers will set much higher demands than they do today."

(CEO, Alltransport, author’s translation)

“More knowledge will be needed”

(Environmental Manager, Alltransport, author’s translation)

The logistics service providers express some thoughts on what will be needed in the future. The Environmental Manager of Alltransport believes there is generally an increased wish to make decisions based on reality and facts and less ad hoc, and the Lead Logistics Provider Director at DGF SE speaks about the need to be able to take part in future discussions regarding environmental issues. The CEO of Alltransport also talks about the importance of having as clever staff as possible working with environmental sustainability, and mentions the importance of the environmental manager’s competences.

It seems to be both the environmental effort related to reduced environmental impact and the ability to show it to customers that is considered to need to improve in the future, which can be illustrated by for example the following quotes:

"We don’t always say that we have a driver trained in this and this and that. Some times the customer demands it and says: "yes, but we need... he must have eco-driving and alcohol locks and ....". But all of these services, I believe, we must make [them] more tangible and really show – visibility"... " but then all these things need to be tangible. And we’re bad at saying if we use environmentally friendly kinds of oils and fuels, or whatever it might be”

(CEO, Alltransport, author’s translation)

To make the environmental management’s value to the business more clear, since it was to a high extent of more implicit value today, a second analysis is motivated. Since the environmental management is related to future competitiveness, an analysis of the contents of resources valuable to make them cope with future competitiveness is motivated.

Since RBV in itself is static it has been complemented with the concept of dynamic capabilities, which regard companies capabilities to cope with change, see section 2.1.3. In this research, increasing environmental demands is the change, why the literature on dynamic capabilities is chosen for the second analysis of the logistics service providers’ environmental management.

In the analysis in chapter 5 it will be discussed what in the companies’ environmental management that can be seen as similar to elements of dynamic capabilities, according to theory, and hence be related to the capability to sustain competitive advantages (Teece, 2007).
There are many uncertainties about the nature and effects of dynamic capabilities, and they have been found difficult to identify (Easterby-Smith et al, 2009). Teece article from 2007 on the nature and microfoundations of dynamic capabilities is chosen as a theoretical basis for the analysis, since it operationalizes the concept of dynamic capabilities by disaggregates dynamic capabilities into component parts, which he calls elements. According to Teece his aim was to provide an umbrella framework that highlight the most critical capabilities management needs to sustain the evolutionary and entrepreneurial fitness of business enterprise (Teece, 2007). Earlier Teece article has been used by Kindström et al (2012) because of it enabling the researcher to drill down to a level of detail that is needed for building a conceptual foundation for service innovation.

Teece's article is chosen for analysis in this thesis because of its operationalization and level of detail on the description of dynamic capabilities. Although Teece's article has been recognized as ambitious, it has also been criticized for opening up at least as many questions as it answers (Easterby-Smith et al, 2009). It should also be noted that the article by Teece originally was written concerning highly dynamic enterprise environments (Teece, 2007), and not regarding the transportation businesses.

Teece article will be used for structure and as a basis for the analysis by its elements of sensing, seizing and reconfiguring. Although Teece article is operationalizing the dynamic capabilities so that it is developed into a level of detail that is useful when using it for analysis, it is very broad and conceptual and refers to a lot of different fields of literature why a lot of interpretation is made when using it for analysis in this research (Teece, 2007). It is hard to distinguish, delineate and determine the elements of capabilities as related to sensing, seizing or reconfiguring, why some of the results in the analysis in chapter 5 as a consequence are less exact.

3.6 Reflections on research quality

To show that this research is of good quality, the motive to why it is interesting and its background are explained in chapter 1.1 and complemented with an explanation of the researchers beliefs related to the background of the research questions in chapter 3.1. In addition, this research's relevance to research literature is shown in chapter 1.4. In the section 3.2 on research process the development of this research towards relevant findings related to the purpose is described.

Yin (2009) presents four criteria relevant in judging the quality of research design: construct validity, internal validity, external validity, and reliability.

Construct Validity concerns the importance to avoid subjective judgments when data is collected (Yin, 2009). In this research a section on environmental management in the literature framework, section 2.3, is presented to add to the understanding of environmental management so that the adequate information is collected during case studies. Similarly, an understanding of what can be seen as company resources are presented in the literature framework section 2.2 in order to enhance the understanding of the width of resources seen as potentially involved in the environmental management.

The environmental aspects register was a complementing source of information about the environmental management. The discussions with the environmental managers around
the environmental aspects registers complemented the interviews and added to the researcher’s understanding of the environmental management.

The interview questions were compiled in an interview protocol, see appendix 1. In order to show the researchers interpretation and understanding of environmental management when developing the questions for the interview protocol, the section 3.4.3 was added.

The interviews were made with several employees at each company, and at different levels in the hierarchy, to increase the sources of information to reduce the risk of basing the case reports on subjective information from only one interviewee and a single perspective. Nevertheless, it is important to notice that even though the interviews unavoidably captured the individuals’ view, it is though to some extent what is interesting since their view is related to the employees’ role and contribution to the company’s environmental effort. Internet pages of the companies’ and other secondary data were studied to increase the trustworthiness and assure that the collected information was correct, and transcribed interviews were sent to each interviewee respectively for control of the contents accuracy before a report was written. In addition, to assure that the researchers interpretation of what was said during the interviews was right the case reports were sent to the companies for control by key informants, i.e. the environmental managers, that the contents were in accordance with reality. For further information about how the process of how each case studies were conducted, see further section 3.4.5-3.4.7.

Internal validity concern causality within (Yin, 2009). Yin (2009) suggests that it is mainly of concern when performing explanatory studies, since it concerns rival explanations. Since this research concerns exploration and describing, internal validity cannot be seen as particularly relevant here (Yin, 2009). However, there is some occurrence of a problem with rival explanations in this research. To some extent, the descriptions of the environmental management and its driving forces relates to issues of reasons for environmental management. During the in-depth interviews with open-ended questions, both capturing facts and opinions, it became clear that efficiency related measures to achieve high load factors were carried out. As much as the interviewees pointed out that high load factors benefit the environment, they believed to that the economic savings were the primary driving force for these measures. Even though there may be rival reasons for why a measure is carried out, it is described in this research as related to the environmental management when it has clear connections to environmentally related improvement, but the rival explanation is also presented in the case studies.

External validity concerns what kind of generalization that can be done with the research results (Yin, 2009). Analytical generalization is relevant to this research; it is the kind of generalization that is possible when research is based on case studies according to Yin (2009). The analytical generalization that can be made of the results of this thesis concern the view of environmental effort in companies as partly concerning competitiveness within a shorter time period and partly competitiveness in the future market with higher demands from customers on environmental sustainability. The analytical generalization can also be made related to the findings of elements of dynamic capabilities in logistics service providers’ efforts to cope with future environmental demands.
Reliability is related to presenting the steps that was taken in the research, as operational as possible, to make it possible for a later investigator to arrive at the same findings and conclusions (Yin, 2009). In this thesis, efforts have been made to present the research process in section 3.2, the literature choices in section 3.3, the carrying out of the case studies in chapter 3.4, and the model for analysis in chapter 3.5 as clearly and detailed as possible to make this research reliable. The narrative way of describing the research process aimed at increasing the understanding, by adding feeling and context, of how the research developed.
4. Analysis in terms of value

In this chapter the second research question will be answered by means of an analysis of the case studies, in sections 4.1-4.3 respectively, according to the analysis model presented in section 3.7.

4.1 The Alltransport case

The most valued output of Alltransport’s environmental management is the sustainability report, which is of great use in marketing the company’s environmental work.

**Environmental management is important to Alltransport**

Environmental management has a very important role at Alltransport, as was pointed out by the Business area Manager when speaking about the company’s competitiveness. Overall, the company has no competitors that offer the same holistic concept but they do have competitors in every part of the business.

"But what has been done that has made us able to offer a good product, and then we are back to this, is partly the work with environmental issues that is being done and above all that shows that we work and think of this [the environmental effort], and that is appreciated by customers. The problem is that no one wants to pay for it”.

*(Business Area Manager, author’s translation)*

The Environmental Manager believes that the customers choose Alltransport because they believe in the company’s knowledge and brand. She mentions quality and experience as important reasons for customers to choose the company. She also sees the environment, quality and traffic safety as clear parts of the Alltransport product. The Sales employee believes the company’s environmental profile is recognized by customers. The company’s efforts with regard to environmental sustainability and other sustainability aspects are made visible in their sustainability report, which is directed primarily towards customers and other stakeholders. The sustainability report has become an important part of the company’s brand and profile and is considered to be important in communication with customers and seems to be valuable to the company’s business. It is attached to every offer sent out to customers and the representatives of the business area in focus talk about it when they are out meeting customers for selling purposes. According to the CEO, it is not common for Alltransport’s competitors to make a sustainability report like the one Alltransport has and it can therefore be considered rare:

"But generally speaking, how many others [logistics service providers] make a sustainability report that is on a par with ours? None.”

*(CEO, author’s translation)*

It takes time to gather information about the company’s environmental effort to be able to give a holistic picture by creating a presentation of the company’s environmental management like the sustainability report. There is of course also a need to have an environmental effort to present. According to the CEO, it also takes an immense amount of effort to create a sustainability report like the one Alltransport has for a company of
Alltransport’s size. It is therefore not considered to be an easy task to imitate the sustainability report very quickly, which enables the company to brand and market itself as a more environmentally responsible company, and it is therefore also valuable for the company’s business. A company’s environmental work could of course be shown in a different way; instead of showing a holistic picture of their environmental work a company might have higher efficiency related to environmental impact, built up to market itself with, and that might be of just as great value as Alltransport’s sustainability report and hence a substitutive resource. Nevertheless, such resources are not known of or widely spread at present.

“… but it is also to stand out among the grey mass of transport companies. So we see this as double-edged you can say – partly it is a necessity of course, that we have our social responsibility, but also that we can make this our competitive advantage. Then we also need to communicate what we do, so that it gets known. And we do, partly through our sustainability report. Among other things. ”

(CEO, author’s translation)

The driving force in environmental work at Alltransport comes from inside the company, and is connected to social responsibility considerations according to the CEO. Another driving force is the aim to create competitiveness.

“I believe the more we can invest in this the more competitive we will become. We will have a competitive advantage; we are well to the front in this area. This I believe one day will pay off.”

(CEO, author’s translation)

The CEO points out that the environmental effort should not be an extra burden to put on anybody but something to do to care for the world we live in, to take social responsibility and be a dignified part of society, and also create some sort of competitive advantage since there are so many companies carrying out the same type of services.

"Then we must take our responsibility to say: "Are there other fuels, are there other engines, can we do things in another way, can we plan in another way?"

(CEO, author’s translation)

Alltransport’s CEO also points out that the company’s environmental effort is also valuable to Alltransport since quality and environmental certificates are very much about creating structures, order and clarity in the company and that it paves the way for other kinds of work. All informal groups and contacts between different business areas at Alltransport or between companies and corporate groups, benefit from the environmental effort and vice versa. He believes it also adds to learning to follow up.

A few employees driving the environmental effort

The generation shift among the company’s personnel has been valuable to Alltransport’s environmental work since it has opened up new opportunities People who were less enthusiastic about environmental work left the company and people who were more open towards it joined the company.
The Environmental Manager believes it is valuable to Alltransport to have a few individuals who drive and believe in the issue. Good employees and enthusiasts, who are both competent in the environmental area and very driving, are considered to be important to the company and have therefore been perceived as successful in the environmental effort.

That management and board accept change is also believed to be valuable both by driving the environmental work and by being receptive for change. The CEO is also believed to have been a driving force in the environmental effort.

The presence of the Environmental Manager

The Environmental Manager sees it as valuable to have a dedicated environmental manager who is physically present and seen:

“If you are physically present somewhere then you are seen. People will remember that you are there”.

(Environmental Manager, author’s translation)

The Environmental Manager has an advisory function towards the business areas; they can get help when they ask for it. They can also receive ideas and hints about what they could do and how they can work to attain different goals. The Environmental Manager can also help them find the right direction for their work. The Environmental Manager is also a valuable resource for the sales staff, who feel they utilize her competencies when, for example, customers ask for a product that the Sales employee has less knowledge about, and they can forward questions to her or bring her along to the meetings. This is also recognized by the Environmental Manager herself, who feels that the operational staff knows how to utilize the competences within the company concerning environmental management:

“They know that we are here for their sake. They come to us and ask for help and we try to solve it together.”

(Environmental Manager, author’s translation)

There also appears to be a culture of no prestige at Alltransport; the sharing of ideas and information is prioritized, which seems to be valuable to the environmental effort according to the Environmental Manager who believes she contributes to Alltransport with her ability to absorb information, get ideas and share ideas and information with others.
Sales procedures

Issues regarding quality, the environment and education are part of each estimate made and offer submitted by Alltransport.

“If we are selling in services at the larger companies then it is good to have this along, good environmental management. I do not believe… they look substantially at exactly what we do, but that we do environmental management. In any case.” “… And when you are out visiting customers, they still have it somewhere; yeah, yes, but I have seen that you are doing a lot of work, so that I think they see us and that we are far ahead concerning that part.”

(Sales employee 1, author’s translation)

From Sales employee 1’s perceptions, presented above, it seems to be valuable to Alltransport to be able to show that they have an environmental effort in sales meeting with customers. Information about the environmental effort is included in the presentation of Alltransport when meeting customers. Sales employee 1 believes most of the talk about environmental effort is about Alltransport’s environmental management overall and does not concern the service in question. Since it is on an overall picture, not related to specific environmental measures, it is neither rare nor difficult to imitate for another company.

Having an environmental certificate is very valuable to Alltransport; the most topical part of the environmental work for Sales employee 2 is to talk about Alltransport’s environmental certificate. If Sales employee 2 recognizes that customers are interested in Alltransport’s environmental effort, then he tells all he knows about it, about the measuring of emissions, tyres, alternative fuels, wind deflectors, level of European emission standard for vehicles etc. Then it seems as if customers are a little impressed by Alltransport’s ability to measure emissions from transportation:

"Then it came as a bonus, the measuring. Many do not know that we have it at all, and that there are possibilities to do it this way. They get happily surprised when they demand that there should be some sort of environmental… then this becomes a bonus for them, it gets extra good."

(Sales employee 2, author’s translation)

It is seen as very important to tell the customers of the company’s environmental effort, which is largely done through the sustainability report, but also through presentation material, sales staff talking about the company’s environmental effort and that Alltransport has an environmental certificate in order to get their attention, create a good reputation and get customers. In the case of major sales, the environmental demands come at once and environmental certification is an absolute requirement.

Sales employee 2 seldom experiences that environmental demands stated very seriously early during a sales process are seen as important by the customer at later stages when the actual deal is made.
Hauliers

Hauliers are an important part of brand and what they do is seen as important, why it is also seen as valuable to Alltransport that the hauliers have had environmentally related education.

“Because we see clearly that all of what our drivers do, will in the end reflect on their [the drivers] behaviour towards customers – who [customers] are actually our customers.”

(Environmental manager, author’s translation)

Alltransport wants to help their hauliers since they see this as something that would benefit their shareholders.

“...for they need to be as skilled as possible since they are our face to the world; it is they who meet the customers and is they who are... I mean they are in the front line”

(CEO, author’s translation)

Transport planning and technologies

Vehicle communication technologies that have been installed in vehicles are a valuable asset when it comes to planning and thereby decrease environmental impact by better routes and earlier planning and adjustments of routes.

Want to integrate

It is evident that there is a wish to integrate the environmental effort throughout Alltransport’s organization. The CEO does not believe in environmental management taken care of by a few employees, he sees it as something that is related to all decisions and employees. He also believe that everybody should understand that the environmental effort is made to enhance Alltransport’s competitiveness:

"My view on this is a bit different; I do not want the company that I manage to work that [another] way; but everyone must be involved in an environmental effort. Everybody must also understand the extent of an environmental effort and also understand that this is one of the means that we use to be competitive.”

(CEO, author’s translation)

While strategic decisions are taken by the management team and presented by Ella, the operationalization is spread out to the business area managers, who mediate the decisions from higher levels in the hierarchy down to production. Much of the responsibility lies with those with operational responsibilities. Each business area shapes their own goals and routines for their division to fit their specific tasks. It is evident that this appears to be valuable when it comes to utilizing the employees’ different knowledge in developing the environmental effort:
"But our greatest resource is our staff. There is nothing that can be solved by itself: you must have an individual who can do things. /.../we [the management] cannot tell them [the operational personnel] how they should do their job; and that would be a little stupid too. We do not have knowledge of all of those points [that need to be considered in the operational work] either. But we can sit down together and discuss the environment and then they [the operational staff] will bring their proposals and we bring ours, which we try to align…"

(Environmental Manager, author’s translation)

**Relations**

Another valuable resource for Alltransport is its part-ownership of TRB, which provides them with knowledge concerning the environmental impact of transport and logistics and also involves them in development through sponsorship of research and tests of oils and tyres for example, aiming at decreasing this impact. Try to give all collaborating parties and hauliers and their drivers environmental knowledge. Through the network they also affect the development of environmentally related areas of logistics.

"We use thus… the networks have been very good for us in different ways. This is TRB that I mentioned. If you look at the companies that own TRB then you see that they have come a long way in the area of sustainability or environment and quality. They have therefore had TRB as a kind of help and source of knowledge to develop their own companies. And if you look at this group [TRB], these 15 companies are quite successful and far ahead in this area”

(CEO, author’s translation)

In addition to providing Alltransport’s managers with knowledge through their direct involvement in TRB, Alltransport also uses the organization for basic environmental education for its employees. Alltransport’s aim in this respect is for everybody to understand why the environmental effort exists.

TRB is a leading actor in environmental efforts in the transportation industry, driving a great many issues. Through TRB, Alltransport have access to a system for providing CO₂ information. Through TRB they have an environmental database where all part-owners register their vehicles with model, engine, fuels, tyres, etc. The reference material in the system has been collected over the extensive period. In the system, the part-owners can find important information about alternative fuels and lubricants to prepare themselves for questions customers might ask. The system enables them to generate detailed reports and offer documents quickly and easily. From knowing the distances driven and so on, the vehicle’s emissions can be calculated, enabling comparison of emissions from transports.

Seeing the relation to TRB as a resource, it is a resource that belongs to all of the part-owners, but not to other companies in the logistics and transportation sector.

Networks like ITG are of great value to Alltransport when it comes to efficient and economic transportation through the interchange of loads, which also benefits the environment.
4.2 The DHL case

Valuable resources in the environmental work at DGF SE are to a large extent related to higher management levels’ requirements and the driving force of the Environmental Manager at DGF SE. The latter has made efforts to increase communication and facilitate exchange of environmentally related information and knowledge throughout the DGF SE organization.

The role of environmental work at DGF SE

The environmental work is perceived as valuable to DGF SE in two ways; both as something that is related to the offer to customers and as something that is done to meet the requirements of the global DHL organization:

“For us it is extremely important that it is the way in which it is partly a service that we provide to our customers, to be able to help them with their environmental effort or create environmental products. Another area is that we carry out an environmental effort that meets our requirements.” …”We at DHL have pretty tough demands concerning how we are to rationalize our CO₂ emissions, that we need to work with, and that come from highest level, Deutsche Post. … we must be equipped to meet both customers’ demands and in-house demands”.

(Lead Logistics Provider Director, DGF SE, author’s translation)

That environmental management is valuable to the business is clear since the environmental considerations have been raised as important issues during business plan meetings and are now part of the on-going work with DGF SE’s business plan. The environmental effort is integrated in the different action plans. There are also environmentally related goals, which are connected to DHL’s global goals, and activities to attain them are part of the business plan. The Environmental Manager is among other things responsible for a text in the business plan on how the environmental effort is developing. The activities and goals related to the environment are followed up and presented, along with the other business plan activities and goals on the intranet for every employee to see. From this it can be concluded that the business plan and on-going work around it are also valuable to the environmental effort when it comes to improving environmental performance, driving, follow-ups and creating awareness of environmental issues. The business plan is valued and seen as bold by the Environmental Manager; she sees it as something that drives her a great deal, along with the demands from management level.

The Environmental Manager

The Environmental Manager’s role is seen as valuable to DHL’s business. DHL’s view of environmental work has changed, so that it is now seen more as having the role of a value-adding product element in the business. The position of the Environmental Manager has been reorganized to fit the new view and is now placed at the Business Development division at DGF SE LLP in a more business-driven position among other commercial aspects at the company. The Environmental Manager feels that her role is more commercially directed than her previous roles at other companies in the environmental field, and that the position gives her valuable understanding of the business.
"I do not sit in a corporate function, but in an LLP control tower where you get very connected with operational issues related to the business, which makes you understand the business better".

(Environmental Manager, author’s translation)

The Environmental Manager is considered to be valuable to the company; she is seen as very competent and her personality is greatly appreciated when it comes to having influence, driving issues and spreading enthusiasm for the environmental effort:

"Before Linda [the environmental manager] arrived it [the environmental effort] was more about checking points, but now we have an active Environmental Manager who communicates, arouses enthusiasm and is a driving force in the environmental effort."

(Senior Supply Chain Advisor, author’s translation)

Efficiencies that benefit the environment

The operational work with the control towers and forwarding goes hand in hand with what the customers want concerning consolidation and making transportation as efficient as possible, which benefits performance both economically and environmentally. LLP’s booking system is seen as a valuable resource when it comes to overviewing and coordinating business operations, along with a simulation tool used to simulate the environmental impact of various changes in transportation and logistics flows in order to optimize transport flows when helping customers. This part of the business is valuable as regards environmental work, since it can reduce environmental impact.

Integrating the environmental work

Valuable resources in integrating the environmental work in DGF SE are the Environmental Manager’s efforts to be present at local offices, the Green Champion Forum, and the environmentally related parts of the business plan.

The Environmental Manager feels it is rewarding to be present at the local offices all over the country in order to pick up information and ideas that might not seem most relevant to the environmental effort at first, but that might nonetheless be very interesting for the environmental management. For example, she picked up interesting information about hauliers’ responses in a supplier evaluation during a workshop with DGF SE employees at a local office.

The work with the environmentally related parts of the business plan and the Green Champion Forum (see further below) are related to aims to integrate the environmental effort and to involve employees throughout the organization.

“We want the environmental effort to be born from below. We work all of the time with the business plan to start up projects where we can have a broad line-up so that people are included and support it. We want more and more [employees] to be involved and come up with ideas and it is therefore that [the Environmental Manager] Linda has created the Green Champion network and she is out and collects views from our different offices in Sweden. But ultimately it is all about how good we are at being committed and including everybody”.

(Lead Logistics Provider Director, author’s translation)
Channelling the environmental effort

The Environmental Manager believes the sales channel, which forward customers’ demands to managers at DGF SE, is one of the four most important resources in the environmental effort.

The Environmental Manager also feels it is important that employees connect their daily work to the important resources related to the environmental effort.

The Green Champion Forum

The Green Champion Forum is valuable to the Environmental Manager as a resource for channelling environmental work and developing new ideas. It is also a way to include staff all over DGF SE and get them to support the environmental effort. It is a resource for involving representatives from local offices who have different responsibilities in their different positions and who want to work with environmental issues and believe it is important for local offices to channel information and ideas between the Environmental Manager and local offices throughout Sweden. Communication between the Environmental Manager and local offices is two-way. Communication is a source of knowledge for the Environmental Manager about what is going on at the local offices. Through the Green Champion Forum different knowledge, competences, views and interests related to environmental work are connected and directed to the Environmental Manager. It is seen as a strength that the individuals have themselves chosen to participate, which can be valuable to motivate them to drive and contribute to the environmental effort. The outcome of the Green Champion Forum has been related both to increasing awareness, knowledge and understanding of environmental impact related to DGF SE’s offering as well as to the offices.

Driving forces

DHL Global’s management has a valuable role in the environmental effort. Valuable resources that drive it forward at DGF SE are also the role of their business management and that they have defined environmental issues as being important to them. A constant reminder of environmental issues through questions from customers is also seen as a driving force to carry on environmental work at DGF SE.

It is also perceived that the individual employees play a valuable part in driving the environmental effort. Concerning what drives the Environmental Manager personally in her work, she says:

“*The demands from the management level. That they look seriously at new proposals. You must take the step and say ‘yes’, and dare to challenge. This year’s business plan shows boldness; there are some bold new activities that might be difficult, it is fun to go the whole hog instead of being modest, and that drives me a lot.*”

(Environmental Manager, author’s translation)

She also points out that at the same time as environmental management is driven by requirements from management level, she needs to produce and propose ideas that fit the business:
"When it comes to the bottom line, money controls. You need to be smart so what you put forward has a short pay-off time, So it is extremely commercially driven”.

(Environmental Manager, author’s translation)

The services

It is valuable to DHL to be able to present that they can provide environmental reports and stand up for their environmental values; that they have environmental certificates and can provide emissions data, in order to meet the demands of larger companies.

"Transport companies can offer about the same thing and the environment has been identified by DGF SE as a way to increase market share, shape the industry and keep customers”.

(Environmental Manager, author’s translation)

Environmental work that is communicated to the customers, as well as information concerning the overall offering, is to a large extent regulated through the Global DHL organization. Additionally, the Swedish company has the possibilities to show customers what they are doing with regard to environmental issues, through the Swedish company’s newsletter that is sent out to customers once a month. This is valuable to the Swedish company since they are more explicitly dedicated to the environmental effort compared to several other countries in which DGF operates.

Selling the Environmental Manager’s services has for example resulted in her educating a customer’s entire shipping division in environmental issues. DGF SE recognizes that selling these kinds of services by the Environmental Manager is valuable since it can enhance customers’ knowledge and focus on reducing environmental impact related to logistics, thereby making them choose to buy more environmentally related services – which can be beneficial to DHL if they can provide these services.

For some of the services sold by the Environmental Manager, a tool has been developed by DHL GFS LLP that visualizes the generation of emissions from specific transport solutions. The aim of these services is above all to start a dialogue with customers concerning the environment and logistics structures, the possibilities to start projects or arouse interest in working towards more environmentally friendly solutions. This can be a valuable resource to enhance customers’ interest in and awareness and understanding of more environmentally friendly solutions. According to DGF SE LLP, it is a first step taken with the aim of widening the offer to customers in the future to include the creation of the whole logistics setups, with increased potential to reduce environmental impact.
4.3 The Jetpack case

Resources related to environmental work that are considered by the interviewees to be of central importance are Jetpak’s information system, the environmental management system certificate, the environmental goals, knowledge connected to for example the environmentally related workshop, and the communication concerning the environment to partners through the partner agreements.

Resources seen as less centrally related to Jetpak but still of importance to the environmental effort are vehicles and partners’ own initiatives concerning the environment, such as partners’ own environmental certificates for example.

Why the environmental effort in itself is seen as valuable by Jetpak

Environmental work is important to the Jetpak Group. The way that Jetpak’s environmental effort has grown from within the company in recent years is largely due to the company’s focus on corporate social responsibility (CSR) and overall company values, which are considered to be very important by Jetpak’s management.

What is seen as valuable with the CSR work and work with values is that it sets an internal standard for what company Jetpak is to be, that it is a way to differentiate against competitors and that it helps Jetpak to attract the kind of employee most appropriate for the business. The CEO values that the work with values has set an internal standard as regards what kind of company Jetpak is to be, i.e. a good player that cares for society.

Jetpak’s values are presented in a brochure that helps spread the knowledge of what kind of company Jetpak should be both inside and outside the company. Working with CSR is valuable to Jetpak; it is seen as something that they are proud of and at the same time something that many transport companies do not have. The work with CSR is also considered to be valuable as a means of differentiating Jetpak against its competitors.

In addition to spreading the right values within the organization, the individual employees’ values are also seen as something of great value to Jetpak. Human values are seen as something that cannot be changed or copied, and the company considers it important to employ people with appropriate values. Human values are seen as something that differentiates the company against its competition; it is seen as valuable in making the company unique and it is believed that the same company can never be created with other personnel. Jetpak Sverige’s CEO points out that she believes that most of the business model can be copied, but it will never be exactly the same, depending on who is managing, the values and the capability to transform them into reality in the form of real sales margins, customer satisfaction and CO₂ emissions. Development at Jetpak is considered to have been shaped by the prevailing culture within the company:

“We are very proud entrepreneurial people who like to build, and solve problems, and ensure high service quality and there is also a “fix”-attitude.” … “It has shaped Jetpak’s development.”

(CEO Jetpak Group, author’s translation)

Commercially, Jetpak’s aim is to make something unique out of their environmental effort that can benefit their business. Their aim for the business-related part of their environmental work is clearly that it should be both valuable and rare. The Business and Service Development division at Jetpak has made efforts to find ways to give their
offering unique environmentally related characteristics. CO₂ measurement is seen as a valuable part of differentiating the product. The way they work depends on their own initiatives, creativity and ideas; for example, the Business and Service Development Manager makes use of his background and personal networks in this work.

**Environmental work and the offer - to position the company as unique**

It is evident that the company’s environmental effort has partly been driven by the Business and Service Development division, which has aimed to make environmental considerations a source of uniqueness in Jetpak’s offering.

“It was very interesting how it started. Speaking of packaging. Suddenly, the environmental department was the marketing department and bundled out to the market and customer and did the pricing. Interesting reaction internally.”

*(CEO Jetpak Sverige, author’s translation)*

Advanced price elasticity measurements have been performed so that the Business and Service Development division know for example how much customers value Jetpak providing a CO₂ note. This information is valuable for Jetpak in developing their offering and environmental work.

The Business and Service Development Manager has both utilized and shared his network relations from earlier work experience in completely different businesses in developing the company’s environmental effort related to service offering into something unique and positioning.

What has come out of the work of developing the environmentally related services is the CO₂ note concerning the emissions related to each delivery, which is provided to customers. To be able to produce the note work has been done to develop the information system, processes and routines concerning the registration of information and data in the system, questions and answers for customer service, and for spreading knowledge about the product inside and outside the company. There is also a pilot project going on with the aim of developing the product further, to be based on actual emissions from each transport assignment by installing new technology for measurement in each vehicle. Being able to deliver a CO₂ note related to each delivery is a value-adding service that separates Jetpak from its competitors; it is valuable and has involved both creativity and many resources to build up, and its production is integrated in the organization.

The business model is seen as valuable in the environmental effort, since it is considered to make it possible to send deliveries by airfreight without contributing to environmental impact. Nonetheless, it is debatable whether it can be seen as if Jetpak’s air transportation is not related to emissions just because the flights would have left even without Jetpak sending freight in the cargo hold. The comparably low environmental impact of Jetpak’s air freight services is related to their unique business model with control and presence at airports in combination with very good control of air uplift which is also difficult to build up or copy since it involves a network of players and specific competences.
The information system

Jetpak’s information system is clearly regarded by the interviewees as a valuable resource utilized in their environmental effort. The group level benefits from the greater transparency in the organization and can start measuring.

Seen from the partners’ perspectives more directly concerning their own business, the information system helps them consolidate loads, control, and optimize driving routes concerning both their franchising for Jetpak and for other businesses that they might have in combination with being Jetpak franchisees. The partners can also see each other’s business through the system and find opportunities to collaborate and save both fuel and reduce environmental impact.

Overall, the information system is seen as valuable since it allows Jetpak to increase economically and environmentally related efficiencies by facilitating cooperation between regions and partners. The common new information system both makes it possible to see the transportation assignments and vehicles to make it easier to consolidate loads and to perform transport planning, which is both economically advantageous and benefits the environment. The system increases transparency in the business and the partners understand each other better, “speak the same language”, when working in similar ways in the same system. Environmental impact is reduced and costs are decreased when loads are consolidated and driving routes optimized.

The information system contains information about the shipment and environmentally related information on emissions connected to each shipment, which according to Jetpak sets the company apart from its competitors. Shipment data in the information system is converted to CO₂ emissions per delivery (measured in kg), so that the emissions can be printed on the customer’s invoice. Jetpak wants to be the best company in the industry regarding measuring CO₂ emissions for customers. Jetpak’s ability to present emissions data for each shipment is a rare resource since their competitors do not have it. It would also take some time to try to copy it, and it is embedded in the organization. It is also organizational, built into the way they work at Jetpak and into their information system. Jetpak is now working on improving the accuracy of their emissions reports even further by installing new technologies, for example computers that measure emissions, into their vehicles and connecting them to their information system. This will improve the uniqueness of their emissions data service even further. It will also benefit the environment by making it possible to measure, set goals and follow up and evaluate efforts made to lower emissions through for example eco driving.

The organization of the management of environmental work

As a consequence of the reorganization of responsibilities at Jetpak, environmental sustainability issues have taken on a more strategic significance. The environmental effort is now one of the Nordic HR Manager’s responsibilities and she is a member of the Nordic directorate at Jetpak. This is seen as an overall advantage; the environmental and quality issues are now perceived as more integrated throughout the business. The Nordic HR Manager can also establish the environmental effort at a higher level within the company more easily than before.
It is also valuable that another employee with responsibilities concerning the environmental management is the Process and Quality Manager whose overall responsibilities concern communicating with partners. Among other things, his responsibilities include communicating about environmental issues and for example mediating policies and bases for creating routines to partners. Since he is responsible for environmental and quality work 20% of his time, the Process and Quality Manager’s interest in environmental work is important:

“Personally, I am very interested in environmental management, to do what is best”

(Process and Quality Manager, author’s translation)

During the pressing times in the wake of the global economic crisis, Jetpak has developed internal competences instead of hiring people from outside the company to perform tasks. For example the Process and Quality Manager has had the responsibility of arranging an environmentally related workshop with the company’s partners. In this way, valuable competences and experiences from holding the workshop at Jetpak is kept within the company.

Integrating the way to work with environmental issues

Jetpak Corporation does not see itself as a supporter of its partners’ environmental work; rather, they have requirements concerning their partners’ environmental work, which the partners manage themselves. Jetpak clearly sees value in working this way and believes it affects environmental management within the network positively:

“If you do it yourself it goes deeper, becomes in your heart somehow. This I have fought for; now I shall reach these goals and it can give better results too”.

(Process and Quality Manager, author’s translation)

“To have requirements on them to set their environmental goals themselves is a way of having them involve themselves in the work.”

(HR manager, Jetpak Group, author’s translation)

This means that the partners themselves choose what to do to fulfil requirements and attain goals that are communicated from Jetpak’s head office to a large extent through the Process and Quality Manager who also has environmentally related responsibilities.

Several employees see the environmentally related workshop that has been held at Jetpak with a train-the-trainers approach as an important resource. It involves educating everybody in the company about environmental issues all the way down to the person who meets the customers. It was initiated by the Business and Service Development Manager and is part of his work with internal packaging of the environmentally related parts of the offering; everybody should be aware of and able to discuss environmentally related issues. The workshop has also been a way to bring together different partners to contribute to Jetpak’s overall environmental work by sharing ideas with each other, making potentials clear and making those partners who had done little environmental work up to that point inspired by others. The workshop has thereby been valuable in utilizing and spreading enthusiasm and knowledge within the Jetpak network about
potentials to improve environmental work. The workshop is not the end of partners meeting and sharing their environmental work; there are plans for new meetings where they are to present their environmental work and related goals for each other.

The Q&A documents are also seen as valuable for integrating the environmental effort all over the business and preparing customer service staff for possible questions. Processes and instruction are seen as important by Jetpak, as well as communication, to make the way they want to meet their customers clear and permeate the entire organization. It is considered important that a customer can get answers about different questions they might have, that might for example concern environmentally related issues. Both the Process and Quality Manager and the Service Development Manager work with ensuring that environmentally related information is registered correctly in the information system at partners’ offices, for example through instructions.

The of Business and Service Development Manager and the Service Development Manager have put a great deal of energy into making everybody in the organization understand the importance of developing unique environmentally related parts of services. The more difficult times, in the wake of the global economic crisis, have had a positive effect on their work:

"Especially last year when it was not easy, and you had to dismiss people, then they [the employees] became involved because they want it [the company] to go well."

(Business and Service Development Manager, author's translation)

**Partners' own initiatives**

The partners value environmental management differently and have developed it in different ways that suit them. Some partners started working with environmental issues before they received requirements from Jetpak; others have started later. In some areas there have been more customer pressure on the partners to perform environmental work. Various measures related to both environmental and business performance taken by the interviewed partners are described below.

Jetpak Luleå have developed their own measurement that they call eco-efficiency; the amount of deliveries over a certain distance that they follow up on the wall in the coffee-room. This is valuable for the environmental effort in the sense that the measure shows and stimulates awareness about a connection between environmental impact and business performance.

“Our greatest source of pollution is that we drive vehicles. We try [to reduce pollution] in different ways through having modern cars with relatively low emissions. We also measure our pollutants – how many assignments we perform. We have a simple measure - you can discuss whether it is a relevant measure - but we look at how many deliveries are made per kilometre driven.”

(CEO, Jetpak partner in Luleå, author's translation)

If the customers are willing to delay deliveries, Jetpak Luleå can coordinate more deliveries and decrease both costs and environmental impact. Nonetheless, at Jetpak Luleå they believe it is difficult to know whether customer's reasons for doing so are economically or environmentally related.
"But the important thing we can do is to have the right equipment because we can not violate our business idea. But we are announcing our ability to combine environmental and economic sustainability. There is always a palette of services that you have to be able to choose from. But no doubt our niche is that we offer these quick [deliveries]. Once you have decided that it should be quick, then we offer it in the most environmental [friendly] way."

(CEO, Jetpak partner in Luleå, author’s translation)

The franchisee in Luleå writes monthly letters to customers, sometimes concerning the potential for combining environmental and economic considerations. Jetpak Luleå sometimes work towards its trade association instead of separate customers, or at a whole cluster of companies, to accomplish coordination, which benefits both economy and environment. Jetpak’s partner in Växjö has saved both money and reduced environmental impact by limiting the speed of vehicles in their business to 83 km/h.

The partner in Växjö also has great knowledge about using technology in vehicles to measure emissions. This is done in his other heavy truck business where it has been critical for being able to serve some customers that the logistics service provider can present accurate emissions. The partner in Växjö has also given priority to its own initiative to hold a half-day course in eco-driving with the aim of lowering emissions and fuel costs. The reason was that a customer of the heavier business demanded it, and since it concerns both economic and environmental issues it was decided to hold it for all the business, Jetpak included. Jetpak Växjö’s CEO considers technological advice to be valuable in combination with aims to reduce the quantities of fuel used when performing transport assignments:

“ If you participate in the course in eco-driving you might drive well for one month, but then you don’t care, but if you have the technique in the car all of the time saying that you can’t drive this fast – if you have that all of the time, you will be reminded”

(CEO, Jetpak’s partner in Växjö, author’s translation)

The partners also value having a standardised environmental management system differently, see further below.

**The role of the Standardised Environmental Management System**

The environmental certificate according to ISO 14001 is valuable to Jetpak Sverige. Jetpak sees their environmental certificate as something they must have in order for their customers to feel safe in believing that Jetpak has control over their business activities. The environmental certificate is sometimes critical for Jetpak’s business:

“We cannot submit offers if we do not have environmental and quality certificates. It is a quality stamp. Municipalities and county councils are especially hard concerning the environment. More [demand] will come. Large companies require that you must work with environmental issues in some way”

(HR Manager, Jetpak Group, author’s translation)
Even though having an environmental certificate is seen as important by top management, and that it is clearly an order qualifier, different Jetpak partners perceive the need for it in different ways. Jetpak’s partner in Luleå has experienced that Jetpak’s group certificate is not enough for them to meet customers’ demands. In addition to Jetpak’s group certificate, they also have an ISO 14001 certificate of their own. This is valuable to them since it includes the transport assignments, which they perceive as important to have included in the management system certificate during public procurement. The CEO in Luleå is very pleased with the environmental certificate and says:

“maybe it does not fit all but it fits me well. We have different backgrounds as franchisers but it gives this structure in all of the business and that suits me.”

(CEO Jetpak’s partner in Luleå, author’s translation)

Jetpak’s partner in Växjö, on the other hand, has seen no need for a certificate of their own. This partner feels it is necessary for the business to be able to present information concerning the group environmental certificate but has not seen any demand from customers to be certified separately.

**Teaching the customers – to enhance the role of environmental work**

The loyalty club is aimed at keeping the customers tied to Jetpak in-between their need for service, and it is also a resource for knowledge and feedback from the market. By means small quizzes, when the company sends out questions to the members of the club, Jetpack manages to educate the customer. In this way the loyalty club is used partly to educate the customers about Jetpak’s environmental work.

The loyalty club can be used by Jetpak to gather information about the customers’ interests in environmental work. It can also make it possible for Jetpak to educate the customer about Jetpak’s environmental effort and and make them value the company’s environmental management even higher and also care more about its development.

The Business and Service Development Manager’s network has been valuable resource in building up the loyalty club.

Utilizing contacts with customers is also seen as valuable by Jetpak:

"We can never sit inside an ivory tower and do it [develop the environmental management] alone, we have to do that in close relations with our customers and the marketplace. Here I think awareness is the first step, then the knowledge to be able to work with the insight in a wise way to become effective."

(CEO Jetpak Sverige, author’s translation)

**Branding and operations**

Traffic safety means reducing environmental impact and Jetpak clearly feel this is an important area for improvements and that it is their brand on the road.

“Great, so we capture that because it’s our signs [meaning the trucks are branded] running around out there and they [the drivers] shall behave themselves on the roads”.

(Process and Quality Manager, author’s translation)
4.4 Summary regarding Value

In these sections, 4.1-4.3, the value of environmental management to the company overall has been presented. From the case reports, and analysis in chapter 4, it can be concluded that the case companies perceive environmental management as something valuable that they need to have to stay competitive. This environmental management partly concerns compliance with legislation, efficiency-related environmental measures that go hand in hand with decreased costs, diversification of offering, but also efforts which are related to future measures to reduce environmental impact of logistics and transport services.

The case companies need to be able to show their customers that they work with environmental issues; their customers do ask them about their environmental effort. At the same time the customers’ demands are limited and the case companies believe that they are able to meet their customers’ demands as regards their environmental management. The demands are that the companies have a certified environmental management system, which is seen as necessary to be competitive by the case companies. To serve the small number of customers with higher environmental demands they also need to be able to provide emissions data. Some customers also ask for more information about the environmental management, which the companies provide.

For the customers that ask for more information about the companies’ work with environmental issues, they are met but in different ways by the case companies. Alltransport provide their customers with their sustainability report and bring their environmental manager to meetings to talk about the environmental effort and the possibility to provide emissions data. In a few cases, Alltransport’s customers have asked for environmental services they do not provide, in which case the Environmental Manager has confidently explained that Alltransport can offer another solution that is equally good or better. DGF SE has a homepage with information about their environmental effort together with details of extra services such as emissions data, CO₂ offsetting, and possibilities to simulate emissions, teaching customers and other services provided by their Environmental Manager. Jetpak provides every customer with emissions data and gives all employees that meet customers the necessary knowledge to speak about the company’s overall environmental management.

According to the companies, environmental demands stated at the beginning of a dialogue with a customer are perceived to a large extent to diminish when it comes to actually buying a service; the customers instead focus on the price. To the extent that presentation of the companies work on environmental issues is needed, it concerns being able to show themselves to be trustworthy as regards caring about environmental issues and presenting existing substantial environmental management does this. To be able to present some environmentally related efforts to some extent includes having employees with the competence and ability to present it.

Being able to present “some” work on environmental issues means that no case company’s environmental management is necessarily better than the others’ from a resource-based theoretical point of view; as long as they have an environmental certificate and can provide emissions data and can prove that they have environmental management they should be competitive.
The case companies believe that they have a more comprehensive environmental effort and more environmentally related services than most customers want. To some extent all of the work on environmental issues is implicitly relevant to customers, since it is a part of making the companies able to show that they manage their environmental issues. Overall, the work on environmental issues more related to business with customers to a large extent seems merely to consist of showing the customers and external stakeholders, when marketing and branding the company, that the company do in fact work on environmental issues. The customers do not seem to be perceived as willing to pay extra for environmental services. All three case companies believe that environmental demands will increase in the future, and the underlying perception seems to be that environmental work is something that will pay off one day in the future.
5. Analysis in terms of Dynamic Capabilities

In this chapter, the environmental management of the case companies, presented in the appendix, will be analysed in respect of their content of elements of dynamic capabilities. Following the results in chapter 4, environmental management at the case companies is more comprehensive than what is presently of explicit value to business with customers. In addition, all three case companies believe that environmental demands will increase in the future and seem to view their work on environmental issues as related to their future competitiveness. What is presented in this chapter is what parts of the case companies’ environmental work can be regarded as similar to elements that, according to theory, can be related to an ability to cope with change and sustain competitive advantage (Teece, 2007). The analysis will be structured and carried out in line with Teece’s (2007) article on dynamic capabilities and their elements of sensing, seizing and reconfiguring. For more information about the methodological approach for analysis see section 3.7.

5.1 Sensing

Sensing is described by Teece (2007) as related to activities of scanning, creation, learning and interpreting. Enterprises sense changes by identifying and shaping opportunities through investments in research activities, probing and reprobing of customer needs, technological possibilities, by understanding of latent demand and structural evolution of industries and markets as well as likely supplier and competitor responses to it. Further, Teece recognizes search activities as relevant to sensing; information about what is going on locally and on the periphery of the business ecosystem. (Teece, 2007)

The ability to recognize opportunities depends on the capabilities of individuals inside the organization and on the extent knowledge and learning capacities of the organization itself. Specific knowledge, creative activity, ability to understand customers’ decision-making and practical wisdom are of use when recognizing opportunities in the combination of demand and solutions (Nonaka and Toyama, 2007). The ability to create and sense opportunities is not uniformly distributed among individuals or enterprises. Sensing what is going on in a company can also easily be obstructed; information decays as it moves up and down a hierarchy and businesses must devise mechanisms and procedures to keep management informed. Teece (2007) suggests there is a need to embed scanning, interpretative and creative processes inside the enterprise itself and not just in people. Even though information decays as it moves up and down a hierarchy, mechanisms and procedures can help managers receive information and stay updated about what is actually going on in a company (Teece, 2007). Since attention is a scarce resource inside the enterprise (Cyert and March, 1963) management must carefully allocate resources to search and discovery according to Teece (2007). Further, according to Teece (1997), a more decentralized organization with greater local autonomy is less likely to be blindsided by market and technological development (Teece, 2007).

Referring to Teece (2007), entrepreneurs and managers must figure out how to interpret new events and developments, which technologies to pursue and which market segments to target when opportunities are first seen. This is very difficult to do for logistics service providers since the greening of logistics and transportation is a very complex task. For example, when it comes to technology and alternative fuels, there have been few “off the
shelf” alternative fuel commercial vehicles offered by the manufacturers at a similar cost to comparable conventional vehicles, and logistics companies have instead had to involve themselves in trials in order to find their own solutions (Cullinane and Edwards, 2010). This resembles the need to sense a market development like the one Teece (2007) describes as: “Competitors may or may not see the opportunity, and even if they do they may calibrate it differently. Their actions, along with those of customers, suppliers, standard setting bodies, and governments, can also change the nature of the opportunity and the manner in which competition will unfold.” (Teece, 2007)

In this thesis, sensing is interpreted in a broad sense as related to a company and its employees trying to sense both internally and externally. The external sensing can be related to the customers’ interest and needs, developments in the market and in the overall business, developments in competition, and developments in research related to the companies’ business. The internal sensing concerns the scanning, interpretative and creative processes inside the company; it concern keeping decision-makers informed about what is going on within the company, and also taking advantage of the knowledge and creativity that can be found within the company. It concerns the company’s measures to take advantage of the knowledge and ideas of employees concerning the business. Positive implications of decentralization for sensing are also seen as sensing elements of dynamic capabilities.

Part-ownership of the TRB transportation network is an investment by Alltransport to sense the research and development related to environmental issues within the transportation business; it provides Alltransport with information, new knowledge and understanding of the development of techniques and solutions for increased environmental considerations in the business.

To work with internal marketing and to arise enthusiasm in people to work with Jetpak is recognized as important by Jetpak since they have a franchising business model. Working extensively with internal marketing and having requirements regarding their partners’ environmental efforts at the same time as letting them develop their local businesses, i.e. having decentralized decision-making when it comes to environmentally related development of the business, where partners can sense their customers needs locally and prioritize concerning their environmentally related business development, increases the customer orientation of Jetpak’s environmental effort.

To some extent Alltransport also have decentralised decision-making related to operational decisions within the organization, allowing them to take advantage of the knowledge and experience of operational staff with different responsibilities.

When it comes to scanning and interpreting what is going on within the company, and to take advantage of the knowledge and creativity within the company, DGF SE’s ‘empowerment of employees’ programme has this function. The aim of the programme is that individual employees shall drive, help themselves to new initiatives and come up with proposals for improvements. By this force from below in the company, the environmental effort is also developed partly by the individual employees.
“The aim is, they want people to be more driving and to help themselves and come up with proposals for improvement, that you want it to grow from lower levels in the organisation, to have a philosophy of leadership where it is desired that fellow employees are driven to be more offensive.”

(Senior supply chain advisor, DGF SE, author’s translation)

Jetpak also works to get its personnel involved in the environmental effort. In its environmental efforts towards their partners, they clearly see it as valuable that they have organized their environmental work in such a way as to have requirements as regards their partners’ environmental work. The partners are thus free to set their own goals and commit themselves to the environmental effort. Jetpak’s focus is on reaching individuals within the organization with the environmental effort:

“If you do it yourself it goes deeper, becomes in your heart somehow. This I have fought for. Now I shall reach these goals and it can give better results too”.

(Process and Quality Manager, Jetpak, author’s translation)

“Having requirements on them to set their environmental goals themselves is a way of having them involve themselves in the work.”

(HR Manager, Jetpak Group, author’s translation)

It can be a competitive advantage for Jetpak to have a nation-wide environmental effort that is to a large extent customer-oriented and adapted to the local businesses. Referring to the VRIO model of the resource-based view theory; the priorities of employees all over the franchise-organisation contribute to the company’s total environmental effort, making it both hard to oversee and hard to copy. In addition, the information system creates transparency that increases the possibilities to more clearly sense potential efficiency improvements when it comes to handling customers together between partners and better transport planning.

Another example of how Jetpak has taken advantage of employees’ own initiatives, creativity and ideas, is during service development when the Business and Service Development Manager makes use of his background and personal networks. During service development, environmental considerations have been recognized as an important source for making the offering unique, and they are a part of the work of service development. The sensing of individuals and utilizing individuals’ creative potential and knowledge of the business in the environmental effort is recognized by Jetpak. Jetpak’s management value the company’s culture; the entrepreneurial people, “doers that can fix things”. They believe the culture is related partly to the company's background; how it has developed from being a part of DGF SE. Employees' values are also seen as important within Jetpak management. The culture can in this way be very valuable to the company's competitiveness; according to the RBV theory, a firm’s culture can be a source of competitive advantage since it can be hard to describe, socially complex, causally ambiguous, the common sense of managers can be taken for granted, and if a culture can not be described it can be hard to imitate (Barney and Clark, 2007). Since the responsibilities for development of services is organized so that it makes use of the individual employees’ initiatives, creativity and ideas, but also networks from completely
other businesses, it is both rare and would be hard to imitate, and can be a source of competitive advantage.

To fully make use of information it must be filtered and flow to those that are capable of making sense of it. It is also seen as important by Teece (2007) that not only the individuals in the enterprise have necessary cognitive and creative skills, but that also more desirably the scanning, interpretative and creative processes are embedded inside the enterprise itself. Teece suggests that organizational processes can be created for this purpose (Teece, 2007). The Green Champion Forum at DGF SE, which is seen as valuable to the Environmental Manager there, has an organizational role that resembles sensing elements. The Green Champion Forum helps environmentally interested enthusiasts with different competences to forward information and knowledge from the local businesses to each other as well as to the Environmental Manager. In this way, the Environmental Manager gets an overview of perceived opportunities and information from the local businesses, who are closer to the customers. What becomes of the Green Champion Forum depends very much on the initiatives taken by these different personalities of the members, since the Green Champion Forum includes different employees in different positions and with different competencies all over DGF SE. The Global Forum is seen as something created by the Environmental Manager that is not common in the business. It would not be possible to copy the Global Forum completely for another company since it depends on the initiatives and characteristics of the participants. It is also a forum that is organized and followed up with routines for communication with the environmental manager enabling exploitation of relevant resources. Referring to the theory of the resource-based view, the Green Champion Forum has characteristics of being not only valuable but also rare, inimitable and organizational, i.e. characteristics of what could be a source of sustainable competitive advantage.

When it comes to the understanding of customers and forwarding the sensing of customers interests within the company, the Environmental Manager perceives the sales channel, which forwards customers’ demand to managers at DGF SE, as one of the four most important resources in the environmental effort.

The Environmental Manager’s commercial position at DGF SE could also possibly be a reason for increased sensing of customers’ wishes being connected to the environmental work, and here the Environmental Manager’s understanding of customers’ businesses through her background can also be an important resource.

Having a presentation material that includes environmental management of the company, when out meeting potential customers is useful to open up for discussion and sense the customer’s interest in environmental issues. Both Alltransport and DGF SE work this way and if customers are interested the environmental managers are brought along to make contact with the customer.

The education of partners through the environmental workshop has been a way for Jetpak to spread awareness of environmental aims, enthusiasm, and sharing knowledge concerning the environmental effort between partners. The meetings with partners also keep the group updated about the market.
At Jetpak, the Loyalty Club is an organized tool for constantly being in contact with the market. The club is a resource for Jetpak when it comes to marketing their knowledge about environmental issues and teaching customers about Jetpak’s environmental effort in a way that can enhance their interest in buying more services from a company that works on environmental issues. If loyalty clubs are not particularly common in the transportation business, and there is a need to have knowledge and an environmental effort to be able to teach people and market the company’s environmental effort to be able to benefit from having an environmental work, then the loyalty club can for some time, until its copied, be a source of competitive advantage if the information gathered is utilized.

When it comes to keeping management informed, Teece (2007) refers to management by walking about which was introduced by Packard (1995). Management by walking about was used at Hewlett-Packard to keep top management informed about what was going on at lower levels in the enterprise and around it. In the case studies, DGF SE’s Environmental Manager expressed her view of a need to move around and talk to people at local offices to capture valuable information. Jetpak managers also express the need to move around, talking to people within the business organization to gather information.

When it comes to the very measures of interchange of loads and keeping the base for transport planning efficient, meetings through membership of networks like ITG for example keep the sales division at Alltransport sensing developments in the market and their competitors’ businesses, and thereby opportunities to cooperate for more efficient logistics solutions. The operational personnel’s own networks and contacts are also of use in this work.

The knowledge and earlier experiences of the employees at the sales division has triggered them to take initiatives to cooperate, and to enhance the way the transport planning division works by documenting and utilizing networks and contacts. The aim is both to increase sales and to find more economically efficient solutions for full loads and efficient routes, which also benefits the environment. To have found experienced personnel with relevant knowledge, experience and personalities that work together to develop cooperation between the divisions of Sales and Transport Planning may help Alltransport sense new opportunities.

5.2 Seize
Seize is the element of dynamic capabilities that can take over when an opportunity is sensed. The element of seizing addresses the opportunity through new products, processes and services. Investments in development and commercialization activities are usually needed. There may be several investment paths in the early stages. Teece refers to the early days in the development of the automobile industry, when different engine technologies were competing before it was decided to use petrol. (Teece, 2007)

Today the situation is similar in the transport industry, where new, more environmentally friendly technologies for trucks and transportation are competing. Teece (2007) mention the different strategies possible; for example to stay flexible and to wait until a dominant solution emerges. This is when companies need to strategize around investment decisions, getting the timing right, building on increasing return advantages and leveraging
products and services from one application to another. When it comes to seizing opportunities, Teece (2007) recognizes that it is related to challenging conventional wisdom, which includes a likeliness to encounter negative responses, and the need for promoters and visionaries to defeat naysayers and transform internal views.

The seizing element concerns the need for the company to decide when, where and how much to invest but also to create a particular business model that define its commercialisation strategy and investment priorities. The capacity of a company to create, adjust, hone and replace business models is fundamental to dynamic capabilities (Teece, 2007). By business model, Teece (2007) means a plan for the organizational and financial architecture of a business, and Teece also refers to Chesbrough and Rosenbloom (2002) on the concept of business models and views the function of the business model as to articulate the value proposition, select the appropriate technologies and features, identify targeted market segments, define the structure of the value chain and estimate the cost structure and profit potential.

Designing a new business plan or business model requires creativity, insight, customer, competitor and supplier information as well as intelligence, which is related to informed guesses about the future business and market. (Teece, 2007).

In this thesis, seize is interpreted as investments in development and commercialization activities. It is also about estimating the cost structure and profit potentials. Seizing concerns opportunity through new products, processes and services (Teece, 2007), and being able to make the process of performing transport services more efficient is seen as activities that need to be seized. Measures or changes related to challenging what is regarded as “conventional wisdom” within the companies are also considered part of being able to seize opportunities. The tacit components related to seizing; human beings’ contributions to seizing by utilizing knowledge and creativity, will also be addressed below.

Part-ownership of the TRB transportation network can help Alltransport to seize new opportunities. The network provides its members with a database and a tool for calculating emissions from transportation. The calculated emissions data is what Alltransport then delivers to its customers. Through TRB, Alltransport participates not only in research related to environmental and transportation networks but also in developing measures such as the emissions calculations or fuel networks which, when environmentally related and also related to business development, may be seen as ways of seizing. TRB’s owners are seen as having come a long way with their environmental efforts according to Alltransport’s CEO, which adds to the perception that membership of the TRB network is a valuable resource when it comes to developing the environmental considerations relevant for enhancing these transportation companies’ businesses.

When it comes to seizing opportunities and the need to challenge conventional wisdom in the environmental effort; it is clearly seen as having been enhanced at Alltransport when younger generations of employees with more open views have entered the company and older ones have left. At Jetpak, because of its business model and the need for constant internal marketing towards partners, work seems to be constantly going on to sell in new ideas, for example concerning environmental work at the company. At DGF SE, coming
up with new ideas seems from the Environmental Manager's point of view to partly consist of convincing managers at higher levels, and a focus on ideas with short pay-off time seems to be the easiest way to meet internal views.

To be able to seize opportunities it is necessary to clarify management's hypothesis about what customers want, how to meet the demand and get paid for it (Teece, 2007). At Jetpak, an important basis for knowing how much it is interesting to invest and to avoid a lot of issues concerning this has been created by the price elasticity measures. Jetpak has investigated how much their customers are willing to pay for environmental measures related to their demand, giving Jetpak very valuable knowledge to be able to develop the environmental aspects of their provided services.

The core of Jetpak's business model is built on the company's control of airports and commercial air uplift, and their ability to perform quick transportation using belly space. They have no competitors with the same abilities and it would take a long time to build up since specific knowledge and skills are also needed. In the sense that it is seen and marketed by Jetpak; they do not themselves contribute to environmental impact through air transportation since they use belly space in aircraft that would leave anyway. When discussing their environmental performance with stakeholders, Jetpak recognize that their shipments are on the margin of what is being transported by the aircraft and see it as if most of the environmental impact from the aircraft is the same with our without Jetpak's shipments. Jetpak therefore considers that their goods transportation by air does not contribute much to environmental impact, which they make use of in their environmental calculations and in marketing their business. If Jetpak's contribution to emissions can be seen as lower because of the arrangement, this makes their control of airports and air uplift able to be seen as an environmentally related resource that is valuable, but also rare, inimitable, deeply integrated into the organization and a source of competitive advantage.

The environmental effort is a part of DGF SE's business plan, with the aims, goals and with routines for follow up, where it is documented and spread within the company. It shows that an environmental effort exists in an explicit way, which is demanded by management, and it shows that it is part of the owners' will, goals and action plans. Work on the business plan at DGF SE shows a dedication to environmental issues on the part of management; business management that sees the role of environmental management as important provides room for and is proof of environmental considerations. The work of developing the business plan is a process that involves employees with different responsibilities, for example managers and process owners. The process of developing the business plan involves individual employees competences and views which are specific to DGF SE and could not be copied completely by another company since the way the work is carried out has its roots in the specific organization and the people that work there. Being able to present the explicit environmental considerations in the company's business plan for external stakeholders can be seen as credible proof of environmental consideration and thereby also a source of competitive advantage.

Another example of showing dedication is the time allocated for members of the Green Champion Forum at DGF SE to work on environmental issues, which gives them incentives to perform work related to environmental sustainability.
To be able to provide a CO₂ note related to the emissions for every specific delivery, Jetpak has developed the use of data in the company’s unique information system. This has been done in combination with the development of processes and routines for local offices to register information and data and questions and answers for Customer Service. In the Jetpak case, the information system is exploited to deliver emissions data, in combination with a pilot project to start using technology in vehicles to be able to provide the an accurate CO₂ note for each delivery to customers, which includes an exploitation of physical resource. Referring to the resource-based view, the exploitation of technology and other physical resources can involve socially complex resources like social relations, culture and traditions, that can be valuable and rare and if no substitute exist and they are not subject of imitation they can be sources of SCA (Barney and Clarke, 2007).

Seizing business-related opportunities to reach efficiencies in transport planning is an important part of having an economic transportation business, but can also decrease emissions. Alltransport’s membership in networks, like for example ITG, which might to some extent depend on individual employees participation in these networks, may along with the use of personal networks enhance the opportunities found for transport planning. For Alltransport, their success relies among other things on their employees’ networks and work with relations, and hence on Alltransport’s abilities to attract the right kind of human resources with networks or networking capacities. Transport planning is a major task for all transport companies and it is not possible to assess, based on this research, whether Alltransport has any advantages over other companies when it comes to transport planning today.

When it comes to the tacit component of developing the business, and taking advantage of human beings’ knowledge and creativity to seize opportunities, it is evidently of use in developing the services at Jetpak. Jetpak’s culture of proud entrepreneurial people, who like to build and solve problems and ensure high service quality together with a “fix” attitude that has shaped Jetpak, can also be regarded as very important not only to sensing as mentioned earlier but also when it comes to seizing opportunities. The CEO pointed out that efforts to copy the company could never lead to exactly the same thing depending on who is managing, the values and the capability to transform it into reality in the form of real sales margins, customer satisfaction and environmentally related part of services. The individual employees are given space to be creative and come up with ides and seem to be employed with great care and interest in their background, relevant competences that Jetpak needs as well as their values; the Business and Service Development Manager for example seems to have been headhunted for his entrepreneurially related background and creative personality, even though he has no background in the transportation business. The CEO’s aim that Jetpak should be a company that is unique appears to shine through with regard to human resource related issues.

### 5.3 Reconfigure

To be able to sustain profitable growth, the company need to be able to recombine and reconfigure assets and organizational structures when the company grows and market and technologies change. To be able to change the routines that lead to operational efficiency,
when there are shifts in the environment, there needs to be a culture that accepts high levels of internal change. (Teece, 2007)

In this thesis the element of reconfiguring is seen in a broad sense but with focus on the control and power to orchestrate the resources of the environmental work to develop environmental considerations as environmentally related demands increase. According to Teece et al (1997), the capacity to reconfigure and transform itself is a learned organizational skill.

Overall, when it comes to reconfiguring the resources of the companies more frequently, in a way that has an effect on their environmental performance, the work of transport planning in a way that concerns adjusting transport service solutions according to when customers have more time or more loads are found in an area that mean that the total ton-km can be minimized in the area closest to reconfiguring as meant by Teece (2007), found in the Alltransport and Jetpak cases. Some relevant examples of decentralization, however, can also be seen, as described in the following.

Teece (2007) emphasizes decentralization as having a role in keeping the company flexible and responsive to customers and new technologies as enterprises expand. According to Teece (2007), in order to sustain dynamic capabilities, decentralization must be favoured because it brings top management closer to new technologies, the customer and the market. If instead structures are centralized, the strategic decisions made at the top can become isolated from marketplace realities (2007). The decentralized decision-making there is not need to communicate all decisions through a central decision-maker; instead, different managers, who observe different information, are responsible for different decisions (Teece 2007).

To meet the demands on environmental work locally, Jetpak has a structure of partners who develop their environmental work separately. The environmental effort at partners is developed in different ways, influenced by the demand of each partner’s customers respectively. The partners receive values and guidelines from Jetpak’s head office to align their work with. One partner has developed their use of technology; another has focused on their own environmental management system. The partners can adjust the environmental considerations of their business to their customers’ wishes and can be interpreted as having decentralized decision-making to be able to adjust their environmental effort according to what is most suitable for the local business.

**Decentralization and integration of environmental effort**

Decentralization can, though, compromise the organization’s ability to achieve integration and for example risk failing to capture firm-specific economies of scale and scope. To avoid risks like this, Teece suggests handling the tension by a collaborative non-hierarchical management style, assisted by establishing councils and other integration forums. He also suggests that middle management have a role in ensuring that such forums are established (Teece, 2007). In the case of Jetpak, the workshops and meetings bring several partners together around environmental issues, enabling them to learn from each other and find potentials where they can collaborate to be more efficient and help them avoid risks related to decentralization, as described above.
Integration of environmental management into all the organization’s work is seen as an important part of achieving efficient work towards environmental sustainability (Ammenberg, 2012). In the case studies, the aim of integrating environmental management into all of the business is mentioned several times. Nonetheless, it is a little difficult to get the whole picture of how this is done and what it results in from the information gathered in the case studies. Partly, there seems to be an aim to integrate environmental thinking into all of the companies. On the other hand, Alltransport’s CEO says that integrating environmental considerations into all of the organization also makes it difficult to view the overall environmental management explicitly. This might be a sign that even management believe that environmental work is carried out to a larger extent than they can see or that is tangible, which might be an indication of the existent of capabilities, related to the environmental management, that are difficult to recognize. Eventually, if environmental management becomes a competitive advantage, these difficult-to-recognize dynamic capabilities could lead to causally ambiguous sustainable competitive advantages (Barney and Clarke, 2007).
6. Conclusions and Contribution

In this chapter an overall discussion of the results in this thesis, connecting them to the purpose of the thesis will be carried out. The contribution to literature will be described as well as managerial implications. The chapter ends with suggestions for further research.

6.1 Conclusions and Discussion

Companies’ environmental management can have different roles, more or less related to their operations, their services and their competitiveness. In section 1.2, where the purpose was elaborated, the model by Dunphy et al (2007) of phases of environmental management was referred to. It illustrates different roles that environmental management can be given in companies, see figure 4. As Dunphy et al (2007) suggest, it is not necessarily so that one company can be placed into one phase completely; they might see the opportunity to create value by working with some environmental issues and disregard others. Referring to the case studies of the research presented in this thesis, they all seem to recognize value in managing environmental issues; their environmental management seem to have the roles related to what Dunphy et al (2007) present as the second wave of sustainability.

![Figure 4 The Phase Model (Adapted from Dunphy et al, 2007, p.17; Kemp et al, 2004, p.35)](image)

The three case companies invest actively in environmental efforts and to some extent with a very long-term perspective. The environmental management of the case companies investigated concerns compliance with legislation, efficiency-related environmental measures that go hand in hand with decreased costs, diversification of offering, but also development and research related efforts aimed at reduced environmental impact from logistics and transport services. They also work on developing their environmental management overall to cope with demands of the future. Referring to the model by Dunphy et al (2007), the companies’ work on environmental issues fits into several of the levels of the second wave of sustainability.

Several dimensions of the role of environmental management in the logistics service providers business and strategic development will be discussed below, each followed by illustrative examples from the cases. To some extent, as recognized earlier in chapter 4.4, environmental management concerns compliance today, and maintaining a good public image through managing environmental issues. In addition, as recognized in chapter 5, efforts are also being made directed towards future competitiveness. The presented
environmental efforts concern both internal and efficiency-related, as well as external, more market-oriented, value creating activities.

**Perspectives on Environmental Sustainability**

From the case studies it can be concluded that there are a variety of perspectives on the reasons for work on environmental issues and what it concerns. What is similar about the case study companies is that the interviewees all say that they believe in environmental management and that it is important, and they also recognize that it is something that is needed to stay competitive in the future. At all three companies there also seems to be a perception that the reason for carrying on an environmental effort is very much related to the issues recognized as important from management level. The view seems to be that the environmental effort comes partly from inside the companies; from the support of the management level and the CEO.

One perspective is that it is important for the company to show what kind of company it wants to be regarding its role in society and social welfare. For this reason the environmental effort is related to their work on corporate social responsibility. It is marketed to the customers primarily through their work on CSR. Another perspective is that it is about the company values, but also an opportunity to create something unique within the business, a unique brand and offering. The hope is that this will lead to competitive advantages, especially in the future when demands increase. There is also a perspective that it is about working towards goals, to satisfy the group management, who have decided that environmental issues are important to the company and that they somehow want to be pioneers in the development of environmental management at logistics service providers.

There may be different views of what is needed when it comes to working towards sustainability. When Jetpak’s CEO expresses his view of their environmental effort, he says that the company’s environmental work is partly sprung from their work with CSR. Jetpak’s work with corporate social responsibilities (CSR) is related to the company’s values and concerns being a good citizen, making the offer unique, future competitiveness, and also being attractive to present and future potential employees.

“We wanted to be a good company and put quite a lot of effort into CSR and spoke about what kind of company we wanted to be... It was actually a pre-stage to talking more actively about environmental issues.”

*(CEO, Jetpak Group, author’s translation)*

Jetpak’s CEO sees their environmental effort as concerning both the brand and what Jetpak offers its customers, internal developments related to Jetpak’s business system and how business is carried on.

“It is both about compliance and developing some areas, increasing market shares, being more clear locally”

*(CEO, Jetpak Sverige, author’s translation)*

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Jetpak’s Business and Service Development Manager, who has worked with developing the environmentally related part of the services with the aim of making the services unique, is explicit in his view of environmental work’s connection to business.

“Business development is a lot about that. I see environmental development as business development”.

(Business and Service Development Manager, Jetpak, author’s translation)

Alltransport’s managers say that they do not speak of environmental work internally, but of sustainable development related to the business. Alltransport’s Environmental Manager believes the company’s perspective on work towards sustainability concerns their future competitiveness, but also social welfare rather than income and cost. The company sees the Environmental Managers role as very important and symbolic.

At DGF SE the environmental effort is recognized as something demanded not only by the customers but also by global management level. The environmental effort is perceived and expressed as strategic by DGF SE. The global management level say that they want to be industry shapers and that they want to show their stakeholders that they are taking environmental issues seriously and doing it to the greatest extent possible. For the DGF SE, it concerns meeting both customers’ and in-house demands. They want to do more than their logistics suppliers can offer; they want to find the least bad of all bad alternatives. They consider the Environmental Manager to be very important. Their endeavour to shape the industry would be aligned with what Reinhardt (1999) would suggest as one of his strategies to integrate environmental issues into their business thinking. At the same time, it is seen as necessary for the Environmental Manager to put forward ideas with short pay off time to management. At the same time they also say that it is about keeping customers.

The environmental effort and the market

As the results in chapter 4.4 show, not much is perceived by the logistics service providers as being demanded by customers, except that the logistics service providers must be able to show that they have an environmental effort, that they have environmental certificates and that they can provide emissions data to the few more demanding customers. The case companies’ customers are not perceived to be willing to pay for more environmentally sustainable services. When it comes to investments in environmental work, they are seen in a long-term perspective, not to fall behind competition. In addition to showing stakeholders what kind of company the logistics provider wants to be, as mentioned earlier, and working on their overall image, different ways to address the market for strategic development of the environmental management are recognized. One way is to try to affect the development of the market related to what Reinhardt (1999) calls managing your competitors. Another way recognized in the case studies is the differentiation (Reinhardt, 1999) of services compared to other companies, with the aim of developing environmental management in a way that makes the company more unique.

At Jetpak, the environmental effort has played a major role during the development of a unique service to differentiate the company’s offering. Jetpak’s aim has been to make their environmental effort something unique that they can use towards customers, and their work on finding something unique to offer has focused on utilization of resources inside
the company. The company has utilized information they have in their unique information system and developed the system so that they can provide customers with unique reports of emissions for each delivery. Using the environmental effort to differentiate the company’s products is one way to integrate the environment into their business thinking, that leads to opportunities to increase prices or capture additional market share according to Reinhardt (1999). Differentiation can be achieved by developing products or processes so that greater environmental benefits are made or environmentally related costs are lowered, compared to competitors (Reinhardt, 1999).

“It was very interesting how it started. Speaking of packaging. Suddenly, the environmental department was the marketing department and bundled out to the market and customer, and did the pricing. Interesting reaction internally.”

(CEO, Jetpak Sverige, author’s translation)

“...it is about positioning and in this respect we have been speaking about the environmental field for pretty long time now, where I have driven a line that our environmental management shall be positioned, not "me too" acting [refers to doing the same thing as competition] because it does not give us anything and it will not be good sustainable environmental management.” ... “One way is to look at the others [competition] and see that [like they are developing their business and offering related to environmental issues] we shall not do it.”

(Business and Service Development Manager, Jetpak Group, author’s translation)

Reinhardt (1999) suggests managing your competitors by joining with similarly positioned companies within the industry to set standards or take part in the creation of regulations and rules for the market to follow, as a way to integrate the environment into their business thinking. Alltransport’s part-ownership of TRB makes it part of an organization that works with research and development and has a voice in the market. Through the organization it is possible to both influence the market and inspire others.

Efficiencies

Environmental management can concern efficiencies, where the aim is to avoid costs and decrease environmental impact at the same time (Dunphy, 2007). To be able to perform internal cost reductions and help the environment simultaneously is the third of five approaches that Reinhardt (1999) presents for companies to integrate the environment into their business thinking, see section 2.3.2. Environmental management to reach efficiencies is recognized in the case studies when it comes to the carrying out of transportation through transport planning and eco-driving. Both use of networks, cooperation and knowledge transfer between divisions inside the company and transparency through the use of information systems are recognized as having a role in creating efficiencies. Efficiency measures are not only seen as related to the internal work at the company but also the external, customer-oriented part of the business.

Efforts to make transport planning more efficient and effective were recognized at all the case companies. By cooperating in networks aiming at interchange of loads in order to increase the load factor during transportation and also the cooperation and knowledge transfer between the sales and transport planning divisions, was recognized as having the aim of reaching efficiencies of both cost cuts and less environmental impact in the case of
Alltransport. It is interesting to note that the role of the operational personnel's own networks and contacts is of use in this, which might be problematic since it is noted by Teece (2007), that it is more desirable for the company to have the scanning, interpretative and creative processes embedded inside the enterprise itself.

At DGF SE LLP, there seems to be an advantage for transport planning with their extensive transport information system. At Jetpak, the transparency within their information system and efforts, which has led to more cooperation between partners and efficient transport, was recognized. Both Alltransport and Jetpak work to some extent with eco-driving and Jetpak’s partner in Växjö recognized the importance of combining measurement technologies in vehicles with eco-driving courses to be able to follow up and improve eco-driving, which result in lower fuel consumption, lower costs and less environmental impact.

The search for efficiency measures seems to be important to DGF SE and this kind of measures also seem to be related to their customer orientation of their environmental management. Below, the Director of LLP expresses his view on cost savings’ role in environmental management:

"There is a need for consultation with customers in projects when working with these parts. We must become better and stronger rather than show ways of saving costs when speaking of the environment"

(Lead Logistics Provider Director, DGF SE, author’s translation)

**Integration of environmental issues**

In the case studies, several of the interviewees talk about the need and aim to integrate work towards environmental sustainability into all of the business. In literature on environmental management the need to integrate environmental management within all of an organization is often mentioned. It is suggested in the literature that it is advantageous, creating benefits of for example stability and development, if many employees in organizations take responsibility for environmental and sustainability work and have knowledge and are involved in driving the work (Ammenberg, 2012; Brafman and Beckstrom, 2006). The integration of environmental management systems might also be related to the maturity of the EMS according to studies of local authorities (Emilsson and Hjelm, 2009); for example, first generation EMSs have a narrower system perspective with limitations in organizational focus, scope and players.

Jetpak has for example worked towards integrating an understanding of Jetpak’s values and a code of conduct within the company, and for spreading knowledge about the environmental effort. Jetpak’s CEO points out that everyone who works in their system shall develop their knowledge and increase their awareness of environmental issues; all employees who work with sales and operations need to be educated and to understand the development of the environmentally related part of their services. Responsibilities for environmental work and valuable knowledge of Jetpak’s actual business and related environmental work are decentralized and spread out within the network. The Business and Service Development Manager sees it as very important to convince, inspire and teach all sales staff, drivers and partners. Also at Alltransport it is emphasised that drivers are environmentally educated and should consider environmental issues when driving.
At DHL the responsibilities are also decentralized to the different local offices. Intranet and newsletters as well as the electronic management system and the Green Champion Forum are used to communicate the environmental effort to the different offices. The interviewees point out that environmental work also concerns customer meetings and work is being done to get sales channels to have certain education and present the environmental setup and services and speak more of the environment with customers. In addition, when talking about the environmental effort concerning all employees, the Director of LLP refers to the offensively led ‘empowerment of employees’ programme.

At Jetpak, the view is that everybody is to communicate the environmental effort and it is not to be associated with a certain person:

"The image of my dreams: the driver delivers packages and the customer asks how much CO₂ and everyone is able to answer. Complete knowledge all the way. And the customer wants it. There is a market out there, there is a customer who meets the driver or another one of us, and when the CO₂ [the calculations of CO₂ emission calculations that can be delivered to customers in the form of notes] is only a small part of it. The resources are on different levels. We also build a confidence, the easier this is to embrace. We will stay by this handrail - we work like this proactively and we are proud when we find deviations because we can easily fill that. That we have clearness and uniformity when we work, even though it is very complex."

(CEO Jetpak Sverige, author's translation)

The focus on encouraging individuals to commit themselves to contribute in the management of environmental issues has been suggested as a path to a sustainable economic model (Welford, 1994). It is nonetheless to a large extent very difficult to see from the case studies how and if this is done yet and it is also recognized as difficult by the companies:

"A pilot study has been made where you can see that there is a wish to speak of it (the environment) on the market. Therefore, it is a strategic issue. The question is just how to trim it down and use it within the organization."

(Environmental manager DGF SE, author’s translation)

The way the Environmental Manager expresses the situation gives a picture of an environmental work that is under development to be increasingly spread all over the organization. Perhaps DGF SE’s continuing work with both business plan and EMS will result in enhanced environmental work where also indirect impacts are included. Since this is rather a way of working within DGF SE, it is possible that it has yet to develop to maturity, when it will be really useful and add to organizational learning. It has been recognized, regarding the use of EMS, that once a way of working is established, the organizations have better understanding of how the tool can be used and how it can give benefits (Emilsson and Hjelm, 2007).

There are also drawbacks to integrating the environmental work perceived by the case companies. Alltransport’s CEO believes that increasing integration of the environmental management into the organization and its activities also makes it harder to lift it out totally and describe it explicitly. In addition, having a few enthusiastic employees driving the environmental effort seems to be much appreciated at both DGF SE and
Alltransport, where also the environmental managers are given much attention as being very valuable to the environmental effort, and almost of symbolic significance, and have the role of showing environmental effort towards customers and also internally. It has been recognized in the literature on research on marketing and service development that employees, recognized as a resource in the service system, can have great importance for how the customer perceives the quality of services, sometimes even becomes synonymous with the service and makes it more tangible (Edvardsson, 1997). The companies’ environmental managers might represent to the customer the environmental work aimed at the future which the logistics provider carries out. This suggests that the employees can play a major role in marketing an environmental effort that concerns the future and is intangible to the customer.

_Creating Awareness among Customers_

In addition to working towards gathering new knowledge, the case companies also try to push development further by spreading knowledge to customers and creating awareness. The interaction with customers and others is an important part of developing services, as well as performing marketing through for example ensuring realistic expectations and teaching customers how to act in the role of co-producers (Edvardsson, 1997). The work with creating awareness within customers can also be a step towards affecting development in the market in the way that Reinhardt (1999) refers to as integrating environmental work into the company’s business thinking by redefining markets and business models. The case companies can have the opportunity to make customers interested in the development of new environmentally related services. All three case companies believe in contributing to creating awareness among their customers of environmental issues related to logistics services.

At Jetpak, there is a belief that the environmental effort needs to be developed in close relation with the market. The Loyalty Club is partly used to teach customers about the environmental effort and thereby increase their knowledge of and interest in the environmental work of transport companies and of Jetpak.

Alltransport’s Environmental Manager believes in trying to attract the attention of consumers and customers with the environmental effort, since she believes people will eventually increase their interest concerning environmental performance in the future. The Environmental Manager believes that there must be both good information about a product and a good product to sell in the future. One day in the future she thinks, the end consumer will start asking for more environmentally related information concerning products, and the transport companies must be ready to deliver their part of that information.

According to the Environmental Manager, one of the areas DGF SE would want to start working with to show customers their environmental impact is the design of the setup for transport and logistics. Today they have the simulation tool to show their customers’ environmental influence related to their transports.
6.2 Contributions

This thesis contributes to the body of literature on green logistics with a description of logistics service providers’ environmental management, in the appendix. The organizational perspective taken in this research makes it complementary to earlier research on green logistics that has primarily been conducted from the perspective of the logistics system.

The research also presents an analysis where what parts of the companies’ environmental management are seen as valuable to their business, which is presented in chapter 4. This constitutes a first step towards analysis of the connection between environmental management of logistics service providers and competitive advantages.

Since it was obvious that a great deal of the work on environmental issues was only implicitly of significance to service offering, and more focused on the future competitiveness, this led to a second analysis according to section 3.5.

The second analysis resulted in a presentation of elements of sensing, seizing, and reconfiguring, in line with the elements of dynamic capabilities presented by Teece (2007). This means that with the use of theory on dynamic capabilities it is indicated that strategic work to cope with increased environmental demands in the future exists at the case companies. The description of elements to cope with change found in the logistics service providers’ environmental management presented in chapter 5 is also a contribution to green logistics literature.

Chapter 5 demonstrates how the elements of dynamic capabilities can be interpreted in the context of logistics service providers’ environmental management. In this way, this research can also make a small contribution to the literature on dynamic capabilities.

This research also provides an example of environmental management in the context of logistics service providers relevant to literature on corporate environmental management.

6.3 Managerial implications

For management at logistics service providers this thesis can be helpful when evaluating their environmental management’s role in their business. The descriptive part of the thesis can provide a palette of potential measures for logistics service providers’ environmental management. The analyses can further provide a basis for discussion of the potential value and benefits of different environmental measures. The thesis can be a source of inspiration and provide structure to discussions on logistics service providers’ priorities when it comes to environmental management. It can contribute in discussions, evaluations and understanding of the role of environmental management as value creating and strategic in the company.

The knowledge of logistics service providers’ environmental management can also give purchasers of logistics services an increased understanding of the potential in cooperating with the provider for improving the environmental performance and increase the value of logistics services.
6.4 Future research

In this section, suggestions are presented for future research, based on the results and conclusions from the research presented in this thesis, and to some extent also from the experiences of performing it.

**The use of the theory and literature**

The case study companies’ work on environmental issues concerns both having a currently competitive environmental management and an environmental management related to future competitiveness, since it is believed that environmental demands will increase.

Some parts of today’s work with environmental management is of explicit value to customers, for example having an environmental management system and being able to provide specific emissions data. Regarding the development of environmentally related logistics services that can be of explicit value to customers within a shorter time frame and benefit the logistics service providers’ competitiveness, the VRIO model can be useful. For example, it can be used to identify opportunities to exploit environmentally related resources as potential sources of both enhanced environmental performance and competitive advantages.

The analysis presented in chapter 4, inspired by the VRIO model but with a focus on the value part, resulted in the recognition that much of the environmental management that the logistics service providers see as valuable to their business, was still only of implicit interest to the customer. Most of the customers just wanted proof that environmental management exists.

Even though mainly of implicit interest to the customer, environmental management is still to a large extent seen as strategic by the logistics service provider. This part of their environmental management is related to future competitiveness; it concerns efforts to cope with increased environmental demands in the future. This suggests that the literature on dynamic capabilities could be useful in studying the strategic role of logistics service providers’ environmental management. The results in chapter 5 also suggest that it is possible to find elements of dynamic capabilities in logistics service providers’ environmental management. Using the dynamic capabilities literature in research on logistics service providers can illuminate different potential efforts and paths towards future sustainability.

**Development of Environmental Management**

In this research it has been recognized that logistics service providers believe in increased environmentally related demands from stakeholders in the future. To some extent they already work strategically with environmental issues to be able to cope with change and stay competitive. Referring to the phase model presented by Dunphy et al (2007), environmental management at the case companies belongs to different parts of the second wave of sustainability, see figure XX below. Dunphy et al (2007) suggest different paths, both incremental and transformational, for organizations to move towards increased sustainability.
Figure 5 The Phase Model (Adapted from Dunphy et al, 2007, p. 17; Kemp et al, 2004, p. 35).

It would be interesting, inspired by Dunphy et al (2007), to study how logistics service providers’ work on environmental issues, including the environmental performance of their services, could benefit from improved knowledge of organizational change.

Dunphy et al (2007) also suggest that to reach strategic sustainability, managers must develop ecological and human capabilities within the organization. In their comprehensive presentation of the phase model, pictured in figure X.X, not only environmental but also human sustainability are included. With the focus on logistics service providers’ environmental management, it would be interesting to investigate their potential to develop human sustainability to benefit their work on environmental sustainability.

There is a focus at the logistics service providers around the second wave of sustainability measures, and to some extent efficiency-related solutions, sometimes referred to as green gold measures (2010), are also in focus in the green logistics literature. In the literature concerning environmental management and strategy, it has been recognized that there has been a focus on eco-efficiency with the current way of doing business controlling the development of environmental considerations (Welford, 1998). This recognition has led to a call for a postmodern perspective and a critical research agenda (Welford, 1998). Critical theorists believe that business as usual is not an option and argue among other things for degrowth as a solution for sustainability (Schneider et al, 2010). There have been suggestions in green logistics literature that companies need to make the environment a key element in the business model in order to extract more value from the adoption of practices related to environmental management (McKinnon, 2010), which implies a focus extended from the more efficiency-related measures. It would therefore be interesting to see how the literature on green logistics relates to the literature on environmental management concerning traditionalist and post-modern perspectives (Welford, 1998).

Environmental Management

Integration of environmental management is an important part of environmental management and is often mentioned in the literature on corporate environmental management. In the case studies, several interviewees mention integration of environmental management in different ways. Nonetheless, much of what the integration of environmental management into all of the business comprises in the case studies remains a mystery. On the other hand, it was indicated in the case studies that the work to
integrate environmental management into all of the business had just begun and it can therefore be related to the maturity of logistics service providers’ environmental management.

When it comes to the maturity of the environmental work, and the suggestion that greater maturity would suggest a broader system perspective with greater organizational focus, scope and players (Emilsson and Hjelm, 2007), it might be interesting to compare the logistics service providers environmental management to earlier studies of companies with more or less mature environmental management systems. The aim would be to try to find suggestions in the literature regarding the potential to develop logistics service providers’ environmental management.

The organization and learning

Working in a structured way with the development of the business plan and including environmental considerations, recognized at one of the case companies, may be a way to integrate environmental considerations throughout in a structured process. It would be interesting to study logistics service providers’ environmental management from the perspective of organizational learning. Increased knowledge on organizational learning and learning organization may enhance logistics service providers’ environmental management.

Developing the offer

From the case studies we can see that there is a desire on the part of logistics service providers to talk more about the environment with customers to capture their interest in new environmental services. It is also obvious that the logistics service companies feel that the customer’s interest in environmental services cools when it comes to the actual purchase. It would be interesting to study more deeply how companies can work organizationally and in collaboration with others to drive development towards increased environmental performance in their services.

Further, since it is suggested that the environmental managers can play a significant role in making their environmental effort more tangible to the customers, it would be interesting to study their role towards customers more deeply. It would also be interesting to study the potential to let other employees embody the role of making the company’s environmental efforts a tangible part of its services.

The logistics service providers studied do not believe they are in a position to earn money by carrying out more environmentally friendly logistics services. When it comes to developing services, the literature on service development has shown that research concerning manufacturing companies shows a pursuit in recent years to provide services for a fee instead of, as is traditional, for free, where services were value-adding and bundled with tangible goods (Neu and Brown, 2008). Further, Neu and Brown (2008) suggest that environmental developments, such as heightened global competition and advances in technology, also require for managers to concentrate on developing a position of advantage in core strategic activities. It would be interesting to investigate what the literature on the subject of “starting to provide services for a fee” could imply for the development of more environmentally sustainable logistics services with an increased money earning logic.
Other Business Environments

In this thesis there has been a focus on three logistics service providers’ environmental management. Each company was active in Sweden. Another country with different geography and infrastructure might contribute to other incentives for different development of more environmentally sustainable services. At case company Jetpak, different preferences in other countries regarding more environmentally sustainable logistics services had been recognized. It would therefore be interesting to see whether other options for developing environmentally related logistics services exist in markets of other nationalities.
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Appendix I: Interview Protocol
Protocol

Below the interview questions used for the interviews of the three case studies are presented. For the Alltransport case the questions concerning the respondent as an individual were asked at a different time than the other questions. The interviews were conducted in Swedish and the questions below have been translated into English by the author.

Questions concerning the role of the respondent

- What is your position in the organization?
- What is your title?
- What is your portfolio?
- To whom are you reporting? About what?
- Who reports to you? About what?
- How long have you worked in the company? What responsibilities have you had?

Questions concerning the respondent as an individual

The following questions on knowledge, experience and education regard environmental sustainability, green logistics, the market of transport and logistics services, the customers of logistics service providers, and overall logistics and transportation related knowledge.

- What knowledge, network and education do you have?
- What experiences from working life do you have?
- What of your knowledge, networks, education and experiences do you utilize in your current employment?
- How does the company make use of your knowledge, experience, networks etc.?

Questions concerning the company’s overall resources

When asking the following questions papers and pencils were suggested to be used by those respondents that wanted to in order to ease answering the questions, see further in the description of the carrying out of the case studies. The respondents were also given a short explanation of the six resource types: physical, informational, knowledge, human, relational and organizational resources so that they could reflect on all of these types in case any of the resource types did not come to their mind directly.

- What do you see as the company’s resources?
- In what way does the company access these resources?
- What do you see as the company’s most important resources to be competitive?
Questions concerning the environmental management

In dialogue with the respondent the researcher tried to remind the respondent that both the hard and soft, direct or indirect environmental aspects (see frame of reference on description of types of environmental aspects) were of interest.

- What resources do you see as your main environmental aspects?
- What resources are most important in your environmental work? Why?
- What resources are used in the work with environmental issues?
- Reflect over the six resource types’ representation in the environmental management.

Questions concerning the company’s strategies

- Are environmental issues regarded in your strategies?
- Is there something you want to complement the business with, overall or with respect to the environment, in the future?
- What are your goals and procedures in the company and how do you work with them?
- What do you see as the strategic resources to implement strategy - now and over time?

Questions concerning the offering/services

The respondents were asked to reflect over both the word offering and the word services since it means different things to different people.

- What do you see as the company offering?
- Are there different services? What are the differences?
- Which modes of transport do you use?
- What is the background to why the services look like they do?
- What resources are important regarding the offering?
- How can you influence the design of the company’s offering?
- What is your future vision or thoughts regarding the services and their development?
- How are the services created? (Routines, persons, services, contracts, goals?)

---

1 Examples of resources of each of the six types are presented in Appendix 2.
Questions concerning environmental effort reflected in the offering/services

My thoughts, when asking these questions, were regarding the environmental management towards customers and related to the development of offering/services.

- How are efforts regarding environment issues related to your services?
- Why is the environmentally related part of the offering shaped like this?
- When did environmental issues become important to consider regarding the offering? Why?
- Which resources related to the company's environmental effort can be linked to the offering?
- How are the environmental efforts shown in the offering to customers?
- What your future vision or what do you think regarding the development of the environmental effort related to the offering?
- How can you affect the contents of environmental effort related to the company’s offering?
- Which resources are important in the creation of the environmentally related part of the offering?

Questions concerning the company’s use of individual’s abilities, skills and competences

These questions are to a high extent connected to organizational capabilities. It connects to the earlier questions about the individuals. If the respondents needed help to understand the questions they were suggested to think about the quality system. The questions were asked both concerning the business and the environmental effort.

- Who creates routines in the company?
- What are the incentives for individuals to create routines?
- What are the incentives for individuals to influence the creation of routines?
- Is there potential to use individuals’ abilities more?
- Is there potential to create organizational abilities to use individuals' abilities more?
- Are there any financial incentives, for example, bonuses, affecting the use of individuals, for example, the current environment, sales skills, etc.?
- Are there organizational procedures developed for use in environmental work?
Questions concerning the customers and the offering/services

These questions were asked by the other researcher. The only extent to which the answers are used in the research in this thesis is weather the answers considered the offering from the logistics service providers view.

- What do your customers perceive as your offering?
- What do you think customers perceive as environmental content in your offering?
- What do customers appreciate the most in your offering?
- What in your offering do you emphasize most when you are in contact with customers?
- Do you perceive that you offering what customers want in terms of the environmental effort?
- Is there anything that is demanded that you do not offering?
- What percentage of your customers are demanding environmental elements of the offering?
- Have you gained any customers because of the company’s environmental effort? If yes, due to which parts of the environmental effort?
Driving forces

As earlier both the word offering and services were used when talking about the company’s offer to customers.

• What drives the inclusion of environmental effort in the offering?
• What drives the environmental effort related to different resources in the company?
• What affects the combination of different environmental resources related to the offering?
• What is the incentives to work with the environmental effort in the company?
• What might affect the environmental effort and the inclusion of environmentally related contents in the offering in the future?
Appendix 2: List of resources
Examples of possible resources of logistics service providers

<table>
<thead>
<tr>
<th>Physical</th>
<th>Informational</th>
<th>Human</th>
<th>Knowledge</th>
<th>Relational</th>
<th>Organizational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy trucks</td>
<td>Information Systems (IS)</td>
<td>Provides training</td>
<td>Knowledge about specific industries</td>
<td>Alliances</td>
<td>Corporate culture</td>
</tr>
<tr>
<td>Light trucks</td>
<td>Track and Trace</td>
<td>Experience</td>
<td>Ability to optimize logistics networks</td>
<td>Cooperation in haulier networks</td>
<td>Reporting structure</td>
</tr>
<tr>
<td>Delivery vans</td>
<td>Transportation management systems</td>
<td>Intelligence</td>
<td>Software development</td>
<td>Cooperation with customers</td>
<td>Planning</td>
</tr>
<tr>
<td>Aircrafts</td>
<td>RFID</td>
<td>Relationships</td>
<td>Research and development capabilities</td>
<td>Networks that contribute with knowledge</td>
<td>System for coordination</td>
</tr>
<tr>
<td>Warehouses</td>
<td>Wireless Technology</td>
<td>Skills</td>
<td>Complicated route optimization</td>
<td>Networks within a group of companies</td>
<td>Routines</td>
</tr>
<tr>
<td>Terminals</td>
<td>Automatic processes for invoicing, customs</td>
<td>Teamwork ability</td>
<td></td>
<td>Cooperation with transport providers</td>
<td>Informal relations</td>
</tr>
<tr>
<td>Ocean Vessels</td>
<td>Brochures, webpage information</td>
<td>Ability to empower employees</td>
<td></td>
<td></td>
<td>• Internal</td>
</tr>
<tr>
<td>Pallets</td>
<td></td>
<td>Education</td>
<td></td>
<td></td>
<td>• External</td>
</tr>
<tr>
<td>Information Technique (IT)</td>
<td></td>
<td>Managing Hr &amp; HR development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forklift</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For further reading about resources, see chapter 2.2.
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Alltransport’s Environmental Management
Alltransport’s Environmental Management

1 Introduction

This is a report of the environmental management of the company Alltransport i Östergötland AB, from now on referred to as Alltransport, with a focus on the company’s business area Fjärr & Distribution (F&D). The report is based on a case study with the aim to describe the environmental management as it was during the time of the interviews and collection of secondary data, which took place during 2009-2010. Where the report is written in the present tense, present time refers to the time for the interviews.

The report starts with a short overview of the company Alltransport, to contribute to the understanding of the context in which the environmental management is carried out. The overview description of Alltransport is based on its annual report, its sustainability report, Internet webpage and interviews. The first chapter also show some new ways of thinking that were described during the interviews. In chapter two, an overall picture of Alltransport’s environmental management is given. Chapter three consists of a description of the business area in focus, namely F&D, and what it offers to its customers. Finally, the focus in chapter four is the environmental management in the business area F&D. The presentation of the environmental management of Alltransport and its business area F&D is based on information from Alltransport’s sustainability report and interviews with the CEO and the environmental Manager at Alltransport, as well as with the sales manager and the sales employees at Alltransport’s business area F&D. Some information is presented in boxes to make the text easier to read, for example information that is related to what is described in the text, but which is not directly connected to the headline.

1.1 Alltransport

The corporate group Alltransport i Östergötland AB is one of Sweden’s larger transport forwarding companies with a turnover of 643 million SEK 2008. The head office is located in Norrköping, where also one of its two terminals with warehousing capacity is located. Alltransport also has offices in Linköping, where a second warehouse terminal is located, and in Ätvidaberg. The 142 haulers working for Alltransport’s business area, which is in focus in this study, are also shareholders.

Alltransport has been a limited company since 1998. Originally, Alltransport was established as a Swedish lastbilscentral (Swedish regional haulage co-op) in 1937. When the interviews were made, the CEO said that it feels like if the owners still treat the company almost like a co-operative. The shareholders are the haulers, who are also suppliers of transports. Generally there is one share per vehicle.

Alltransport’s business is divided into three business areas: Bygg & Anläggning, Tank & Miljö and Fjärr & Distribution. Alltransport also has several subsidiaries: Alltransport i Östergötland Fastighets AB, Fallmans Åkeri AB, Sanero AB and Återanvändning i Östergötland AB. Further, Alltransport is part owner of the company OnRoad AB, that connects several companies’ businesses into a more extensive transport network.
1.2 New thinking within Alltransport

The CEO, who has been working at Alltransport for 7 years, believes his role has been to modernise the company, to introduce the use of new technology and new thinking. He believes he has tried to make the company more proactive and not just a reactive company that responds to demand. The CEO believes he contributes to the company through his ability to structure and create strategic plans, plan for the future, and enhance the company’s business thinking and by utilizing his experiences from other businesses. Alltransport has invested in improving administrative efficiency; during the years the CEO has been working there all the administrative systems have been exchanged. This has contributed to facilitating growth without needing to hire too many new employees and thereby saving money.

“Sometimes we are bad at learning from what we do. We need to document. You have quality handbooks and so on, but things quickly become out of date and there is a need for a continuous creation of new routines and processes, for example the sales process”… “The sales process needs to be synchronised so that different sales staff have a common way [of working] even if sales are a little bit different in different places, so that you [meaning the employees] can step in for each other.”

(CEO, author’s translation)

The intention to focus on the documentation and streamlining of the sales processes has been expressed within the company during the recent revision of the business plan. This is something that occurs 1-2 times per year. Now the business plan calls for focus on documentation and streamlining of processes over all.

“By streamlining processes, documenting and for example working with CRM1 there is a possibility to secure quality of processes. All contacts are gathered in a certain pattern. If you then want to have environmental considerations in a process, well then this is included as a permanent bullet point in the process during quality securing and is thereby not forgotten”.

(CEO, author’s translation)

The CEO also talks about how CRM provides a good way of documenting, and provides the company with history, statistics and a register. The aim of the increased documentation is to be able to follow in the steps of an employee that has been in contact with a customer.

Several employees have retired recently, and thereby have been replaced by new and younger employees. The average age of the staff has decreased.

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1 CRM is short for Customer Relationship Management, and here refers to working with a system for documentation of customer relations and interaction with customers.
Box 1. The CEO

The CEO has been CEO for 7½ years. His background is not from the transportation business, but he has a degree from Växjö University in Business Administration and Economics, with a major in Transport Economics. He has experience from working in a company that manufactured wooden floors, where he worked with logistics, purchasing, production planning, distribution planning and with business development. At the company that manufactured wooden floors there were lots of discussions about the environment, much due to that they had a very enthusiastic marketing manager who was highly influenced by The Natural Step.

The CEO has worked at Växjö University with research and education, and thus has experience from different business industries through contacts with people, projects and companies, for example through the work with master theses, and research.

The CEO has a large network of contacts from working life; not only from the university and companies but also through friends he met while working.

"There is always somebody that has been close to your problem [somebody has had a similar problem]. They can give you new ideas, another direction and background information when you are trying to solve a problem".

(CEO, author’s translation)

By working in projects The CEO gained experiences in "how things should have been done". Projects have given him both experience in how to handle people, how they react on changes, how much training is needed to get things done. It has also given him more specific experience in for example IT.

He believes that a good company must give back to society, and feel responsible for the environment it operates in.
Alltransport’s Environmental Management
Alltransport’s Environmental Management

2 Alltransport’s overall environmental management

Alltransport i Östergötland AB, and its subsidiaries are included in the environmental management system certificate according to ISO 14001. The owners of Alltransport, who also are its suppliers, are included in the management system by signing the supplier agreements.

The environmental policy presented on Alltransport’s homepage reads:

- Continuous improvement and critical review are key words in our environmental management.
- We shall consider existing laws, regulations and other requirements as minimum requirements.
- We shall continuously assess our business based on recycling thinking and economizing natural resources.
- We shall continuously upgrade competence and environmental awareness among all our employees.
- We shall value active environmental management as a merit, when evaluating business partners.

When Alltransport first started working towards an environmental certificate they did it together with other companies in the same situation, led by a consultant company. The companies worked together for example with the evaluation of environmental aspects. Alltransport based their criteria for environmental assessment on Sweden’s national environmental objectives.

The environmental aspects that are considered as significant at Alltransport are those that fulfil at least one of the following three criteria: that they have received high credits in the evaluation of their contribution to Sweden’s national environmental goals, that they are already being followed up by the company, or that they are of considerable importance for the world.

The environmental aspects that are considered significant in Alltransport’s environmental aspects register are transport and machine services and their fuel consumption, handling and sales of fossil fuels, use of electricity, use of district heating, water consumption, consumption/purchase/sales of chemicals and oils, waste from sewages, handling and intermediate warehousing of dangerous goods. There are goals, routines and activities planned for how to follow up and take measures concerning the significant aspects.

Alltransport owns properties, for example terminals, a diesel station and washing halls. For the diesel station and washing hall, there are requirements noted in the register for submitting environmental reports or declarations to municipalities. Other environmental aspects in the register that are not considered as significant for Alltransport are the use and purchase of tyres and spare parts, the use of office material and paper, handling and sales of liquefied petroleum gas, waste and extraction of crushed rock.

”According to all the tests that have been done we use the most environmentally friendly tyres, drive on the most environmentally friendly fuel, wash the vehicles on a facility that cleans its own water”

(CEO, author’s translation)

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2 Alltransport’s environmental aspects register of 2009.
Alltransport’s Environmental Management

Goals that involve the whole concern are communicated to the business area managers at the monthly management group meetings. The business area managers break down the goals and create action plans for the business areas, and inform their subordinates. The shareholders discuss their investments, like for example the investment in new vehicles, with the business area, and this is often done connected to a specific new contract. Applications for new investments are brought up for discussion at management group meetings.

The environmental management builds on Alltransport’s activities, which makes transports and thereby the pollution from vehicles important environmental aspects. According to the Environmental Manager the variable environmental influence is much greater than the fixed, and she suggests it is important to consider emissions from vehicles:

"... if you look more at the actual work or specific job [transport] then it has no direct importance who owns the resource, and then our owners resources [trucks] become our resources that affects the environment."

(Environmental Manager, author’s translation)

There is also an enthusiasm in the environmental management to find new solutions, for example new alternative fuels. The Environmental Manager participates in groups that focus on these issues, for example the network TRB, see Box 2. It is the Environmental Manager and the CEO that are involved in communication with TRB. Through TRB Alltransport can both access and contribute to knowledge and development of ideas in for example the areas of environmental sustainability and IT related to logistics.

Alltransport provides training for its employees. Alltransport has chosen to use their connections in TRB to provide out the basic environmental course for employees. The aim is for everybody to understand why the environmental effort is being carried out.

"We could have done it by ourselves, internally neck and crop, but we thought, it is a little bit of human psychology, it comes from somebody that you know like that, from a person within [the company] then it does not stick as well as if you hire a teacher”.

(Environmental Manager, author’s translation)

The course in environmental issues is given free of charge and is mandatory for all employees, including hauliers. The course is given every year and the aim is for all employees to participate every third or fourth year. When the interviews were performed, no one in the business area of Fjärr & Distribution had taken the course.
The Alltransport Brand and environmental management

Alltransport has tried to make the environmental sustainability work visible in a number of ways, by spreading information about Alltransport and what it actually does. The sustainability report plays a great role in telling the customers as much as possible and making Alltransport’s position and environmental management visible; a lot of money has been invested in that work. Alltransport was in 2008 awarded for having Sweden’s best...

Box 2. TRB

Alltransport is part owner of TRB, which translates into “Transporter’s Fuel” (Transportörs Bränsle). TRB was established by the fusion of several regional haulage co-ops and today 15 regional haulage co-ops are members. The TRB members buy fuel together and have created a network of fuel pumps. The pumps are located in Norrköping, Linköping, Söderköping and Norsholm and more are to be set up. TRB are to continue develop and does not only want be a purchasing organisation for diesel, it is also about understanding of the environmental management in a transport company. TRB is a leading actor driving a lot of issues related to environmental management in the transportation industry. Through TRB Alltransport supports for example research by Björn Gillberg, research in Luleå or Umeå on biofuels from wood raw material. TRB also tests oils and tyres for example, and spreads knowledge, gives courses in environmental issues. Alltransport tries to educate all collaborators, haulers and their drivers in environmental awareness. Through TRB Alltransport has access to an environmental database where all part-owners register their vehicles; the model, engine, fuels, tyres etc. From knowing the distances driven the emissions from the vehicle can be calculated.

"We use thus… the networks have been very good for us in different ways. This is TRB that I mentioned. If you look at the companies that own TRB then you see that they have come a long way in the area of sustainability or environment and quality. They have therefore had TRB as a kind of help and source of knowledge to develop their own companies. And if you look at this group [TRB], these 15 companies are quite successful and far ahead in this area "..." Alwex in Växjö is an example of a company far ahead on these issues. And others too. So there the network has obviously made a great difference. Alltransport participates in the network ITG for the interchange of loads for more efficient and economic transports, which also has an effect on the environment. The network is also useful for benchmarking with other companies in the transport business for finding ideas for example concerning the environmental area."

(CEO, author’s translation)

1 Björn Gillberg is a well known Swedish environmental debater who is also president of Värmland Metyanol which is to produce methanol as a vehicle fuel.

2.1 The Alltransport Brand and environmental management

Alltransport has tried to make the environmental sustainability work visible in a number of ways, by spreading information about Alltransport and what it actually does. The sustainability report plays a great role in telling the customers as much as possible and making Alltransport’s position and environmental management visible; a lot of money has been invested in that work. Alltransport was in 2008 awarded for having Sweden’s best...
Alltransport’s Environmental Management

hållbarhetsredovisning³ (sustainability report). The CEO also mentions that for a company of the size of Alltransport, which might be considered a large company in the transportation business, sustainability work like this requires a lot of effort:

"But generally speaking, how many others make a sustainability report that is on a par with ours? None."

(CEO, author’s translation)

Alltransport has received a lot of attention regarding the pictures they use in for example their sustainability report, which show a lot of children.

“We have received some phone calls, that “oh that is so awesome that you came up with this with the children there on the side of the truck” and that we kind of drive for the future or that it is environmentally friendly so to say/.../And I believe it gets more and more like this that you might have to profile yourself in that way too, and show that you are driving [carrying out transports] for the future or that it is our future, these kids, so that in some way that has succeeded better than to maybe just write that we are good at the environment or something, but instead this has, I believe, given better results/.../And when you are out visiting customers, they still have it somewhere; yeah, yes, but I have seen that you are doing a lot of work, so that I think they see us and that we are far ahead concerning that part.”

(Sales employee 1, author’s translation)

It is the Environmental Manager’s perception that customers turn to Alltransport because they believe in Alltransport’s brand. Further, she says that Alltransport is known for its knowledge and competence, quality and experience, and that these are important reasons why customers to turn to Alltransport.

"Based on our use of knowledge we can solve some environmental problems, but we cannot offer the moon. As long as we are in this sector that influences the environment so much, then we cannot say that we offer environmental friendliness in a product solution, but we can offer the most environmental friendly alternative there is.”

(Environmental Manager, author’s translation)

The Environmental Manager believes the customers know about Alltransport’s environmental profile when they turn to Alltransport.

"Environment, quality and traffic safety are a part of our product, we cannot in any way separate these.”

(Environmental Manager, author’s translation)

³ Sweden’s best sustainability report is awarded every year by FAR, the professional institute for authorized and approved public accountants in the accountancy sector in Sweden, www.far.se.
Box 3. The Environmental Manager

She is a graduate engineer specialised in transport telematics from which she has knowledge of logistics and a way of looking at businesses. She has also studied quality and Environmental management systems, law, and economics and is now studying risk management focused on the environment at the university. She has also a diploma in “examinators-utbildning” (examiner training) for Swedish quality, (SEQ), and has taken courses about the standards of ISO 9000 and ISO 14000.

The Environmental Manager is also on the Swedish committee for developing a new traffic safety standard ISO 39000. Alltransport was one of several companies who initiated the work with this standard and sent the application to SIS who made the application more global and started a global committee. The Environmental Manager of Alltransport is a representative on the global committee.

The Environmental Manager is involved in several networks and forums: TRB, SEQ, NTF and Vägverket in different projects. She tries to participate at least four times per year in a regional environmental network in Norrköping, that have seminars on average every third week, which are run and held in turn by the companies that participate. She also sometimes participates in meetings with another regional environmental network in Norrköping and Linköping, and in the network “Sveriges Åkeriföretag” (Sweden’s haulier contractors’ companies) and more local networks that Alltransport considers important.

The Environmental Manager believes she contributes to Alltransport with her ability to absorb information, and to get and share ideas and information with others. There is no prestige in Alltransport; the sharing of ideas and information is prioritized.

The Environmental Manager believes that there is always something to improve in a business; there is always a new technology and a new development.

The Environmental Manager would like to have more time to reflect and to go into deeper analysis and discussions in order to strengthen the Environmental management further.

The Environmental Manager reports at the management group’s meetings, where the also the business area managers participates. The Environmental Manager participates in the management groups meetings, but not at the sales and marketing group meetings although she gets on well with this group. She participates in 30% of board meetings, where she is summoned to inform about issues regarding quality, environmental effort and working environment. Totally there are about 10-12 board meetings a year. The marketing groups meetings, twice a year, are strategic meetings concerning above all the business plan for the corporate group. The Marketing Manager at corporate level participates, as well as business area managers and the Environmental Manager. Once per year there is a general information meeting for all the staff where the Environmental Manager participates. The Environmental Manager also participates in a lot of other smaller meetings.
Alltransport’s Environmental Management

2.2 Framing the environmental management

The CEO points out that within the company the management do not talk a lot about the environment but more about sustainability and sustainable development connected to the running of the business. The focus is more on social responsibility. It was the Environmental Manager who strode for, and won, the idea to create a sustainability report instead of an environmental report as was first planned.

The Environmental Manager believes there is not much focus on the competitors externally when talking about the environmental management, instead welfare and ”greater issues” are in focus, rather that income and costs.

The CEO points out that the environmental management should not be an extra burden but something to do to care for the world we live in, to take social responsibilities and be a dignified part of the society, and also create some sort of competitive advantage, since there are so many companies carrying out the same type of services.

"Then we must take our responsibility to say: "Are there other fuels, are there other engines, can we do things in another way, can we plan in another way?"

(CEO, author’s translation)

"… but it is also to stand out among the grey mass of transport companies. So we see this as double-edged you can say – partly it is a necessity of course, that we have our social responsibility, but also that we can make this our competitive advantage. Then we also need to communicate what we do, so that it gets known. And we do, partly through our sustainability report. Among other things. ”

(CEO, author’s translation)

According to the CEO, Alltransport’s subsidiaries also need to appear on the front line with their environmental management.

The CEO points out that there is a formal organisation that can easily be visualized, but there is also an informal organisation. He points out that quality and environmental certificates are very much about creating structures, order and clarity in the company and that they pave the way for other kinds of work. All informal groups and contacts between different business areas in Alltransport or between companies and corporate group benefit from the environmental management and vice versa.

"I believe that the more used you are to working in different ways and above all to working across functions, the better it will be in some way, and the more order and clarity we have created in the company the better it gets. […] But I believe a lot in creating order and clarity in the company”.

(CEO, author’s translation)

The CEO points out that communication paths in the company that are created for example through environmental management are something that the company gains from. He believes in managing the company by working actively towards goals. He believes that the more the company gets used to following up, measuring and correcting, the easier other things will get. He recognizes that following up some environmental data makes it natural to follow up also other kinds of data and vice versa. Working actively with this
Alltransport’s Environmental Management

part is something the CEO believes that Alltransport has been doing for many years and have become better at, but also can still improve.

Earlier it was only the previous Environmental Manager who worked with environmental issues but today according to the CEO there are several more than the Environmental Manager involved, and further he says:

"We, our goal is that we really have a driver who considers the environment, to really think about this concerning his driving and so on."

(CEO, author’s translation)

2.3 Integration of the environmental management in the organisation

The CEO has the utmost responsibility for the environmental management, and the environmental and quality manager acts as a guiding and supporting function. The aim is for the environmental and quality divisions to be support functions to other functions in the company when they need help. The management systems are seen as support for the work with environment and quality; it provides support to staff who need help regarding the signing of agreements and to win orders.

There is no reporting from the Business Area Manager of F&D to the Environmental Manager, the Business Area Manager explains:

"No, we don’t really have that, it is the Environmental Manager who drives those issues and she gets help from us”.

(Business Area Manager, author’s translation)

In Alltransport the aim is to integrate the environmental management into the entire organisation. The CEO does not believe in environmental management taken care of by only a few employees.

"My view on this is a bit different; I do not want the company that I manage to work that [another] way: but everyone must be involved in an environmental effort. Everybody must also understand the extent of an environmental effort and also understand that this is one of the means that we use to be competitive.”…"This is nothing that you just have to do, and that is a difficulty then, why you partly want [it to come] from the management that this goes through, and we want all to be engaged. This is nothing we should work with just because an auditor visits, but we shall work with this continuously, and we shall also try to get this work out as far as we can in the organisation."

(CEO, author’s translation)

The CEO points out that the environmental influence must be considered in all decisions, from investments such as buying a new vehicle to eliminating the unnecessary use of papers. Different follow-ups are to become a natural part of the business planned.

“…it shall not be like “now we shall work with the environment” or “now we shall work with quality, instead it must be integrated into all matters.”

(CEO, author’s translation)
Alltransport’s Environmental Management

Further the CEO says that since everything are to be integrated, all activities must also support the work with quality or environment or social responsibility. At the same time, this makes it more difficult to look at the environmental management explicitly, since it is hard to extract it from everything else.

A great part of the responsibilities are with those of operational responsibilities. Each business area shapes its own goals and routines for its division so that these are adjusted for its work. While strategic decisions on how the work is going to be carried out are decided by the management group and presented by the Environmental Manager, the decisions to create routines are spread among the business area managers. The business area managers are responsible for mediating the decisions from above levels in the hierarchy down to the production. The Environmental Manager works in an advisory capacity towards the business areas, and provides help when it is asked for. She can also assist them by sharing ideas and by helping them find solutions for how to reach goals. The Environmental Manager can also assist them to find the right direction for their work. For example the environmental supports staff at Alltransport who has responsibilities that are very much related to environmental aspects, like the employees with responsibilities for sales of fuel and regarding hazardous waste.

The Environmental Manager believes the greatest resource is the staff, since Alltransport can be seen as a transport forwarding company that does not own its vehicles. But she also believes that from the customers’ perspective and the picture that Alltransport delivers to the public, the vehicles are central.

"It depends on who you speak with. But if we… what we speak of inside the organisation when we speak of our resources that is vehicles. But if you speak to management level, then you can talk about individuals as resources. It depends on to which level in the hierarchy you speak."

(Environmental Manager, author’s translation)

"We (referring to the management) help to introduce things and we help to perform some things on our own. But the greatest responsibility lies within the organisation"

"But our greatest resource is our staff. There is nothing that can be solved by itself; you must have an individual who can do things. /…/we [the management] cannot tell to them [the operational personnel] how they should do their job; and that would be a little stupid too. We do not have knowledge of all of those points [that need to be considered in the operational work] either. But we can sit down together and discuss the environment and then they [the operational staff] will bring their proposals and we bring ours, which we try to align…"

(Environmental Manager, author’s translation)

The Environmental Manager feels that the operational personnel knows how to utilize the competences within the company regarding the environmental management:

"They know that we are here for their sake. They come to us and ask for help and we try to solve it together."

(Environmental Manager, author’s translation)
There is a belief in Alltransport that the generation shift in the company’s personnel opened up opportunities for Alltransport’s environmental management. People who were less enthusiastic about environmental management were leaving the company and people who were more open towards it started working there.

The CEO also talks about the importance of having appropriately skilled staff working with environmental sustainability, and mentions the importance of the Environmental Manager’s competences.

### 2.4 Hauliers and vehicles as Alltransport’s face towards stakeholders

The Environmental Manager stresses the importance of the hauliers as Alltransport’s brand and that they need to be representative and act as role models in traffic. In order to help their drivers Alltransport provides their hauliers with knowledge; they invest in courses on environmental issues as well as eco driving.

“…for they need to be as skilled as possible since they are our face to the world; it is they who meet the customers and is they who are… I mean they are in the front line”

(CEO, author’s translation)

All hauliers must follow courses in environmental issues, traffic safety, working environment and customer relations. It is also possible for hauliers to participate in eco-driving courses to increase their knowledge of how to reduce environmental impact and decrease costs for fuel. The course in eco-driving is expensive, and Alltransport cannot finance it completely but has tried to offer hauliers more economic solutions for them to be able to take the course.

“Because we see clearly that all of what our drivers do will in the end reflect on their [the drivers] behaviour towards customers – who [customers] are actually our customers”

(Environmental Manager, author’s translation)

At the same time, the Environmental Manager is clear that even though Alltransport offers their hauliers courses, the hauliers are companies in their own right and the drivers have their own ideas on how to go about their work. Even if courses are favourably rated, they do not attract all hauliers.

Environmental Manager recognizes the possibility to inform stakeholders of potential investments in more environmentally friendly vehicles, for example vehicles that use less or renewable fuels. But investments in new technology are not always easy to make since the settling factor for the customer during purchasing is the price. The Environmental Manager also accentuates that Alltransport needs to believe in a good solution before it can sell it to customers.

“If we see already in advance that this investment is good and we can recoup it over the years, then naturally we make it, but in many cases when we speak about alternative fuels, nothing is certain and then you do not want to take that blow by yourselves”.

(Environmental Manager, author’s translation)
Alltransport’s Environmental Management

Customers sometimes ask for new vehicles, that are more environmentally friendly, in first hand. It is not possible for Alltransport to keep an updated fleet with only the most new vehicles all of the time, since the new production of vehicles also have impact on the environment. The Environmental Manager stresses the vehicle’s life cycle and the fact that it in total may be less environmentally friendly to discard vehicles than to keep them a little while longer.

"A new solution is just new right now, there is a need to look both three years back and three years forward /…/ …and changing vehicles every year is not efficient, either from economic or from an environmental point of view…”

(Environmental Manager, author’s translation)

The structure of ownership of Alltransport adds some complexity to the company’s environmental management. Since the suppliers are also owners of Alltransport and themselves legal entities they manage their own businesses. A consequence of this is that the suppliers have a priority right to the work created. There is a turn-taking principle for the distribution business, and it is therefore not possible to choose a specific supplier to perform a specific service. Instead it is the next haulier in line that will get the next order. This makes it impossible for example to choose specific, more environmentally friendly vehicles and drivers educated in eco driving for certain orders. This is also a difficulty since the company want to respond to orders with higher environmental performance when requested.

"We want to be able to say that: "you are the most appropriate for this mission, [and so] we bring in you, not because you are first and in turn…”"

(CEO, author’s translation)

2.5 Driving forces in the environmental management

The driving force in the environmental management at Alltransport comes from within the company and is connected to social responsibility considerations according to the CEO. Another driving force is the aim to create competitiveness.

“I believe the more we can invest in this the more competitive we will become. We will have a competitive advantage; we are well to the front in this area. This I believe one day will pay off.”

(CEO, author’s translation)

When it comes to the individual employee’s enthusiasm to create routines for example related to the company’s environmental effort, the Environmental Manager believes that individual actions are based on the need of measures, directives, own initiative, view points from others and gut feeling. The Environmental Manager also believes there is generally an increased wish to make decision based on reality and facts and less on ideas taken out of thin air.

The Environmental Manager believes there are advantages in taking further care of the information and skills of individuals at Alltransport. She perceives there are many new activities in the group as a consequence of that the group has grown, which has lead to an increased need for structure.
Alltransport’s Environmental Management

The Environmental Manager believes Alltransport, with its aim to integrate environmental management all over the organisation, benefits from having a few individuals that are enthusiastic and believe in the issue. The Environmental Manager stresses the importance of being physically present somewhere, which adds to people’s memory of somebody representing the environmental management being present.

“If you are physically present somewhere then you are seen. People will remember that you are there”.

(Environmental Manager, author's translation)

Sales employee 1 also believes that a few enthusiasts are the reason why Alltransport is somewhat in the forefront when it comes to environmental management:

"Because we've had a few real enthusiasts here I think, who have really been keen on this. And also, I think the CEO has been a driving force here as well, that we shall be at the forefront in this. And then we have had talented employees here now and we have Ella [the Environmental Manager] and we have Sigvald# who also works with this and another one here, so it's ... well ... talented employees who are driven by the CEO here I think, […] But somehow they have been instrumental in the company, and the way things have progressed. So... and many times they [management] work in silence and then suddenly you see when it has received some prize or that something has happened here then ... "Oh well, what fun", and then you check it up, or you get the information about what they have done and directly you take this material out to the customer: "look here, we're good at this". So, there you probably have the answer, absolutely."

(Sales employee 1, author's translation)

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# Sigvald was the environmental and quality manager before Ella.
Box 4. Driving forces and change – The Environmental Manager’s view

The Environmental Manager personally believes her drive comes from a wish to eliminate unnecessary waste.

“I’m a person who believes everything has a purpose. I do not like waste. That is the greatest issue for me, like for example why do you have to go somewhere twice when you can go there once? And then there are the environmental part and economics too. It feels a little bit illogical, unnecessary; to do things that you can do much better without affecting anything. And then comes the environment, and it is of course so that consumption and prices are the driving force. Why should you have the light on when you are not there?”

(Environmental Manager, author’s translation)

She also believes everybody is able make decisions based on more than money. The Environmental Manager highlights the importance of having colleagues interested in making changes:

“If I ended up in an organisation that is not willing to make changes I would not achieve anything. It is not enough with one person driving; there must be somebody who can receive the information too. We are lucky having a management and board that is receptive to change. They understand that it is possible that environment is not the most beneficial, amusing and exciting thing and nothing you can make money from directly, it is important in the end, the most important is that – we know that it is important but you cannot really put a price tag on it. You know that it is right. You do not always have to like it, you do not have to accept it, but it is something that you have to do”.

(Environmental Manager, author’s translation)
3 The Business Area of Fjärr & Distribution

Alltransport’s business area F&D offer transportation of full truck loads (FTL) and batch loads. Earlier there was an emphasis on full loads, but today also transportation of general cargo, is offered. They carry out pick up and regional distribution of goods. By participating in networks they are able to provide the complete services that customers demand. In the network OnRoad, where Alltransport is a part owner, other actors are for example the companies Kuehne und Nagel, Itella and Finska Posten, that provide access to sea and air transport nationally and internationally. Access to express deliveries is also provided since one of Alltransport’s hauliers is a franchisee for the express delivery company Jetpak. With regard to the business area the CEO says:

“Sales are very important since if nothing gets sold there is nothing to do. Sales and how you sell and how you do things, shape a great part of the prerequisites for the remaining management”.

(CEO, author’s translation)

3.1 Organisation

The business area F&D is represented by a business area manager, who reports to the CEO of Alltransport, and by two sales employees.

The Business Area Manager is responsible for the overall business and sales at F&D. He is responsible for the work of the two sales employees. He is also responsible for the production of services, both for the vehicles and the terminal in Norrköping. The Business Area Manager follows up production and finance and is the person with overall responsibility for this business.

The time of the interview there had just been a reorganisation as a result of which the Business Area Manager’s responsibilities had changed. Previously he had also been responsible for employees in the transport management division, which is a part of the F&D business and which consists of four transport planners and an administrator. During the reorganisation the transport management activities of several business areas within Alltransport was centralized to the organisation of the business area Bygg & Anläggning (Building & Plant), (B&A), stationed at Alltransport’s head office. Earlier, when transport management was split up on different business areas and separate locations, the F&D transport management function had been located closer to the terminal in Norrköping. Now, the business area F&D buys transport management services provided by B&A. The person responsible at B&A works 50% with B&A business and 50% with human resources and a more administrative transport management role.

Because of the way the work is organised, the manager for the business area B&A is often involved in the transport planning of F&D since he is responsible for the transport management and the decisions taken within the transport management affects the economy of the business area of B&A.

The sales employees are rather specialised, Sales employee 1 works more with agreements regarding long distance transport and Sales employee 2 focuses on agreements regarding distribution. However, when selling they focus on selling all of Alltransport’s services.
Alltransport’s Environmental Management

The sales employees work together but have primary focus on the particular areas they are responsible for, and are hence focus one group of customers each. Their focus reflects their backgrounds before they started working at Alltransport. Since the sales organisation is small, after completing a sale the sales employees often continue to be responsible for the customer they sold to, and hence become responsible for working with new sales, follow up and everything related to that specific customer.

Alltransport has an electronic verksamhetshandbok (organization handbook), which is a description of how they want work to be carried out. In the organization handbook all ready agreements are compiled together with information that can be helpful to the staff in their daily work. There is also a database of laws and other databases connected to the organization handbook. Alltransport tries to work in a way that as much information as possible are kept electronically.

3.2 Daily work at the sales department

There are goals for how many customer-visits sales employees are to perform per month and per year, and they report their visits to the Business Area Manager. There are also goals for what the sales work shall result in, how many quotes to deliver and how many acceptances there should be. The Business Area Manager receives the information reported through the intranet, and he can go in and look at any time at the current figures and use them to present to the management group.

It is the sales employees’ responsibilities to see to that the missions accepted is not in districts where the distances will be driven partly without payload, for both economic and environmental reasons

During the sales meetings the sales personnel report about customers they visited, offers they made and that have been accepted, and new customers. There is then a discussion of the benefits from bringing in different new customers and what these are worth.

As he works with a lot of information about many customers, Sales employee 2 tries to write job descriptions for customers with more complex demands. He compiles information about volume, pallets, packages, geography, description of the goods and environmental and quality demand into a computer file. Not everybody in the company compiles information like this; Sales employee 1 primarily notes information from customer meetings in his calendar. However, the documentation of customer information is very useful during new communication with the customer. Sales employee 2 has come up with the idea of writing up job descriptions is because he himself believes it is a good way of keeping things in order. Sales employee 2 however is looking forward to the implementation of a CRM system at Alltransport for gathering the information there instead.

Sales employee 2 has brought his experience from a larger organisation, which demands more order and documentation, and developed ideas regarding the need for documentation and routines at Alltransport. Sales employee 2 summarizes:

“… you cannot be to small to have everything in good order”.

(Sales employee 2, author’s translation)
"CRM today is a homemade system. Of course a good CRM system would give less need for preparation for sales staff before sales meetings, it saves time".

(Business Area Manager, author's translation)
Alltransport’s Environmental Management

Sales employee 2 uses e-mail a lot, for example when communicating with customers and with his local sales group in OnRoad, but when communicating with hauliers he uses phone. He believes the mobile communication in the trucks is good for one-way communication with short messages where the drivers can answer yes or no, but mostly he prefers phone. He believes the vehicle communication equipment in trucks is good for sending orders to drivers, something that the transport management do today.

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**Box 6. Sales employee 1**

Sales employee 1 has worked for eleven years at a paper mill where most of the time he worked as a foreman at the transport department. He started at the company with driving machines and as time went on he was able to fill in everywhere. Through this job, he has experience from the side of the customer that buys transports. Later he started working at a regional haulage co-op where he worked for 13 years as a transport manager; at first he worked with long distant transports and ended up with responsibilities for sales. In 2002 Sales employee 1 was employed at F&D, and during his first year there, due to a staff shortage, he worked as a transport manager on the long distant transport side. He has taken courses in driving machines and forklifts, he has taken a foreman course for one-year on a part time basis, and he has ADR dangerous goods training. He has also studied economics and calculating, and is now studying marketing in a two-year part time course at a company that provides courses for companies. Sales employee 1 has also taken a course in cargo lashing and a little charm course.

Sales employee 1 believes the marketing course and calculating course as well as the economics course is most useful to him in his current work. He believes the discussions with the other participants at the marketing course give him many insights. He believes his experience with working with machines is sometimes useful to him.

Through working in the transport industry for a long time, Sales employee 1 has a wide contact network. He has worked in almost all the business areas at Alltransport and has experience from most transports they can carry out. This is why the Business Area Manager sometimes leaves notes with questions about certain transport solutions on Sales employee 1’s desk.

Sales employee 1 has been a member of ITG for many years and is personally involved as an accountant in the network.
Sales employee 2 sees the hauliers as a valuable network in his daily work. Sales employee 2’s communication with drivers is about capacity, finding solutions to problems or how to help a certain customer that is in need for a special service. He can phone them while they are driving. To the question whether he has a lot of communication with the drivers he answers:

“I obviously have that, from what I have understood little by little. I am the kind of person who does not mind asking things, I do not take things for granted, but ask the question instead and that has obviously turned out very well and I have been positively met. I do not know everything, which is when it is better to ask. And who is better to ask than the person that is driving? / …/ … if you know that the resource is there then you use it”.

(Sales employee 2, author’s translation)

Sales employee 2 has developed an idea for local pricing that is also under development in OnRoad.
Alltransport’s Environmental Management

**Box 7. The Business Area Manager**

The Business Area Manager has experiences from working as a transport manager, with warehousing and distribution, and for a global forwarding company providing sea, air and road transports. At Alltransport, where he has been working for six years, he previously worked with production and transport management, which can be seen as forwarding for the hauler business, until two years ago. Today he has stepped a bit away from production of transports and works as Business Area Manager at F&D.

The Business Area Manager has a professional training in logistics, from logistics vocational training program for two years. Later he attended a management course, marketing courses, teambuilding course and a group-coaching course, all through a company that provides education for companies. The Business Area Manager also attended working environment courses when he became responsible for terminal and distribution business. He has participated in working environment courses both in the role as a manager and as a foreman.

The Business Area Manager believes the courses have been useful. When there has been downsizing in the company, he has been able to get the remaining group to work together and take care of both the remaining group and the employees leaving the company. The teambuilding course has been an asset to him in internal communication and cooperation. The Business Area Manager has experienced the usefulness of being able to see things “from the outside”; when he was working with responsibilities for a terminal and problems occurred and new perspectives were needed, partly concerning the provision to haulers.

The Business Area Manager reports to the CEO and participates in the management group’s meetings along with the other business area managers, the CEO, the Environmental Manager, the manager of marketing and the head of finance. He also participate in the marketing group’s meetings, which are lead by the marketing manager, and concern sales and production strategies. He also takes part during sales meetings initiated by the marketing group which gathers the Business Area Manager and sales staff. During the sales meetings, the Business Area Manager informs about decisions in the management group, like for example concerning strategic changes and their follow up. In addition he meets with the transport management concerning information-related matters.

The Business Area Manager is also a part of the granskningsgruppen (audit group), where some of the environmental and quality related issues such as internal audits and routines are in focus. One representative from each business area, the Environmental Manager and the manager of finance and administration participates in the audit group.
Alltransport’s Environmental Management

3.3 Hauliers and vehicles

Around 110 vehicles, of which about a third are used for each area of packages, distribution and long distant transports respectively, are used in the business area F&D.

When Sales employee 1 reflects over what he sees as the company’s resources he says:

"Spontaneously I think of the vehicle fleet, that we [the company] have such enormous wide range of vehicles. That we have the possibility to drive a little parcel anywhere more or less, and we can drive transports that weigh 200 tonnes. Okay, we do rent them in them, perhaps, but we do have vehicles that can take more than 20 to 100 tonnes….."

(Sales employee 1, author’s translation)

The haulier that preforms the service pays a percentage of the revenue, 7%, to Alltransport.

"It is in our interest and their interest of course to hold this provision as low as possible."

(CEO, author’s translation)

At the same time it is important to Alltransport that the suppliers that own the majority of the physical resources retain financial assets to be able to reinvest in new vehicles.

"And you can of course place demands on our hauliers, but we have no use of a haulier that go bankrupt after half a year. So there is a dilemma, payment versus environmental investment."

(CEO, author’s translation)

Some hauliers are more interested and perceptive than others about the development of themselves and their companies. According to the CEO there is legislation that all employees in a transport company go through a certain amount of training. More information about the training that Alltransport provides its hauliers is presented in paragraph 2.3.1.

Alcohol-locks are placed in all vehicles. Sometimes it has been difficult for Alltransport to convince their hauliers about the necessity, and they have had to explain the usefulness of alcohol-locks when drivers state that they do not drink alcohol. Then Alltransport’s management have had to explain the role of alcohol locks; that it can be a competitive advantage to be able to show customers that all trucks have alcohol locks, and that it is a way to demonstrate Alltransport’s values to the outside world.

Alltransport wants to help their hauliers when they have problems with or an interest in developing their environmental effort. By using their own competencies Alltransport believes it is able to support their hauliers regarding environmentally related issues.
3.4 Networks in use by F&D providing services

More holistic solutions are offered thanks to Alltransport’s membership in networks. Alltransport perceives that the customers appreciate the contact with one person only even if several transport companies in fact carry out the transport.

Sales employee 1 focuses on the offering of transport services, delivery vans, distribution and far distant transports, and also of forwarding transport services performed by partners, to customers.

“...that I can find ways for other companies to ship containers with air cargo since I have a wide net of contacts with forwarding agents in Sweden.”

(Sales employee 1, author’s translation)

Sales employee 1 highlights the importance of using his professional network to be able to find solutions to avoid trucks running partly empty. Sales employee 1 has also forwarded his contacts to transport planning, to be used to exchange loads with other regional haulage co-ops to avoid running empty. Sales employee 1 believes the networks are useful to Alltransport’s environmental effort as they provide opportunities to exchange loads, although this work is above all to find solutions that lower costs.

“All of this with transport management and the planning – you must have a very wide net of contacts, above all on the long distant side, otherwise it will not work, for you cannot do all transports yourself. It is very important”.

(Sales employee 1, author’s translation)

One of the networks that Alltransport participates in is called ITG, which is short for Industri och TransportGrupper (Industry and Transport Group). ITG is a network of companies that have agreed to exchange cargo between each other. The ITG participants, about 30, meet once a year with transport managers and sales personnel to discuss their transports, the opportunities to exchange loads to avoid empty running, and exchange contacts. ITG has a common load planning site on the web, where the participants can register if they have an empty vehicle on a certain route.

Östgöta Maskin och Transport (Östgöta machine and transport), (ÖMT), is another network used by Alltransport. It is a union of a couple of regional haulage co-ops that was created as a negotiation agency. The idea is that they would find benefit from each others strengths, in Norrköping, Linköping, Nyköping and Finnspång, by cooperating together when negotiating with customers.

Smaller and more individual networks are also used within Alltransport’s daily business. These networks are built on individual relationships. It is transport managers in particular who create their own networks. Sales employee 2 values his network in the transportation business, which he has built during his years working in this industry. It consists of people both former colleagues and contacts from earlier positions.

When Sales employee 1 helps customers by forwarding services provided by partners, his own professional network of contacts is of great use to him:
Alltransport’s Environmental Management

“I have a wide net of contacts on the long distant transport side you can say. But on the other hand, on the forwarding side I have received requests from customers that say; “we have cargo to pick up in Italy or we might need to ship something from Hong Kong – can you help us?”, and then I have found forwarding agents and made price quotes. So, I have done that work for the company you can say, as an intermediary, and it means that I might nevertheless write the agreements with the customer, and that I take care of this. But, then I get help from a forwarder. It has become more and more of that actually.”

(Sales employee 1, author’s translation)

For international transports the network OnRoad is used. OnRoad consists of 8 part owners, spread over the country, in varying sizes. Alltransport is one of the part owners. Sales employee 2 is a representative for Alltransport in OnRoad’s sales group that meets 6 times per year. There are also a few subcontractors in addition to the part owners. The long and far distant transports provided through OnRoad are mostly a form of additional sales, from Alltransport’s perspective, when a customer of Alltransport needs some international transport and the customer feel they have a good contact in Alltransport. Then Alltransport uses its networks to take care of these transports and thereby binds the customer tighter to itself rather than risk loosing them to another company that can provide international transports.

Sales employee 1 gives one example of how F&D had provided a customer with distribution services in Norrköping and how that customer relation developed so that Alltransport now serve that customer with daily transports to Norway.

Sales employee 1 has found forwarding agents that help him create solutions for customers in this way, and he believes it has been a developing experience also for himself professionally:

"And it has been developing for me too, from getting involved in these areas too, even if I do not know completely, practically, how it works with boats and so on. I have yet come a bit and can offer the customer then. And I see all of the time additional sales so that I do not let anybody else in on my current customer. In that way we always try to find solutions”

(Sales employee 1, author’s translation)

Sales employee 1 points out the importance of also having the transport management division’s network of contacts documented.

“– even if it is maybe not completely intended by their transport managers’ side to sell in themselves but is rather a consequence of how the business works and that customers like to work with people they like. When it comes to how the industry works, there is a tradition of being in a hurry and all of that, you do not always have time for documentation of the company’s customers.”

(Sales employee 1, author’s translation)

Sales employee 1 is working actively with the documentation of their transport managers’ contact networks and tries to be a mentor for new transport managers. The transport managers also have the daily contacts with the customers as well as with Sales employee 1.
Alltransport’s Environmental Management

Transport managers have faced difficulties with documentation due to constantly heavy workload. Sales employee 1 sees the opportunity to take advantage of transport managers’ networks to achieve additional sales, and considers the fact that everybody in the company is a bit of a sales employee when the customer calls, and that transport managers can to try to influence the number of sales.

Box 8. Transport planning

A lot of resources have lately been spent on developing transport planning both through a centralization of the transport planning in Alltransport’s different business areas and through the implementation of new technology. With more efficient transport planning it is possibility to optimize resource utilization differently and find potential ways in which environmental impact can be reduced by less resource intensive solutions.

During 2009 vehicle communication technologies were installed in vehicles used in long distant transports. A vehicle communication system communicates with the transport management system (from IBS called Cocpit), where each transport mission is registered, and is also connected to the economic system. The vehicle communication system enables the driver to receive orders, send accept of orders and also messages that orders have been delivered using hand units in the trucks. In communication with the economic system it also enables automatic invoicing when delivery has been performed. Earlier the offices had to wait for a consignment note before manually creating and sending invoices.

The system is still under implementation but the aim is to make administration more efficient in communication between transport planning and vehicles, and to limit the amount of manual administration and paperwork, with for example consignment bills. The process of handling consignment bills was the reason for long time passing before payments have been made. The automatic process of handling consignment bills will decrease the administrative lead-time and improve the liquidity. The more efficient solution for the administrative work can also mean a decrease in the amount of staff needed for handling these assignments.

The vehicle communication system is a great asset when it comes to ease the planning and an effect of better planning can be less environmental impact. Previously when a driver arrived in a city and unloaded the vehicle he did not yet know where to go next; with the new planning system this information is ready much earlier. With earlier information, routes can be better planned. The vehicle communication technologies make it possible for the transport planners to stay updated about the location of the vehicles through information they receive on their computers. When something happens, changes can more easily be made. The truck drivers can easily be reached through the computer units in the vehicles.
Alltransport’s Environmental Management

Sales employee 1 also recognizes that transport managers have opportunities to affect the environmental impact in a positive direction when it comes to avoid empty running.

There is a constant discussion with the transport management concerning cost efficiency and fill rate, and the environment is an indirect part of this. Thus there is a potential to reduce environmental impact by cooperating with other transportation actors. Alltransport has cooperated with the company Green Cargo in Norrköping, which also cares for the environment, concerning route planning related to their terminal. Alltransport managed to show how they could lower the empty running for these routes, and Green Cargo showed great interest, which is being followed up.

3.5 The services offered

The business area F&D consists of three parts; express deliveries, distribution services with smaller vehicles on a regional level, and long distant transport with traffic all over Sweden. Alltransport picks up goods one day and delivers the next day, from Sundsvall to Malmö. For the rest of Sweden, the time till delivery is two days, and this is both for packages and full load of cargo. In addition, there are parts of the distribution part where whole vehicles are chartered for specific customers. The express delivery services are carried out in the area Norrköping-Linköping. Alltransport also provides express delivery services through one haulier who is a franchisee Jetpak, and this business concerns delivering, unpacking and installing electronic products to private customers.

Distribution is carried out with regular traffic with round 15 vehicles following their regular routes every day in Östergötland. These vehicles must run every day even if they are not full and only a few pallets are to be loaded. The sales personnel’s task is to find as much cargo as possible for these routes. Most of the heavy trucks have a payload of 6-9 tonnes. Each morning 12 vehicles leave the terminal for regional distribution in Östergötland primarily. A great part of this distribution is city distribution in Nyköping, Norrköping, Katrineholm, Mottala and Västervik, and this is done with smaller distribution trucks.

Alltransport F&D offers a pallprodukt where 1-3 pallets are offered, transport documents are sent out and only a code bar that the customers can print is used. It is a simple procedure and is also cheap. The picking up is done one day and the delivery the day after. This service was developed when their larger competitor Posten started focusing more on their core business and low interest in pallet offers. Alltransport is now trying to raise interest from its network partners in OnRoad for the idea of selling this type of service.

At the terminals Alltransport can offer sorting, and short and long term warehousing. This can partly also be provided in different areas nationally where part owners in OnRoad have their terminals. The opportunity to develop warehousing services further to include price labelling, packaging, breaking up and packing together goods, is something that is under consideration within the company.

Sometimes it is not just the transport but also a good solution around the transport that Alltransport’s customers needs. Services included in the solution can be performed for example at Alltransport’s terminal. Alltransport F&D offers for example solutions for
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packing and loading, stuffing of containers, or stripping customers containers and stuffing of the goods directly on truck’s chassis.

“We might be able to help you pack or something like that too, we might help you load the goods, if you do not need a truck – we’ll take care of it too”.

(Sales employee 1, author’s translation)

Alltransport also lets out warehousing space, comprising a few pallet spaces, to salesmen who deliver sweets and snacks to stores. The salesmen arrive with their cars, fill them with snacks and deliver them to the shelves in stores.

Alltransport also participates in projects that concern for example the transport of goods for recycling, such as wood chips in one direction and cans in the other. Today special load carriers are being built for such transports.

“And we offer then… or always look at what they have and what they are interested in receiving, then you can create different elements, so that you show in different ways for them that you can have your product sent away from here in several different ways, and we have possibilities in all ways to fix this.”

(Sales employee 1, author’s translation)

Sometimes for example the customers have their own vehicle, but Alltransport can find a better solution using a loop where several customers’ goods might be delivered and where each customer only pays for the part of the distance allocated to its own goods.

3.5.1 Reflecting over services

"Our business idea is to be flexible and find customer specific solutions. We cannot be locked but creative".

(Business Area Manager, author’s translation)

Although transport services are similar in nature, the Business Area Manager believes that Alltransport has a different approach than competitors. According to him, the competitors often develop a solution first that they try to sell it to customers, while Alltransport tries to find out about the customer needs first and then develops proposal afterwards to sell to the customer. The Business Area Manager expresses himself in the following way:

"I talk with colleagues in the business a lot, they have it [what they should sell] a little more structured up like that: this is the way it looks [what is needed on the market] and this is what we should sell”.

(Business Area Manager, author’s translation)

Sales employee 1 is very satisfied with the flexibility at Alltransport and the wide range of transports that they can offer. They offer transport with all sorts of vehicles and have good knowledge about the business and about their customers.

“We have a couple of larger customers that are pretty old in Alltransport and from what I understand they have very good track of, very caring of larger customers actually, even small ones.”

(Sales employee 2, author’s translation)
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"Concerning services I see that we can offer… for us nothing is impossible".

(Sales employee 2, author’s translation)

Alltransport’s offering is perceived to be, from there believe, above all that the company is regional, close, and available. When customers contact Alltransport they do not end up speaking with a central booking system, instead they do get to speak with the guy in Norrköping. Alltransport also sees the good price regionally for part-load distribution as an important part of their offer. The regional experience is yet another important part of Alltransport’s offer.

"A regional company [active all over the close region]. If you speak with a customer here in town, Linköping, Norrköping, [the customers in Linköping and Norrköping value] that we are here. Everybody [all employees Alltransport that the customer might need to come into contact with] are here. You have the booking here, you have the drivers here”.

(Sales employee 2, author’s translation)

Sales employee 2 believes he sells OnRoad more than Alltransport.

3.5.2 What customers ask for

Most often the customers ask for a transport from a to b.

"And if you look back, we have not had the opportunity to try to sell anything else either. It is only recently that we have… take this with our terminal; we have been trying to develop it and find new products there. Earlier it was just a terminal for reloading. So that is a product development so to say, that we then can go to customers with. The customers have not known that about us, and then we have not received so much requests for it either”.

(Business Area Manager, author’s translation)

The Business Area Manager perceives that what is most important to the customers is that the goods are being delivered on time. The services become more comprehensive when the customer charters a vehicle, which mean that they have the vehicle dedicated to their own business’ transports. When vehicles are chartered, services like sorting and labelling of goods are often needed in addition to pure transportation. The sorting can be carried out both at the terminal or at the customers’ facility; it can be performed for example at a store when the goods are delivered before the store opens.

"No, but it is so that our offer is about transporting, and where the environment comes in it is about ending up at the transport management; that we perform efficient planning of routes and that the vehicle that is going somewhere has a return load. If we go to Jönköping we see to that we always have return load, it does not happen that you go empty home. Even if economically we can do it, we do not go empty.”

(Business Area Manager, author’s translation)

The sales employees at Alltransport work on finding solutions with new customers to find load in both directions. This is primarily to find economic solutions; it is too expensive to run empty in one direction. In this case the more economical solution is also more environmentally friendly, and customers seem to find this interesting for their
environmental management, even if it is not their main priority when looking for the economic solution according to sales employee 1.

"Well, we were going to work for this, so they reckoned with us not running empty, it would not have been economic either. But at the same time they looked pleased that we got a good solution for this. So I believe it has an impact in the end anyway, because they also meet demands, them too, and they get questions occasionally about their environmental effort, and then they can show this."

(Sales employee 1, author’s translation)

When the interviews with sales employees were made, the company had recently received several new contracts in Östergötland, with high demand on deliveries at specific hours. It had all started with a large customer with tough demands on time delivery between 8-10 o’clock, which led to a shape up at the transport planning, and also the possibility of offering more customers services with better precision in deliveries.

There was also a customer that wanted to buy the whole route, but it was expensive for the customer. By combining the customer’s transport needs with other customers’ transport needs it was possible for Alltransport both to save the customer money and to give a good impression to customers by identifying these solutions. The customer was willing to pay for the goods that had to go every night; now the customer only pays for one vehicle and trailer.

The amount of missions led to high fill rates, which is good from an environmental point of view. The amount of missions and goods had also lead to the possibility to drive the distance in this area every day instead of every second day as was the practice earlier when enough goods in the area had to be awaited before the truck left. It is a cost efficient solution with higher fill rates where the vehicles can remain in a smaller area since there is more cargo; there are not long distances to go to find enough cargo to fill the truck. The large customer, along with a lot of smaller customers, has given the opportunity to enough load and full occupancy.

“So that I believe, is the greatest part from sales personnel’s side, for the environment, that you can load and go with full trucks instead of driving them half full”.

(Sales employee 1, author’s translation)

3.5.3 Diversifying offers

A great difference in transport services can be the form in which the customer wants the statistics or invoicing or pricing of the transports presented. Alltransport has the ability to provide customers with completely different solutions for the administration of a transport. The administrative part consist of different types of pricing; sometimes customers pay per pallet, or per stop, and some pay per stops made for them each day.

According to the Environmental Manager, agreements concerning the delivery can include specification of accounts, agreement of specific individuals, agreement concerning manned or not manned pick up, digital solutions to trace goods, repackaging of goods, cross docking, and discharge or loading of trailers for international transports.
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For high value goods, separate transports are offered. There are also offers for more specialised transports regarding type of goods. There are offers concerning shipments during weekends, offers related to the use of technology for scanning or the use of barcodes, and offers concerning stock keeping of goods.

Today many customers book their transport by phone or fax, and customers are actively encouraged to book over the Internet. There have been attempts to find solutions for customers using electronic data interchange (edi), but these have not been successful. For OnRoad, a common IT platform has been created so that everybody that participates in OnRoad use the same system. The bookings with OnRoad go through OnRoad’s system to each participating partner company. The partner companies receive information about what services they need to perform related to the bookings.

There are also services on the side that can be offered when customers book online using OnRoad Online; they can access statistics on line. Through the online service customers can find all consignment notes (fraktsedlar) and other documents on electronic pdf-files. There is also the possibility of electronic invoicing. The aim has been to move as many of the administrative services as possible to be handled through the online business.

3.6 Alltransport and its competition

Although Alltransport has recognizes competition on the express delivery part, the distribution side and some on long distant transport side, no competitor offers the same holistic concept as Alltransport.

"But what has been done that has made us able to offer a good product, and then we are back to this, is partly the work with environmental issues that is being done and above all that shows that we work and think of this [the environmental effort], and that is appreciated by customers. The problem is that no one wants to pay for it".

(Business Area Manager, author’s translation)

Alltransport differs from the very large companies that are their competitors when it comes to the more holistic offers by still working on a local level selling very much on the basis of personal contacts. The customers that call Alltransport do not end up at a call centre but can easily speak directly with the transport managers, which is why information that is asked for can be given directly.
There is one terminal in Norrköping which is being rented by Alltransport. It is staffed and equipped by an Alltransport hauler and where Alltransport runs the business. Another terminal is located in Linköping where Alltransport owns the terminal and also provides staff, trucks and equipment.

The terminal in Norrköping is the base for the distribution business in Norrköping and thereby the starting point for 10-15 vehicles every morning. The terminal in Linköping has less regular business; it is run more from day to day, like a service terminal. The terminal in Linköping has more of a warehousing function than the terminal in Norrköping. In the latter the goods just pass through to a higher extent.

The whole production of services is built on what happens in Norrköping.

At the terminals most terminal services are carried out, apart from the signing of consignment bills and all administrative services, which are carried out at the head office.

Sometimes F&F carries out services for B&A and sometimes it is the other way around. An example is at the terminal, when handling loads and there is a need to utilize transport vehicles that are not part of F&F’s business but a part of B&A’s business, like crane trucks.

The terminal in Norrköping is 2000 m². It receives goods during the night, and then goods are distributed during day. Goods are also gathered during the day and transported away with long distance transport vehicles during night.

Sales employee 2 sees vehicles, buildings, people and knowledge about specific customers as important resources to Alltransport, and Sales employee 1 expresses his thoughts on the subject like this:

"Then we have very good knowledge in the house. Now there is indeed a shift in generations… when I started in 2002 then most of these [the employees of that time] had worked 25 to 30 years in the company. Now there has been rejuvenation, but still the knowledge is left, they have passed on the knowledge they had and many are still a little bit older. Since they have been many many years in the business it is too a good resource to keep the more elderly [employees] too. A good mix I believe. That is the part I think of. Then we are actually a local company. We sell mostly locally in Östergötland, and we should do that; it is written down. And we are locally attached; have good knowledge of the area and you get a close contact with transport managers… So that is a resource, that the customers have the possibility to reach us directly”…"Yes, but it is probably that you perhaps even know each other and too, we know where we are going, everybody knows every street here. For example in Norrköping, and then we have an office in Linköping and you get a very personal contact and it is worth very much.”

(Sales employee 1, author’s translation)
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3.7 Business development

At F&D there has been a change from traditionally driving full loads to break bulk. Starting to transport more break bulk has led to a greater need for planning transports, and the distribution network has been expanded, which leads not only to more planning but also the right network of contacts. There is a need for competence to build loops in order to avoid empty running.

The network OnRoad enables F&D to take break bulk missions. With the network, the transport planning becomes an incredibly important resource according to the CEO who comments:

”We believe that… partly from a view of economic development it is positive, but also for me environmental impact and so on.”

(CEO, author’s translation)

Sales employee 1 believes he always tries to find ways to fulfil wishes from customers when they tell him about them. If customers want more warehousing possibilities and that is not currently available at Alltransport, then he tries to see if Alltransport can increase its warehousing space.

“It can be that they want possibilities to keep stock to a greater extent than what they do now, I would proceed with it [trying to find more warehousing space] if we do not have those stock keeping spaces. So maybe I could influence us to obtain more warehousing space so to say, by hiring more space.”

(Sales employee 1, author’s translation)

The sales employees perceive they are free to develop services if they get a good idea.

”… we shall not enter a completely different market but still then… a couple of months ago we started selling pellets for example, and it is something we have not done before.”

(Sales employee 1, author’s translation)

Alltransport transports the pellets to its warehouse in Linköping, from where the company sells and distributes it to customers. They have made radio commercials for the product. Alltransport saw the flow of pellets through their transports for other customers so they knew that there was a demand for pellets.

The sales personnel believe there might be more possibilities to take care of loading or load planning for customers. They have not come so far with developing ideas around this yet, but believe that such services will probably be developed in the future.
4 Environmental management represented in the offering

The main offer from F&D is of long distance transport and regional distribution services. Earlier, in chapter 2.1, the wider picture of how Alltransport’s environmental management is reflected towards the company’s stakeholders was presented. In this chapter, the environmentally related offers or parts of an offer will be described more deeply. The offer is viewed in a broad sense and sales activities related to communication with customers are included.

4.1 Sales employees contact with the environmental management

The sales employees at Alltransport Fjärr and Distribution come into contact with the environmental management during sales procedures. When customers bring questionnaires concerning the environment, vehicles and emissions into the procurement process, the sales employees forward these papers to the Environmental Manager. The Environmental Manager provides help within the environmental field for the sales department when needed. The Environmental Manager’s contact with Alltransport’s customers is primarily through answering their questionnaires concerning sustainability demands. She also participates in meeting customers and in follow-up meetings. During larger procurement negotiations the Environmental Manager is always present.

"They do set some requirements for us, as part of the procurement many times, and partly it’s that we are certified, for example, but it can be questions about what we’re doing right now and how we look at the future in terms of environmental management. And that’s often when you are out and giving presentations and so on, then we bring [to meetings with customers] the sustainability report and what is currently being done in the company where we among other things show the work we are doing."

(Sales employee 1, author’s translation)

“And there we do have the opportunity also to include, for example Ella [the Environmental Manager], or someone who is working with this, to bring and present this to the customer as well. So we’re always open to supporting one another during these procurements. So that’s what feels good, when you yourself are not an expert in the environmental field regarding the purely technical [environmentally related measurement techniques]. Then you bring someone who works with this. It is the difference from working in a smaller company, because then you get to do all this yourself as well.”

(Sales employee 1, author’s translation)

The Business Area Manager believes that Alltransport needs to become more active in bringing environmental issues into the sales process, to educate internally about the sustainability accounting so that the sales staff can help customers understand the transport related environmental issues and the company’s environmental effort. He points out fill rates and vehicles as two important areas to work with, that it is important to earn enough for the hauliers to be able to afford investments in new vehicles and also to consider new fuels.

It is the sales employees’ responsibilities to check that the jobs accepted are not in districts where the vehicles will be driven partly without payload, both for economical and environmental reasons.
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The primary reason for sales employee 1 to ask the Environmental Manager to participate in meetings with customers is when it is a large customer and if the sales employees notice that there are high demands on environmental performance.

“...it may be that the customer is quite substantial, and we find that they have very high environmental standards and [then] it can be beneficial for you, instead of delivering the papers and that part, that you present and show that we really work with environment and this then. And I think it is... they are a little impressed in all that we have the personnel dedicated to this particular environmental management that we have. There are many who just think it is onerous these times, but now we have some people that work almost full time with this and we never have problems with obtaining data, whatever they want and it feels good when you’re out selling since you know that this is so, that you can promise the most, anyway, since we are as far ahead as we are.”

(Sales employee 1, author’s translation)

According to the Business Area Manager, the environmentally related work in the business that he sees as most important on his business area’s behalf is route planning, both for economical and environmental reasons. The change from paying hauliers per hour to number of deliveries is also considered to have an impact on the environment since it is an incentive for hauliers to minimize the driving distance.

“But, as said, the big thing is the route planning on the long distance side. Those [the long distance transports] are the big villains when it comes to the environment.”

(Business Area Manager, author’s translation)

Sales employee 2 has no environmental training. Sales employee 2 forwards environmentally related issues and questions to those responsible for environmental sustainability.

“But then I am not sure that you [a sales employee] are so good at talking about this while out visiting the customers…”

(Sales employee 2, author’s translation)

Sales employee 2 says that the customers are not so good at talking about the environment either. When meeting customers, sales employee 2 believes he sells OnRoad more than Alltransport. In OnRoad there is presentation material that all the partners must follow. There are guidelines for how work is to be carried out, but all participants have not come equally far. Sales employee 2 points out that he sells “all of the company” and brings colleagues from other business areas to customer meetings, when other business areas resources are needed by a customers business.

“But at a customer meeting where I only talk and do not have a presentation then you might forget a little about the environment”.

(Sales employee 2, author’s translation)

The most topical part of the environmental management for Sales employee 2 is to tell about Alltransport’s environmental certificate.
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"Then it came as a bonus, the measuring. Many do not know that we have it at all, and that there are possibilities to do it this way. They get happily surprised when they demand that there should be some sort of environmental… then this becomes a bonus for them, it gets extra good."

(Sales employee 2, author’s translation)

The Environmental Manager feels that the sales employees make use of her competencies, when for example a customer comes and asks for a product that the sales employee has less knowledge about.

"Then he comes to us and ask: ” but what is that? Can we do that? What is behind it? Can we do in any other way instead of to drive on it [for example alternative fuels] but have the same effects, the same result? This is it, they should not stand alone and be left with questions that they cannot answer and at the same time we are here to help."

(Environmental Manager, author’s translation)

When it comes to the use of networks, sales employee 1 believe that when they meet in networks the discussions regarding the environment does not often go further than the mentioning the sustainability report.

The sales groups meetings concern business, ideas, customers and not so much the environment.

4.2 The Environmentally related part of the offering

To expose the environmental contents of the offering to customers, Alltransport aim to highlight the use of modern vehicles, the use of more environmentally sustainable fuels, good planning and the ability to access the environmental impact from each job. Alltransport attempts to show that they have a good fleet with Euro standards that are as high as possible. Their membership in the network TRB is perceived as a great resource in helping them to stay positioned in the front line. Alltransport has trained its drivers and try to have order and clarity in the environmental management. Often they see that they receive the highest scores possible in the environmental sustainability part of municipal procurements.

Since Alltransport’s suppliers own their trucks, Alltransport wants there to be an interest from the suppliers’ side for updating their vehicles.

F&D offer a transport from A to B. The customers can buy the transport from A to B or a whole route, they can buy a charter or a fast pick up, and still, these are all alternative transports. There is far less environmental impact if you drive the goods in the regular service traffic instead of separately. During procurement it is agreed on which parameters and standards, related to environmental performance, that are to be included in the service.

Emissions data

Alltransport offers their customers emissions data related to the transport services they perform. There is one employee, a so called Registratuer, who is responsible for issues concerning electronic vehicle communication, transport planning systems and other
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issues regarding the environmental database, which is used for compiling emissions data. His work is mainly administrative. Requests for emissions data are passed over to the Environmental Manager and the Registrar. More standardised requests for environmental data can be delivered directly by the Registrar at Alltransport. If there are more specific requests, that need calculating, the sales personnel instead forward them to the Environmental Manager. But the gathering of information, environmental data, is the Registrar’s responsibility. Thus the registrar assists the Environmental Manager in her work.

When Alltransport carries out the whole transport, accurate emissions data can be delivered. When other parties participates in performing a service, the same vehicles and fuels and tyres as Alltransport use are the basis for estimating the emissions. The Environmental Manager mentions the difficulty which occur when sometimes, due to the fact that a haulier sometimes drives for somebody else who drives for somebody else, then the request might end up at Alltransport anyway, even if they are not carrying out the transport. The Environmental Manager also discusses the fact that Alltransport reports its emissions to customers that want to assess and report their own emissions. The customers’ report to their customers that are interested in the figures because they want to be aware of and report emissions that are indirectly related to their business. This can sometimes lead to the same figures being reported several times and related to different actors.

"Sometimes you have no direct need for development since you might not feel responsible for whose CO₂ it really is. Then you are back to the question; is it ours or theirs?"

(Environmental Manager, author’s translation)

Although Alltransport can deliver emissions data, few customers ask for it.

"We always try to meet the customers’ needs and find solutions for them. In some cases we offer things to the customer that they do not always want since we are ahead of their wishes. […] Yes but let’s say this; we have come very far regarding this, we can measure their environmental impact, but many do not want that."

(Environmental Manager, author’s translation)

A few customers ask for emissions data, about 5 customers out of 300 each year. A typical standard question is once a year, when a customer wants to know the environmental impact from transports for a certain customer of the customer’s. Often the customers do not collect the data until they themselves have to present their data and often it is close to the end of the year.

According to the Environmental Manager there might be a drawback in providing customers with the amount of CO₂ in tonnes that their transports cause. The customer can perceive the CO₂ as a very large amount, especially if the customer does not have much knowledge on environmental impact of transportation, then it can look very negative according to the Environmental Manager. Still, it is not often that customers ask for emissions data, usually they only want to know the euro standard of vehicles, euro 4 or 5 that is used.
When reflecting over the total offering to customers, the environmental part is of more peripheral concerns and also more a part of a general sales strategy, and it is seldom more specific than that. Considering the standard demand and desires from customers on matters of environmental sustainability and development the Business Area Manager replies:

"… during initial requests we need to present [to customers] that we have an ISO certificate and all that means, you need to be able to show that you work with the environment and all that, but in the end it is in 9 out of 10 procurements today they disregard everything, and go only on the price still. They are few but they are easy to count. Unfortunately."

(Business Area Manager, author’s translation)

4.3 Developing the environmentally related part of the offering

When the customers purchase of transports is based on relatively long term agreements, Alltransport tries to consider not just current resources but also the potential development opportunities.

Alltransport has experienced interest in finding solutions with alternative fuels from a customer. Nevertheless, after trying to find solutions and estimating price for the service where investment costs were taken into account, Alltransport’s customer lost interest. Alltransport had added the extra cost for this service compared to an ordinary service in the quote under a heading they called “environment and development”, but the customer found the solution too expensive.

Within the company there has also been a discussion about charging an environmental fee for environmental services, but this fee has not been realized. Sales employee 2 reflects on environmental fees:

“But nobody dares to do that. It is a cutthroat anyway regarding prices out here. If you start speaking about environmental fees you are probably gone.”

(Sales employee 2, author’s translation)

4.4 Customers’ demand of environmentally related services

Often the customer does not ask for environmental sustainability information, according to the CEO. Most customers focus on price, and on efficient solutions that affect the price. But, demands concerning environmental performance are increasingly stated during public procurement for example, especially in the construction industry. These demands can for example be on a certain standard level of motors in vehicles, like Euro 5 motors.

"So they place really high requirements, but often it is the case that the one [logistics service provider] that was the least expensive gets it [the deal] anyway. And when you then looked at the work place, then you saw that it was not at all these vehicles that were driving around, but the transport supplier had hired somebody else in turn that was not certified. “Yes but I am driving on his certificate” he [the driver] says then. The control was non-existent.”

(The CEO, author’s translation)
Sales employee 2 experiences a demand from customers for environmental performance during their procurement. What is demanded is usually that Alltransport carries out environmental management on a general level, and sometimes also that Alltransport can assess emissions related to customers transports.

“Yes, they are not so thorough, it is not a whole A4-paper, but they mention that we should have certificates and they ask questions instead, I think that this thing about the environment is very difficult, they do not know what to demand, but instead question: “what do you do?” and then you get to present your program. This is what we do for the environment, this is what we work with, recycling at the office, driving vehicles with these tyres and these fuels and have these rules concerning speed and so on.”

(Sales employee 2, author’s translation)

“If we are selling in services at the larger companies then it is good to have this along, good environmental work. I do not believe… they look substantially at exactly what we do, but that we do environmental work. In any case.”…

(Sales employee 1, author’s translation)

Sales employee 1 believes most of the talk about environmental management concerns Alltransport’s environmental management over all and is not about specific services. Sales employee 2 has experience from customers’ lists of demands of environmental performance during sales.

“Most of the time it is the case that we shall have certificates concerning both environment and quality. Some specify that they want us to… they place the question: “how many [drivers] have participated in eco-driving training?” for example.”

(Sales employee 1, author’s translation)

On the long distant transport side, the sales personnel sometimes encounter demands from customers about the environmental standards of motors and questions concerning the environmental standard of tyres. Some customers have also asked about which type of cooling media is used in vehicles. They have also noticed an increase in the demand and questions concerning traffic safety and eco driving and that all rules concerning speed, driving and rest-hours are followed. Demands for installed alcohol-locks in vehicles have not yet been recognized, but the sales employee working with long distant transports thinks demands for this are soon to come.

According to the Environmental Manager there are always discussions with the customers and guarantee that all drivers are qualified not only in their profession but also that they had environmental, quality and traffic safety training.

Sales employee 1 does not believe the customers always understand what they are asking for when it comes to environmental management.
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“No, I do not believe so. It shall just be a part first I believe. And then yes, they just ensure that: “we want all of this to work, and to a cheap and good price”. Then they are pleased.”

(Sales employee 1, author’s translation)

One of the sales employees expresses his view of the demand for environmentally related contents of services:

“…it is probably the case that they have something written down, that we shall include this during the procurement of transports”

(Sales employee 1, author’s translation)

Once the transports are purchased, there have been no new demands on Alltransport to declare environmental management in any way. The Environmental Manager believes that the most appreciated environmentally related parts of the offer are the measurement of CO₂ emissions and euro level of motors, but she stresses:

“But I believe that what the customers appreciate most is that you deliver something comprehensible.”

(Environmental Manager, author’s translation)

Most customers do not care whether the information they are asking for concerning measures of emissions, is delivered in diesel in litres, or in kwh for motor efficiency. The Environmental Manager believes most customers that ask for data do not know what they are to do with the information when they get it and are therefore happy with whatever they receive.

Sales employee 2 does not believe the customer think a lot about the environmental offer when it concerns speed transports, when it is a hurry, but in the case of more planned transports he believes the situation might be different and customers can consider Alltransport’s sustainability report, that it has won prices and that Alltransport is good at environmental management.

When talking about customers’ demands focused on the hauliers activities, the Environmental Manager sees that customers ask whether the hauliers have been trained and have licenses, but there are for example no questions about specific vehicle brands related to environmental issues. For example large companies from some industries demand that the drivers participate in their own safety courses.

At the same time the sales employee has not seen specific demands for traffic safety but he sees a demand for Alltransport to be working for traffic safety. What is demanded is that Alltransport confirms that they are following laws and regulations regarding for example driving hours. Many customers also accentuate the need for transport suppliers to follow rules and not overload the trucks. Sometimes they check the weight when trucks enter and leave their facilities, since they do not want their brand to be associated with accidents or incidents in traffic where trucks are overloaded. Cargo safety is another aspect related to safety that customers may bring up.

Sometimes customers request environmental services that Alltransport cannot provide. In those cases, the Environmental Manager helps the sales division to explain to customers
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when Alltransport can offer substitute solutions with an equally good or better environmental performance.

Public authorities are better at making environmental demands as are larger customers. is It is necessary for the logistics service provider to have an environmental certificate to be able to participate during these procurement processes. The customers usually bring a form for Alltransport to fill in. They ask in advance for information regarding emissions for specific future freight volumes, and it can take weeks for the sales personnel to put this information together. Small and middle-sized companies on the other hand rarely ask for this kind of information. The RFQ’s from these customers are not as complicated, and they might just ask for prices for specific carriages. But Sales employee 2 has seldom experience that the environmental demands stated very seriously in the beginning of a purchase process are seen as important by the customer later when the actual deal is made.

"Municipalities are a good example of that. They are really rigorous in specifying what they demand with regard to environmental and other certificates like ISO 9001 and 14001 and all that they are called. But then it is just; ”it cannot cost more than this”.”

(Sales employee 2, author’s translation)

With regard to the environmental management the Sales employee 1 points out that they can present Alltransport’s environmental management but do not know how the customer values it. Consumers that buy pellets from Alltransport for example, are perceived to care less about environmental effort related to transports.

4.5 Reflections on future development

In the future, the CEO believes that there will be a greater need to package the offer in a way in which different the measures to reduce environmental impact will be increasingly stressed.

"We don’t always say that we have a driver trained in this and this and that. Some times the customer demands it and says: “yes, but we need… he must have eco-driving and alcohol locks and ….”. But all of these services, I believe, we must make [them] more tangible and really show – visibility”.

(CEO, author’s translation)

The CEO believes that purchasers are different than they were ten years ago, and since procurement will continue to change he believes that those who take responsibility for the environment will benefit in the future.

" but then all these things need to be tangible. And we’re bad at saying if we use environmentally friendly kinds of oils and fuels, or whatever it might be”

(CEO, author’s translation)

Considering their environmental effort, Sales employee 2 says:
Alltransport’s Environmental Management

“This is nothing the transportation industry made up by themselves but it is something that has been built from below all of the time, so of course the demand has been there for some time and then it has been developed. One of these is measuring, Reporting.”

(Sales employee 2, author’s translation)

Sales employee 2 also believes there will be more focus on environmental performance in the future.

“You cannot drive on this [environmentally unfriendly fuel]. I believe it really. There will be more focus, the more that it comes up in media the more the demands will naturally increase./…/In five years I believe everything will be different. If “You only have Euro level 3”, “well”, “well then you will not be allowed to drive one meter”, “We want Euro level 5”. “

(Sales employee 2, author’s translation)

The Environmental Manager believes that there will be more demands on the environmental accounting and documentation of transports in the future. She believes some sort of environmental goods declaration will be required on transports, and that environmentally related data for transports will be demanded by customers who perform life cycle analysis of their products. She believes there will be an increased attention on the choice of products and as long as there are alternatives, she believes people will want to separate them and choose the best one, also regarding the environment. For this choice to be feasible she says:

“More knowledge will be needed”

(Environ mental Manager, author’s translation)

The Environmental Manager believes that in the future, more additional services will be added to the transportation service in order to sell it and to make it more environmentally friendly. She believes these include for example, alternative fuels, cleaner motors, eco driving, monitoring, logistics planning, and warehousing.

Further, the Environmental Manager believes in trying to catch the consumers and customers’ attention for the environmental management, and she believes people will increase their interest in environmental performance in the future.

The Environmental Manager believes that in the future there must both be good information about a product and a good product. Some day in the future, the end consumer will start asking for more environmentally related information about products, and transport companies must be ready to deliver their part of that information.

“And if we have, in addition to the information that is proof but also the specific product (transport services) that is environmentally friendlier, then we will win on that. /…/It is not enough to have the most environmentally friendly vehicles if you cannot prove they are more environmentally friendly. And it is not enough to have proof if what you perform is extremely bad. You must have both.”

(Environ mental Manager, author’s translation)
Sales employee 1 also believes that the company will benefit from its environmental management in the future:

“Yes, I believe that we will benefit from it in the future, in that we are still quite far ahead today so... and we continue to work the way we do, then I believe we will beat many competitors in that way, because I do not think we will leave these environmental requirements, but I believe there will be more and more instead. And since we are on track today, I think we can be positive about having the environmental management that we do today. [.../ Sometimes [nowadays] it’s hard, because... you do a lot of work: writing quotes and expect a lot, and then they [customers] have had very high standards, and you should specify everything... but then they do not look at that part in the end, and then it is just the crown’s under discussion and nothing else. [.../ But I hope we get to that moment when they look at, and take into account, environmental management more as well. But it is... right now it’s for us all to participate, then one must have this [environmental] work. Although there are some who take a job but then outsources it to others using some old vehicles or so...”

(Sales employee 1, author’s translation)

In the future the CEO believes that solutions where a transport supplier says it is more environmentally friendly, but it turns out that transports are outsourced to less environmentally friendly second tier suppliers, will disappear.

"But I think this is something that will disappear. We will have completely different decision makers, even in municipalities and all that this may be because there are new generations coming. There are new trends in society, and in the end, you start taking this seriously. It is indeed as you say, you should act, and do it in reality. And therefore I believe this, that if we do not invest in all its forms... the whole organization; be it training or hands-on activities, or to minimize emissions from our car wash or to work a lot with that we get so much cleaner engines as possible so we are... then we will lose in the end. We will not be an option."

(CEO, author’s translation)

"We have had such a profitability that we can invest a lot. If you look at this purely economically speaking, we have not gotten our money back by a long shot.”

(CEO, author’s translation)

"But without the environmental considerations or the sustainability view, we will lose competitiveness in the future. It is the companies that are in the forefront, that clearly show what they do and do not do, how you work, which possible improvements you do and so on. It is those that will be winners in the end, because suddenly the customers will set much higher demands than they do today.”

(CEO, author’s translation)

Sales employee 1 points out that he believes it would be nice to be able to show even more to the customers and society how strong the environmental management is at Alltransport.

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5 Swedish currency.
Alltransport’s Environmental Management
Alltransport’s Environmental Management

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Alltransport’s Environmental Management
Appendix: Environmental policy

Environmental policy in Swedish:

1. Ständiga förbättringar och kritisk granskning är ledord i vårt miljöarbete
2. Vi ska betrakta existerande lagar, förordningar och andra krav som minimikrav
3. Vi ska ständigt pröva vår verksamhet utifrån kretsloppstanken och hushålla med naturens resurser.
4. Vi ska kontinuerligt höja kompetensen och miljömedvetenheten hos alla våra anställda.
5. Vi ska vid bedömning av affärspartners värdera aktivt miljöarbete som en merit
Appendix 4: Case report DGF SE
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DGF SE’s Environmental Management
1 Introduction

This is a report of a case study of the environmental management of the company DHL Global Forwarding Sweden (DGF SE). The company is the Swedish actor of the Global company DHL Global Forwarding, which is a part of the corporate group Deutsche Post DHL.

The focus of this report is on describing the company's environmental management, how it is organized, which resources it concern, and the parts of the environmental management reflected in the offer to customers. The case study was performed during the year 2010 and the aim is to show the environmental management of that time. Where the report is written in present tense, present time still is refers to the time for the interviews.

In DHL, there is a Global structure, a European structure, and a Local structure that represents the country level. Since the environmental management is very much directed from European and global levels of DHL, the report starts by describing DHL Global and the environmental management from the global level. This part of the report is based on information from DHL webpages. Then follows a section that describes DGF SE, which is based on interviews with employees at DGF SE, as well as of the environmental aspects register of DGF SE and the webpages of DGF SE. The last part of the report comprises descriptions of the environmental management of DHL Express and DHL Freight, since these companies' Environmental Managers and the environmental manger of DGF SE cooperate concerning the environmental management.

Some information is presented in boxes to make the text easier to read, for example information that is related to what is described in the section but which is not directly connected to the headline.

1.1 DHL

The company DHL is a part of the corporate group Deutsche Post DHL. DHL has a global network comprising more than 220 countries and territories, and 275,000 employees, according to the DHL Internet webpage. DHL offer expertise in express, air and ocean freight, road and rail transportation, contract logistics and international mail services to their customers. Internationally, a separate business area represents each division. A Corporate Centre leads all business areas and performs Corporate Group management functions. Intergroup services that are used by all business areas such as economics, IT and procurement are centralised.

In Sweden, four divisions of DHL is represented: DHL Express, DHL Global Forwarding, DHL Freight and DHL Supply Chain. Each division is a separate Swedish enterprise and is lead by a Swedish corporate centre.

*DHL Express* provides international courier and express services for documents and parcels to businesses and private customers. They provide both same day delivery and guaranteed delivery on a specific day. There are 500 airports in Europe, Asia Pacific,
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Latin America, the Middle East and Africa and around 50 airports in the U.S. that are served by DHL Express routes. DHL Express uses DHL-owned airlines, contracted partners and third party airlines. DHL Express offers airport-to-airport services to both its sister companies in DHL and to third parties, in order to utilize excess capacities, and enhance capabilities and economy.

DHL Freight provides overland transportation in Europe, parts of the Commonwealth of Independent States, North Africa and the Middle East. It offers national and international groupage, full-truck-load and less-than-truck-load services using road, rail and intermodal transportation. DHL Freight also provides a distribution of parcels service for private individuals using a Swedish countrywide network of 1300 pick-up points.

DHL Global Forwarding provides freight forwarding services by means of air and ocean. The services offered are for both specific deliveries and customized solutions for major logistics projects and customs services. The operations are managed from over 150 countries. The company organizes scheduled flights and chartered aircrafts from a wide range of carriers, both DHL’s own carriers and also competitors’. DHL manages ocean freight services through long-standing carrier partnerships and their own suppliers of over sea carrier services.

DHL Supply Chain provides design and implement customized supply chain solutions and information solutions for market leaders in more than 50 countries. The services offered are integrated logistics solutions through all of the chain of goods flow, including handling at warehouses and fourth party logistics services.

1.2 Environmental management at DHL Global

DHL Global has a program for minimizing the impact of their actions on the environment, called GoGreen. The program is comprehensively presented on their global webpage. It is stated that GoGreen aims at minimizing the impact of their actions on the environment by using resources in a responsible manner. DHL have committed to the improvement of the CO₂ efficiency of their operations and those of their subcontractors by 30% by the year 2020, compared to their 2007 baseline. In the Deutsche Post DHL, DP DHL strategy for 2015, which was presented in 2009, the aim to offer customers innovative sustainable solutions was emphasized. The following environmental policy goals that set the foundation of the GoGreen environmental protection program, are stated on the webpage:

- to strive to minimize our impact on the environment
- to be transparent about what we do
- to deliver value to the environment and our Group
- to show a clear way towards an environmentally responsible future.

In order to improve the Group’s CO₂ efficiency, DHL try to identify, test and implement environmentally related measures in their fleet, facilities and networks. There are considerations, in their plans for the development of the fleet of aircrafts, which take environmental issues into consideration. The most significant share of CO₂ emissions are under DHL’s direct control from their own fleet of aircrafts that operate in the DHL Express network. On DHL’s webpage, measures to increase their CO₂ efficiency by the
optimization of capacity on the aircrafts are presented. For the fleet of vehicles there are plans including for example the replacement of vehicles, alternative technologies and fuels, driver awareness and also subcontractor management. Subcontractor management is responsible for about 80% of the Groups carbon footprint. Since DHL are not in control of all of the factors that influence the environment, from sea transports for example, they have joined industry networks that work towards transparency on fleet compositions and towards industry standards. With regard to facilities DHL has taken measures to decrease energy consumption. The company has invested in two facilities with very high environmental standards in Australia and New Zealand. These facilities have a 20% lower carbon footprint than compared to earlier facilities.

Another part of the work towards increased resource efficiency concerns on-going efficiency improvement measures. The implementation of innovative solutions and optimization of connections and capacity usage within networks are presented as environmentally related measures on the DHL webpage.

To implement the GoGreen program on site level, an environmental management program called the 6-Step Approach has been developed. The program is a process through which all units can take steps towards implementing a formal environmental management program that also allows for country specific adjustments and initiatives.

DHL’s green steps aim at mobilization of employees. This work includes measures to create awareness of environmental protection by means of programs and events, for example, at the World Environmental day in 2009. In a group-wide employee opinion survey in 2009, almost 60% of the employees confirmed that their teams were taking energy saving measures in their workplaces. DHL’s view of the employees’ role in the environmental management is emphasized on the webpage:

“Our around 500,000 employees contribute knowledge, experiences and innovative potential. They know best how to reduce resource use in their workplaces. Mobilizing our employees is an important pillar in improving our resource efficiency and providing green solutions to our customers. Our employees put our environmental goals into practice, every day, around the globe.”

(DHL Webpage 2011-05-06)

In 2009, the CEO Frank Appel announced that the GoGreen program was one of the key components of the Group’s new business strategy, which shows that management is committed to the environmental management according to the DHL webpage.

According to the DHL webpage, the personnel representative at the board at Deutsche Post DHL has had his personal CO2 footprint measured. It showed that his work related travelling represented almost 95% of his CO2 emissions. He now promotes car sharing and the use of green electricity.

DHL also calls their employees to action more directly by their GoGreen Dialog Map, which involves employees in the environmental management. By brainstorming and evaluating measures in workshops at local offices they try to find ways to reduce their office’s environmental impact. At the world environment day, individual employees committed themselves to green measures, like taking their bicycles instead of their cars to work, and DHL planted a tree for each commitment. DHL also has a car policy in
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Germany and has worked with customers from local offices in England to reduce CO₂. In several countries there has been a project called “ThinkGreen - GoGreen initiative” in which employees were asked for their ideas for environmentally sustainable solutions. DP DHL have also introduced awards such as the corporate responsibility award, which recognizes and supports employee-led charitable projects in local communities. The award was introduced in 2009, since then 30 projects have been awarded of which three have had a strong focus on environmental protection.

DHL has a number of green solutions for customers where the CO₂ emissions related to specific shipments are offset by contributions to climate protection projects.

DHL presents its position concerning the political development that impact on their business on their webpage. For example, they emphasize their support of a market based approach to the introduction of carbon pricing mechanisms in Europe and the World. Their support of international standards for transparency across supply chains that can facilitate measuring and managing CO₂ emissions, and their support of investments in carbon efficiency and their view of the need for research and development that can enhance the commercialisation and availability of low-carbon transportation solutions according to their Internet webpage.

In order to achieve sustainable sourcing, DHL has developed a supplier code of conduct and a paper policy. The supplier code of conduct is a guideline for business dealings and a presentation of ethical values and aims to encourage suppliers to environmental standards. The environmentally related part of the code of conduct asks suppliers to comply with environmental laws, regulations and standards, as well as to implement effective systems to identify and eliminate potential environment hazards. It also states that suppliers have to provide relevant efficiency data for DHL and to take climate protection measures in their own operations. Paper is seen to be of the most important resources, and has therefore been included in their environmental strategy. Paper is used for packaging, stationery and for communication.

DHL has set a standard for carbon accounting because of the lack of standards and best practices for carbon measurement in the industry. In order to be able to identify efficiency improvement measures and track the progress of their GoGreen program DHL has implemented a carbon accounting and controlling system based on the Greenhouse Gas Protocol and ISO 14064. DHL also constantly work with the improvement of subcontractor management to obtain an improved transparency of their CO₂ efficiency, since subcontractors generate 80% of DHL’s emissions.

1.3 Environmental management DHL Sweden

DHL Sweden’s environmental policy operates in conjunction with the Deutsche Post World Net and DHL Global environmental policies and guidelines.

Corporate responsibility is a core element of DHL’s corporate strategy according to their webpage.

“Our commitment is to develop and environmentally sustainable DHL Network”

(DHL webpage 20110414)
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Environmental protection is a part of DHL’s commitment to corporate responsibility, and work in this area is carried out through a corporate program called GoGreen. On DHL’s webpage, the GoGreen work is presented as follows:

“GoGreen minimizes the impact of our actions on the environment by using resources in a responsible manner. We have been the first global logistics company to set ourselves a quantified CO2 efficiency target. By 2020, we intend to improve our energy efficiency by 30 per cent compared with 2007 - using such measures as more efficient transport, optimized planning, alternative sources of energy and innovative technologies. Additionally, Deutsche Post and DHL offer their customers a broad range of products to reduce and offset their carbon emissions.”

(DHL webpage 20110414)

GoGreen is both an environmental program, as mentioned above and a carbon-neutral shipping option for customers. With regard to the carbon-neutral shipping option, all transport-related emissions of carbon dioxide are calculated and offset through investments in external climate protection projects. Customers choose whether to send all or a part of their shipments as GoGreen. Customers who use the GoGreen service receive special GoGreen stickers to place on their shipments and an annual certificate stating the total amount of carbon dioxide that was offset on their behalf during the year. The aim is only to offer carbon offsetting to customers, and the results of offsetting carbon is not included as part of the result in the reduction of CO2 that DHL aim to achieve.

DHL has an in-house team responsible for managing the investments in climate protection projects, and the emission calculation methodology is verified by a third party, SGS1.

1.4 DHL Global Forwarding Sweden (DGF SE)

DGF SE, consists of different business areas, Air forwarding, Sea forwarding and Lead Logistics Provider (LLP). DHL Air forwarding organize scheduled flights and chartered planes from a wide range of carriers, both DHL’s own aircrafts and other carriers such as SAS, KLM, and Lufthansa. The procurement of air operations is not done from the Swedish offices; instead this work is organized from the central product owners in DHL Global Forwarding. DGF SE also manages ocean freight services through long-standing carrier partnerships and its own supplier of over sea carrier services.

DGF SE LLP provides logistics consultancy services, end to end management of logistics solutions called control tower services, which means the outsourcing of customer’s forwarding or logistics division, provision of customized solutions for major logistics projects and comprehensive customs services. DGF SE LLP develops logistics solutions for customers, as well as services that create control and cost reductions in the logistics. Environmental services are also a part of DGF SE LLP's offer.

For the LLP part of DGF SE, the DHL’s network allowing it to reach all over the world is seen as an important resource.

1 SGS is a company that works with the verification of the eligibility of climate change related initiatives.
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"Our DHL network in the world, that you can reach out into the world, if I need help with a customer in China I can find a colleague out in the world who can help me and meet up with the customer there. Our personnel and our competence within which product one is considering"

(Senior Supply Chain Advisor, author's translation)

The Senior Supply Chain Advisor also considers IT-systems and calculation models as important resources. The LLP part of the business also has a simulation tool for simulating the environmental impact of different changes in transportation and logistics flows. The simulation tools are used to optimize transport flows when helping customers.

There is a special booking system seen as an important resource within LLP.

"Within LLP we have an enormous resource in our booking system that give us strength. Since we work with the overall picture, and coordinate, it is not a traditional transport booking system."

(Senior Supply Chain Advisor, author's translation)

"Resource-wise it is also important to participate in forum and seminars in different customer group constellations that are an important resource to reach the market and customer. There are different… within fashion and the clothing business there are a business organisation for example."

(Senior Supply Chain Advisor, author's translation)

The four different divisions in DHL Sweden cooperate in order to work as a unity towards customers. When meeting customers DHL employees try to involve colleagues from other divisions if their services might be interesting to the customer.
2 DGF SE’s Environmental Management

DHL Global Forwarding Europe (DGF Europe) has an environmental management system certificate in accordance with the ISO 14001, in which DGF SE is included. As a result, DGF SE has an environmental aspects register, the contents of which will be described below. The environmental aspects represent a basis for the environmental management in companies, and they are connected to different activities, priorities and goals that are set. The researchers' understanding of the register, which is presented below, was developed during discussions with the Environmental Manager.

After the overall description of DGF SE’s environmental management based on the environmental aspects register, the further description of the environmental management is based on interviews with employees at DGF SE. The focus is on what is included in the environmental management, how it is organised and it is based on the views of the interviewees, and their individual roles as well as their backgrounds, working experience, competencies and personal views are also described. The description of the environmental management concerns both the overall picture and the parts of the services offered to customers that can be related to the environmental effort.

2.1 Environmental aspects, activities and goals

A team called Quality & Best Practices at DHL Europe, have developed the template for the environmental aspects register of DHL Global Forwarding Sweden. The DHL quality & best practices focus on different routines used throughout the worldwide organisation. Each country adjusts the template to their circumstances, and DHL Global Forwarding Sweden has added a column called “Other stakeholders”.

In the environmental aspects register emissions into the air and the use of fossil fuels from transports by air, ocean, road and rail, are considered to be indirect environmental aspects. The use of fossil fuels from all freight (because of its contribution to climate change and use of natural resources), the production of CO₂ (because of its contribution to climate change), from air and ocean freight and also SO₂ (because of its contribution to acidification) from ocean freight, are all highly ranked in the register. The use of fossil fuels for business travel is considered a direct environmental aspect. Noise and vibrations from stationary vehicles with engines running are also considered as indirect environmental aspects. The risks for incidents for off-site transports, and site cleaning of vehicles, and accidental spills of chemicals are also considered. Accidents during transportation are regarded as risks to human health and of release of dangerous goods, why they are considered as direct environmental aspects.

When it comes to offices and facilities, offices are included for the risk of incidents of electrical fire caused by office equipment and are highly ranked. Offices are also included when it comes to waste related to office supplies, which are considered as direct environmental aspects. Further, office related waste like paper, toners and cartridges, IT equipment, the use of energy and batteries are also considered direct environmental aspects. Incidents leading to the release of dangerous goods during handling at
warehouses and operational areas are considered a direct environmental aspect. The use of electricity and district heating at offices and warehouses, for electrical office equipment, lights, heating and air conditioning are all considered direct environmental aspects. Water consumption at offices and warehouses is considered to be a direct environmental aspect.

The waste that results from the for maintenance of plants with regard to replacing of lamps and emissions from painting of vehicles and plants is also considered to be a direct aspect, as are emissions from air conditioning. Effluents, in the form of hazardous liquid wastes from the cleaning of vehicles and equipment are considered to be indirect environmental aspects, while cleaning offices and warehouses and the use of water in offices are considered to be direct environmental impacts.

Since transports are hired, they are considered indirect aspects, while offices are more related to DGF SE’s own operations are thus considered to be direct environmental aspects. A ranking is made of these aspects, and in the ranking no distinction is made regarding importance depending on whether aspects are indirect or direct. The highest ranked environmental aspects are considered to be significant environmental aspects. These are:

The significant aspects in DGF SE’s business plan are those that drive goals and action plans within the company. In September every year a new business plan is developed.

The business plan not only takes the environmental aspects register into account when referring to the environmental management, but also the owners’ intention, goals and action plans. The business plan is followed up every month with so called ‘traffic lights’ for the goals in finance environment and sales for example. The traffic lights show if work is going as planned, if activities are being performed as planned, and if they are running on time or not. The business management follows up the activities. For example, if something proves to be impossible, it must be highlighted. All goals are not followed up every month. Some that are more overarching, such as decreasing CO₂ by a certain amount, are followed up twice a year.

The goals for 2010 are to lower CO₂ emissions by 7% for in-house processes, and 7 % for transports, compared to the values for 2008. For 2012, the goal is a 10% reduction. These goals are a part of the global goals of 30% reduction per unit of tonnes-km or per square meter for in-house processes or per employee.

An example of goal related to the view of the local business in the environmental aspect register of DGF SE is related to SO₂ emissions. DGF SE considers these because of the way in which a move from air to sea of shipment might result in decreased CO₂ emissions but increased SO₂ emissions. DGF SE has brought this issue to attention in the corporate group.
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Activities related to the environmental management in the business plan include:

- To add a tool for estimating the amount of CO$_2$ that a transport will generate, that customers can reach through a webpage where customers already can calculate transport costs.
- Environmental education for sales
- Evaluation and ranking of airlines in environmentally related quotes
- Performing environmentally related follow up of suppliers

There are sales targets for the sales employees regarding LLP products: control towers, customs- and web products. There have been no sales targets for environmentally related services, but for the year 2011 there is a sales target expressed in Euros of CO$_2$ emission reports.

At the office level, a goal has been set by DHL Europe, that each office should conduct a Go Green Dialog Map workshop to enhance the local offices’ environmental management. The workshop involves restricting use of paper and energy for lighting and is different at the different offices, based on brainstorming at the offices. However, there are no figures available related to these goals. The GoGreen Dialog Maps (GGDM) are reported on at the intranet webpage where they can be found for every office worldwide. Each office can also report actions taken. No routines have yet been developed for this work, but a follow up of GGDM has been created from the DHL Europe level.

There are goals for how many customer meetings the Environmental Manager is to hold every year. There are also goals for how many environmental consultant products the Environmental Manager should sell.

The Environmental Manager believes that the sales channel, which forwards customers’ demand to managers within DGF SE is one of the four most important resources in the environmental management. Another important resources are the Green Champions, who channel the environmental management and are used for developing new ideas, the emission calculation tools and emission simulation tools. She also highlights the importance of getting several employees to consider environmentally related resources in their daily work.

2.2.1 Business Plan and Actions

The environmentally related goals from the business plan are not completely broken down explicitly to what they mean for each local office’s activities. However, there are environmentally related activities that should be carried out in 2010 that involve local offices. These activities involve key functions in the company, for example the education of sales division, the cooperation with suppliers of production air and sea, and the involvement of the product control tower.

DGF SE works continuously with updating their business plan, which is created with a three-year perspective. The process of updating the business plan starts in March, with an external analysis, where the environment is included as one aspect. It ends in the autumn with the specification and creation of action plans. The action plans are later followed up on the web, available for all employees, with traffic lights showing the status and performance of the projects. Key personnel are included in the work with the creation of
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the business plan. When the plan is ready, the work continues with key employees visiting
the different offices, meeting the employees in smaller groups of 15-20 individuals at a
time, handing out a brochure of the business plan and spreading knowledge about it. At
these meetings the manager of the office and the manager of the group who are often
already included in the work with the business plan attend, as well as the employee
responsible for the business plan.

"We cannot have 500 employees putting together a brochure, but we can invite key personnel all of the
time, for helping us work with this and then we work with launching it, and it is very important that
every business takes a stand and explains partly the over-all picture of what the company is to work with
but also the business - what is to do for the coming year and which projects are important. If we connect
this to the leadership, we should ideally receive best proposals from our employees that we can make use of
to accomplish these projects”.

(Lead Logistics Provider Director, author’s translation)

The environmental management is integrated in the different action plans, but there is
also an explanatory text where the Environmental Manager describes the development of
the environmental effort.

"We want the environmental effort to be born from below. We work all of the time with the business plan
to start up projects where we can have a broad line-up so that people are included and support it. We
want more and more [employees] to be involved and come up with ideas and it is therefore that [the
Environmental Manager] Linda has created the Green Champion network and she is out and collects
views from our different offices in Sweden. But ultimately it is all about how good we are at being
committed and including everybody”.

(Lead Logistics Provider Director, author’s translation)

The LLP Director also recognises that they need to get the majority of the employees
involved in the environmental management and that they feel that they are well on their
way to achieving these ends.

2.2.2 Environmental campaign within DHL

In 2009 there was an environmental campaign within DHL and 91% of all employees in
DGF SE participated in a course on environmental awareness, which was facilitated by
the Environmental Manager. The course evaluation was very positive.

The course lasted for two hours and covered basic ecology, eco systems, environmental
influence of different kinds, laws and regulations, Sweden’s environmental goals,
environmental goals that concern DHL, transportation and fossil fuels. There was also a
discussion comparing transport by air, sea, rail and road. Further, the course covered
environmental management at DHL, the customers’ interest in environmental
management, and the fact that only a few customers have started performing measures to
reduce emissions from transports. The offices’ influence on the environment was brought
up and discussed all the way down to the environmental impact of each employee.
Recently the global DHL organization developed an electronic version of the two-hour
course.
2.2 Organisation of the environmental management

For DHL Global Forwarding the environmental management has two dimensions:

“For us it is extremely important that it is the way in which it is partly a service that we provide to our customers, to be able to help them with their environmental effort or create environmental products. Another area is that we carry out an environmental effort that meets our requirements. Partly it is my business to take care of [the environmental effort] but also since Linda is sitting with us it becomes natural that she also together with me, but above all Linda drives our environmental management”

(Lead Logistics Provider Director, author’s translation)

Previously at DGF SE, the quality manager was also responsible for environmental management. To enforce the environmental issues, it was decided to have an Environmental Manager who was fully dedicated only to environmental management. It was also decided to reorganize the position of the Environmental Manager to a business driven position among other commercial areas in the company. Quality continues to be a corporate function in DGF SE while the Environmental Manager’s role is now under the LLP business. The environmental management is now more seen as a value adding product element in the business. The Environmental Manager reports to the manager of

Box 1.

The Lead Logistics Provider Director works at the business area Lead Logistics Provider (LLP), earlier called Lead Logistics Services (LLS), at DHL Global Forwarding, since three years. He reports to the Swedish DGF SE CEO. He receives reports of profit and loss from different areas in the business.

The LLP Director previously worked as a logistics manager in the automotive industry for 6 years. He worked with in-house customers in close contact with external supplying transport companies, among them DHL Global Forwarding.

The LLP Director started working at DHL it was as a business developer for sea and air forwarding. His work has concerned trying to find new product concepts and business projects. His current employment has a overhead function and he reports to the vice CEO and also directly to the DHL Global function unit about the status of the sales pipeline and sales work.

LLP and participates in a management team for LLP.

“DHL wants more than the shipping lines, airlines or hauliers can offer. We have difficulties finding real good [alternatives]. There are tests within the shipping and air industry but today you are trying to find the one that affects the environment the least of all bad alternatives. DHL would have wanted to offer better products if there were on the market. The company wants to invest in the environment. To have a Linda [the environmental manager], who drives and wants to influence a lot.”

(Senior Supply Chain Advisor, author’s translation)
DGF SE’s Environmental Management

"Transport companies can offer about the same thing and the environment has been identified by DGF SE as a way to increase market share, shape the industry and keep customers".

(Environmental Manager, author’s translation)

The Environmental Manager feels that her role is more commercially directed than her roles have been in earlier positions in the environmental field.

“I do not sit in a corporate function, but in an LLP control tower where you get very connected with operational issues related to the business, which makes you understand the business better”.

(Environmental Manager, author’s translation)

The Swedish Environmental Manager’s position is a bit different from the Environmental Managers in DGF in other countries since she work full time with the environmental effort while the other Environmental Managers also have responsibilities for work with quality, real estate, and working environment. She believes however, that the amount of work in the environmental field in the other countries will probably increase.

The station manager is responsible for the environmental management at each office, but there are no explicit directives for activities and goals connected to these responsibilities. The Environmental Manager tries to communicate the environmental management to employees using the intranet, and through a newsletter to employees. New routines are documented in the electronic management system.

Box 2.

The Environmental Manager of DGF SE is an chemical engineer and has worked for 13 years with environmental issues. She worked with analysis of seawater as a laboratory engineer at a university, and for five years at a global pharmaceutical company in Sweden and Australia with environmental aspects of emissions to air and water, waste and hazardous waste, largely concerned with contacts with regulatory authorities and environmental surveillance. The work in Australia was much combined with aspects of occupational health and safety. The Environmental Manager has also worked as an environmental consultant with a focus on process techniques related to oil refining and coal mines. She has been working as an Environmental Manager at DGF SE for 2 years.

At the global pharmaceutical company, the environmental division had about 40 employees, former colleagues, well as fellow employees from her time as a consultant, are today part of the Environmental Manager’s private network. They meet informally 2-3 times per year and talk about environmental issues. The Environmental Manager uses LinkedIn to keep contact with her old colleagues from Australia, who today work in different businesses. The manager also has contact with old friends from her study times and private friends that are deeply involved in Naturskyddsföreningen with whom she talks both privately and when at work. (Continues on next page)
DGF SE’s Environmental Management

The Environmental Manager at DGF SE is responsible for all of DGF SE’s environmental management and reports the environmental management directly to the global level of environmental management at DHL. At the Swedish company, she reports to the director of LLP and he reports to the CEO. Sometimes the Environmental Manager attends the meeting with the business management group and reports directly to them. The Environmental Manager attends when environmental management need to be discussed at the management review, for example when new products are released.

On the subject of what is her driving force in her work she says:

“... The demands from the management level. That they look seriously at new proposals. You must take the step and say: ‘yes’, and dare to challenge. This year’s business plan shows boldness; there are some bold new activities that might be difficult, it is fun to go the whole hog instead of being modest, and that drives me a lot.”

“When it comes to the bottom line, money controls. You need to be smart so what you put forward has a short pay-off time, So it is extremely commercially driven”.

(Lead Logistics Provider Director, author’s translation)

Because of the different organization of the position of the Environmental Manager in DGF SE, the company has an in-house program to coordinate improvement work and routines within the areas of quality and environmental management.

The director of LLP refers to the offensively lead empowerment of employees and highlights that the environmental management need to include every employees and not just a few to get it successful. Referring to how the environmental management need to be carried out he says:

"We are limit ourselves if we all of the time refer to that a few fellow employees are to carry out all of this. We want to increase commitment. Then it (the environmental part) is about being able to take care of a customer meeting or become involved in the business”.

(Lead Logistics Provider Director, author’s translation)

The operational work with the control towers and forwarding goes hand in hand with what the customers want concerning consolidation of loads and making transports as efficient as possible, which also benefit the environment.

"We at DHL have pretty tough demands concerning how we are to rationalize our CO2 emissions, that we need to work with, and that come from highest level, Deutsche Post. ... we must be equipped to meet both customers’ demands and in-house demands”.

(Lead Logistics Provider Director, author’s translation)

The Director of LLP also points out that environmental issues are more than CO2. The debate in the industry is very much centred on CO2, but that is just the current trend and DGF SE need to include also several other environmentally related areas.
2.2.1 Meetings related to the environmental management

Every year there is a business plan meeting. Key personnel are invited such as senior management team and individuals from the level below the senior management team, totally about 45 employees. The employees are from different offices within DGF SE, for example station managers, process owners, staff from divisions of quality with responsibilities regarding air and sea transport, sales, key account managers and staff from marketing and sales division. During 2009, the environmental related suggestions for the business plan work came directly from the Environmental Manager. For the 2011 business plan, the Environmental Manager had a think-tank with representatives from logistics management at Linköping University together with managers at DGF SE to find ideas that could be useful later at the yearly business plan meeting.

During the business plan meetings a list is made of different areas that are regarded as important to work with. The participants are then divided into groups of 4-5 people and each group get to choose from six areas from the list and value their status regarding plans for these areas in the coming year. In 2009 three out of six groups said that the environment was an area that DGF SE needed to improve in. After the business plan meeting the Environmental Manager does her part of the work with the business plan by talking to each one of the 45 action plan owners, about their reflections on the different measures and activities and projects that could be concerned in the environmental management. The final list of activities, projects and measures ends up in the business plan.

The senior management team, (SMT), has regular meetings which the Environmental Manager does not attend, but everybody reports their activity plan to their department manager and communicates it on their intranet webpage. Each manager brings the activity plans to the SMT meetings. Everybody that works in the company can still see the development of specific activities on the webpage, even if they do not participate at the SMT meetings.

The Senior Supply Chain Advisor is a member of the management team for LLP. She also meets many key account groups within sales and market which are more sales directed meetings and forum.

When management meets the environmental management is always raised. Environmental issues are not on the agenda of every SMT business meeting.

There are no regular formal meetings related to the environmental management at the local offices, but when the Environmental Manager visits them she walks around and speaks to the employees.

The Environmental Manager has started a forum called Green Champion. It is a group of representatives from DGF SE offices. The Green Champion Forum has phone meetings with the Environmental Manager every month. The representatives have different responsibilities at the different offices, and they were chosen on the basis of their volunteering at a larger meeting. The participants have been given the possibility to dedicate 2-4 work hours per month completely to environmental management. The Environmental Manager considers it important to include representatives who wanted to
work with environment issues and who believes it is important. Seven of ten offices have showed interest in the Green Champion forum and have representatives in it.

The aim of the Green Champion is for it to be used to channel information and ideas among the Environmental Managers and local offices throughout Sweden. Three local offices have no representatives and to them information regarding the environmental effort is sent directly to the station manager. The representative from each office not only participate in the phone meetings but also bring up issues concerning the environmental management at local office meetings and inform their colleagues of what is being done in the Green Champion forum. The representatives have different positions within the company; there are both station managers, people working with pricing, sales support, forwarders, controllers, field sales and human resource (HR) staff. Thus most aspects of the business are included in the Green Champion Forum. The Environmental Manager also recognizes the fact that participants’ different backgrounds contribute to the work in the Forum; one is a former military official, and another one is an engineer for example. The Green Champion Forum started in 2009 and the Environmental Manager believes it is a very good group. The Environmental Manager, who summons the participants to Green Champion forum meetings, hope that the Green Champions’ roles the future will include more work to directly support their station managers with environmentally related initiatives instead of always communicating these through the Environmental Manager in.

DHL globally also has incentives for their employees to consider environmental issues. If employees register themselves at an intranet page, for every registered employee a square meter of ground is donated to a bio diversity project in Brazil. The Green Champion Forum can also be used for exchange ideas of how to communicate with customers about environmental services and if Green Champion representatives want to participate in studying suppliers. The Green Champion Forum has evaluated a little guide on how much CO₂ can be decreased if trains are used instead of truck and another representative has started to keep track of how much paper is being thrown away at offices. The representatives have 4 hours working time allocated to their involvement in the Green Champion Forum.

At DHL, there is a introduction day for all new employees when they are invited to travel to the head office in Märsta. The introduction day is run by the HR division but the Environmental Manager always attends to present her own role and the environmental management, environmental policy and goals.

On the European level, there are meetings with European Environmental Managers and the environmental experts at the DHL head office in Switzerland every month in the environmental organisation. At these meetings, what is happening and new directives from higher level are reported. These are phone meetings with as many as thirty participants from different countries.

During meetings in the network with business world Environmental Managers (Swedish Association of Environmental Managers), the Environmental Manager of DGF SE has noticed an interest for making the environmental management more commercial.

The Environmental Manager also believes it is valuable to visit the local offices all over the country in order to pick up information and ideas that might not at first seem most relevant to the environmental management, but that still might be very interesting for the
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Environmental Manager. For example, during a workshop with DGF SE employees at a local office she picked up interesting information about hauliers’ answers to a supplier evaluation.

2.2.2 What drives the environmental management
The LLP Director give his view on what drives the environmental management in DGF SE:

“The driving force, I believe, comes from the fact that we are many within the business management that believe it is important. We have defined it as an important issue for us. Partly it comes from us as individuals. It is also due to [the fact] that every day we meet these questions from our customers, so it is important. Then we have a CEO who takes a clear stand on these questions too. It is a little unique that we have defined it so explicitly, because that we are almost alone with in the DHL world, [partly] because others do not have full time employees and partly since we are participating and hand out a environmental award and that we are in Bonn concerning this and try to drive them [the issues] in different contexts, even from Ulf and Linda, so we have it [the environmental management] on the agenda all the time. Nevertheless, it stems from that we feel that it is important for our customers. We are in a business that is under scrutiny concerning this, so we want to show that we are taking it serious and doing it with our greatest capacity. And I believe that we as individuals also believe in it.”

(Lead Logistics Provider Director, author's translation)

With regard to the focus on the environmental effort in the company the Environmental Manager says:

"The vision declared is that we shall be an industry shaper, to be first and to be the best. We cannot just be the largest we must be best. Our CEO expects our work to be best and for us to be the best and visible in media. That demands resources and underlying business case. An idea must work commercially."

(Envionmental Manager, author's translation)

"Before Linda [the environmental manager] arrived it [the environmental effort] was more about checking points, but now we have an active Environmental Manager who communicates, arouses enthusiasm and is a driving force in the environmental effort.”

(Senior Supply Chain Advisor, author’s translation)

DGF SE sometimes offers services to customers who have not worked with optimization of their goods flows and who use different hauliers. DGF SE LLP performs an analysis of the logistics needs of these companies, and offers to handle logistics services for them. DGF SE LLP also sells customs services concerning customs handling in and out, licence, certificate for handling customs and consultant customs services. They also sell the Environmental Manager’s consultant services.

2.2.3 Every day environmental management
The Environmental Manager sees the employees and their knowledge about customers, as the most important resources of the business. She points out different advantages in having employees that have different background:
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"The background is very important, the younger [employees] have more environmental thinking than the older. Knowledge [referring to the older more experienced employees] of the customers they work with, and all of the chain."

(Environmental Manager, author’s translation)

From her previous working experiences the Environmental Manager has competences and knowledge related to some of DHL’s customers’ businesses. In particular she understands the pharmaceutical industries demands on transports with regard to for example temperature and humidity requirements. She also has a technological understanding from working at a factory, and from working at a company that builds pharmaceutical factories. During discussions with customers the Environmental Manager has experienced that she has an understanding for some customers’ products and can relate both to their business and to their products.

The management of DGF SE believes it is very important to find an Environmental Manager with knowledge of and commitment to environmental management.

“We were looking for that competence. It was important for us to find Linda”

(Lead Logistics Provider Director, author’s translation)

The director of LLP states that competence is important to DGF SE LLP:

“We are a group of companies that owns a network in the form of aircrafts, vehicles, but we are in a field where we partly, within sea and air, work towards shipping lines and airlines to find the best and we work in my business area to help companies find great logistics solutions. So to me it [the environmental effort] must be about finding competent personnel that can work with this. It is important for us that we have high competences that help the customer to great decisions. If you look at what the organization looks like it is the operational personnel that shall help with the operational handling. We are out helping the customers forwarding divisions, we book and plan transport orders. We must also have competence in logistics development, customers and environment. Because all this together should give the customer as smooth distribution flow as possible”

(Lead Logistics Provider Director, author’s translation)

The director of LLP believes the environment is becoming a core area for DHL and that the Environmental Manager plays a very central role in this and has enhanced the environmental management.

“Earlier there was a lot of focus on the ISO certificate but we want to come out and help our customers too. You must be double-sided in this and be able to work in house but also to be external and explain to customers how to work with these parts.”

(Lead Logistics Provider Director, author’s translation)

DGF SE has started working with an ‘empowerment of employees’ program referred to as “Det offensiva ledarskapet” (the offensive leadership), where the competence of employees is evaluated, as well as the potential for delivering valuable information up in the organisation and the possibilities to develop the individual and utilize the indirect resource. The aim of the leadership program is that individual employees shall act more as
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driving forces regarding improvements in the company, take initiatives and come up with proposals for improvements. By means of this force from below in the company the environmental management for example is to be driven partly by the individual employees ideas and efforts.

“The aim is, they want people to be more driving and to help themselves and come up with proposals for improvement, that you want it to grow from lower levels in the organisation, to have a philosophy of leadership where it is desired that fellow employees are driven to be more offensive.”

(Senior supply chain advisor, author’s translation)

More formal contacts, that have grown out of her current role, as Environmental Manager at DGF SE, is the research group at Linköping University and Arlanda Logistics Network. The Environmental Manager is also on the board of NTM representing the airfreight segment.

The Environmental Manager is a member of Näringslivets Miljöchefer (Swedish Association of Environmental Managers), a network that gathers Environmental Managers from all over the business world. They have breakfast meetings and roundtable meetings to discuss environment related topics, for example IT and transportation. The Environmental Managers are from both transport companies and shippers’ companies. The Environmental Manager became a member when she started working at DHL, which may benefit from her membership of Näringslivets Miljöchefer. DGF SE is also active in the Clean Shipping Forum, which work with the environmental impact of sea shipping lines.

The LLP director points out that it is important in a global company like DHL to work with the in-house network. He also points out that there is cooperation among the Swedish DHL companies. Relations of importance to the LLP Director are not just those in the network of DHL’s global corporation, which he sees as very important, but also relations with suppliers and customers.

2.2.4 Environmental management towards suppliers

During their local procurement of truck-suppliers in Sweden in 2009, the company started collecting information about the suppliers that had been evaluated using the Q3 method2. The aim is to take the next step in future years and start setting basic demands and higher demands on suppliers.

DHL has performed a survey of its global suppliers of larger contracts concerning environmental issues. For DHL Global Forwarding, 5 shipping companies and 20 airlines cover 80% of the markets. The survey concerns fleets, environmental management and reporting of emissions. The evaluation by the global environmental organisation at DHL has been made, but the results had not been spread down to local level during summer 2010.

On his own initiative, the Swedish Environmental Manager has asked the Swedish suppliers, hauliers and the most frequently used air lines about their environmental

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2 Q3 is a nonprofit organization for sustainable transport, which among other things offers the procurement tool Q3.
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management and the information DGF SE needs to be able to provide its customers with information about their suppliers environmental management.

In DHL Europe’s environmental management system it is stated that the DHL companies shall carry out control, follow up and evaluation of suppliers, although this has not been properly carried out yet. Today it is difficult to evaluate shipping lines because of the lack of data. DGF SE is a member of Clean Shipping Forum to which many shipping lines report data, but only shippers have access to this data and not forwarding companies, although there are discussions about changes to this.

At the global level of DHL there are rules for social responsibilities to be included in purchasing, but during 2010 there had still not been any request for information from the Swedish office. DHL Freight Sweden have made follow-ups of suppliers for a long time but this has still not been implemented on an European level of DHL.

2.3 Offering services

The Senior Supply Chain Advisor considers the environmental management to consist of two parts, the in-house environmental management and the environmental impact directly related to the services to customers. The development of the latter part is especially seen to depend on what the customers demand.

"We are led by what our customers want. It does not matter that we work with environmental considerations if nobody wants them. What our offices look like, the vehicles we drive, company cars, our in-house environmental thinking are absolutely managed and in control, and we work for the lowest possible environmental impact, but the part where the customer decides what to do, from what we offer, there we come to a stop if they do not demand, if we do not communicate well enough… The alternative would have been to say that we only offer environmentally friendly choices and hauliers but then that has these costs and consequences on lead time, but we are not there. We offer alternatives, and systems, and options for the customer to be able to make that choice (related to the environment). ”

(Senior Supply Chain Advisor, author’s translation)
Box 3.
The Senior Supply Chain Advisor has worked 10 years in the corporate group. She sells control towers and is responsible to the customer for the initial setup of control towers. Earlier she had different positions within the control tower function. She has worked with the start-up, establishment, implementation and development of the product and with support. She has worked both with customer care and with finding new customers.

She is an engineer with a focus on logistics, quality, market and production. She has a degree in industrial economics. Before she started working at DHL, she worked at companies that were customers of transport companies, for example a company where she was responsible for warehousing, purchasing, prognoses and quotes. She has also worked for a health care company and an electronic component company.

The Senior Supply Chain Advisor reports to the Director of LLP. She does not report to Environmental Manager, but has contact with her concerning the development of the environmental management and environmental services. She cooperates with operative managers of control tower functions and customs function; they have dialogs about needs that the Senior Supply Chain Advisor sees when visiting customers.

The LLP division has some help from the air and sea forwarding sales divisions, which are spread over local offices all over the country. The air and sea forwarding sales divisions have responsibilities to sell not only their own transport products but also some of LLP’s products and therefore reports to the Senior Supply Chain Advisor and she to them.

In her current position the Senior Supply Chain Advisor believes she has the ability to see the needs with the customers’ eyes since she has experience from the shippers side and understands the sale-order and production process up to the point when it is time to ship the product. She has an understanding of the complexity of things that affect how you choose the last transport.

"The customers’ order and purchasing processes are my focus, and not just the last part that often is the focus of the transportation business”.

(Senior Supply Chain Advisor, author’s translation)

On the subject of what drives her participation in the company’s environmental effort she answers:

“What is driving is to feel that you do something good that has an effect in a good way, the gut feeling, not only because you perform a good service, good precision, but that it also leads to something good that all can share. That you do the right thing, and do everything right. It feels good to work in a company with a good environmental thinking. What we can do through our customers – that we offer, and what we can do ourselves – that we do.”

(Senior Supply Chain Advisor, author’s translation)
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The environmental management in DHL has been under development since 2007, and since 2009 a top priority from DHL’s executives in Germany has been that GoGreen program is something that should be included in the business from 2010. Environmental management has increasingly become strategic in the business and there is an aim to get the sales channels to talk more of the environment with customers, which has been done in Sweden, but is now becoming even more strategic than before, according to the Environmental Manager. Now the sales employees must have a specific training in environmental issues, and on customer meetings they must present the environmental setup and GoGreen services.

"A pilot study has been made where you can see that there is a wish to speak of it (the environment) on the market. Therefore, it is a strategic issue. The question is just how to trim it down and use it within the organisation.”

(Environmental Manager, author’s translation)

The Senior Supply Chain Advisor also believes that even if customers do not ask for it when a price is estimated, there is still an opportunity for DHL to include information about the environmental impact that a specific transport will have. The aim would be more to inform than to direct in the beginning, but it could lead to interest for environmentally related information growing, according to the Senior Supply Chain Advisor.

The environmental management is very much related to the customers’ needs, and the work towards environmental sustainability is always mentioned in the presentation material used by DGF SE when meeting customers. The employees at DGF SE LLP try to understand the customers’ view on the environmental issues.

"When you are out meeting potential new customers you try to capture their view of the environmental field, if there are needs, and if there are, you try to establish and create space for it [talk about environmental issues] along with Linda [the Environmental Manager]."

(Senior Supply Chain Advisor, author’s translation)

"Customers perform selective measures where they [for example] follow up and create reports and analyses. But I cannot say that I have participated in a situation where they have actively taken a role to improve themselves”

(Senior Supply Chain Advisor, author’s translation)

There are customers of DGF SE that work with certificates for their products, and these certificates often include transports. These customers take a more active role in monitoring the attention paid to their environmental demands. Usually these customers have direct contact with the Environmental Manager about their needs.

The Environmental Manager is responsible for selling environmental products for a certain value during the year: emissions reports, CO₂ offsetting products, environmental courses, simulation of emissions, and climate declarations. The sales of environmental courses for example have resulted in that the Environmental Manager has trained one customer’s shipping division in environmental awareness. The Environmental Manager
DGF SE’s Environmental Management

hopes that the work with selling environmental products in the future will be more integrated with other sales.

According to the Environmental Manager, the design of setups for transport and logistics is one area that DGF SE would like to include in the environmental effort:

“One step is to check what environmental performance we have today and show it to customers instead of just talking about CO₂ offset for extra cost”.

(Environmental Manager, author’s translation)

DGF SE has also developed an environmental web, to facilitate presentation of all their environmental products together towards customers in order to commercialise the product. The environmental web is also to be used by all four DHL companies. DHL does many things that are never branded, for example environmental measures, and these are to be presented on this web. For example, DHL has made environmental measures concerning its use of packaging material. The reasons for showing these measures are that other customers might be interested in them and might find them useful. There might not always be time to talk about environmental issues and measures when meeting customers. Sales employees might also feel a lack of knowledge in a certain area when visiting customers, and then it is good for the sales personnel to know that they have a web page to direct the customer to. At the environmental web the customers can easily read about DHL’s environmental efforts by themselves, look at videos showing the environmental management and book meetings with DHL’s staff responsible for the environmental management to discuss environmentally related issues.

"DHL intends to be an industry shaper and if they [referring to the higher levels at DHL] come out with this website now then none of the competitors will have anything like it.”

(Environmental Manager, author’s translation)

Once every quarter of a year meetings are held with the largest customers. The agenda varies, sometimes for example discussions about lead times are held. Environmental considerations are usually included during these meetings, and often concern potential updates of the environmentally related parts of the agreements, demand and offers. The Environmental Manager receives feedback from these meetings.

Sometimes the Environmental Manager meets customers or potential customers at informal occasions. For example she was lecturing at ”600 minutes of supply chain”, an informal occasion where it can be useful to understand the customer and speak their language without having a formal sales discussion. There are also occasions when the other employees at DGF SE LLP are invited to lecture or lead seminars. On these occasions they bring the Environmental Manager to present the environmentally related parts of the company's offering. DGF SE has tried to invite customers to breakfats with the theme environment, but the interest from customers’ side has been very small. Two breakfast meetings took place out of four planned occasions.

During in-house conferences for all employees or sales employees for example, DGF SE always try to include environmental management since it often leads to a lot of feedback which is seen as a resource in itself by the Environmental Manager.
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The environmentally related services are more a compliment to ordinary services; they are a part of the presentation of what the company does. On the side are for example environmentally related reports and simulations. The environmentally related services are usually part of the discussion of environmentally related services first during meetings with the customer, and if there seems to be interest from the customer’s side, the Environmental Manager attends customer meetings.

The options for how to handle environmental issues related to offers, as well as for example the presentation of the Swedish company on the Internet webpage, are to a high extent directed from the global level of DHL.

The director of LLP believe environmental products could be further developed within the part of LLP that concerned with supply chain consulting.

"There is a need for consultation with customers in projects when working with these parts. We must become better and stronger rather than show ways of saving costs when speaking of the environment”

(Lead Logistics Provider Director, author’s translation)

With regard to the issue of what the customers believe about the environmental contents of the offer the Director of LLP comments:

"I think they believe that they are clear, but I am not sure whether they are willing to pay”

(Lead Logistics Provider Director, author's translation)

The CO2 offsetting product offered by DGF SE LLP is recognized by the Director of LLP to be a type of environmentally related product that sometimes is controversial.

Reports of emissions related to specific transports preformed for a customer can be created and are delivered free of charge. DGF SE has a separate electronic tool for calculating emissions. Sales data is transferred to the electronic tools from DGF SE’s global operating system. DGF SE’s global operating system is quite old and many separate electronic information functions are needed to complement the system. The emissions data is delivered to customers when asked for. Some years ago, only 10 customers asked for this information, but now about 78 customers, out of about 3000 customers, were interested. It is mostly the larger customers that ask for data, and many customers are just temporary customers that only buy one or few transports. The emissions calculation system is only available to the Environmental Manager who is responsible for the calculations and for checking that they are correct. DHL companies in other countries do not have the electronic tool that is used in DGF SE, as this is specific for the Swedish company. Instead they perform their calculations using Excel.

DGF SE LLP would be able to set up control tower services developed to reduce environmental influence, but customers have not yet shown any interest in that kind of product.

Much work within LLP much of the work is carried out in projects. The Senior Supply Chain Advisor’s responsibilities concerns working with routines, reconciliations and follow up, and to be constantly aware of current position in sales cycles. She feels free to organize her work and take care of issues in her own way, as long as she can deliver. The
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establishment and launch on the market of environmental services in LLP based on goals in the business plan is partly her responsibilities to carry out and follow up.

DGF SE LLP also offer services performed by their Environmental Manager; for example help in the creation of environmental strategies or by teaching the customer in environmental issues. The Environmental Manager can also help the customers with an evaluation of their distribution structure in order to find potential ways to reduce environmental impact. For this service DGF SE LLP has developed a tool, which measures the environmental impact and shows the generation of emissions from specific transports. The aim of this service is above all to start a dialogue with customers about the environment and about logistics structures, the possibilities of starting projects or interest in working towards more environmentally friendly solutions.

"We see that we want to start with environmental logistics services in the form of logistics consultant services with environmental aims. We believe that this is something that will happen in the future. Above all there is a need for us to be able to take part in that kind of discussion in the future”

(Lead Logistics Provider Director, author’s translation)

DGF SE LLP believe they are well on their way as they have both tools and an Environmental Manager with great competence.

"We do have tools, we can go in and look at analyses when bringing in environmental aspects as a factor. But what we see is that the customer’s willingness to pay is not the greatest when it comes to these products”

(Lead Logistics Provider Director, author’s translation)

All large customers, and major companies in Sweden that are customers, demand in their RFQ\(^3\) that DGF SE should be able to provide environmental reports and make a stand for environmental values in the sense that they have environmental certificates and can provide emissions data. There is a hope that the environmental influence in the future will be an important parameter as well as lead time and costs when transports are being sold.

So far… it is a phenomenon where everybody is prepared to sign that we must work with environmental improvement measures, but when it all comes down to the crunch about that there is a cost or that you need to make changes, it is not so easy. Finally it will all change and then we want to be a part of actually having achieved this”.

(Lead Logistics Provider Director, author’s translation)

With regards to the customers view the Environmental Manager says:

"It is good that customers are working with their environmental issues. They mostly want their report, the contents in the report – I am not sure whether they actually are so interested in that. If they receive the report then they are quite satisfied. Emissions data, to want to work with it and want to address the information and perform measures themselves is nothing that interests them yet.”

(Environmental Manager, author’s translation)

\(^3\) RFQ is is short for Request for Quota.
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Although many customers are interested in and ask about the environmental management, overall there has been little activity on the part of DGF SE LLP’s customers side regarding the environmental management. The Senior Supply Chain Advisor has not experienced any environmentally related demand from customers that DGF SE LLP has not been able to fulfil.

"What they do and are willing to pay for it to have a positive effect – there the interest divides the customers into those who are genuinely interested and those who only have it as a bullet point on their list to check that their suppliers are environmentally aware or work actively".

(Senior Supply Chain Advisor, author’s translation)

The senior supply chain advisor works with the initial setup towards customers. This work includes the setup for regulations and for example what is to direct the choice of transports. The latter can be depending on environmental aspects due to the customer’s wishes to choose regarding environmental influence. Sometimes the customers want to find out the emissions in retrospect, which makes the environmentally related part of the service a more reactive kind. This need is often connected to customers need to create environmental reports due to their environmental certificate. On her experiences of the customers’ demands of environmentally related services, especially regarding reports of emissions data, the Senior Supply Chain Advisor says:

"Then it [the environmentally related parts of services] becomes reactive instead of proactive. They are not equipped to be proactive in their considerations of the environment. Thereby they cannot make use of the tools we have, the freight calculators where they can go in and find transport lead times and environmental influence, and where we want to have a template of the environmental influence but still a education, and none of the customers are mentally there yet. It [the customers’ demands of environmentally related services] is connected to the environmental reports they must do. They are not equipped to be proactive in their environmental management”

(Senior Supply Chain Advisor, author’s translation)

Sales employees have also highlighted issues regarding the sales process as relevant to consider in the environmental effort; when a customer sends parcels several days in a row the parcels are picked up each day while the shipments actually could be consolidated, but the consolidation would reduce the sales employee’s bonus.

Once a month a newsletter is sent from the Swedish DHL Company to customers. In this newsletter the Swedish company is free to write about what it wants to tell customers as it is not regulated by DHL Global or Regional. For example it can regard the environmental management. The environmental management is also communicated on the webpage to all customers and stakeholders, but the global level of DHL governs this information.

The Director of LLP believes his experiences from working at the customers’ side is very useful in his present position. He has experience of what customers specific problems can be. He also realizes that the customers’ employees that the transport company communicates with are educated to increasingly higher levels.

“While we meet many individuals that come from the university and this is a shift in trends and it is university educated personnel that work with this [purchase of transport and logistics services], it was not like that
earlier but it is becoming more so now, economics or logistics [the customer’s staff increasingly has education in economics and logistics]. It is with a certain methodology you work towards them, at the same time as you must have a feeling for the customer problems that can emerge when you work towards them.”

(Lead Logistics Provider Director, author's translation)

The director of LLP also points out that the focus on low cost is ever present from the customer’s side.

The senior supply chain advisor believes that there are companies in the transportation business industry that have a relatively stronger environmental profile, but does not believe that DHL is considered as one of those companies.
3 Environmental management in other DHL Sweden companies

As mentioned above, the Environmental Manager of DGF SE works with continuous contact and cooperation with Environmental Managers in the other Swedish DHL companies. The environmental management of two of these companies; DHL Express Sweden and DHL Freight Sweden, are described below.

3.1 DHL Freight Sweden

At DHL Freight Sweden, called DHL Freight below, there are 3000 employees and 30 terminal sites. There are 130 hauliers used on the domestic market. The Environmental Manager in this company is also responsible for quality.

The quality and Environmental Manager

The environmental and quality manager at DHL Freight has studied social sciences at Lund University and has a BA in political science. She has also studied economics and sociology. However, she spent two years studying environmental management and working environment, since she wanted to broaden her educational background and focus more on business industries.

Her previous work experience after education is four years as quality and Environmental Manager at a real estate company where she dealt with the management and operation of real estates, with management systems, quality and occupational health and safety. She has also worked as a consultant in the areas of environment quality and working environment, in the technological industries, refineries, larger process industries, pharmaceutical industries and the real estate and building business industries was head-hunted to DHL where she has been working for two an a half years.

She believes that for a person who is passionate about the environment it has been a great challenge to work with transports as these have such great environmental impact. About her personal drive in environmental management the Quality and Environmental Manager of DHL Freight says:

"To me it is about saving the world. /…/To be in a company that influences the environment very much, where you actually can make a great difference."

(Quality and Environmental Manager of DHL Freight, author's translation)

The Environmental Manager of FS believes it is hard to find time to attend network meetings of Environmental Managers and so on. Still, she believes that monitoring the external environment is eased by the fact that the Environmental Managers of the four Swedish companies of DHL, meet continuously and spread and share information with each other, something that she also believes is very rewarding for the environmental management. They can also divide attending the interesting seminars between each other and later share information with each other, and thereby save time.

The quality and Environmental Manager has many contacts from earlier workplaces. The former colleagues keep in touch and give each other hints, tips about new courses that might be interesting, as well as information that might be interesting for them in their
current employment. The consultant company that the quality and Environmental Manager used to work for sometimes gets in touch with her to inform her about something they are interested in selling or want to develop together with DHL. Overall, the quality and Environmental Manager believes that the contacts contribute both to her personal development, development of her own knowledge, and to direct usefulness for DHL when for example cooperating around environmentally related issues.

Organisation of the environmental management

Earlier, the quality and Environmental Manager of DHL Freight was also responsible for the quality and environmental management at DHL Express, but following a reorganisation, these responsibilities have been moved to a new quality and Environmental Manager at DHL Express.

Today, the quality and Environmental Manager at DHL Freight is the head of a division of four employees that are responsible for environmental management. The environmental and quality manager at DHL Freight reports to the Executive Coordinator, who is in the management team and who reports to the CEO and acts as the CEO’s right hand.

The environmental and quality manager is responsible for management system, and for law and regulations being followed. She works towards terminal managers at the 30 sites all around the country, in order to ensure that there is a system that controls that everything concerning the environmental influence related to handling of packages works properly. She has very little contact with customers. The Environmental Manager participates in many meetings but never at the different sites. Instead, a web-based system is used for meetings with the local offices with regards to compliance with laws for example. The employees at the local offices also meet the environmental and quality manager for training once a year.

The second employee at the environmental division works with in-house audits, which he plans and performs with responsibility as a coordinating head auditor. Cargo lashing and is another area for which he is responsible. Working with the in-house audits, he receives environmental reports in different systems from the 30 sites. He is responsible for ensuring that correct data regarding CO₂ emissions are registered in the computer systems and featured on invoices.

The third employee at the environmental division is responsible for document management systems and processes. She supports administrators in their work concerning the handling of documents related to quality and environment. This employee is also responsible for emissions calculations and development of tools for these calculations, and for reporting of emissions, projects concerning telematics and eco-driving. Together with hauliers she has been responsible for projects, aiming at reduction of emissions from transports using different transport technologies.

The fourth employee at the environmental division is responsible for new fuels and new technologies. He works towards suppliers of vehicles and fuels, with pilot studies and perform tests together with suppliers and hauliers. He works a lot directly towards the customer, meets many customers and is often a speaker at seminars. He also works a lot with the sales division. He is responsible for the “Gröna ton”-project and its process, for
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the agreements with hauliers and checking of the amount of “Gröna ton”-services they produce. The “Gröna ton” process is important since it is standardised and reviewed by external auditors and has a certificate. The fourth employee also performs audits together with customers when they want to come and check that there demands are being fulfilled, something that is becoming more common. As he has worked at DHL for a long time, he has built a wide network of customer contacts over the years, as well as a wide network of contacts in-house DHL, which he finds useful in his current position.

From the thirty local terminal sites reports are sent from the local managers to the quality and Environmental Manager through the electronic system. The reports tell about the local work with environmental management and working environment. The reports are a compilation of their work, their risk analyses and tell if they have reached their goals.

Through their management system, the environmental department work towards the hauliers using a web-based interface. Communications with the hauliers are carried out through the “åkeri-plattformen” (haulier-platform), a web-based electronic platform that is unique for DHL Freight in Sweden. The åkeri-plattformen was created especially for DHL Freight when the environmental and quality management systems were implemented in Sweden. DHL Freight Sweden was very early with environmental and quality systems. In the web-based system, the hauliers can read routines, guidelines and policies, and find all the guidelines that are to be followed and that are in their agreements.

A special steering group within DHL is responsible for driving the work with the åkeri-plattformen. This group signs agreements and have most of the contact with the hauliers. Quality and environmental management are important parts of the concerns of the steering group. When the quality and Environmental Manager wants to distribute information or guidelines to hauliers, she does this through the special steering group and the åkeri-plattformen. The åkeri-plattformen is used in the same way when sales division want to communicate customers’ requirements to the hauliers. Both the sales and the environmental divisions are represented in the steering group.

The environmental division also works directly towards hauliers with follow up and yearly audits. An index shows the performance of hauliers with regard to the environment, traffic safety, and quality and working environment. The hauliers have basic demands that they need to fulfil. If they perform better, they receive credit points. During audits, the auditors visit or phone the hauliers.

"Otherwise it is difficult to distribute information when you have so many hauliers and change personnel often, and we see that it is not efficient through and through but we are working on improving it."

(Quality and Environmental Manager of DHL Freight, author’s translation)

Meetings related to environmental management

The environmental management concerns several departments within the company. Environmentally related issues at the sales division are communicated to the fourth employee at the environmental division who is responsible for most sales related errands. The business and marketing department has more general reasons to meet with the environmental division, for example the update of brochures. Sometimes also the real
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estate department have environmentally related issues to discuss with the environmental division, there are for example some environmentally related projects that concern the use of energy in properties. The human resources department is sometimes in contact with the environmental division, due to matters of the relation between quality and environment in the management system.

The sites are of different sizes and kinds; warehouses, terminals and larger terminals for transhipment, and sometimes with offices at the sites. At some of the sites there is access to railway tracks.

“We try to work towards the hauliers that are most critical to us, red in our follow-up, where we can work more ambitiously. Then we have those that are very far ahead, we work with them in a different more offensive way, when new techniques and new fuels are introduced, when we are out selling this. It is easier to bring in new techniques and carry out the pilots at those who want to be in the fore front.”

(Quality and Environmental Manager of DHL Freight, author’s translation)

Courses and education in the environmental management

There is a basic rule that all office employees at DHL Freight go through a basic web-based environmental training programme. There are also one-hour courses that are more class-room style for the employees at the different sites all over the country. The courses are about laws and regulations, DHL’s goals, what DHL are doing and what the employees need to consider. Additionally there is a two-and-a-half-day course for the employees responsible for the environmental management at the local sites. These employees need to be more knowledgeable about environmental laws, the environmental management system and go deeper into the environmental management.

Environmental management towards customers

At the same time DHL continuously aim to exchange their vehicles for new more environmentally friendlier ones.

“Gröna ton” are services performed by DHL Freight where alternative fuels are used to lower emissions. It has not been possible to set goals for the sales employees for selling more environmental services, in this case “Gröna ton”, since there has not been enough capacity to produce more of these services. DHL Freight has some customers of “Gröna ton” but they are limited from selling more of these services because of the lack of resources.

“Now there more trucks and more places to refuel are coming which means an increased capacity, but still the demand is higher than what DHL Freight can offer.”

(Quality and Environmental Manager of DHL Freight, author’s translation)
Customer demands

Many customers turn to DHL Freight with demands that it is not possible to perform or measure. There are no alternative fuels available and it is not possible to ensure specific haulier with certain technology and fuels carries specific customers goods. For example, customers might ask for transports to be carried out with trucks of a specific environmental standard, but the haulier cannot simply dismantle the trucks and buy new ones, as this would not be environmentally friendly from a life cycle perspective.

"There is a believe from the customers that you can say that we only use suppliers with euro standard 4 motors, and that would not be possible to obtain in Sweden today."

(Quality and Environmental Manager of DHL Freight, author’s translation)

Driving forces and difficulties in the environmental management

The environmental and quality manager perceives that both hauliers and customers, especially larger companies, are far ahead environmentally, and that it is something that DHL Freight benefits from in its environmental management.

"A drive in the environmental management is also the customers in the way that they demand more Gröna ton than DHL has. The customers also seem willing to pay for us to bring in the new techniques and fuels."

(Quality and Environmental Manager of DHL Freight, author’s translation)

Customers are even willing to pay but there are not enough trucks. Rapeseed methyl ester (RME) could be used but DHL Freight experience that it is very hard to get guarantees from suppliers of trucks when the fuel is sometimes responsible for technological problems in the trucks. The hauliers are not willing to drive the trucks when there is a risk that the motor will break down and the truck manufacturers will not issue guarantee that break down will not happen. DHL Forwarding is now pursuing a cooperation with engine manufacturers to be able to guarantee that the motors to work. The customers are not involved in this work.

DHL Freight also buys capacity on trains and has a train of their own that is in traffic between Germany and Austria. They work continuously towards available suppliers of capacity related to parts of train sets, combi techniques and of complete train sets. They do have problems ensuring the efficiency of balanced goods flow.

"We have customers standing on the barricades wanting to use trains, and we try to offer it to the extent that it is possible."

(Quality and Environmental Manager of DHL Freight, author’s translation)

In the case of rail, the Environmental Manager believes it is harder to find customers since it need to be customers with related logistics that fit these transport solutions; for example there need to be combi-terminals close to the customers, and great volumes are needed according to the Environmental Manager.
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The "Service point packages" is an environmental-related service offered to private customers. The service includes an offset solution that makes transport services CO₂ neutral through the inclusion of CO₂ credits.

The environmental management in DHL Freight is very much driven by the owners of DHL. About driving forces in the environmental effort, the Environmental Manager says:

"Money. It must break even. Then there is a high ambition on the environmental management that is strongly driven by the owners, they have put a lot of energy and resources into this so that we shall reach these goals that we have, the Go Green program and goals that are to a very high extent driven by the owners down in Europe./…/ In DHL it [the environmental effort] is definitely strategic in order to become number one."

(Quality and Environmental Manager of DHL Freight, author’s translation)

The Future

Regarding the future demand on environmental sustainability in the business, the quality and Environmental Manager believe new techniques are one of the most important things to consider.

“We can work with eco driving, change of behaviour, how we act, the use of energy in our facilities, but in that way we only reached a certain part of the way. . . . and so far most [companies] have reached, now what is remaining is for us that we need new changes, we need new vehicles and we need telematics, an equipment that is preferably compatible with our production systems.”

(Quality and Environmental Manager of DHL Freight, author’s translation)

According to the Environmental Manager the new technologies are developing quickly and are installed in new vehicles. A black little box of techniques is installed in the vehicles, generating data on fuel consumption, type of fuel, deceleration and use of kinetic energy.

“Actual emissions. Otherwise we have been working on approximate emissions. We want to come to the point where we know how much a certain driver and vehicle have emitted. . . . You can go on to a certain limit, then you must have more exact emissions and data. Data online. The techniques are very important.”

(Quality and Environmental Manager of DHL Freight, author’s translation)

The quality and Environmental Manager stresses the importance of new fuels and infrastructure for these fuels so that it is possible to refuel. The telematics can help hauliers with basic data needed for follow up and developing work with eco driving through different incentive programs. The quality and Environmental Manager says that different services that can be bought from the suppliers of telematics, for example the options to connect the systems to hand-scanners to scan bar codes on parcels, to be able to allocate the emissions from transports to customer’s parcels. Data that is delivered by the telematics systems can also be used to plan driving and routes more efficiently.
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“This builds on [the fact] that the customers demand this and [also] builds on [the fact] that they want to know the emissions from transports with us. Today they set their own goals concerning transports, maybe they did not do that 15 years ago when they considered the transportation business more complex and indirectly [in their environmental management]. Now they work more with considerations of indirect environmental aspects. [.....] It is a customer demand too and we have put down our foot [meaning that they have made a decision] and set the goal for 2020 that we shall lower environmental impacts with 30%.”

“(Quality and Environmental Manager of DHL Freight, author’s translation)

3.2 DHL Express Sweden

When I interviewed the Quality and Environmental Manager at DHL Express she was fairly new at her job. DHL Express Sweden had been separated from DHL Freight in January 2010. The express part was earlier a small part of the business in DHL Freight, and there were regional and global directives for quality and environmental programs. Earlier, there had a lesser focus on environmental issues related to the smaller business of express deliveries. Now, with the separate DHL Express Sweden company, the environmental management has started all over from scratch within DHL Express in Sweden, with a new quality and Environmental Manager. The quality and Environmental Manager points out that even if the two businesses of Freight and Express now are separated there will be continuous cooperation between them.

DHL Express focus on international consignments between countries, and standardised processes characterize the business. The Swedish DHL Express Company is a marketing and sales company, and their processes and systems are directed from the regional and the global level. When the interview was made the new organisation had not been completely set yet. With regard to the environmental management there were still no environmental certificates for DHL Express Europe or DHL Express Sweden for example, but there was an environmental policy and an environmental certificate for the DHL Express on the global level.

The quality and Environmental Manager of DHL Express Sweden reports to the CEO of DHL Express Sweden. When the interview was made, the main task of the quality and Environmental Manager was to take over the quality and environmental management responsibilities from the old organisation and to start up the environmental management in the new organisation.

The quality and Environmental Manager

The Quality and Environmental Manager of DHL Express Sweden has a university degree in information technology engineering. Before starting to work at DHL she worked as a system consultant and as a management consultant at an IT and management consultant company. Some of the clients she worked towards were in the transportation
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business, for example she took part in a large program for improving the organisation in a large transportation and mail company. The Environmental Manager believes her most important network of great professional contacts is the one she built during her employment as a consultant. She feels that it is confirmed to her, from discussion with people in her network, that environmental issues are very high on the agenda in Sweden, and not only among people that work directly with environmental issues. She has been working for three years at DHL, first with business development at the Nordic level in the earlier organisation of DHL Freight and Express. In this earlier position within DHL she worked with a DHL change program that aimed to improve quality. During her work in the Nordic organisation she spent five weeks working with colleagues from all over the DHL world and since then she has contacts in every country that participated then. She uses her DHL contacts when she wants to find certain new contacts within DHL concerning for example environmental management in different countries. She has also worked very closely with people in the Nordic countries, which she also feels gave her valuable contacts.

The Quality and Environmental Manager of DHL Express feels that her background in project management and organisational change processes is useful in her present position, since she believes it is a competence that is missing in the world of environmental management.

The Environmental Manager of DHL Express Sweden believes that she has a different background and different networks to what is common among Environmental Managers in the business. She has experienced that her background in the company has enabled her for example to find support for and put an environmental course for sales on to the organisation’s agenda.

The organisation

Within DHL Express there is a sales support division that compile reports of emissions for customers. There is also a business process outsourcing division that handles some environmentally related in-house reporting, and provides reports for customers about tools connected to the optional carbon offset service, GoGreen.

Some responsibilities will be delegated to the managers at the different terminal sites where consignments are handled all over the country. The number of employees at the sites varies from about 5 to 50. There are managers and carriers and couriers working at the sites, and sometimes also employees with more administrative roles.

Resources in every day work

The quality and Environmental Manager currently participates in many meetings regarding to the take over of assignments related to environmental management from DHL Freight. She feels that it is a great resource to her that the person with responsibilities at the European level for the optional GoGreen product is working at the office close to her. She sometimes discusses issues with him, and he helps her to find specific contacts in the global organization.

The quality and Environmental Manager highlights the employees, courier vehicles and airplanes and employees as important resources within the company. A company within
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the DHL corporate group are leasing the airplanes and the courier vehicles from and an external party.

The quality and Environmental Manager believes the intranet and management system is an important resource for information.

The quality and environmental manager stresses that airplanes and vehicles are important resources in the environmental management since the company’s largest environmental impact is from transports. She also highlights employees as important resources in the environmental management, since they are in contact with customers and external parties. Another environmental aspect in focus is the energy that is used at the facilities.

Providing Services

There are different types of sales contracts; there are key account customers that not handled in Sweden but by the global organisation, key account customers that are handled in Sweden, field sales, phone-sales, multi channel and also an additional group of key accounts. A sales employee can have around 140 customer contacts, but this varies. There are around 20-30 sales employees that work with ordinary sales services, and around 20 employees in the support organisation for key accounts at the Swedish level.

The Quality and Environmental Manager of DHL Express suggests the importance of working with GoGreen, the carbon offset service, locally. She highlights the connection between sales activities and environmental management, since she believes that the employees that are in contact with the customers need to have knowledge in the environmental area to be able to position DHL Express as an environmental player on the market. She also believes that knowledge about the environmental management is needed for the sales employees to be able to sell the GoGreen service.

“We want very much to be a discussion partner since it is not unusual that our customers contact us when they are to set up a new logistics flow or logistics centre and then they want to know that if we send a consignment a certain distance from here to there – what will the influence be on the environment?”

(Quality and Environmental Manager of DHL Express, author’s translation)

“It is important that the sales employees have been trained, not just about what we sell but also what we do in-house, to be able to introduce us – the vehicles we use, the aircrafts…”

(Quality and Environmental Manager of DHL Express, author’s translation)

Managing the environmental effort

There are overall environmental goals for the company, and there are goals connected to sales where the aim is to increase the amount of consignments that are combined with the environmental services. The aim with all of these goals is to increase the environmental profile of the company. There are routines regarding compliance to laws and regulations related to for example waste, chemicals and requests for licences.

The quality and Environmental Manager highlights the importance of knowledge of environmental issues at management level, but mentions that there have not yet been courses or education for this level. She believes that the fact that the Swedish company
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just focuses on marketing and sales decreases their possibility to influence the greater organisation about the need for educating management.

At DHL Express there is a leadership program regarding the development of employees. Concerning the usefulness of this program for the environmental management the quality and Environmental Manager says:

“I haven’t thought about that but I have started thinking about how we can connect the sales personnel’s bonuses to sales goals”.

(Quality and Environmental Manager of DHL Express, author’s translation)

About the customers

During sales procedures questions are often asked about the environmental management and CO₂ emissions.

“We want to come out to the customers and speak about these things, like the environmental management concerning the courier vehicles and in-house environmental management. The customers want to know it, they ask questions and want to know these things.”

(Quality and Environmental Manager of DHL Express, author’s translation)

The Environmental Manager about the future business

When speaking about the future the Environmental Manager says:

"[I have] Loads of ideas. Some challenges to overcome in the short term in order to conduct business. One of the things I try to drive on the regional level is improvement of emission reports since we have a lot of demand for these and hope to get this through on the global level. In a company [group] of this size [large], there are almost too many routines, templates and ideas. Travel habit survey, papers. We must gather [information] and ensure that basic requirements are met properly before we can get a little creative again. Small company, I sit at the head office, there are people at operations, marketing, I am working to a large extent directly towards the additional [GoGreen, the carbon offset service], with the sales personnel that ask questions from customers and the same with sale support, then talk to everyone in the management. Wide network of contacts within the company [is important]. Currently courses are being scheduled but that is not reactive but a contact that I take and then we go out to them [the staff] and talk [about the] environment."

(Quality and Environmental Manager of DHL Express, author’s translation)

Personal drive in the environmental management

Finally, the Environmental Manager of DHL Express expresses her personal feelings about what drives her in the environmental management:

“I am thinking of what the impact of what we do today will be on the world that the children are going to live in.”

(Quality and Environmental Manager of DHL Express, author’s translation)
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Appendix: Jetpak’s quality and environmental policy
Jetpak's Environmental Management
1 Introduction

This is a report of a case study of the environmental management of the Swedish company Jetpak Sverige AB, which is a part of the Jetpak Group. The aim of the case study is to describe the environmental management as it was during 2010-2011, which is when the interviews and collection of secondary data took place. Where the report is written in present tense, present time refers to the time for the investigation.

The report begins with a short overview of the company Jetpak to provide an understanding of the context in which the environmental management is carried out. The overview of Jetpak is based on Jetpak’s brochure Jetpak’s vägvisare, Internet webpage and interviews. The first chapter also includes some thoughts about values regarding the overall business that were expressed during the interviews.

To make the text easier to read, information that is not directly relevant under a certain heading but still relates to what is told in the text is, in some places, presented in boxes.

1.1 About Jetpak

Jetpak aims its business towards both a broad group of users, who need courier deliveries and express mail services, and to the Nordic market for a number of industry segments such as automotive spare parts. For the latter, precision and continuity of deliveries to a number of destinations has a decisive impact on customers’ competitiveness.

Jetpak runs business in; Sweden, Finland, Norway and Denmark, and the office located in Stockholm in Sweden is also the Jetpak Group head office.

Jetpak is built on a franchising system, and has around 140 Nordic service centres in Denmark, Finland, Norway and Sweden.

“The boundaries between Jetpak and external [cooperative partners] is quite fluid, a small company that builds on being good at network thinking – utilizing resources that are not always localized within the payroll”

(Business and Service Development Manager, author’s translation)

Jetpak’s business model is a light asset model; they own few physical resources and are spread over a wide geographical area covering 100 districts with around 600-700 vehicles at partners who have similar distribution systems.

“We have no [physical] assets, we do not own a single vehicle. It is about the interplay between human beings, information and knowledge.”

(CEO Jetpak Group, author’s translation)

Their most important resource according to the CEO of the Jetpak Group, apart from the staff, is their very good control of commercial air uplift in the Nordic countries, where Jetpak can direct the use of belly space in aircrafts and thereby in real time ship a package to 2500 flight departures 24 hours of the day, every day of the year. Deliveries are
Jetpak’s Environmental Management

made in up to twelve hours from pick up all over the Nordic countries. Jetpak pay per kilo for the use of belly space in aircrafts to the carriers.

When the CEO of Jetpak Group reflects on the business he also refers to what is the background core of the company:

“Being a little critical, it must be said that knowledge in terms of customer needs, industry needs and everything else concerning relationships with others in the transportation industry was not so great. But they [the actor that developed into Jetpak] were very good operationally. Jetpak’s core has very much been the operational environment, how you build products, how to develop IT-systems, secure presence at airports; how to ensure that you get so-called fast transfer. A major problem in the air cargo industry has been that when an aircraft lands at Arlanda and will fly on to Gothenburg and Luleå such as in a traditional flight, straight flown it [the goods] in and passed on to an air cargo terminal, and so it [the goods] lies there for a while, and then it [the goods] is driven out to the next aircraft, which can result in a transfer time of one or several hours. In our case, we drive ourselves from tail to tail [tails of aircrafts]. We have a ramp transfer; we have our own people at the airport who are authorized to drive on the plate. We are fast domestic airfreight. “

(CEO Jetpak Group, author’s translation)

Jetpak’s presence and control of the handling at airports is sometimes due to Jetpak owning the companies active at the airport and is sometimes achieved through franchising. At Luleå airport for example, Jetpak owns the company in charge of the handling and it is impossible for any other actor to send goods through Luleå airport without it passing through Jetpak’s system. Jetpak has their own production unit which is safety guaranteed and with own cars that fit on the ramp also at for example at Arlanda airport. It is Jetpak’s own personnel that work in the ramp area; Jetpak has the ability to build up this unit with special vehicles, competence and the expertise needed.

“Expertise in air safety is complex, there are many pitfalls, and it constitutes a small barrier for others who want to enter that area."

(CEO Jetpak Group, author’s translation)

Jetpak has grown out of a business called Linjeflyg, started within the Nordic airline SAS in 1957. The part that developed into Jetpak was first called Nya Fraktflyget. Linjeflyg’s original idea was to transport papers and post during the nights and passengers and goods during the daytime domestically. The business was later both sold and then bought back by SAS. In 2005 the business had developed into Jetpak and was sold. The business of Jetpak started to be built within SAS in 2002, and since then the company Jetpak has grown into a separate brand, and the business has grown from 400 million SEK to over 800 million SEK. The whole Swedish market in which Jetpak works is appreciated to 3-4 billion SEK by the CEO of the Jetpak Group, who also believes it would be hard to try to take over Jetpak’s position because of their geographical presence and related competences.
Box 1. Highly valued resources within Jetpak

During the interview with the Service Development manager, he made a spontaneous ranking of Jetpak’s most central and important resources, referring to six resource types presented by the interviewer. He placed knowledge at the centre, then human resources, information, relations, and organizational resources and furthest from the centre he put physical resources that he commented on as not having unique characteristics.

The service development manager saw partners to be somewhat outside the core of Jetpak but still belonging to Jetpak, and physical resources to a large extent consisted of partners’ resources. When placing knowledge as the most central resource, the service development manager thought of the knowledge that Jetpak has which makes it capable of sending deliveries fast, and their understanding of the customers’ needs for express deliveries; a knowledge that is reflected in the understanding that even the conversation over phone with a customer who needs help must be quick. He talks about this as a matter of culture within Jetpak. Referring to human resources, his focus was on customer service and their ability to gain understanding of the customers’ needs and to really listen to the customer. He said that when working with service, personal skills are important and that it is related to the niceness in responses to customers. That it is knowledge that is general and needs to be translated in the context of the product. He also pointed out the connection between human resources and knowledge, then referring to the individuals’ knowledge about the business. Concerning information he primarily referred to the information system with its information, around the shipment that can be delivered to customers but that also can be used to manage, and environmentally related information on emissions connected to each shipment as something which separates Jetpak from its competition at the time of the interviews. He also mentioned that Jetpak wants to begin to send invoices electronically instead of by mail. Further he believes that the information system is a particularly central resource of the company:

“We have the information system Jena. Which is fantastic! That and the human beings are what somebody will pay for if the company is to be sold.”

(Service Development Manager, author’s translation)

The Process and Quality Manager helped to paint a picture of Jetpak in which he also put the information system at the core of the company, along with the information in the intranet and the communication of this information to partners. He added the Sales personnel to the core of the company and especially mentioned those that had worked for a long time within the business. Further he added the company’s central competence concerning air transport and related development. Even though he positioned partners in the same way as the service development manager, a little bit on the outskirts but still within the company, he put the local sales as a resource closer to the core of Jetpak. At the core he also mentioned open and close communication with quick decisions. He also put the air cargo transport product at the core and pointed out its relation to the road transport. Finally, around the core of the company, he put not only partners but also handling agents at airports as well as vehicles.
1.1.1 Jetpak’s development

At the time of the interviews, Jetpak had recently been going through changes in the way the franchise partners relate to the central organisation. Earlier, the partners were more separate. During the recent years this has changed; Jetpak has introduced a new business system where the partners are directly connected to the overall organisation. Through this system it is possible to find information about all the vehicles and customers working for Jetpak. The new system has given Jetpak an increased overview and the opportunity to start to measure the operations carried out within the country.

“The franchising system that I love - an easy way of growing on a market but also an interesting way … we started in a very struggling system where everyone worked as isolated cells out there… then we got a business system and this implied that we suddenly can see all customers and vehicles and start to measure.”

(CEO Jetpak Sverige, author’s translation)

Within the company there is a belief that the new information system also makes it easier for Jetpak to offer the same products all over the market. In this way, Jetpak can offer the same products all over the geographical areas, even if the specific partners might have built and run their businesses a little bit differently from each other.

“The business model rests to a great extent on the information system and Jetpak, that does not even have a turn over of 900 million, have invested over 100 million in an IT platform. It can be scaled up and exported. We are an asset-light company within logistics.”

(CEO Jetpak Group, author’s translation)

The CEO of Jetpak Group sees the business as resting on three information related pillars: the franchising system that creates presence geographically, the customer offering of product services of the kind of need for speed, high speed deliveries with high quality, where Jetpak has responsibility for the whole chain, and finally the information system.

It is interesting to notice that the new information system is not merely used for the partner’s Jetpak business operations; some partners have wider businesses than being franchisees for Jetpak and they can use the Jetpak information system and for all of their business. The system gives them increased control of their vehicles and they can consolidate loads and optimize driving routes more efficiently.

The discussion about having a common information system started a long time ago, but has been delayed for example by the barriers in internal competition between partners. All business has become visualized through the information system and now the local partners can see each other through their computers. Now the partners have started asking for rules to play by.

Having performed these changes, Jetpak now sees the possibility of facilitating cooperation between regions by having all partners working in a similar way, and making everybody “speak the same language”. The CEO of Jetpak Sverige is happy about the changes:
Jetpak’s Environmental Management

“With [my] hand on [my] heart, I’m really happy for the work we’ve done with our franchise chain, and I personally feel that here we have much to do concerning collaboration and efficiency, and here I am not worried to set aggressive goals because I know we will be able to reach them.”

(CEO Jetpak Sverige, author’s translation)

The local production has still not been measured, since there are such great differences in the local businesses that it would be difficult to compare, for example there are differences in delivery time.

When the interviews were made, the business system was implemented at the partners’ offices all over Sweden, and in Oslo in Norway.

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<tr>
<th>Box 2. The CEO of Jetpak Sverige</th>
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<tr>
<td>The CEO of Jetpak Sverige is Danish; she came to Sweden in 2002. She has a master in biochemistry from the University of Copenhagen.</td>
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<td>She brings her experience from working with biochemistry, concerning DNA technology and microbiology to her present work. She believes there are some commonalities between her knowledge in biochemistry and her current work: the understanding that processes are important and that the order of different elements is not unimportant. She also brings 10 years of product knowledge and knowledge about working with people from different cultures from her years in the biotech business.</td>
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<td>The CEO feels very driven by doing business, something she believes is tremendous fun. She started working in the logistics industry ten years ago, where she got experience from working in a change process with new foreign owners. She has experienced the significance of being able to break down strategies into small parts in daily work of individuals and the importance of having an adequate working process.</td>
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<td>She is satisfied with her ability to manage a value-driven company, and believes this is especially interesting since the company’s business model is built on franchising.</td>
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<td>“The great thing is how you drive and build and value the work that is carried out every day.”</td>
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<tr>
<td>(CEO Jetpak Sverige, author’s translation)</td>
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1.1.2 The Franchise Partners

Each Jetpak franchisee, also referred to as Jetpak Partner, have signed a franchise agreement. The agreement is 96 pages and covers several different areas, for example the extent of cooperation with Jetpak, the selling of transports, directions for which type of transport to focus on, and rules about the use of Jetpak’s logotype. There are also regulations concerning which regions, specified by postal codes, they are to work in. If a customer is located in an area that is within one franchiser’s region, then another franchiser cannot work on that customer without the franchisers’ mutual agreement. The
Jetpak’s Environmental Management

aim of the agreements is partly to make the partners, who are seen as representatives for Jetpak, appear and communicate with the outside world as a uniform chain. There is also a demand on partners that they need to drive the sales work locally with trained sales personnel.

Historically it was difficult for the partners to cooperate, but today they recognize that the customers are localised in several areas and that they all benefit from tipping each other off. There is naturally a limit for each partner on how far away they can carry out a transport in an economic way, they understand that they have to restrict their geographical range for transports and cooperate to perform transports over longer distances.

There is a demand on franchisers to deliver packages in time, and the goal is for 98% on-time. Today there is a split between central and local business. The central business, which is constantly measured, has a goal of 98%. A partner that does not fulfil these goals is obliged to pay a fine. If it is recognized that a certain partner fail to fulfil this goal over and over again, then the specific partner will be visited by the Jetpak Process and Quality Manager. The Jetpak office will try to figure out the reason why the goals are not fulfilled, and try to help and for example see whether they have the necessary assets when it comes to vehicles.

On the issue of working with a network of franchisees and still have control over the over all business, the CEO of the Jetpak Group reflects over the need to communicate directly with the franchisees:

“… above all you have to get up and move around, you cannot sit here [at the office]. Information that can be created through digital media, but to be there, travel around, also visit offices, perform videoconferences, gather… ”

(CEO Jetpak Group, author’s translation)

According to the CEO of Jetpak Group it is a natural interest of management to visit the different partners offices. Sometimes these visits can concern support regarding sales, and Jetpak for example has some sales employees that are localized at partners’ offices to act as ambassadors for the central Jetpak business.

In chapter 4 in this report there is further information about two partners, based on interviews with the CEOs of these two partners during the case study.
Jetpak’s Environmental Management

Box 3. The Process and Quality Manager

The Process and Quality Manager started working at Jetpak a year after having upper secondary school. His first job, which he started in 2003, was in the customer service department. After working there for two years he worked one year with a competitor, UPS, and then came back to Jetpak and worked with customer services again. Since then, he has been working with after-sales towards larger customers and complaints, and operations towards larger customers and finally the past year with processes and quality management.

In his present employment he works towards partners, with the development of partners and ensuring that partners carry out their operations adequately. 20% of his work concerns environmental and quality work related to the company’s ISO certificates. He mediates policies and the bases for creating routines to partners regarding how they should work. He also performs around two partner visits per month.

Meetings concerning environmental management happen to a large extent ad hoc. He also meets with representatives with the same responsibilities as his in the other Nordic countries once every three months in videoconference meetings.

About personal driving forces:

“Personally, I am very interested in environmental management, to do what is best.”

(The Process and Quality Manager, author’s translation)

1.1.3 Jetpak Values

Jetpak has a brochure called Jetpaks vägvisare Om våra affärer och vår etik (Jetpak’s code of conduct Concerning our business and our ethics). It concerns the ethics of the business and organisation of Jetpak; and refer to everything from for example the health of personnel to economic reporting. It is primarily an internal document, aimed at the company’s staff, but it is also seen as useful when Jetpak is presented to external stakeholders.

Jetpak’s core values are expressed in three words in the brochure: Enkelhet, Engagemang and Excellens (Simplicity, Commitment and Excellence). The brochure addresses Jetpak’s relations to suppliers, customers, and the owners and employees. The contents relate to the role of respect when it comes to equality and diversity issues, and the health of employees, safety, environmental considerations, communication, finance and business principles.
Jetpak’s Environmental Management

Box 4. The CEO of Jetpak Group

The CEO of Jetpak Group has a university education from the Handelshögskolan Stockholm School of Economics. He took up this position in 2002, when Jetpak was owned by SAS. Jetpak was sold by SAS in 2006. The CEO’s mission in 2002 was to create an independent company. He had long experience from the business and was a member of the board of SAS Cargo. He had also worked for nine years within DHL as manager for Sweden and the Nordic countries. He worked with global distribution systems and his tasks were to put logistics on the map and use distribution as a means for competitiveness.

Previously he worked for eleven years in the management consultant business and participated in the creation of a management consultant company, where the business idea was to be a good owner of knowledge based companies.

He believes he has the ability to identify key factors in business life from a marketing perspective and an internal perspective. He knows how to visualize and conceptualize business, for example from his background in the consultancy business where the idea is the sales of ideförälja (conceptual selling) services. He sees similarities to this in the transportation the business idea was the sale where you use a distribution system to fulfill different customer needs. From his years as a management consultant he also developed his abilities to lift forward what is important and turn it into business; to make a synthesis and quickly get started and doing something. He believes he has the ability to quickly understand what a new customer wants. Other skills he brings into the company are to work with people in service companies and create enthusiasm and pride and customer orientation and to help staff to let go of production-focused thinking. Earlier Jetpak, like SAS of which it was a part, was very much built on production orientation. According to the CEO conceptual selling is important when working in a franchise system that is driven to a high extent by independent entrepreneurs. Under these circumstances it is necessary that you create enthusiasm in a franchisee locally to work with Jetpak, under Jetpak’s brand, in Jetpak’s system environment and using Jetpak’s code of conduct.

Jetpak’s work with values is connected to the development of the environmental management.

“We started [our environmental effort] from another perspective internally, except from this with ISO 14000. We wanted to be a good company and put quite a lot of effort into CSR and spoke about what kind of company we wanted to be. The triangle; environment-economic-social. I’m quite happy about that... because that has also set a standard internally of what kind of company we shall be, when it comes to ethnic diversity, sexual harassment. It was actually a pre-stage to talking more actively about environmental issues.”

(CEO Jetpak Group, author’s translation)
Jetpak's Environmental Management

The CEO believes the work with CSR is valuable to the company not only to help it differentiate itself from competitors directly, but also to be attractive to present and potential future employees.

“I believe this is a part, really, within a CSR-perspective; that you shall be a good citizen and act in a certain way. I also believe that if you describe it as a little bit reactive; the people that are going to start working at Jetpak must be proud over Jetpak even that aspect, we may not be one who does not care. Because it becomes self-sanitizing and self-defending. We must show our own employees and future employees that this is a company that cares. Otherwise they will not come here. CSR is an important thing and I can say that many transport companies do not have it. We have and we live by it and we are proud of it. The CO2 measurements that we now perform are a way of making a commodity product more differentiated. I would not say that the environmental issues are driving.”

(CEO Jetpak Group, author’s translation)

1.2 The value of Human resources

Jetpak considers individual’s personal values to be very important when hiring new employees. When hiring new employees Jetpak emphasize their own way of working. It is pointed out by the CEO of Jetpak Sverige that views and values are something a new employee must be able to stand for, if the new employee is going to be willing to work at Jetpak.

“Human values are not possible to change. Thereafter, we can build knowledge, we can teach and build relations – all is just an investment – but to change human prerequisites is something else, it is not possible” … “Then you also need to have appropriate people at the right function and then it is not the values that separate but you can end up on the wrong function and that is also a responsibility that you have as an employer. It can go right and wrong. It is incredible important. It [human values] is the only thing you cannot copy.”

(CEO Jetpak Sverige, author’s translation)

The CEO of Jetpak Sverige points out that he believes that most of the business model can be copied, but it will never be exactly the same thing as it depends on who is managing, their values and their capability to transform ideas into reality in the form of real sales margins, customer satisfaction and CO2 emissions. With regard to the staff, the CEO of Jetpak Group recognizes that there is a certain culture among the employees at Jetpak:

“We are very proud entrepreneurial people who like to build, and solve problems, and ensure high service quality and there is also a “fix”-attitude. Can-doers. There is nothing that cannot be fixed. Nothing-is-impossible-people, operational staff, come in part from DHL where nothing is impossible, the Service development manager is from that culture. It has shaped Jetpak’s development.”

(CEO Jetpak Group, author’s translation)

The Nordic HR Manager also believes that the organization has developed around the idea of express deliveries, and there has been a focus on the operational part in the business which have had an effect on the whole organization:
Jetpak’s Environmental Management

“There is a lot of energy in this organization, and it [the business] is very operational, I can feel.”

(HR manager, Jetpak Group, author’s translation)

Jetpak sees occupational health and safety issues as important. The group works with proactive health care in all countries where they operate. Health profiles are carried out every second year in Sweden, where the employees get to sit down with a consultant for an hour and discuss their health and lifestyle. A working environment health audit is carried out for all countries every year.

Jetpak also focuses on diversity issues, for example in Sweden they have been working with equality issues for many years. The company has earlier carried out plans concerning equality but now the concept is being widened to diversity, and Jetpak is striving towards creating a diversity plan for their whole organisation.

According to the HR Manager, the legislation in Norway concerning environmental health is much stricter than in Sweden, and a lot of the work concerning human resources in the Norwegian company is related to their regulations on health, environment and safety.
Jetpak’s Environmental Management

2 Jetpak’s overall environmental management

Jetpak has had an environmental certificate in accordance with ISO 14001 since 2006. Earlier they had a quality certificate in accordance with ISO 9000. Originally the environmental certificate concerned only Sweden, but since 2008 the firms in Norway and Denmark have also achieved their environmental certificates. The aim is for Finland to have their environmental certificate in December 2010.

To accomplish the environmental investigation and the mapping of environmental issues Jetpak has had support from consultants, with whom they have worked together with.

Earlier the environmental management was organised differently; a process and quality manager at group level was then responsible for driving through quality- and environmental management at corporate level. These responsibilities included working with quality and environmental issues on a more operative level and being a support for the entire organisation concerning compilation of documentation, making plans and performing internal audits. It also included driving forward and building the whole intranet and responsibilities in updating it. Nobody else than the process and quality manager at group level used to know how to update the old intranet.

During a 30% reduction of employees in the corporate group a redistribution of job assignments was made. The responsibilities for sustainability issues within Jetpak, which includes both quality and environmental management and the certificates, was moved to the HR manager at the corporate group. The change led to a more distinct quality and environmental management that is now organised differently, and is run from each country with the HR manager at the corporate level driving and setting sustainability goals for all countries.

As a consequence of the transformation of responsibilities, the environmental sustainability issues have reached a more strategic significance. Since the HR-manager is a part of the Nordic directorate, she can establish the environmental management in the company more easily. The commitment in each country has increased since they are now responsible themselves; every division manager is responsible for keeping documentation for his or her division in order. The new organisation of the environmental management is seen as an over-all advantage, since earlier environmental and quality issues were seen as belonging to a department. Now they are more integrated into all of the business.

One reason for having an environmental certificate today is that the customers should be able to feel safe in believing that Jetpak is in control of their business activities.

"We cannot submit offers if we do not have environmental and quality certificates. It is a quality stamp. Municipalities and county councils are especially hard concerning the environment. More [demand] will come. Large companies require that you must work with environmental issues in some way."

(HR manager, Jetpak Group, author’s translation)
Jetpak’s Environmental Management

"... we have a very substantial operation every day as we are actually going to use our resources, and environmental issues are part of this and touch our flow directly and are part of our business. I think the company Jetpak, shall both develop the knowledge base and develop the human resources, so that all of us who work within the system [shall increase] our awareness”

(CEO Jetpak Sverige, author’s translation)

The CEO further reflects on the fact that the environmental management is something they are to develop and that it earlier was something that was handled a little bit on the side. She sees the environmental management as concerning the brand, what Jetpak is offering its customers, and the internal developments related to Jetpak’s business system and how the business is carried out.

"It is both about compliance and developing some areas, increasing market shares, being more clear locally”

(CEO Jetpak Sverige, author’s translation)

Box 5. The HR Manager of the Jetpak Group

The HR Manager of Jetpak at group level is HR Manager for all the Nordic countries and also responsible for the competence development through Jetpak business school that provides education for Jetpak’s staff and partners. She is responsible on the Nordic level, for environmental issues and for strategic development of the school and the sustainability work within the whole Jetpak Group. She receives reports from those responsible for quality and environment in each country as well those responsible for HR.

She started working at Jetpak in 2002, when she arrived at the company as a consultant with the task of building up the HR function in the company. SAS had then been the owner of Jetpak since 1972. She had a lot of experience from the air industry; she had worked as a stewardess, president’s secretary, and since 1987 had been working with HR-issues and studied 5 years behavioural sciences and business administration at the university, in a program specially developed for strategic HR staff. Today she is a mentor to students at the university program.

She has a great network at SAS for a long time and is now building up a network in the sustainability area. New contacts are made for example through the organisation NTM. She also believes it is easier to build networks with contacts at competitors concerning environmental issues than concerning other issues. She is also part of a network for HR managers, where they help each other through discussing HR issues on email. Along with the Service Development Manager she also participates in meetings with the ALN (Arlanda Logistic Network) network. The network has well-attended meetings and seminars several times per year where the focus is logistics related issues that aim to make Arlanda the leading logistics centre in Europe. (Continues on next page)
Jetpak’s Environmental Management

She has participated in a coaching course, which she finds useful in her present work. The course was how to use coaching to get a clear way of working, support people in their own development and also coach groups when problems occur. She feels that her work has a impact on the business.

“It is fun to come to a smaller company to be close to the business and have opportunities to have an impact.”

(HR Manager, Jetpak Group, author’s translation)

The HR manager has built an HR organisation and a Jetpak Business school. She has brought to Jetpak a way for working and methods of the larger organisation that might not normally be developed in a smaller company. She has worked a lot with structuring HR-routines, employee handbooks, and with determining salaries, job values and marketing statistics. Thanks to a well-structured HR work she feels that she has time for sustainability work.

“It is good for Jetpak and to think one step further is important, how we prepare ourselves to be competitive. It is the human beings that must be taken care of and developed. Competence is what we compete with.”

(HR Manager, Jetpak Group, author’s translation)

Further, during the interviews, the HR manager reflected on the fact that the company had experienced a tough year, in the wake of the financial crisis, and that the tough year had limited development work. At the same time, this had been a reason not to bring in consultants but to do things themselves, which has led to Jetpak developing a lot of internal competence.

2.1 Goals in Jetpak’s’ environmental management

The environmental aspects were partly developed with assistance from the consultant that originally helped out with the environmental investigation. In the environmental aspects’ register it is clearly stated that the aim is to keep an updated environmental aspects’ register. The environmental aspect register presented by the corporation comprises Jetpak Group AB, Jetpak Sverige AB, Jetpak Franchise AB and the fully-owned franchiser Jetpak Stockholm AB. There is a process description in the introduction to the register for the evaluation of environmental aspects at least once a year by the process owner for environmental area, and also, when necessary for the review by the management team. There is also a routine for the continuous updating of the document. The evaluation of the environmental influence is subjective and performed based on the 16 Swedish environmental quality goals compiled by Naturvårdsverket1 (Swedish Environmental Protection Agency). The environmental effects have been valued on a scale of 1-5. Presented as the most significant environmental aspect is transport.

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1 Naturvårdsverket (Swedish Environmental Protection Agency), is a public agency in Sweden that work on behalf of the Swedish government.
The goals for the environmental management in the Swedish part of Jetpak Corporation have been set for 2010. They start from the environmental policy; see appendix 1, which today is very general. Five environmental goals have been set on an over-all level. In the electronic documentation, these goals are presented with the part of the environmental policy they relate to, the environmental aspects they concern, over-all environmental goals, detailed environmental goals, the action plan and who is the employee responsible. Below the environmental goals will be presented along with related company efforts.

Reduce the consumption of finite resources by 10% or more and thereby indirectly lower pollution emissions.

The goal is set for three years. A pilot study has been performed where the automated measurement of fuel consumption per driver has been evaluated. The focus is on reducing the emission levels of CO₂, CO, HC, NOₓ and PM. The pilot study takes place in Stockholm and includes setting up gauges, measuring, providing training and evaluating the results. The study also includes an evaluation of the training in safety- and eco-driving. The vehicles will probably not be changed during the time of the study, as the costs are too high and they are on three-year leasing agreements. If the evaluation of the study shows positive results the concept will be implemented in all of the business.

Perform supplier evaluation on at least 80% of present suppliers and 100% of new suppliers.

Supplier evaluation must be integrated into all the purchasing processes and be carried out for all purchases. Everybody that Jetpak buys something from is a supplier, but it should be noted that the franchisees are not seen as suppliers and are however evaluated in another process. The evaluation concerns all from electricity to office supplies, or of services from air carriers and the Swedish Civil Aviation Administration. Routines have been developed for these evaluations.

Minimize emissions of particles during wear of tyres.

It is recognized by Jetpak’s staff that this goal is not a real goal since it is not really measureable, but that they still feel that it can be seen as relevant. It concerns the choices of tyres, air pressure and toe-in adjustments. To place demands and educate is on-going. Today no demands are set for which tyres to buy, but there are recommendations. There will be cooperation with a supplier of tyres concerning this goal.

100% pre-separation of litter by employees at offices. The depletion of disposables shall be decreased by 50%.

New stations for the separation of litter are to be purchased. Information to employees about how to use these station needs to be articulated and new goods need to be bought to avoid the use of disposables.

Increase the awareness of environmental issues among employees and partners in Sweden by carrying out education/ workshop in environmental issues for at least 80% of the staff.

The environmental managementshop was carried out for employees at Jetpak Group and Jetpak Sverige. The Jetpak group trains all its Partner representatives who in turn is
responsible for training their own personnel at their partner company. This is described as a “train the trainer-program”.

The education is believed to have a big effect on fuel consumption. Meetings with a reference group are also believed to be a means to save fuel through discussion and exchange of information that might lead to increased consolidation of goods.

2.2 Environmental effort throughout the organization

Jetpak’s aim is for the environmental management to involve all of the organization, as mentioned above. Education is provided for employees, and workshops are provided. Jetpak are also carrying out a pilot study with the aim to decrease emissions from road transport.

Environmental Awareness Training and Workshop

Jetpak has had a workshop for all is employees in order to increase their awareness of environmental issues. The workshop was held for the employees at Jetpak Group and offices in the different countries, for representatives from partner offices and for the drivers of vehicles that participate in the pilot project concerning eco-driving, see below. One of the ideas behind having a workshop where the partners meet was that they could help each other. The workshop was of a train-the-trainer type, where the representatives for different partners were educated at Jetpak by the Process and Quality Manager along with other employees that work with Jetpak business school, and then in turn trained their personnel at their local offices. The education consisted of both a workshop and a part where the specific partners’ local environmental management was discussed. During the latter part it became clear to the participants what different partners are doing and not doing with regard to environmental issues.

During the workshop, there was a focus both on what the employees could do as individuals and a focus at the company. With regard to what the individuals can do everybody was asked to write down three goals that they could commit themselves to doing during the year, such as going to work by bike.

There were also ideas concerning the lists that all drivers receive regularly with data about their missions during the last weeks. These consist of large piles of paper that cost a lot of money and could be sent by e-mail according to the Business and Service Development Manager. It was decided to forward this idea to the investment forum in the company, where the Business and Service Development Manager participates. In the forum a basis for what it would cost to change the handling of the document was developed. A few months later the new way of sending the data was in place.

In Norrland in Sweden, three partners have come a long way in their environmental management, while two other partners in that part of Sweden are only beginning their environmental effort. During the workshop the partners that had not come far became inspired by the others and are now getting more involved in the environmental effort. The Partners are speaking a lot to each other and seem to like to solve problems according to interviewees. Some partners have experienced that customers have begun to show interest in environmental efforts and are asking Jetpak about it.
Jetpak’s Environmental Management

Jetpak, divides the partners into three groups depending on which geographical areas they operate in: the northern group, the southwest group and the southern group. In north group there has been an interest in environmental issues from the customers’ side, and this has had an effect on their demand. In the south and in the area of Jönköping there have been less interest from the customers side.

Environmental education has also been provided in Finland, Denmark and Norway in 2010.

Other courses for the personnel

No eco-driving course was provided during 2010 but one will be provided during 2011. It was postponed because of the economic situation during 2010. The aim is to decrease the environmental impact from transports.

Consultants have helped Jetpak to train their internal auditors.

Pilot project: eco-driving and measuring actual emissions

Jetpak head office has initiated a project aiming at reducing environmental impact by measuring and by educating their personnel in eco-driving. All collaborators are perceived to be enthusiastic about the project since saving fuel means saving money. This measuring has been carried out in Stockholm. Technological CANbus units have been installed in the vehicles to measure the actual emissions, (see page 14). The emissions from vehicles are being measured and compared from before and after the eco-driving training. When the interviews were made the project had not yet shown the results that were hoped for, which was a 10-15 % reduction of emissions. As a result Jetpak has decided to extend the project to include another location, Luleå, where the traffic is less intense and where more vehicles with manual gear boxes are utilized.

A further goal with the measurement is to be able to both deliver actual emissions data to customers, see page X, and to have a base-line measurement to use for setting goals for reducing emissions. Today the measuring of emissions is calculated from information about the vehicle provided by the manufacturer. This information is registered in Jetpak’s information system, and the emissions can be calculated from the fuel consumption data.

When the pilot study, mentioned earlier, is carried out and evaluated the aim is to implement the new technology and provide eco-driving education all over Sweden, and later on in Norway and the other Jetpak countries. The implementation in Sweden is expected to take one or two years. The drivers that participate in the pilot study have been trained in an eco-driving course, and a consultant was hired as instructor.

2.3 Environmental management and Jetpak partners

The environmental management of Jetpak aims to include all of the business. Still, Jetpak Corporation does not see itself as a supporter of its partners’ environmental management, but rather as having requirements on their partners’ environmental management. The partners set their own goals and commit themselves to these.
Jetpak’s Environmental Management

“We want to support but that is a question of resources.” … “If you do it yourself it goes deeper, becomes in your heart somehow. This I have fought for, now I shall reach these goals and it can give better results too”.

(Process and Quality Manager, author’s translation)

“To have requirements on them to set their environmental goals themselves is a way of having them involve themselves in the work.”

(HR manager, Jetpak Group, author’s translation)

There is a guideline in the cooperation agreement with partners that they shall strive towards ISO certification, but it is up to the partner to decide whether to actually get a certificate. That is what is communicated to partners before CO₂ goals are set.

The partners have taken part in environmental training and a workshop provided by Jetpak head office, see section 2.2, and there are plans for follow-ups. The environmental goals for 2011 are to be set in December 2010. In December there is a meeting with all partners when they are to present their environmental management and goals for 2011. These meetings occur 4 times per year.

The over-all environmental management aim is to lower the pollution from vehicles over all of Sweden. All partners must contribute. Jetpak will use binding goals for the vehicle fleet for example. A follow up of the Swedish business will be made, and a report will be compiled from the information system.

The new information system implied transparency in the organisation and increased insight for the head office into their partners business. Jetpak can now see all their partners’ customers and vehicles that are included in their business, and can start measuring. Even though Jetpak wants to offer the same products all over the market so that the customer demand can be met similarly in different areas, the vehicles differ in some areas, and the profitability and CO₂ emissions and environmental management overall depend on competent people locally and on the reigning local culture. Earlier, the partners had different systems and could only see their own business. Now when partners have a common information system, they see each other’s vehicles and customers and recognize opportunities to save money by saving fuel.

“It can become something of a competition between partners when they see that other partners have succeeded in saving.” … ”They start to see advantages.”

(Process and Quality Manager, author’s translation)

Jetpak buys handling services at airports, where they pay per package lifted. Jetpak perform supplier evaluations of the providers of handling services. At Arlanda, Bromma and Landvetter the Jetpak Corporation have their own personnel. There is no warehousing at these terminals, only coordination of goods. However, there are some customers that have goods for warehousing at partners’ offices. Jetpak perform a supplier evaluation that include a battery of questions of how production of services is carried out, for example whether suppliers have an environmental certificate or an environmental strategy.
Jetpak’s Environmental Management

“When I consider environment, it needs to permeate everything to be credible and it is almost a matter of hygiene that we have the right suppliers and work correctly with regard to the environment and avoid to send a lot of paper.”

(Business and Service Development Manager, author’s translation)

With regard to the vehicles, there is an employee at Jetpak’s office in Stockholm who is responsible for issues related to these, and who can help the partners with discussions about for example acquisition of new vehicles. There are often discussions within Jetpak concerning what is a good vehicle, and Jetpak wants to be able to give recommendations to their partners.

Box 6. Important resources in the environmental management

The Process and Quality Manager sees the information system as one of Jetpak’s most central resources that is also related to environmental work, accompanied by the environmental management system certificate, the environmental goals, the environmentally related workshop, and the communication concerning the environment to partners through the partner agreements, the workshop and environmental goals.

The common new information system makes it possible to see the transports and vehicles and thereby ease the consolidation of loads and transport planning which is both economically sound and benefits the environment. The information system also benefits the environment by making it possible to measure, set goals and follow up and evaluate efforts made to reduce emissions, for example through eco-driving.

Resources that the Process and Quality Manager sees as less centrally related to Jetpak, important in the environmental work are: vehicles, Partners’ own initiatives concerning the environment, and for example environmental certificates.

With regard to the environment, the service development manager comments on the use of relational resources; when the parties become interested in the environmental effort and turn into potential cases to try out new ideas with.
Jetpak’s Environmental Management

3 Environmental management represented in the offering

The environmental management has increasingly become a part of Jetpak’s offering to customers.

In the section below, Jetpak’s offering to customers will be described. In the following sections the environmentally related parts of the offering will be described as well as the development of the environmental parts of the offering. The chapter ends with some reflections on the development of the environmentally related parts of the offering.

3.1 Jetpak’s offer

As described earlier in chapter 1.1, Jetpak provides their customers with courier deliveries and express mail services. The type of services offered by Jetpak, namely express deliveries, are not in constant demand by customers but occasionally, when there is a need, when something goes wrong, when a private person or company needs help, then such services are required.

"Everybody is seen as a potential customer, but not all the time."

(Manager of Business and Service Development, author’s translation)

"But actually it is about us being a service company and really a knowledge company. Customers turn to us and take it for granted that we are best for transport solutions and expect that we know best about how we shall act and how we shall develop [our business]."

(CEO Jetpak Sverige, author’s translation)

The loyalty club

To keep the customers tied to Jetpak when the company’s services are not needed, Jetpak has created a loyalty club. The members of the club receive credits for the services they purchase. Since the customers do not have a steady demand for Jetpak’s services, and the point is to keep the customers tied to Jetpak, the customers also receive credits in between their purchases from Jetpak. To receive these credits in-between purchases, customers can participate in quizzes and answer small questionnaires that are being sent out by Jetpak. The quizzes are short questions that are quick to answer and they also are also educational; Jetpak’s aim is to also educate the customer by using smart questions. Through these questionnaires Jetpak receives information about how many are participating, how many credits that are being collected and used, and how the proportion of customers that are part of the club is growing. It is a resource for knowledge and feedback and is also used to build a relationship with the customer. If several employees at the same company use Jetpak, the aim is for each user to be part of the loyalty club, and each new Jetpak customer is asked to participate. Each month, the sum up of the credits of each customer is sent out to the customer. The customers can then log in to their Jetpak loyalty club Internet page and check nice offers, answer some new questions, and participate in a new contest. The loyalty club works as a traditional gift shop where you can use your credits to buy everything from TVs to towels or transports, both personal and for the company. An external partner has been engaged in the development
Jetpak’s Environmental Management

of the customer club and has provided Jetpak with knowledge, and computer systems that are being run by the partner.

“What kind of question can be in the quiz? – How quickly can Jetpak deliver a package to Norway? 1h, 10h, 3h? ”

(Manager of Business and Service Development, author’s translation)

The aim of the customer loyalty club is to teach the customer and to create loyalty and liking. When the Manager of Business and Service Development talk about how he wants the customer to think about Jetpak, he says:

“’I like Jetpak. They are expensive to have to do with and we only use them when it is absolutely necessary’ - and we know they do, but we want them to like us. We want them to think that they get some value for the expensive crowns it costs to send [packages] with us and an added value is that you [Jetpak’s customers] get a little bit back from us. It should be fun and it should be good”.

(Manager of Business and Service Development, author’s translation)

Box 7. The Manager of Business and Service Development at Jetpak Group

“I was recruited because I am different, I have not worked within the transportation business earlier and it was a deliberate choice that my manager made.”

(The Manager of Business and Service Development, author’s translation)

The CEO of Jetpak Group needed a business development manager with experience from marketing. He wanted help to figure out the size of Jetpak’s market.

In his role at Jetpak Group, the Manager of Business and Service Development is a part of the Nordic Management Team together with the CEOs of the different countries and the group functions of IT, HR, and finance. He receives a lot of reports from different functions within Jetpak Group, for example from the Swedish service development manager, and information from different process systems related to development. Generally he receives information from both financial reporting; operational reporting in the form of different quality reports, and receives feedback from different service systems and reports about the production of services. He also participates in different groups that decide on investments. He is also in the reference group for the development of the company’s business system.

The Manager of Business and Service Development has an educational background, which started with odontology studies, and went on to school of economics in Stockholm where he specialised in marketing and consumer behaviour. He has worked as a CEO for a smaller niche company within the staffing business. He has a variety of experiences from building up new businesses, and he for example participated in building up the survey business of a company that worked with media directed at young people. This gave him experience from both sales of services and packaging of information. (Continues on next page)
Later he came to spend some years in the advertising business, working for example as a project planner with a focus on trying to get to know the customer and understand what the customer wants and needs. He has also worked with a human resource function in the advertising business, this largely came to concern competence mapping. At Jetpak, he discovered that there was a need among the customers that could be matched better by offering products that the customers could easily understand than by developing many new products. He also realized that Jetpak needed to learn how to communicate with a mass-market, as Jetpak’s market actually is.

The Manager of Business and Service Development believes it is an important task to get the company to understand customer needs, what it is that customers want. He realizes that the transportation industry is extremely production-oriented, and that it has grown from an environment concerned with the optimization of big expensive physical resources like trucks and warehouses, and it has not considered to any high extent how the customer is thinking.

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3.2 The environmentally related part of the offering

The development of the environmental parts of services are carried out in the same process as all service development.

\textbf{Reading the market – what customers value}

The Business and Service Development Manager works very closely with a consultant who helps to gathering knowledge and information from customers. The company measures customer satisfaction, as this is used to develop the business and to develop strategic information as a basis for developing the right strategy.

Information about what the customers think and what they really value has been gathered. Advanced price elasticity measurements have been made to find out what the customer value and are willing to pay for. The Manager of Business and Service Development points out the new possibility to set values for different customer segments and specific areas with respect to what is being sold. As far as the environment is concerned, Jetpak has results for measurements of for example how much customers value that Jetpak can provide notes on CO\textsubscript{2} emissions. External resources have been used advance this knowledge.

"This is a natural element, I know what customers are willing to pay. This makes us unique. You will not have to negotiate the price with your customers, I say to franchisees who live in a world where everything is about price."

(Manager of Business and Service Development, author’s translation)

The view of the Manager of Business and Service Development is that the environmental issues are customer driven.
Jetpak’s Environmental Management

"Customer-driven, we are convinced that customers will demand it in the future. Society at large will require [environmental effort], [and] there will be laws and constitutions [regarding environmental impact from the business]. We’ve been able to prove that customers value this [environmental effort], and that it has an economic value for the customer. But then we said: “how do we do it”, and we said we will make it unique to Jetpak so that it becomes more strategically strengthening as it will exist as a positioning tool."

(Manager of Business and Service Development, author’s translation)

Even though Jetpak has put effort into developing the environmental part of their services in accordance with what the customers value, it is not considered as contributing to their current business.

"Really good with measuring but first when we have translated it and can see it in the profit and loss it is part of our business and money earning. But it will take time"

(CEO Jetpak Sverige, author’s translation)

Delivering emissions data

Jetpak wants to be the best company in the industry regarding measuring CO₂ emissions for customers. This is achieved through their unique information system. A development project has been carried out in order to make it possible to convert the shipment data in the information system to CO₂ emissions per delivery (measured in kg), so that the emissions can be printed onto the customer’s invoice.

Today Jetpak delivers a calculated estimate of CO₂ per package when a booking is made. This estimated value is calculated as if the package was to be delivered separately. In most cases there will be an improvement, a reduction of CO₂ emissions compared to the estimated value, when the package actually is delivered. This is due to the fact that there will probably be more packages loaded on the same delivery route and only a share of the driven distance will be allocated to the package. In this way efficiencies by consolidating loadings are achieved. The customer can receive a compilation of the total emissions from their shipments over a certain period of time.

There is no extra charge for the CO₂ calculations.

"Long term, it’s an investment because otherwise we will fall behind."

(CEO Jetpak Sverige, author’s translation)

Pilot project – measuring actual CO₂ emissions

One on-going pilot project is an attempt to try to measure CO₂ with more sophistication by installing technological CANbus units in each vehicle to measure the exact fuel consumption per vehicle. These measurements will replace the data for CO₂ emissions that are in the system today and which are currently calculated from data provided by the vehicle model, driven distance and average consumption of fuel.
Jetpak's Environmental Management

"From what I understand only few others do this per vehicle. We have the possibility to do this. Then we will be unique. All the vehicles we have are there in the system; all resources of production, aircraft and vehicles that go under our flag should be registered in the system. The only exception is Jetpak Norway that is not in the system... We will deliver CO\textsubscript{2} per package for all deliveries."

(Manager of Business and Service Development, author's translation)

There are still some issues to be solved before the new system can replace the present system. For example, vehicles on the road are sometimes used as substitutes for airplanes, when deliveries are transported during the night, and these vehicles need to change to local vehicles so that the CO\textsubscript{2} is added correctly into the information system.

Differences in the Nordic countries

When it comes to Jetpak's environmental effort and its connection to their offering, there are differences between the different Nordic countries. Jetpak's Swedish customers have come much further than the customers in the other countries when it comes to understanding, and they experience demand from their customers in turn. In Norway discussions about environmental sustainability has just started and Denmark and Finland have not come as far. Among customers in the countries outside Swedish a survey has showed that it is seen as negative by the customers to receive a not on CO\textsubscript{2} emissions.

"It is interesting. It has to do with the fact that some customers have good understanding of the environmental issue of different types of fuel, what is more environmentally friendly, what the availability is - you cannot fill up with some types of fuels, it is not possible, you cannot go anywhere. ... The Danish customers value environmentally friendlier vehicles fairly highly, they have a small country with greater opportunities to drive on alternative fuels."

(Manager of Business and Service Development, author's translation)

Jetpak want adopt an approach that is appropriate for all the Nordic countries, and thereby they need to adapt their communications with each country.

The Brand on the road

Traffic safety is another important area for Jetpak and is also related to both social and ethical responsibilities. Through driving more economically, traffic safety is also related to environmental issues, as it means saving fuel and thereby lowering the environmental impact. Jetpak has started cooperating with NTF\textsuperscript{2} who will measure the speed of Jetpak's vehicles on the roads and send reports to Jetpak. A number of transport companies all over the country will participate and be measured in this project, and it will be possible to find out which company that has the best traffic behaviour. It will be a contest between the participating companies.

\textsuperscript{2} NTF is short for Nationalföreningen för Trafiksäkerhetens Främjande (The National Society for Road Safety). It is a Swedish non-governmental organisation that works to improve road safety.
Jetpak’s Environmental Management

“Great, so we capture that because it’s our signs [meaning the trucks are branded] running around out there and they [the drivers] shall behave themselves on the roads”.

(Process and Quality Manager, author’s translation)

The work concerning traffic safety has come far in Sweden, while in the other Nordic countries it has not come as far. Over all, the partner system is not as well developed in the other countries as in Sweden yet.

3.3 Development of the environmental part of the offering

With regard to how the environmental management has developed lately in Jetpak the CEO of Jetpak Sverige says:

“It was very interesting how it started. Speaking of packaging. Suddenly, the environmental department was the marketing department and bundled out to the market and customer, and did the pricing. Interesting reaction internally.”

(CEO Jetpak Sverige, author's translation)

The Service Development Manager and Business and Service Development Manager have worked together with business development. They have worked with developing value added services that can be appreciated by customers and that might increase what the customers perceive as the value of the services carried out by Jetpak. CO₂ calculations have become one of these value-adding services.

According to the Manager of Business and Service Development, the customers previously had trouble in understanding the diversity of services provided by Jetpak.

Integrating strategy

The Manager of Business and Service Development speaks of the fact that after finding a niche where you know what you are good at and what the company is to do, then the strategy work takes a few months and after that work is needed to positively inform the staff of the company which never ends.

“You can become very stressed by the fact that others [other companies] go somewhere [choose to develop their business in a certain way]. If you are a small niche player, you must have some balls, some courage to place yourself in another area so that you can be seen. And Jetpak is a small player who must stand on a small white surface that is not taken. This is how I reason. This is my acquired working knowledge and experience in all businesses and this is the generic”

(Manager of Business and Service Development, author’s translation)

The Business and Service Development Manager points out the importance of looking at how solutions are sought in other business industries. In regard to looking at what the competition in the same business industry is doing, the Manager of Business and Service Development says:
Jetpak’s Environmental Management

"...in that way [the way of the competition] we will not do it [develop our business and offering]; it is about positioning and in this respect we have been speaking about the environmental field for pretty long time now, where I have driven a line that our environmental management shall be positioned, not "me too" acting [refers to doing the same thing as competition] because it does not give us anything and it will not be good sustainable environmental management." ... “One way is to look at the others [competition] and see that [like they are developing their business and offering related to environmental issues] we shall not do it.”

(Manager of Business and Service Development, author’s translation)

Box 8. The Service Development Manager

The Service Development Manager’s work concerns what Jetpak should offer its customers and how the offering is to be packaged. He works as a project manager with the offering, while some other colleagues work with prices.

He reports to the Jetpak Group Manager of Business and Service development who is his manager. There are 2 more project managers with other responsibilities, in total 5 people work with business and service development.

He has a university degree in business administration with marketing as his specialization. He has at Jetpak for worked 8 years, and previously 10 years at DHL. While at DHL he had leave of absence to study for three years. At DHL he worked as a driver, with sales, as a product manager, with product and sales development in Sweden and then with a Nordic feature. While in these jobs he had a lot of customer contacts and his duties were to a high extent focused on sales and customer service, and less on the production of services. When he started at Jetpak he was customer service manager and worked with the Jetpak companies in Sweden, Norway, Denmark and Finland.

He knows the business of express deliveries well; in 2002 he left DHL which was then an organization that focused on air express.

“Don’t know much about trucks but enjoy the fun with quick transports – that there is a problem, somebody forgot something, and there are small customers.”

(Service Development Manager, author’s translation)

With regard to the CO₂ calculations, and notes of these delivered to customers, the service Development Manager has cooperated with his fellow workers in business and service development. The Service and Development Manager’s role has been to make everything work in the system, to see to that all information is registered in Jetpak’s information system. He is also responsible for taking the initiative to hand over the basic data management to the operational organization at partners’ offices. (Continues on next page)
He sees it as important when driving projects to be able to go around and talk to individuals that for example might have failed to read their emails.

The Service Development Manager participates in a lot of meetings: meetings with his colleagues in business and service development about every other week, with the sales board every 6th week when commercial managers from all the Jetpak countries participate, and “dialog meetings” which are held once per quarter with all of the company in Sweden and the parts of the Nordic company that work at the office in Stockholm. During the dialogue meetings everybody participates and has the opportunity to speak.

The Service Development Manager is also leading a reference group that is working with the development of the information system. All potential changes in the system are sent to this group for referral. There are other reference groups within the company for finance, sales and market, and production respectively.

**Including personnel and partners**

The Service Development Manager and the Manager of Business and Service Development have sought help from the Jetpak employees and partners to come up with ideas, by asking them what they do today and what kind of information they have today in their systems that it might be possible to utilize to deliver as an added value service to customers. The added value service was to be used so that the customers experience a higher value than the value of just transports, and might for example also increase the customers’ feeling that Jetpak is a safe and reliable alternative and thereby increase the value experienced by customers.

They have tried to develop this way of working and they have experienced an increased interest to cooperate from their co-workers during hard times:

“Especially last year when it was not easy, and you had to dismiss people, then they [the employees] became involved because they want it [the company] to go well.”

*(Business and Service Development Manager, author’s translation)*

The Manager of Business and Service Development wants to contribute to helping Jetpak understand customer needs and what customers want from the transportation business industry, which is usually very production oriented. He believes that the business has developed from an environment that concerns large, expensive physical resources that you need to optimize, like trucks, depots, warehouses, and has grown from this production thinking without considering of how the customer thinks.

“We work and we learn, knowledge and information come not only from the customer but also from them who are the furthest out towards the market because that is where they [the Jetpak staff that communicates with customers] know what it looks like.”

*(CEO Jetpak Sverige, author’s translation)*
Jetpak’s Environmental Management

The Business and Service Development Manager is responsible for initiating the workshop and the internal packaging of the offering for example. When developing the parts of the offering related to the environmental management he and his colleagues have worked internally with training in a process including all activities all the way down to the customer. The Manager of Business and Service Development and the Service Development Manager train people in the company on the environmentally related arrangements so that everybody can tell the same story to customers. The training includes providing understanding of how the environmentally related parts of the offering work. They have provided help for the customer service department by developing documents of questions and answers that can be used by and are a part of the process library of customer service. The aim with the documents of questions and answers is for customer service to know what to talk about with customers, how to put forward arguments of why customers should buy from Jetpak, and thereby increase customer loyalty and get customers to buy more from Jetpak. Knowing how to communicate with a mass market that is the customer group is important to Jetpak. Many customers ask the same question and the aim is to be prepared with an answer and be able to show that Jetpak has thought about those issues that the customer might ask about.

The internal work with the offer, which is of the Manager of Business and Service Development’s responsibility, also includes ensuring that customer service department register the right information in the information system. Every time a new vehicle or customer is added, it has to be registered correctly in the system and to make this work, instructions and documented processes for the customer service department in each country are provided. The Service Development Manager travels a lot to meet staff at customer service departments and a lot to lecture, and to teach them how to use the computer system.

"In essence almost all of the company, everyone in customer service, and all the sales personnel are trained. There are support functions for after sales that work with large customers and have a lot of contacts and is really a part of customer service, I believe management should know this by heart".

"I essence all our drivers and partners must understand what this [the environmental effort] is. And franchisees. They believe it is really scary. We have really convinced them, it was like an American presidential campaign, and we were out and shook hands and held large lectures. Playing Martin Luther King "I have a dream". Business development is a lot about that. I see environmental development as business development".

(Business and Service Development Manager, author’s translation)

The importance of having the cooperating partners understand what the strategy is about has been recognized at Jetpak. When it became evident that some partners had perceived Jetpak’s strategy and new documents as new rule books for how to work, and had felt overrun by the central organization, a workshop was held for all partners.

"Strategy is supposed to be a guideline to reach the goal, a help. So then I had a workshop, 2 hours and talked about these things. For me it is a good example of how we worked, this CO2. “…” you have to sell your idea, this is good, our customers will ask for this and we know that they value this.”

(Manager of Business and Service Development, author’s translation)
Jetpak’s Environmental Management

The Manager of Business and Service Development sees all communication channels as important, both information sent via the intranet or delivered verbally at meetings. He believes that Jetpak has a lot of knowledge, but also a flat and operative organisation which is why it seldom have time to communicate and make use of information. He believes it is very important to consider this aspect for the employees that meet the customer.

With regard how to make sure that everybody works in a certain way and that everybody talks to the customers for example about the environmental part of the offer, the Manager of Business and Service Development says that customer service in the different countries receive documented processes and instructions for how to work. The Process and Quality Manager spends a lot of time at the different offices lecturing and teaching for example about how to use the information system. Jetpak has processes and control systems primarily for the operational side.

"The production must be very neat and tidy if that package is to arrive in Oslo in 3 hours, then every part of the chain must know exactly what to do. “… ”… We want to become even better at defining processes and maybe develop them”.

(Manager of Business and Service Development, author’s translation)

Regarding knowledge within the company the Manager of Business and Service Development continues:

"Well, there's lot of knowledge that we do not benefit from, but the problem is that if you do not set the strategy and the target where you are going, then people do not understand how to contribute; they cannot put their ideas and skills into practice, and that has been our problem… actually it is now that it starts. We started with this new strategic position, where should we be, we called it the red area and it has stuck - talk to a guy in customer service, he knows exactly what you're talking about and he understands it. It feels really good and then you also get ideas and we hear that these people understand what they should focus on. ”

(Manager of Business and Service Development, author’s translation)

Press releases are written in order to provide reasons for buying from Jetpak,. Simple brochures only exist in electronic pdf form so that the sales personnel can print them when they are needed.

Jetpak has outsourced much of its marketing to different suppliers, for example they have no stock of their own of giveaways. Jetpak employees log into a webpage and buy products of good quality. Other external suppliers see to that Jetpak vehicles have the correctly branded. This is done since Jetpak believes these suppliers have a competence that Jetpak should not build internally.

3.4 Customers’ demands for environmentally related services

In some areas in Sweden authorities, primarily county councils, are customers of Jetpak. Authorities are perceived to have more knowledge about opportunities and the demand come from higher hierarchical levels within their organizations. Larger companies are also seen as having more control of their organisations when it comes to environmental issues.
Jetpak’s Environmental Management

At the same time, Jetpak experiences that when it comes to actually buying a service, the interest from the customers’ side shifts to focus on the price.

"But then it’s indeed unfortunately a bit like that; they often make these demands, but when the chips are down they might not care much about it anyway"

(Process and Quality manager, author’s translation)

Sometimes larger companies ask for more details, for example about what trucks are being used, but most of the time customers are satisfied with knowing that the company has an environmental certificate.

The CEO of the Swedish company sees Jetpak as a knowledge-based company from which the customers expect the best possible transport services and the development of services. At the same time, she points out the importance of developing the environmental management in close relation with the customers and the market, and to utilize information from those nearest the customers and from the customers themselves.

"We can never sit inside an ivory tower and do it [develop the environmental management] alone, we have to do that in close relations with our customers and the marketplace. Here I think awareness is the first step, then the knowledge to be able to work with the insight in a wise way to become effective."

(CEO Jetpak Sverige, author’s translation)

Box 9. The Manager of Business and Service Development

The Business and Service Development Manager has a professional network from a career with a variety of previous jobs and keeps in touch with old friends from his university student and from previous work places.

"I use my old professional network but I can not distinguish between professional and friends anymore. It becomes like that. Good professional contacts also become friends. I use a lot of people that I know when I feel that here I have something that I need to cultivate, or knowledge or concerning what we do here. It works a lot like that, we talk a lot about the type of consultants that work in this environment with rather important stuff, and you go by reputation and on recommendations from networks. I have a very good network, because I’ve done so many things, ranging from surveys to the old buddies from Handelsböskolan (Stockholm School of Economics) so I keep in touch with them sporadicaly and it’s a way to bounce an idea or sometimes open a door to a deal. Occasionally."

"I talk a lot about external resources, but for me they float [external relations are perceived difficult to delimit as primarily external resources; they are also seen as internal resources] a lot. I try to bring my colleagues at Jetpak out in these networks and it is about gathering resources in the form of knowledge…"

(Manager of Business and Service Development, author’s translation)
Jetpak’s Environmental Management

3.5 Reflecting over the development of environmentally related services

Environmental management is perceived by Jetpak’s staff as something that has to be done for them to stay competitive on the market. Reflecting over the role of environmental considerations in the offering, the CEO of the Jetpak Sverige says:

“Order qualifier. You must participate [have an environmental effort] and environmental management will be a part [of that], it will become a hygiene factor, in about three years you will otherwise not take part. Within the public sector it is a requirement on paper already today.”

(CEO Jetpak Sverige, author’s translation)

Even though it is seen as an order qualifier to have environmental management, it has been important to Jetpak to develop the environmental management related to the offering in a way so that it becomes unique. The Business and Service Development Manager has worked creatively and utilized his network relations when developing the environmentally related parts of the offering:

“… we had an idea of how we wanted to do this [develop the environmental management], try to find something unique and enlisted the aid of someone outside [relations in networks used to develop the offering], and that has brought knowledge and helped us with the processes of how to move forward on this issue.”… “… how we can improve [improve the environmental performance] while we at the same time seem to be as unique because it is one of our guiding principles, we should be unique.”

(Manager of Business and Service Development, author’s translation)

Jetpak’s use of belly space on flights that will depart even if Jetpak does not even have goods to send with them is something that is seen as very positive by Jetpak. Reflecting over the way that Jetpak is built, the CEO of the Jetpak Group relates the business model to environmental issues:

“Another point in the system in terms of resources – which might also relate to environmental thinking - we do not add any CO2 with the flight because passengers fly anyway with the flights that we use, so all flights would have departed even if we had not placed shipments in the belly. Erik’s [The Service Development Manager] measurements indicate that shipments with us are more environmentally friendly than those by truck; we reuse existing freight capacity, especially in relation to long distance. Regarding short-distance transportation, we need to compensate more to achieve an environmental profile, and therefore we have started measuring ... in terms of resources; to be able to control a both cost-effective and rapid but also an environmentally friendly alternative for long journeys through airfreight, and to perform the volume of shipments that we do, is actually unique on the resource side.”

(CEO Jetpak Group, author’s translation)

There have been plans within Jetpak to develop new material, in the form of a sustainability report, to use to present the environmental management of Jetpak to stakeholders. Because of a lack of resources the plans for a sustainability report had to be put on hold for a while. The CEO of Jetpak Sverige realizes that Jetpak needs to inform stakeholders about the environmental management within the company.
Jetpak’s Environmental Management

“But you have to slow down and realize; but hey! How many are there on a scale of 1-10 who know that we have this [environmental management]? Very few. We have a huge job ahead of us but it is fun to have something to offer. Extra attention. Extra points in the loyalty club. There is so much you can do that can make a difference. A huge motivator. Save the world.”

(CEO Jetpak Sverige, author's translation)

Vision

"The image of my dreams: the driver delivers packages and the customer asks how much CO2 and everyone is able to answer. Complete knowledge all the way. And the customer wants it. There is a market out there, there is a customer who meets the driver or another one of us, and when the CO2 [the calculations of CO2 emission calculations that can be delivered to customers in the form of notes] is only a small part of it. The resources are on different levels. We also build a confidence, the easier this is to embrace. We will stay by this handrail - we work like this proactively and we are proud when we find deviations because we can easily fill that. That we have clearness and uniformity when we work, even though it is very complex.”

(CEO Jetpak Sverige, author's translation)

For the future, the CEO of Jetpak Sverige wants the offering to be stronger locally. The CEO of Jetpak Sverige also reflects over that it is an income sacrifice for the local partners with their smaller organisations to ask their customer service employees and chauffeurs to leave their daily tasks and not bring in money for some time, to provide them with training. There is a limit to how much their partners can invest in environmental management and still stay competitive.
Jetpak’s Environmental Management
Jetpak’s Environmental Management

4 Two Partners and their environmental management

In order to capture a picture of which parts of the environmental management that are passed on to customers, this case study includes a study of two partners. These two partners were chosen, in discussion with Jetpak’s HR Manager and Employee responsible for partners, since these partners were both seen as having interesting environmental management but in different ways.

The partner in Luleå is seen by Jetpak head office as one of three partners that are working together concerning environmental management and that has had an environmental certificate since before the Jetpak head office started talking about this. The partner in Luleå is seen as a role model Partner by the Jetpak head office.

“Luleå is an example of how we wish to all franchises were”

(HR manager, Jetpak Group, author’s translation)

The Jetpak partner in Växjö is seen as very skilled by Jetpak, and has a transportation business that is wider than being a franchisee partner for Jetpak; it also includes a heavy traffic business. This partner has already conducted environmentally related measures for its heavy traffic company and works actively towards saving fuel. The idea behind choosing to study this partner was also to see if there were any synergy effects related to the two businesses of this agent that affect its environmental effort related to the Jetpak business positively.

4.1 Jetpak’s partner in Luleå

The current CEO’s father started franchising for another Swedish express delivery company (Adena Picos) in 1984. In 1992 the current CEO, who had been employed in the company, took over. The CEO had then studied economics, and only had his final thesis left to complete when he left university and went back to working for his father. Originally he had planned to become a biologist and he also has studied chemistry.

The franchise in Luleå is run from the office of the Luleå domestic airport. The office is manned during opening hours and run by an on-call system after opening hours. All air cargo freight that passes through Luleå airport also pass through the Jetpak partner’s business. Access to the airlines network through the representation of Jetpak at the airport differentiates Jetpak’s partner in Luleå from its competition and makes them unique. Jetpak has an agreement that covers Sweden, but has different value depending on how big the air cargo business is in the district. Because of the geographical situation in Luleå air transportation is seen as a great service and it is important to have the option to serve the customers and have access to domestic flights that leave or arrive in Luleå; this is the agreement Jetpak has.

The people employed at the four and a half positions at the office also work at the terminal. There are 18 employees in the company including the drivers. The vehicles are leased by the Jetpak partner in Luleå. There is a surplus of vehicles, the business requires the possibility to accept the extra commissions that emerge. In Luleå, all the drivers are employees of the partner, instead of individual companies with trucks, which is another common way of doing business.
Jetpak’s Environmental Management

“Luleå has its own employees, then totally different issues arise — it is very much about motivating the staff. Different ways for the dispatchers to approach the activities”.

(CEO, Jetpak partner in Luleå, author’s translation)

The CEO of the Jetpak partner in Luleå believes that the kind of people you have to work with is crucial for the business. He believes that his staff is very good at taking responsibility and doing a good job, and that it is important to work with people that are responsible, conscientious, positive, service minded and know how to lend a hand. Reflecting over the personalities of the individuals that he has employed, he believes that they are a mix of people rather than certain types of personalities; what they have in common is that they like to provide services.

“We are in a high service business, our customers expect something extra when they call. A kind reception from employees is very important, for example when the customers meet the driver.”

(CEO, Jetpak partner in Luleå, author’s translation)

“The different moments can be tough… it is not design… it is about attitude. It is a high service work that is about quick decisions if the customers call us and we have immediate service. The work is not physically heavy, but there can be sudden shifts from calm to very much to do and therefore the employees need to be able to change tempo and stay very positive when the work load suddenly gets heavy.”

(CEO, Jetpak partner in Luleå, author’s translation)

The shipper performs the booking with one phone call, the pick up of goods and the transport to airport, flight and delivery.

Customers book departures with the office in Luleå. Sometimes regular customers to Jetpak are the receiver of goods but recommend their supplier to ship the goods with Jetpak. It also happens that the regular customer of Jetpak even takes over a shipment from their customer and books it with Jetpak.

The Jetpak uniform, identity card for drivers, and appearance of the vehicles are important elements of the offering and of meeting customers; it should be easy to see that it is Jetpak who is performing a service.

The Jetpak partner in Luleå has meetings twice every six months with all its personnel who are paid to participate. These meetings concern sales, production, customer treatment, and during these meetings, problems and experiences are also discussed.

There are also daily talks in the coffee-room; the coffee-room table is seen as the first place of a year communication. There the employees talk a lot about work and what the customers want. The CEO senses that some customers are perceived, both by himself and by his staff, as exciting to speak about, since they want services carried out in a special way.

“The most important is how we talk to each other every day, and that is what is direct communication between dispatchers and staff, or the driver, there may not be misunderstandings. Pure service stuff - like this or like this customers want to have it, both high and low.”

(CEO, Jetpak partner in Luleå, author’s translation)

The information system is used for booking from door to door, shipper to recipient, booking air cargo transport from door to door, air cargo consignments locally or regionally, in a system of drivers using their hand computer in vehicles. The registrator of the booking can see all the information that is registered. When the booking is made it always comes to the driver, so there
Jetpak’s Environmental Management

are no misunderstandings between the order registration and the driver. The system is a resource that has been invested in heavily and that is perceived as unique within the company.

Cooperation between partners that are closest geographically occurs when some services are performed regionally over boundaries between geographical areas in which different franchisees act. For example one Jetpak partner can have a delivery to another Jetpak partner. The information system is being developed to increase the options and ease partners’ cooperation over boundaries. There can be possibilities to book with one franchise partner that cooperates with another franchise partner so that the package is sent by ground when air transport is unnecessary.

Jetpak, centrally, provides courses if they see the need or if a franchise partner has communicated a seen need. There have been courses that the office have needed to be able to work in a certain Jetpak way, for example regarding how to make bookings, traffic control, and safety rules related to air freight. One problem that always has to be taken care of when training personnel is that the Jetpak Partner office cannot close during courses, it needs to be staffed all of the time. Since all of the staff cannot leave an office, Internet courses have become the solution for training within Jetpak. Sometimes also representatives from the head office visit the partner to give courses or presentations when a new service is produced.

Meetings

Four times per year there is a meeting called Jetpak råd (Jetpak council) where groups of six to eight partners participate as representatives for the total number of 30 partners.

A process for electing the representatives is split up in regions that choses a representative each. Prior to the meeting with the Jetpak Råd regional meetings take place where everybody in the region participates and raises issues that the representative can bring to the Jetpak Råd. Before these meetings the CEO of Jetpak Luleå also gathers information from his own business companies by talking with people in the coffee-room, and discussing impressions, views and issues interesting in a longer time frame, like development issues concerning IT, production, business, business industries and what customers want Jetpak to put more effort into.

Jetpak also has a business advisory board, of which Jetpak Luleå’s franchise CEO is a member. They go through over-all business and cooperation issues and also issues for development. The CEO of Jetpak Luleå considers this to be important for a good business and all partners participate.

Production meetings are held at Jetpak Luleå where the dispatcher sits down and talks with other production staff. During these meetings the ten most central customers who covers the whole country are discussed and central agreement issues are discussed.

Jetpak Luleå has both environmental and quality certificates that they have provided themselves. There is a group certificate through Jetpak but this has limitations when making offerings in public procurement, in such the customer often wants a local certificate that concerns all of the business and includes the vehicles and transports. They require policies but also specific goals. Regarding the inclusion of transports in the certificate the CEO says:

"often it is there [regarding transport] that it is limited, if you don’t have a certificate of your own, then [if you do not have a certificate of your own] you will have a certificate of the office".

(CEO, Jetpak partner in Luleå, author’s translation)
Jetpak’s Environmental Management

“Our greatest source of pollution is that we drive vehicles. We try [to reduce pollution] in different ways through having modern cars with relatively low emissions. We also measure our pollutants – how many assignments we perform. We have a simple measure - you can discuss whether it is a relevant measure - but we look at how many deliveries are made per kilometre driven.”

(CEO, Jetpak partner in Luleå, author’s translation)

The CEO in Luleå is very pleased will the environmental certificate and says:

“maybe it does not fit all but it fits me well. We have different backgrounds as franchisers but it gives this structure in all of the business and that suits me.”

(CEO, Jetpak partner in Luleå, author’s translation)

The goal for the measurement is to see whether it is possible to work more efficiently, if it is possible to join some delivery routes, to reduce the number of miles driven. It is also useful for evaluating the possibility of providing customers postponed deliveries and join routes to save miles.

There are customers that have asked for data on CO₂ emissions previously; this type of data can now be delivered. There have also been customers prepared to delay deliveries in time, but according to Jetpak Luleå it is difficult to know whether the reasons are economical or environmental. By postponing delivery a little you can lower costs, but according to the CEO in Luleå, it is at the same time important to remember that the business idea is still above all about quick transports and is above all.

All the employees at Jetpak Luleå have participated in a basic environmental course. The course was held as a result of their ISO certificate. An environmental consultant, that also helped to drive through Jetpak’s environmental certificate, held the course.

In the coffee room, information and goals are presented at the wall all of the time. There is a board with presentations of measurements for example on how many deliveries are made on a certain driving distance, called eco-efficiency at Jetpak Luleå. It is important to remember that this measure is debatable, especially since it shows lower values which means weaker eco-efficiency in times of good business. Nevertheless, the CEO of Jetpak Luleå is very serious about environmental management, responsibility and considerations:

"But the important thing we can do is to have the right equipment because we can not violate our business idea. But we are announcing our ability to combine environmental and economic sustainability. There is always a palette of services that you have to be able to choose from. But no doubt our niche is that we offer these quick [deliveries]: Once you have decided that it should be quick, then we offer it in the most environmental [friendly] way.”

(CEO, Jetpak partner in Luleå, author’s translation)

Jetpak Luleå sometimes work towards industry associations instead of separate customers in order to accomplish coordination, which benefits both economically and may also reduce environmental impact. When they visit a cluster of companies they aim at the whole cluster instead of separate companies, as increase the deliveries from the same place, lower transports and be able to offer more beneficial conditions.

In Jetpak, the Jetpak Luleå CEO has participated in talks about CO₂ related measures and he participates in a project group concerning influence on the climate. In the group focused on climate influence a course in eco-driving were held earlier, and in connection with this also
Jetpak’s Environmental Management

measurements of eco-driving was made. No special differences were found in emissions after the course had been given, and the CEO in Luleå believes that it can be the case that all the drivers already drove in a very environmentally friendly way before the course.

The CEO of Jetpak Luleå writes monthly letters to customers. These letters often have a theme; sometimes it has been how to bundle environmental considerations with economical. To use *slingtransporter* (milk run transportation) have been recommended as a way to reduce environmental impact from transportation and reduce cost at the same time.

The CEO of the Jetpak partner in Luleå believes his company has no problems in talking to customers about environmental concerns and believes his company, and fellow employees can respond to questions from customers regarding environmental issues. He also the company is able to provide information related to environmental issues before the customers ask for it.

“We have worked so much on this that I can bring it up but I do not think the reason for why the customer chooses us is environmental concerns”.

*(CEO, Jetpak partner in Luleå, author’s translation)*

Still if the customer gives priority to lower speed a little bit Jetpak has the ability to do so with higher degree of coordination and lower environmental impact.

Most customers book over the telephone. Soon Jetpak will also allow Internet bookings, but the CEO believes that telephone bookings will continue for many of the customers, since many of them want a personal contact when important goods are being transported.

Since the Jetpak’s partner in Luleå started its environmental management before the environmental effort was introduced from Jetpak head office, the partner in Luleå perceive itself to be one step ahead of Jetpak’s head office in their environmental effort.

4.2 Jetpak’s partner in Växjö

Jetpak Växjö is a part of a family-owned business split up into two companies; C.G. Eriksson Bud AB that is the Jetpak Växjö partner, and C.G. Eriksson Åkeri AB that is a partner to another company called Alwex. The father of the current CEO started the company, and in 1991 the current CEO started working there. The current CEO now owns a fourth of the company that was split up among him and his siblings in 1994. The CEO is interested in computers; he studied IT-related courses at upper secondary school, and has tried to maintain that interest.

Earlier, the company was larger with 50 employees, but when the larger transport company was split up one part, which is now sold, ended up in Helsingborg. Today Jetpak Växjö has 30-35 employees. In total there are 25 vehicles in the business, about 12 heavy trucks and 12 delivery vans in different sizes.

C.G. Eriksson Bud AB that acts as a partner for Jetpak uses express delivery vans of up to 3,5 tonnes and that can be driven with a standard driver’s licence.

C.G. Eriksson Åkeri AB acts on behalf of Alwex uses heavier vehicles, trailers and haul. Their customers are in the food industry, for reefer transports. For these customers, distribution to supermarkets is done during day-time, starting from the terminal in Växjö. At nights goods are picked up in Malmö or Helsingborg at food companies’ warehouses and driven to the terminal in Växjö. The goods are already packed for each store when
Jetpak's Environmental Management

The pick-up is made at the warehouses. From Växjö the goods are distributed in an area of around 200 km north and 100 km south of Växjö. There are also some customers within the construction industry that demand transports of, for example, gravel and concrete. C.G. Eriksson is a part owner of, and pays 1% of its profit to the company Alwex. All invoicing is taken care of by Alwex.

The company Alwex is run like a lastbilscentral (Swedish regional haulage co-op), even though today it is a limited company with a board and organisation to handle the marketing for 80 part owner carrier companies. Four of the companies in Alwex are larger haulage contractors, which are more involved than the smaller part-owners that for example only might have one truck. Alwex takes care of the contacts with new customers. The hauliers report for example what amount of fuel they have used and other information that is demanded by customers. ICA for example demands reports about fuel and environmental information for example, and Alwex collects information and reports to ICA. Alwex owns a company named SSC that in turn owns and run a terminal in Växjö that the hauliers use. The terminal was previously owned by ICA. The CEO of Jetpak Växjö is more involved in Alwex than many other part-owners.

The most important resource according to the CEO is good personnel:

“Cars can be bought, personnel cannot. The most important is that the staff enjoy their work so that they stay so that I have a running business. It eases my situation not to have to flounder with the teaching of new personnel. And the customers do not want any hassle. The staff is the most important. Staff is changeable when it does not function but a trained staff that gets on well is absolutely the most important”... “I usually get my staff to stay for a long time and I hope that it is my way of managing the business that makes them want to stay for a long time.”

(CEO, Jetpak partner in Växjö, author's translation)

What is specially looked for in personnel is a good attitude and that they are friendly.

There are a variety of ways to carry out services. For some customers there are customer-specific solutions, for example some customers have their own communication routines that they want Jetpak Växjö to follow.

“With us it can be special solutions with each customer and to lose someone (an employee) that knows most of these things is very troublesome. We have many different customers and they have their specific... they can have their own hand computer, installations, ways of reporting, demand on time windows for reporting, if our personnel can do it and are quick and efficient, that is absolutely the best.”

(CEO, Jetpak partner in Växjö, author's translation)

C.G. Eriksson Åkeri AB is a resource for the Jetpak partnership with C. G. Eriksson Bud AB when it comes to staff. He can use his staff in both companies, for example he can move more staff to the business where there temporarily is more work.

“The two businesses are very staff-intensive at different times of the year, and also during the week, and I can move staff between the (two separate companies’) businesses”.

(CEO, Jetpak partner in Växjö, author's translation)
Jetpak's Environmental Management

For example during the Easter period there is a lot to do on the food side, while at other times there are a lot of express deliveries. To have personnel with knowledge of how to work in both businesses from time to time is seen as valuable by the CEO who thinks the businesses works very well together.

Regarding traffic control, the traffic control managers of each business work closely together. Since they have contact with each other all the time they can help each other when different needs occur, for example when a customer at the express-part suddenly needs a larger size transport, they can use each others resources. Staff can be used in both the businesses.

"Employees can “fly” [meaning “move”] between the businesses. [It means] more resources on the express part. It would have been difficult for a smaller business to call in extra staff".

(CEO, Jetpak partner in Växjö, author’s translation)

Meetings with all the personnel are held separately once a year for both business. These meetings deal with more general subjects regarding the businesses. Some employees participate in the meetings for both businesses. The CEO believes these meetings might occur a little bit too seldom. But there are also less structured and well-planned meetings.

"Usually you sit down and speak with a few [employees] if there is something special that needs to be done. The status of the company and employees’ ideas [are the subjects that are discussed]. “

(CEO, Jetpak partner in Växjö, author’s translation)

The CEO also uses an internal webpage for communicating information to the employees. The employees have passwords and can log in and have a look at new information. Sometimes the CEO writes letters to all the employees if there is some information he wants to spread, for example concerning investments.

The staff that work on the heavier haulage side do not start and end their work from the office location and thus do not spend time there, but the Jetpak Växjö staff has a common coffee room at the office.

"If there are too many here it is not good, then it is too little to do out on the roads”.

(CEO, Jetpak partner in Växjö, author’s translation)

Truck drivers often take their lunch out on their runs. The employees that work with traffic planning are almost always on call and since this function need to be constantly on stream, they take turns to have lunch.

Environment

Neither of the C.G. Eriksson businesses have environmental certificates of their own; however they do follow the guidelines that come from the environmental certificates in Alwex and Jetpak.

The Express business has a general commitment when it comes to the environment. In the heavier haulage business, environmental management is greater and a specific type of computer related to eco-driving has been installed in all the vehicles. These measure
Jetpak’s Environmental Management

kinetic energy; the driver needs to release the gas pedal earlier to utilize the kinetic energy. All drivers receive information about how good they are at utilizing the kinetic energy and how much idling they are responsible for.

“Who you thought was driving in an energy-saving way was perhaps not. You get fooled by what you believe in people. Now you get it in black on white”.

(CEO, Jetpak partner in Växjö, author’s translation)

With a truck that does not go faster than 90 km/ hour a limit has been set in the company not to drive faster that 83 km / hour, even though you can drive in only 80. Instead of pressuring the limit up to 90 km / hour, chauffeurs now stick to 83 km/ hour. If they drive faster than 83 km / hour a lamp will be switched on. This reduces both costs and environmental impact.

“The environmental impact is so much greater on a heavy truck compared to an express delivery van, which is why this part has been more immediately interesting to follow up earlier both economically and environmentally”.

(CEO, Jetpak partner in Växjö, author’s translation)

Many drivers become more aware when they know that they are being checked and they can also compete with themselves about how well they are making use of the kinetic energy of the truck.

The type of car, its motor and its emissions can be found in its manufacturing certificate and is reported to Alwex that delivers the data to customers.

The computer is now coming into use in Jetpak too, although Jetpak’s partner in Växjö has yet not been involved in this. The supplier of the computer has contacted Jetpak’s partner in Växjö for advice about Jetpak’s systems and tests. Large companies are interested and forward-looking.

According to the CEO, the reasons, for driving more environmentally friendly are both economical and reducing environmental impact. From Alwex part there are regulations regarding for example the use of tyres. Some large customers have demands on health tests, documentation, and alcohol locks. The higher environmental demands from the heavy truck business has contributed to knowledge which have been useful when discussion about environmental effort has increased from Jetpak’s side, for example regarding the delivery of data and information to customers.

Courses

Jetpak’s agent in Växjö has participated in Jetpak’s course in environmental sustainability. The CEO participated in the course at Jetpak’s head office, and then led a course for the employees in Växjö. Jetpak made it possible for the partners to choose what to focus and on how comprehensive to make their course. The fields of discussion were very much about what can be done at employees’ homes and spare time and not just at work. There was not much about driving and vehicles.
Jetpak's Environmental Management

On their own initiative, the partner in Växjö has had about a half-day theoretical course in eco-driving. The reason for this course is largely due to the start of use of handheld computers for following up driving for the truck drivers in C.G. Eriksson Åkeri AB. The CEO decided to include all employees from both businesses, even though the computers were not to be used in the business representing Jetpak. The course regarded both environmental and economical considerations. This course matches the demands of one of the largest of C.G. Eriksson Åkeri AB customers who demands knowledge in eco-driving and follow up of all truck-drivers among their transport providers.

The most important resources according to Jetpak's partner in Växjö

Techniques to decrease emissions and training in eco-driving are considered by the CEO of the Jetpak partner in Växjö to be the most important measures when working towards environmental sustainability. The eco-driving course was theoretical and complemented with related computer technologies in trucks.

“If you participate in the course in eco-driving you might drive well for one month, but then you don’t care, but if you have the technique in the car all of the time saying that you can’t drive this fast – if you have that all of the time, you will be reminded”

(CEO, Jetpak partner in Växjö, author’s translation)

Customer’s interest in environmental performance

On Jetpak’s business side there are few questions concerning environmental issues from customers. With regard to the more complex commissions for larger customers, and during purchases with a greater scope, it is necessary to be able to present information about the environmental certificate. According to the CEO, the ability to present emissions data related to transports can be critical to be able to provide logistics services to larger companies. The emissions data is provided to the customer through Jetpak or Alwex.

Jetpak’s partner in Växjö has an environmental certificate through the central Jetpak business organisation. Most customers that ask about environmental certificate are pleased when they are information that Jetpak Växjö is a part of an organisation that has this certificate and then do not ask more detailed questions, unless if there is a purchase with greater scope that concerns a longer time period.

To have a certificate of his own is not seen to be interesting by the Jetpak partner in Växjö, since the Jetpak head organisation has one.

“I pay for production to Jetpak and Alwex to take care of this for me, common invoicing from the companies for example, I can not do it cheaper by myself and then the environmental field is just attached to that production”.

(CEO, Jetpak partner in Växjö, author’s translation)
Jetpak's Environmental Management

Networks

“All employees have different knowledge, I don’t know all that they know in traffic planning [division], it’s a spider’s web of contacts”.

(CEO, Jetpak partner in Växjö, author’s translation)

The CEO also participates in a Åkeriförening (haulage contractors’ union), and participates in customers’ discussion groups and forums.

In Alwex there is a unit of representatives, consisting of seven part owners, that handles contacts with the Alwex enterprise. The CEO of Jetpak’s partner in Växjö participates in these meetings that occur twice per month and where problems, solutions, development in the haulier industry, and the buying and selling of stocks are discussed.
Jetpak’s Environmental Management

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Brochures
Jetpak’s vägvisare -Om våra affärer och vår etik (Jetpak’s code of conduct -Concerning our business and our ethics).
Jetpak's Environmental Management
Appendix: Jetpak’s quality and environmental policy

Kvalitet, miljö och säkerhet är en naturlig del i Jetpaks affär.

Vi på Jetpak uppfyller och vågar överträffa våra kunders krav och förväntningar vid varje transportuppdrag, genom att:

• vara personligt engagerade, och alltid miljö- och resultatmedvetna
• lyssna på och reflektera över våra kunders, partners och anställdas önskemål
• ständigt förbättra och förenkla våra centrala och lokala arbetsprocesser
• kontinuerligt utbilda vår personal till excellent kunskap och därmed ge den bästa möjliga servicen för Jetpaks kunder
• alltid följa de lagar och förordningar som är tillämpbara på våra miljöaspekter och vår verksamhet