Importance of Green Service Offerings for French, Dutch, Swedish and UK Retailers in their Selection of Transport Operators

A study of French, Dutch, Swedish and UK companies operating in the retail industry.

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Abstract

Background: The selection of transport operators has become a complex decision making process with multi-criteria aspects. Deciding on which transport operator to use depends on various service offerings that can be different for each company. Retailers such as those from France, the Netherlands, Sweden and UK look to improve logistical performance in areas such as lead time, flexibility and reliability, and improve customer relations. In the past the main critical aspects of retailers were cost and service optimisation. An additional factor could play a role in their selection of transport operators and this is green service offerings.

Research question: Which service offerings are important for French, Dutch, Swedish and UK retailers in their selection of transport operators?

- Sub question1: Are the retailers willing to use green service offerings and why?
- Sub question2: Which of the green service offerings are important for French, Dutch, Swedish and UK retailers in their selection of transport operators?

Purpose: The purpose of this paper is to find out what the most important service offerings are for French, Dutch, Swedish and UK retailers in their selection of transport operators. It also aims to determine if French, Dutch, Swedish and UK retailers are willing to use green service offerings and explain why. Finally, it will attempt to identify which of the green service offerings are important for French, Dutch, Swedish and UK retailers in their selection of transport operators.

Method: This thesis was conducted by applying the deductive approach and is based on a quantitative research method. The sampling method used for this thesis is non-probability sampling. Data was collected through questionnaires with French, Dutch, Swedish and UK retailers. French, Dutch, Swedish and UK retailers have been selected for the sample population in order to find out how important green service offerings might be for them when they are purchasing the services of a transport operator. French, Dutch, Swedish and UK retailers from different sectors were chosen in order to achieve an objective overview of the retail industry from each country when selecting transport operators.
Conclusion: Traditional service offerings are more important than green service offerings for French, Dutch, Swedish and UK retailers that participated in this research paper. However, when looking at the results of the data, some green service offerings were perceived to be important. The authors therefore believe that when French, Dutch, Swedish and UK retailers are selecting transport operators their first focus is on the traditional service offerings that are very important to them. However, if a French, Dutch, Swedish or UK retailer is encouraged by the following motivators: customer expectations, measurable improvement or economic incentives. They might pursue the green service offerings that are important for their business activities.
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1. Introduction

1.1. Background

The green movement is increasingly gaining momentum and attracting attention from organisations in many industries (Sarkis, 2013). This is due to the fact that customers are more aware than ever of the impact business activities are having on the environment (European Commission, 2014). Companies will continue to attempt to maximise profits for shareholders, but they must also consider how they are being perceived by their customers and act to ensure they are reducing their environmental impact. According to Sarkis (2013) it is no longer enough for companies to focus solely on greening their own internal activities, but instead they must look at the how the wider supply chain can improve.

According to Zhu & Sarkis, (2006) companies have become increasingly more concerned with having a greener supply chain (GSC) as long as they have to operate in line with new regulations defined by governments and recognised authorities such as the International Organization for Standardization (ISO, 2015). Green supply chain management (GSCM), as defined by Payman & Searcy (2013) is a concept that affects various dimensions such as management, production, purchasing and can be linked to the environmental aspect. A company operating with a GSC is supposed to lower its impact on the environment (lower the carbon footprint for example) and remain as competitive as possible within its market.

Since products are increasingly being transported over longer distances and in larger quantities the overall impact logistical activities are having on the environment is increasing (Åhman, 2005). Additionally, customers within a supply chain are becoming more environmentally aware and conscious of the way in which their buying habits are affecting the environment and are looking at ways to reduce their impact (Evangelista, 2014). Areas such as corporate social responsibility (CSR) are becoming increasingly important (Cruz & Matsypura, 2009). The increasing focus on environmental issues has a noteworthy impact on supply chains. According to Fabian (2000) a low environmental performance of an organization at any point in the supply chain, could potentially damage a firm’s reputation. As a result of this companies are trying to expand their responsibilities in the supply chain by incorporating CSR (Cruz and Matsypura, 2009). Reder, 1994 defined CSR as follows;
“An all-encompassing notion, corporate social responsibility refers to both the way a company conducts its internal operations, including the way it treats its workforce, and its impact on the world around it” (Reder, 1994, pg.5).

Another important component of supply chains which could be used to improve green credentials is Logistics service providers (LSPs) and more specifically the services they offer. LSPs, offer a service to companies to support the supply chain in overseeing the movement of products from the beginning of a process to the end destination (Kilibarda, Zečević, & Vidović, 2012). Activities which LSPs offer can include the organisation of transport operators, shipping and handling, management of inventory, providing/sourcing of warehousing, packaging solutions and security services for each of these activities (Martinsen, 2014).

There are different categories of LSPs including a 1PL, 2PL, 3PL and 4PL. However in the rest of this chapter; the point of view of 2PL will be displayed. A 2PL can also be referred to as a transport operator. The main task of a transport operator is to handle the transport of goods from one location to another for their customers, this include transport methods such as planes, trains, boats, lorries and smaller transport vehicles (Johnson, 2008).

Transport operators are looking into ways of reducing the impact they have on the environment by adopting more green strategies (Erhardt, 2010). It was explained by Krishna, Krishna, Kuladeep, & Kumar (2012) that initiatives aimed at tackling environmental issues within supply chains have mainly been focussed on specific areas such as a manufacturer’s operations. This is due in part to the fact that most transport operators lack influence within a supply chain and can be dictated to by the larger players (Martinsen, 2014). The authors continue to explain that there is an absence of research on transport operators even though the role they play within supply chains is crucial.

The external environment is challenging transport operators to offer a more sustainable environmentally friendly service (Colicchia, Marchet, Melacini, & Perotti, 2013). This change in the external market presents transport operators with opportunities as well as obstacles to overcome (Potter & Lalwani, 2008). Industry stakeholders are encouraging transport operators to reduce the environmental impact their activities have on supply chains and improve their level of carbon emission transparency. The aim is to not only promote
greener operations, but to also take advantage of a reduction in logistical costs as well as to gain access to any available Government subsidies (i.e. tax reductions / green initiatives funding) (Minx, Scott, Peters, & Barret, 2008).

Research conducted by Maloni & Benton (2000) discovered it is possible to use the level of influence as a form of tool that can enhance overall performance within a supply chain. Martinsen (2014) explains that it is typically the customer who has the most influence over a supply chain. The author goes on to suggest that the actor with the most influence can encourage the rest of the supply chain to adopt a greener approach. Furthermore, the actor in the supply chain closest to the customer is usually a retailer.

1.2. Problem discussion

Global operations and the ever increasing demands of customers have made it necessary to think about how supply chains can evolve and adapt to a greener way of operating (Rainey, 2006). It has been reported by Ballot & Fontane (2010) that logistics with a focus on the transport aspect, is facilitating growth within the supply chain sector. There are however, a number of actors within a supply chain, each of which has varying degrees of influence on the overall decision making process within a supply chain. It has been reasoned that the level of power within a supply chain determines, to what degree, organisations will be willing to take environmental considerations into account (Martinsen, 2014). This leads to a situation where more influential actors could encourage weaker actors to alter their activities to fall in line with their green requirements. It has been suggested by Amaeshi, Osuji, & Nnodim (2008) that potential future green demand from consumers could mean that retailers for example will have to look at ways to improve their green credentials. Figure 1 below shows the level of influence within a generic linear supply chain with a focus on the retailer.

![Example of a generic linear supply chain](image)

Figure 1: Authors’ own interpretation of level of influence within a generic linear supply chain
It has been suggested by McKinnon (2000) that within the last 10 years in Europe, the amount of goods being transported has increased at a greater rate than that of both gross domestic product (GDP) and industrial production.

The growth within the transport industry as described by McKinnon (2000), has led to an increase in environmental damage which customers are now more aware of than ever (Sharma & Jain, 2014). In order to combat this negative affect, agreements between nations to reduce the impact their business activities are having on the environment have been made, such agreements include the Kyoto climate targets (Allianz & WWF, 2009).

One example of such a country is France, which emits relatively low levels of emissions, particularly for an industrialised country. However, by viewing figure 2, it is possible to see that road and freight transport is responsible for the joint highest levels of emissions (Allianz & WWFb, 2009). France also scored badly when it came to transport as a sector looking to improve, it was deemed being as unambitious and has yet to sign into law aiming for a general target of having transport related emissions reduced by 20% by 2020. That being said, France did ratify the Kyoto climate targets and has signed up to the EU2020 emission reductions targets (Allianz & WWFb, 2009).

Figure 2: Authors’ own interpretation of data (Allianz & WWFb 2009)
Another example is Sweden, which has been acknowledged as a leading actor in overcoming the challenges presented by the impact business activities have had on the environment. An example of this could be Sweden’s efforts to reach the Kyoto climate targets. However, to date, Sweden has yet to fully reach its targets set during the climate change negotiations in 1992 (Allianz & WWF, 2009). It has been suggested that this is in part due to a lack of motivation from internal goal setting by policy makers (Minx et al., 2008). Figure 3 shows that road and freight transport is responsible for 32% of the total carbon footprint emissions in Sweden; this results in a high degree of pressure on the Swedish logistics service industry.

![Emissions By Sector for Sweden](image)

Figure 3: Authors’ own interpretation of data – (Allianz & WWF 2009)

The UK is a further example of an industrial nation within the EU that has also implemented plans to reduce its overall emissions for each sector (Figure 4). The UK is in a strong position as it is currently exceeding its obligations under the Kyoto agreement; this is in part due to raising environmental awareness strongly within the political agenda and creating ambitious policies such as the Climate Change Act 2008 (Government, 2015). However, more work is needed in order to reduce the amount of emissions generated from transport activities which currently account for 21% of overall emissions (Allianz & WWFc, 2009).
The final example is the Netherlands (figure 5), the majority of emissions come from the transport sector and the CO2 emissions have risen especially due to road transport (Environment, 2013). At the time of the signing of the Kyoto Protocol, the EU agreed upon a reduction of 8% for greenhouse gases for the Union. This common target was divided between the EU members. This resulted in an emission reduction target of 6% below the emission level in the base year for the Netherlands (Environment, 2013). The transport sector is an important activity for the Netherlands due to their location and large ports for transporting goods to the EU. The CO2 emissions from the transport sector rose in 2012, even though, production decreased for road transport (Netherlands, 2012).
A logistics service provider (LSP) offers services throughout the supply chain (Johnson, 2008). A typical LSP service could be to provide a transport operator to a retailer (Kilibarda et al., 2012). Since a retailer has a high degree of influence within a supply chain it can select its transport operator based on its own criteria (Martinsen, 2014). Additionally, the author noticed that there is a noticeable lack of research on green transport operator services for retailers. Figure 6 below shows a more detailed look at the supply chain from the perspective of a retailer. It is possible to see the relationship between the supply chain actors and where the services of a transport operator are present (Johnson, 2008).

In order to be competitive, transport operators offer a range of services to their customers. These are typically traditional service offerings such as cost and quality of service (Yu, Elinger, & Haozhe, 2010). However, a recent trend has been to offer green related services to appeal to more environmentally conscious customers (McKinnon, 2010). An example of a green related service could be a form of environmental certification such as ISO 14001 (ISO, 2015). Isaksson & Hug-Brodin (2010) identified internal as well as external barriers that exist for transport operators when trying to deal with green initiatives. The internal barriers include technical, financial, managerial, organisational and informational. The external barriers they highlighted are regulatory and market forces.

There are also drivers that affect transport operators when it comes to the implementation of a greener service. This may include for example, regulations from the government forcing the transport operators to adapt their activities in order to lower their impact on the environment (Walker, Lucio, & McBain, 2008). This influences the transport operations of a retailer as well, since they are customers of transport operators. Pressure from customers like retailers can also have the same effect on the transport operators since they have the power to make decisions and can easily look for a new transport operator if they are not satisfied (Fabbe-Costes, Jahre, & Roussat, 2008).
Therefore, the selection of transport operators for retailers has become a complex decision making process. Retailers have typically made their transport purchasing decisions based on cost and service optimisation (Chen & Wu, 2011). Retailers look to improve logistics performance like, lead times, flexibility and reliability, and improve customer relations. Cost and service optimisations are a part of traditional service offerings. However, Isaksson (2012) mentioned an additional factor could play a role in the selection of transport operators and this is green service offerings. Another area that could be play a role in a retailers selection of transport operators is CSR which thought to play an important factor nowadays in the market position of organizations (Luo and Bhattacharya, 2006). This is especially the case for retailers, since they are held more responsible for actions in the supply chain (Amaeshi et al., 2008).

1.3. Problem definition

Transport operators fulfil a vital role in the integration of supply chains within industries, especially since many industries are becoming more globalised (Yan, Chaudhry, & Chaudhry, 2003). This means that the selection of transport operators has become an important decision making process where retailers such as those in France, the Netherlands, Sweden and UK may need to take green service offerings into account. The criteria for selecting suitable transport operators can conflict with each other and play an important role in the competitiveness of retailers (Akır, Tozan, & Vayvay, 2009). Deciding on which transport operator to use can depend on factors that can be different for each company, this can be the company size, sector of activity, and products (Akman & Baynal, 2014). To summarize, in the past, the main critical aspects of retailers were only traditional service offerings such as cost and service optimization without taking green service offerings into consideration (Chen & Wu, 2011).

Isaksson (2012) mentioned that including green service offerings could present transport operators with a potential business opportunity. Isaksson, Björklund, Evangelista, & Huge-Brodin, (2012) agree with this and mention that in the long term it could eventually positively improve the image and company brand of not only the transport operators, but also their customers such as retailers. Moreover, customers of transport operators can have a significant
influence on the implementation of green service offerings. However Wolf & Seuring, (2010) mention that there is a lack of willingness from the transport operators’ customers to invest in these green service offerings. Traditionally, transport operators business operations have been mainly focussed on the optimisation of service and cost reduction since that has been demanded by their customers (Isaksson & Huge-Brodin, 2010). This has started to evolve in recent years, with an additional service offering for the longer term, which is green service offerings (Isakson, 2012). Additionally, Amaeshi et al., (2008) explain that CSR is becoming important for retailers; therefore determining if it is linked to a retailer’s choice of transport operator could offer valuable insights.

However there is a gap in research for these service offerings (cost, service, and the new additional factor, green service offerings) and what the relationship is between the service offerings. Additionally, how they are perceived by the customers of transport operators such as retailers in their purchasing decision making of transport services. Furthermore (Isaksson & Huge-Brodin, 2010) mention that even though the transport operators’ customers play a critical role in the development of these green service offerings, little is known about what might motivate a European retailer such as one from France, Sweden, Netherlands or the UK to be willing to pay for green service offerings. Moreover, not much is known about the degree of importance of traditional service offerings and green service offerings when Dutch, French, Swedish and UK retailers are selecting a transport operator.

1.4. Research question

The main research question can be seen below. This research question will guide the path to build up the thesis. The main research question will answer which service offerings (both traditional and green service offerings) are important for Dutch, French, Swedish and UK retailers when they are selecting a transport operator. Additionally, there is a lack of research attributed to whether or not they would be willing to use green service offerings and why this might be; consequently this will be investigated. Furthermore, green service offerings are a new element to the traditional service offerings of transport operators. Therefore, the author also wants to identify which green service offerings are important for Dutch, French, Swedish and UK retailers when selecting a transport operator. This results in the following research question and two sub questions.
Which service offerings are important for French, Dutch, Swedish and UK retailers in their selection of transport operators?

- Are the retailers willing to use green service offerings and why?
- Which of the green service offerings are important for Dutch, French, Swedish and UK retailers in their selection of transport operators?

1.5. **Purpose**

The purpose this paper is to find out what the most important service offerings are for Dutch, French, Swedish and UK retailers in their selection of transport operators. It also aims to determine if Dutch, French, Swedish and UK retailers are willing to use green service offerings and explain why. Finally, it will attempt to identify which of the green service offerings are important to Dutch, French, Swedish and UK retailers in their selection of transport operators.

1.6. **Delimitations**

Since this paper will discuss the importance of green service offerings for Dutch, French, Swedish and UK retailers in their selection process of transport operators, the theoretical framework will be oriented on the Dutch, French, Swedish and UK markets and omit the remaining markets. Also, only lorries/trucks were considered and other transport methods were not included. Another delimitation is the limited time period to complete the paper. Additionally, attempts were made to contact the headquarters of the sample companies. However, since they did not all reply, the point of sale stores were also approached. Furthermore, due to the relatively low response rate from the retailers, results from this study cannot be used to draw absolute conclusions. Instead, this paper can be used as an indication of the current opinions of Dutch, French, Swedish and UK retailers.

1.7. **Disposition**

The layout of the thesis has been designed to respond to the research question as effectively as possible. The thesis starts with a detailed introduction that is composed of a background to the topic and a problem discussion. This section concludes with a research question and a methodology detailing the plan as well as any identified limitations. The next chapter consists of an in-depth review of the latest and most relevant literature from journal articles and
reports as well as industry related websites. The following chapter will present the empirical data which has been obtained through questionnaires with retailers from France, the Netherlands, Sweden and UK. An analysis of the literature and empirical findings will be conducted in the penultimate chapter. Finally, a concluding chapter will be written which aims to provide a solution to the research question. Furthermore suggestions for future research will be presented as well as reflections from the authors.
2. Methodology

*The methodology chapter describes the research approach of this thesis. This chapter will motivate the choices made by the authors and identify how the results will be derived from the data. In each subchapter of the methodology different approach are presented and the author presents which methods will be applied for this thesis.*

2.1. Scientific Perspective

The research can be conducted based on two different approaches of using the findings from the empirical results. Those two different perspectives are the hermeneutic and the positivistic (Saunders, Lewis, & Thornhill, 2007). Both perspectives aim to connect phenomenon through theories thanks to empirical data.

2.1.1. The Hermeneutic perspective

This perspective is based on the fact that it is not possible to have a perfectly clear understanding and presentation of a situation from theory. According to the author Age, (2011) in order to understand, interpret and present conclusions from a phenomenon necessitates that the author or researcher will be aware of the fact that he will be subjective and have his own thoughts on it. This perspective can present alterations in the interpretation of the results due to the fact that it can interfere with the subjectivity of the author (Saunders et al., 2007).

2.1.2. The positivistic perspective

This perspective is mainly focused on a pragmatic approach of the theory through a methodological approach. The positivistic is then based on two possible ways to formulate conclusions. Firstly by being based on the logical aspect according to scientific methodology and secondly by using observations and experiment (Saunders et al., 2007). Thanks to this analysis conducted by using theory, it is possible to present and experiment hypothesis and thoughts in order to discuss and investigate solutions to the problems experienced in practice (Age, 2011).
2.1.3. Scientific perspective of this paper

The thesis is based on a positivistic point of view as long as it is exploiting findings and information from existing literature on retailers, transport operators, service offerings (traditional and green). The use of this theoretical framework leads to a model suitable to the presented research question.

2.2. Research Approach

Adams (2007) mentions that there are two main areas of research commonly used for reasoning and these are the deductive approach and inductive approach.

2.2.1. The deductive approach

The deductive approach usually starts with a general topic or theory and allows the researcher to narrow it down to a more specific approach to address the theory and hypotheses (Saunders et al., 2007). In the literature it is also referred to as a top down approach, since the researcher starts with a theory and then narrows it down to a hypothesis, the next step is to narrow it down further to collect observations which support the hypothesis. The final step enables the researcher to test the theory and hypothesis through the empirical and theoretical analysis (Bryman & Bell, 2007).

2.2.2. The inductive approach

The inductive approach is the opposite of the deductive approach (Bryman & Bell, 2007). It starts with a broad observation to discover patterns within the research (Saunders et al., 2007). The inductive approach is also referred to as the bottom up approach. The researcher observes and measures the patterns in order to formulate the hypotheses of the research, finally this will help the researcher to develop more general conclusions on the theory.

2.2.3. Research approach of this thesis

The research approach of this thesis will be the deductive approach. The thesis starts with a background and problem discussion. This helped the authors to identify gaps in current research. This allowed the authors to narrow down the topic to the research question. Furthermore, an extensive review of the main concepts was conducted in a theoretical framework. Based on the findings of the theoretical framework a questionnaire was carried
out with the target companies for this thesis. The results of the empirical findings were then analysed and discussed. Finally the research question was answered in the conclusion.

2.3. Research Method

The research method of a thesis depends on the information required to conduct an analysis, there are two different methods, qualitative and quantitative (Saunders et al., 2007).

2.3.1. Qualitative / Quantitative methods

Qualitative is mostly used when it is necessity to have a detailed in depth vision of an activity, product, process etc. The data is collected in most of the cases through interviews and observations from the researchers. The research is conducted during a specified period of time and are then collected and analysed to grant a precise vision about a situation or problem (Levy & Lemeshow, 2008). The quantitative research method is conducted through questionnaires in most of the cases. This method is helpful when the aim of the research is to provide a numerical overview of a situation or sector of activity for example. The interesting aspect of this method is to be able to provide a possibility to generalize from a sample to a whole population the results obtained. Sometimes, in order to conduct a very precise analysis, both of the methods can be used in order to expose a deeper understanding of a situation. The quantitative data (such as the amount of people willing to pay for something) and qualitative data (such as the factors that will affect people when they will pay for something) can be used together (Saunders et al., 2007).

2.3.2. Research method of this thesis

This thesis is based on quantitative research methods. The data collected from the quantitative method was used in order to collect and gather information about the current situation of French, Dutch, Swedish and UK retailers, transport operators and the services they provide. This method will provide a numerical and objective overview of the retailers and how important they perceive the service offerings of transport operators.

2.4. Population

Population, according to Levy & Lemeshow (2008) encapsulates the set of people from whom the survey is aimed at and from which the data is extrapolated to analyse and
determine the outcome of the findings. It is possible to use a database when creating a sampling frame, however Saunders, Lewis, & Thornhill (2009) explain there are several issues associated with this method. First of all the database could be out of date, secondly the information could be incorrect and finally incomplete. It is important to mention the non-response bias, this is where a respondent declines the offer to participate in the survey for several reasons which could be; refusal, ineligibility, inability and unable to contact (Saunders et al., 2009).

2.4.1. Population selected for this thesis

The population of this thesis is limited to companies that operate in the retail industry of Sweden, France, the Netherlands and the UK. The retail companies have been approached through the Orbis database which is accessible through Linnaeus University website. The retail industry has the industrial classification 47 in the Orbis database. The retail industry in the Orbis database includes companies in the following retail sectors:

- Retail sale in non-specialised stores
- Retail sale of food, beverages and tobacco in specialised stores
- Retail sale of automotive fuel in specialised stores
- Retail sale of information and communication equipment in specialised stores
- Retail sale of other household equipment in specialised stores
- Retail sale of cultural and recreation goods in specialised stores
- Retail sale of other goods in specialised stores
- Retail sale via stalls and markets
- Retail trade not in stores, stalls or markets

Furthermore, only companies that provided an email address and are currently active in the business environment are considered for this study. In total 10452 retailers have been contacted through Orbis database. An issue that arises from email questionnaires is the risk of a low response rate. Therefore, the authors expect the response rate to be quite low due to the limited time frame and the email questionnaire method. Out of the 10452 retailers, 385 have responded to the online questionnaire. The response rate for this research is 385/10452= 3.68%.
2.5. Sampling

It is typically not possible to survey every single person to gather their individual responses. Therefore, to ensure the interests of the population being surveyed are fairly represented, sampling is used (Levy & Lemeshow, 2008). There are two well known sampling techniques available and these are probability sampling and non probability sampling (Saunders et al., 2009).

2.5.1. Probability sampling

The probability or chance of each case that is selected from the total population is known and considered equal, it is referred to as a probability sample. It is commonly used for survey based papers where the researchers make interpretations from the sample of a population. The different probability techniques are described below (Saunders et al., 2009).

2.5.1.1. Random sampling

A sample taken completely at random, this could appear in the form of a survey of people randomly in a street. It is possible to collect a large sample of data; however the main drawback to this method is reliability. Biggam (2011) suggests the more random the sample the better since collecting data from one location at a specific time of day may not represent the greater populations’ beliefs.

2.5.1.2. Simple random sampling

Similar to random sampling with the main difference being the need to provide each member of the population being surveyed an equal chance to be questioned. The idea being that if a survey is conducted using the random sampling method; one particular group could be questioned such as retired or unemployed people. This method aims to represent a greater variety of the population and have a more random sample (Levy & Lemeshow, 2008).

2.5.1.3. Systematic sampling

The idea behind systematic sampling is to use a method which samples a population at certain intervals. Examples of this type of sampling could be every tenth person to walk past the sampler in a street, or every sixth number on a list etc. (Biggam, 2011).
2.5.1.4. **Stratified sampling**

A different take on sampling, where a population is divided into groups or ‘strata’ which contain similar properties and then a sample is taken from each stratum. Examples could include age, gender, race etc. (Solanki & Singh, 2015).

2.5.1.5. **Cluster sampling**

Comparable to *stratified sampling* in so much as populations are grouped into ‘clusters’ or ‘strata’ (Biggam, 2011). However, instead of taking a sample from each cluster, a sample is taken from random clusters (Levy & Lemeshow, 2008).

2.5.2. **Non probability sampling**

The main difference between probability and non-probability sampling is that for non-probability sampling each case being selected from the population is not known. The techniques to select the samples are based on the assumption that the researchers will choose the sample randomly (Saunders et al., 2009). Several authors mentioned that the issues with sample size is vague and therefore there are no clear rules. This means that there should be a logical relationship created between the chosen sample technique and the focus/purpose of the research paper (Saunders et al, 2009 and Biggam, 2011). The different probabilities techniques are described below.

2.5.2.1. **Self-selection sampling**

With self-selection sampling the researchers allow the possible participants of the survey to decide for themselves whether or not they would like to participate. The researchers therefore need to explain why the research is being conducted and this can be done by either asking the participants to take part or by promoting through suitable media. This will allow the researchers to collect all the required empirical data from the respondents (Saunders et al., 2009).

2.5.2.2. **Quota sampling**

Is a different approach to sampling than that the previous methods and is also known as ‘non-probability’ sampling. It can be seen as less reliable due to the fact that it does not take a random sample. Instead it relies on a predetermined ‘quota’ as a sample. An example could be a specific age group of males being selected in the street rather than a random selection of the population (Patton, 2002).
2.5.2.3. **Convenience sampling**

Another non-probability sampling method which is used for convenience purposes is convenience sampling. It is often used by people who have specific access to populations. Examples include a survey of the people working within one company where the surveyor works (Biggam, 2011).

2.5.3. **Sampling method used for this thesis**

The sampling method used for this thesis is non-probability sampling. The most appropriate non-probability sampling technique for this thesis is convenience sampling. This decision was based on the practicality of obtaining sufficient empirical data within the allotted time frame. For this thesis Dutch, French, Swedish and UK retailers have been selected. As it is not feasible to gather data from every retailer in France, Sweden, the Netherlands and the UK due to time constraints and budget limitations, a selection of the population was identified for data collection. Therefore, the population selected for this thesis was Dutch, French, Swedish and UK retailers and narrowed down to a smaller convenience sample (see figure 7).

Dutch, French, Swedish and UK retailers from eleven different sectors were selected and a questionnaire was emailed to a convenience sample. Furthermore, the authors inquired as to whether or not the retailers wanted to participate in the empirical study. The authors were able to identify retailers from a variety of sectors including: fashion, games and toys, house and garden furniture, electronics, convenience stores, supermarkets, automotive retailers, pharmaceuticals, cosmetics, beverages, sports and outdoor goods. Furthermore if the retailers did not fit into these sectors of activity they had the possibility to define their sector of activity.
2.6. Data Collection

The collection of data is a required technique and instrument for doing research. Two types of data are known, primary data and secondary data. The data collection is a critically important part of the thesis, therefore the right instrument needs to be selected that fit the research best (Jupp & Sapsford, 2006).

2.6.1. Primary Data

Primary data is carried out when the data that is needed by the researcher is not available from published sources. The primary data is collected to address the research problem and is collected by the researcher. The researcher can select from a variety of techniques to collect the primary data. There are three commonly used methods to collect primary data; surveys, interviews and observations. A Survey or questionnaire is the most commonly used method of primary data collection (Phillips & Stawarski, 2008). Surveys are compartmentalised to samples of a population to understand more about their beliefs or attitudes. Surveys consist of
several questions that are constructed by the researcher, these questions can be open ended or closed, depending on the research.

Interviews can be classified as a conversation between the researcher and the participants with an overall purpose. Interviews can be put into three categories, informal interviews, conversational interviews and general interviews (Patton, 2002). The main goal of an interview is to collect data from the participant and to see what the participant’s perspective on the research topic is (Patton, 2002). An observation is a systematic way of taking notes, records of an event or behaviour. Observation can vary from a systematic structure, behavioural checklist through a detailed notation or by a more holistic approach (Krishnaswamy & Satyaprasad, 2010).

2.6.2. Secondary Data
Secondary data is the opposite of primary data and the information for secondary data is available through different sources and studied by the researcher (Phillips & Stawarski, 2008). The purpose of secondary data is to extract information from previous studies or from other sources (Krishnaswamy & Satyaprasad, 2010). It is a descriptive way to support the research findings of the researcher.

2.6.3. Data collection for this thesis
The data for this thesis will be primary and secondary data. Primary data will be used to collect the empirical data. The primary data will be collected through questionnaires and in order to reduce non-response bias the questionnaire has been translated into Swedish, French, Dutch and English and sent out to the respective countries. The secondary data will be collected through industry related websites, books and academic peer reviewed articles from Linnaeus University search engine, One Search.

2.7. Questionnaire design
A questionnaire with twelve questions was created using google docs online survey tool to collect the empirical data required to conduct an analysis to answer the research questions. The responses to a questionnaire can either be fixed response or open response. A fixed response provides the participants of the questionnaire a series of choices to choose from provided by the author (Thomas, 2004). It includes a mix of checklist, rating scales or
ranking performance. Fixed response questions were chosen because the authors believe that they would be the most effective technique to collect the necessary responses. The authors chose not to offer the option to provide a non-answer as in the term ‘neutral’ for the scale questions. This was because the authors wanted to know how the participants feel about the topic and a neutral answer would prevent this. Furthermore, a Likert scale was used for the rating scales, which consisted of the following; 4 Very important, 3 Important, 2 Not that important and 1 not necessary.

2.8. Analysis Method

Once the data have been collected, it is necessary to process them in order to exploit and make the data relevant to allow any trends and relations to be identified. One method for doing this is pattern matching. This involves linking two patterns or models, one being theoretical, the other being observed from empirical research (Saunders et al., 2009). Figure 8 shows the author’s own representation of this process.

![Pattern matching analysis method](image)

In order to analyse the findings from the literature and the empirical data, descriptive statistics will be applied. Descriptive statistics will help to present the quantitative data in a clear way. The descriptive statistics used for this thesis will be standard deviation and mean. According to Saunders et al (2009) the mean is the average value of the data and is used to describe central tendencies. The standard deviation is used to measure how spread out the
data is around the mean. To analyse the data IBM Statistical Package for the Social Science (SPSS) was used for the descriptive statistics and to measure the reliability and correlation by applying Cronbach’s Alpha and Pearson correlation coefficient.

2.9. Scientific Validity and Reliability

There are three different kinds of validity to analyse in order to evaluate if a thesis is relevant to the research question and the researchers assumptions that will be done. Those three different kinds are the internal, external and construct validity (Golafshani, 2003).

2.9.1. Validity

The internal validity can be useful when evaluating the link between two elements that are affecting, influencing each other, in other words when observing a cause and effect relationship. It is of crucial importance that the conclusions are made thanks to measurable data and to avoid any assumptions that could explain the link and effects between two different events (Drost, 2011). According to Saunders et al., (2009), internal validity refers to the ability of what the questionnaire is measuring is what the researcher is intending to measure.

The external validity helps to define if the conclusions formulated within a thesis can be relevant and used in similar situations and cases that can be described in other thesis. The results from the empirical study are based on analytical generalization from the data collection and will be applied to generalized theory. A thesis is habitually stated to provide a good basis for generalizing the results and key findings as long as it is not designed for a single company (Carmines & Zeller, 1979).

The construct validity is related to the objectivity of a thesis. In effect, the judgement and conclusions exposed in a thesis can be biased if the researchers have a subjective point of view when collecting the data. This situation can be avoided by collecting information from as wide a range of sources as possible (Drost, 2011). The case study may also be read and discussed with the interviewees.
2.9.2. Validity of this thesis
The internal validity of this thesis in relation to the questionnaires is high since the questionnaire measures what the authors intend to measure. The authors intend to measure the importance of green service offerings when French, Dutch, Swedish and UK retailers are selecting transport operators. Several measurement questions have been included in the questionnaire to ensure that the internal validity is high. The focus of this thesis was on France, the Netherlands, Sweden and UK, therefore the external validity is only relevant for these four countries. The results and key findings cannot be generalized for a different market or country. The construct validity attempts to be as high as possible since the authors had an objective point of view when collecting the data. Moreover, the thesis is based on a range of information coming from different sources. Furthermore, Pearson correlation coefficient has been applied to test if the measures of constructs in the questionnaire are related to each other.

2.9.3. Reliability
The reliability of a thesis is improved when the results and main findings can be repeated under the same circumstances and the same result is found. In order to make this possible, a thesis must be conducted in a precise and viable way. This can be done by following protocols and use all the forms of check up to avoid any confusion during the data collection process. The thesis can then be as reliable as possible and other researchers could find the same outcome (Saunders et al., 2007).

2.9.4. Reliability of this thesis
In order to ensure the reliability of this thesis, several precautions have been taken. The questionnaire has been designed to be as clear as possible, based on the main findings from the theoretical framework and the analytical model. Moreover clear definitions were given in the questionnaire in order to avoid misunderstandings; this is done in order to eliminate the probability that the respondents could interpret a question in a different way. All these precautions were taken in order to avoid any confusion. Additionally, the questionnaire was translated into French, Dutch, Swedish and English to reduce the chances of respondents not understanding the meaning of the questions and to achieve as higher a response rate as possible. However, due to the emerging nature of the topic, if the research were to be
conducted in a future time period, it is possible that different findings could be made. Furthermore, the internal consistency has been analysed by applying Cronbach’s alpha. Cronbach’s alpha is used to measure the scale reliability and to see if a set of items are closely related (Saunders et al., 2009).

2.10. Ethical Considerations

The data used for the thesis has been collected in an ethical way. The collection of the quantitative data was conducted anonymously. Furthermore, the participants of this thesis did not receive any form of payment for the data collection and they will have the possibility to receive the results of the questionnaire.
3. Theoretical framework

In order to answer the research question in as much detail as possible, a thorough review of the main literature has been conducted. The main concepts that will be reviewed are based on the research question. Therefore, the following topics will be discussed in this chapter: first of all, the role of a retailer within a supply chain will be discussed. This leads on to a description of the Dutch, French, Swedish and UK retail industry. Then, transport operators will be investigated followed by the selection process of a transport operator. Finally, an analytical model is presented.

3.1. The role of a retailer within a supply chain

A supply chain as defined by Jonsson (2008) encompasses the flow of materials from the beginning such as a raw material supplier and services required to fulfil the order requirements of customers. Typically the activities within a supply chain are made up of transport management for inbound and outbound services, warehousing, the handling of materials, fulfilment of orders, designing and developing logistical networks, management of inventory, supply and demand planning as well as organisation / management of logistic service providers (CSCMP, 2014). From a more logistics management perspective, activities ranging all the way from sourcing to customer service can also be included, but ultimately logistics is an integral part of what is more commonly referred to as supply chain management (Grant, Wong, & Trautrimis 2013).

In order for retailers to be successful, it is crucial that they operate with an efficient and effective up and down stream supply chain (Lorentz & Lounela, 2011). According to Lorents and Lounela (2011) logistical services are important for retailers and suppliers because they can create competitive and differentiation advantages. Logistical performance is important due to the reasons that it can increase customer satisfaction and customer loyalty for a retailer (Schramm-Klein & Morschett, The relationship between marketing performance, logistics performance and company performance for retail companies, 2006). Participants in a supply chain can improve their logistical performance by outsourcing parts or all of their logistics to a party that is specialized in this area like a transport operator. Moreover, Ganesan et al (2009) mentioned that corporate social responsibility is a critical factor for the market positioning of retailers.
The management of a supply chain allows a connection between the business processes of the actors and improves the coordination of their activities. This could be achieved for example through enhancing the integration of information flows amongst the supply chain actors such as retailers and transport operators (Christopher, 2011). Retailers have a strong position in the supply chain and are often seen as the responsible party (Amaeshi, et al., 2008). Within a supply chain there are typically several actors who provide different services to each other. An example of a supply chain might include a raw material supplier, manufacturer, wholesaler and a retailer. The perspective of this paper focusses on the retailer. According to Jonsson (2008) a retailer is located downstream in a supply chain and is usually the last echelon. A retailer typically operates in the business to consumer environment and sells products to consumers.

Martinsen (2014) explains that actors within a supply chain have differing levels of influence over each other (Figure 1). A retailer could have a strong influence on the upstream supply chain actors. Moreover, a retailer could have an influence over the services which links it to another actor, an example of such a service could be a transport operator (Hertz & Alfredsson, 2003). Continuing with this train of thought, Jonsson (2008) explains that there is an integration of material flows and flows of information between actors, such as retailers and their suppliers within supply chains. The following figure (9) provides a representation of a supply chain from a retailer’s perspective with two tiers of suppliers and one customer tier.

![Simplified supply chain from retailer’s perspective](image)

Figure 9 Authors’ own interpretation of simplified supply chain from retailer’s perspective

It has also been proposed that SCM has evolved to be non-linear, this refers to the management of an upstream and downstream linked network which is driven not by supply,
but demand (Christopher, 2011). Demand from supply chain customers as well as end consumers can play a major role in a company such as a retailers’ decision to improve its green image. This is because customers are more aware than ever of the impact business activities are having on the environment and this is resulting in a shift in attitudes towards purchasing decisions and putting more pressure on businesses such as retailers to respond (Sharma & Jain, 2014). Within a demand driven network, it is the customer who has the influence to make change happen. For example, in order to reduce prices for customers, supply chain networks have developed and evolved to maximise efficiency gains and thus allowing cost savings to be passed on to customers (or risk losing customers to more competitive rivals) (Christopher, 2011). Therefore, if a customer expects a retailer to be more environmentally friendly, the retailer will be influenced into taking action in order to adapt their services to meet the needs of their customers (Srivastava, 2007).

3.2. French retail industry

France can be considered as one of the most influential markets in Europe when regarding the retail industry (Perrigot & Barros, 2008 & Worldbank, 2015). French retailers continue to expand into other countries in Europe; however they face competition internally from other French retailers as well as from external competitors from other countries, especially from the German and British markets (Perrigot & Barros, 2008). The retailers operating within the country are composed of two main actors; these include the large retailing stores and the traditional smaller retailers (Euromonitor International, 2015). The contribution to Frances’ GDP from retailers is significant; it is around 25% which is close to 400 billion Euros (Euromonitor International, 2015).

Moreover, there is a threat of new entrants in the French retail industry (Euromonitor International, 2015). The competition is increasing in the non-grocery sector of the French retail industry; this is due to apparel fashion retailers from abroad entering the French market, which leads to intensified competition. In the grocery sector of the French retail industry large local food chains are creating a competitive environment for smaller supermarket and also for convenience stores that cannot compete (Euromonitor International, 2015).

According to Lenglart, Lesieur, & Pasquier (2010) the amount of goods being transported within French supply chains as being responsible for 1/3 of all CO2 emissions for the entire
transport sector. It has become apparent that emissions from transport are one of the main sources of CO2 for the entire country of France. They account for approximately 35% of what can be deemed as the total CO2 emission output (International Energy Agency, 2009). Moreover, the optimisation of the logistics distribution plays an important role in France in order to reduce the carbon footprint, especially in densely populated cities like Paris. This is partially due to the larger quantities of goods sold and consumed in densely populated areas (Rizet, Browne, Cornelis and Leonardi, 2012).

### 3.3. Dutch retail industry

The Netherlands is one of the bigger economies in Europe and the fifth largest economy within the Eurozone (Worldbank, 2015). It is well known for its stable economy, well developed infrastructure and skilled workforce. In 2014 the country showed a positive GDP growth of 0.9 percent and this is expected to grow further in 2015 with 1.4 percent and 1.7 percent in 2016 (European Commission, 2014).

According to Statistics Netherlands (2015) retail sales showed a growth in 2014. The economic recovery has shown a slight improvement on the Dutch retail industry, and it is the first time since 2008 that the retail sales grew. The sale in retail is mainly related to the increase in sale in the food retail sector (Euromonitor International 2015, Worldbank 2015 and CBS, 2015). The supermarkets had an overall increase of 3 percent in sales compared to 2013.

An interesting fact in the Dutch retail industry is that the turnover and number of physical retail stores have decreased, but the turnover of offline retail shopping increased in 2014 (Savills, 2014). However, when consumers do go shopping they seem to visit the larger cities like Amsterdam. This could be one of the reasons that more large scale retailers are opening flagship stores in the bigger cities, due to consumer attractivity (Savills, 2014 and Locatus, 2014).

### 3.4. Swedish retail industry

Within the E.U, Sweden is ranked as ninth in terms of gross domestic product (GDP) and size of economy (Hultman & Elg, 2013). There are a lot of changes occurring in the Swedish retail market, Hultman & Elg (2013) mentions that due to a high degree of competition
coming from new entrants into the Swedish retail market, a ‘fiercely’ competitive environment has emerged. This has created new challenges for Swedish retailers and put pressure on them to improve their supply chain activities. In particular, a focus on sustainability brought about by demand from more environmentally conscious consumers.

According to a recent market report from Jones, Lang & Lasalle (2013) Sweden’s economic performance including the retail market has outperformed most other European countries in recent times. This is in part due to the rapid expansion of retail stores, retail chains and international retailers. One explanation for this occurrence, presented by Bergström, Daunfeldt, & Rudholm (2006) is Sweden’s comparatively low level of barriers to entry when taking the retail sector into consideration. Swedish retailers, like retailers from other European countries have seen their traditional inner city centre customer base erode due to competition from out of town shopping centres, international competitors as well as a vibrant online market place (Bergström, Daunfeldt, & Rudholm, 2006).

It was also pointed out by Lang (2012) that from the 1990’s, out of town planning application rules eased in order to expand the Swedish retail market and this hastened the shift away from city centre retail development. The result of this has been the proliferation of very large shopping centres and “mega” retail chains (Waxell, 2014). Furthermore, it has been reported that the activities of retailers has a negative impact on the environment. Swedish retailers such as Coop (a large Swedish food retailer) have issues related to carbon emissions and these have been linked to the activities of their transport operations. In the case of this company, their transport activities have been responsible for 66% of their total carbon emissions. By improving their transport activities and working together with transport operators Coop managed to improve carbon emissions efficiency in 2012. Even though their transport activities increased by 12%, their climate emissions only increased by 2% (COOP, 2012).

3.5. United Kingdom retail industry

The UK has a high population density of 267 people per square kilometres (3rd highest in Europe) and a large population in excess of 64 million people. Economically speaking the UK has a GDP of approximately £1.8trillion (Worldbank, 2014). The UK retail market as described by (Burt, Teller, & Sparks, 2010) operates in a less uniform fashion to other
European Markets. One reason presented by the authors relates to the train of thought that the UK typically resists following the European model and instead attempts to maintain its own distinctive identity.

A report by the UK Office for National Statistics (2014) with data compiled from 5000 UK retailers concluded that the UK retail industry has experienced strong growth over the previous 18 month period and the forecast is for this trend to continue through 2015. Furthermore, the report describes the UK retail industry as being comprised (predominately) of four distinct store types; food, non-food, non-store (online/magazine etc) and automotive fuel retail (such as petrol stations) stores.

The UK has long presented itself as being open to business and highly deregulated, this is reflected in the sector which is comprised of a large number of both national and foreign retailers. Additionally, many UK retailers operate internationally both inside and outside the E.U. (Burt, Teller, & Sparks, 2010). The UK Trade and Investment branch of the government reported that the UK retail industries employs 10% of the workforce and generates taxes in the region of £17.5 billion (UKTI, 2014). Moreover, the UK receives the most foreign direct investment (FDI) in Europe.

A report by McKinnon (2004) suggested a figure of 33.7 million tonnes of CO2 was being emitted by the freight transport industry. A more recent study conducted by Allianz & WWF (2009) stated that 1/5 of emissions in the UK were due to transport. When it comes to freight transport, heavy goods vehicles (HGV) were the main culprits accounting for 78.5% (McKinnon A., 2004).

### 3.6. Transport operators

Logistic service providers (LSP) can provide wide range of services like, transport operations, freight forwarding, handling, shipping and the storage and packing of different goods in the flow of logistics within a supply chain (Kilibarda et al., 2012). According to Martinsen (2014), LSPs are organizations that provide a service to companies to support the supply chain in overseeing the movement of products from the beginning of a process to the end destination.
There are several forms of LSP ranging from 1PL to 4PL. The 1PL is the most basic form, it can be an organisation or and individual transporting goods or people from one location to another location (Jonsson, 2008). The 2PL refers to the activities provided by carriers and transport operators (Jonsson, 2008). 3PL execute the more complex logistics activities in a supply chain. These may include solutions tailored for the customer. Furthermore, a 3PL fulfils the customers that desire to have a range of logistical services fulfilled by one single provider (Berglund, van Laarhoven, Sharman, & Wand, 1999; Skjoett-Larsen, 2000; Wagner and Sutter, 2012). The 4PL refers to organizations that carry out similar services as a 3PL. However, the main difference between a 3PL and 4PL is that, the resources for the physical handling are not owned by the 4PL, but usually purchased (Jonsson, 2008).

The main focus of the thesis is on transport operators which are categorised under the 2PL umbrella. The tasks and services of transport operators will be further elaborated on. The main task of a transport operator is to handle the transport from one location to another. The logistical service provided by a transport operator is usually a transport service and they own or lease the assets required for their business operations. The services provided for their customers are always related to transportation and this can include the handling of documents, scheduling, inbound and outbound transportation. A transport operator can be an airline, shipping line, railway or road operator (Jonsson, 2008). Transport operators offer a wide range of activities such as freight transportation, marketing activities, security and safety, instant information and IT services, call centre management, reverse logistics, insurance, integration within supply chains, transfer of money, pre-assembly of products, modifications on the product, management solutions, inventory for customers, carrier selection for long distance transfers etc. (Yu, Elinger, & Haozhe, 2010).

3.6.1. Service offerings of a transport operator
Companies are facing increasing competition and the ways to stand out from competitors are limited. The service offerings from transport operators can offer the possibility of differentiation for their customers (Mojmir, 2000). There are traditional service offerings provided by transport operators and an emerging trend has seen green service offerings appear (Isaksson, 2012).

3.6.2. Traditional service offerings
Traditional activities of a transport operator include the transportation of goods and products and in some cases the storage in warehouses (Yu, Elinger, & Haozhe, 2010). Transport
operators compete with one another by offering services that add value for their customers (Bø & Hammervoll, 2010). These services are referred to as traditional service offerings. The first traditional service offering to be described is the cost of the services offered by a transport operator. The cost of services offered plays a role when customers of transport operators are making their transport selection decision (Cakir, Tozan, & Vayvay, 2009; Ozbek & Eren, 2012). This service could allow a company to increase its competitiveness. Companies such as retailers will look for the most cost effective way to transport their goods. This is especially true for customers who want to get the most value possible from the lowest level of investment (Hinterhuber & Friedrich, 2002). Another traditional service offering is the quality of the service offered. It is important that the transport operator is able to deliver a service that can match and meet the requirements of their customers (Lynch, 2000). A transport operator that is able to provide a consistently reliable service inspires confidence among its customers by ensuring their products and services arrive at the right time and right place (Lai, 2004). Furthermore, reliability is a service offering that is able to maintain or increase customer satisfaction and retention (Lynch, 2000). The next traditional service offering is lead time improvement. It can be vital for certain customers of transport operators that the lead time can be improved. This will ensure an overall increase in customer satisfaction and make the transport operators’ customers more flexible (Kabir, 2012). Having a good reputation helps inspire confidence among customers. Furthermore a good reputation can provide a transport operator with the possibility to attract new customers (Kabir, 2012; Cakir et al, 2009). Transport planning management optimises transportation efficiency and make sure that the most optimal transport route is planned. Through network collaboration and integration, knowledge of supply and demand can be transferred between actors in a supply chain to ensure that they use the most efficient form of transport planning. This in return can help to reduce costs and the impact on the environment (Stadtler, 2005). Moreover, transport planning management enhances distribution systems for example by combining orders and deliveries from different stores. The following table (1) lists the identified traditional service offerings.

<table>
<thead>
<tr>
<th>Traditional service offerings</th>
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</thead>
<tbody>
<tr>
<td>Cost of services</td>
</tr>
<tr>
<td>Quality of services offered</td>
</tr>
<tr>
<td>Lead time improvement</td>
</tr>
<tr>
<td>Reliability</td>
</tr>
</tbody>
</table>

41
3.6.3. Green service offerings

Transport operators have evolved over time and added extra services to their activities in order to fit the expectations of their customers. Another reason transport operators are expanding their service offerings to be able to differentiate themselves from their competitors (Hertz & Alfredsson, 2003).

Green service offerings are beginning to be integrated into transport operators overall offerings. This could be due to retailers and their customers that are taking environmental concerns more into consideration (McKinnon, 2010). Green service offerings as defined by Isaksson (2014) can be new or similar to traditional offerings of transport operators; however, they aim to eliminate or reduce the impact they have on the environment. Examples include measures which are related to transport such as improving fuel efficiency of vehicle fleets by offering transport management solutions or shifting to alternative fuels. Other green offerings could be related to the design of logistical systems, systems to collect and manage environmental data such as emission levels. The green service offerings of transport operators can depend on the requirements of their customers (McKinnon, 2010).

Eco driving is a method used to reduce the environmental impact of the daily transport operations. Eco driving refers to a transport operator’s ability to provide eco driving instructions to their vehicle operators when requested by their customers (Isaksson, 2012). Eco vehicles are considered to be a more environmentally friendly alternative to standard vehicles. They may consist of the following; alternative fuels, better environmentally friendly engines or adjustments to a vehicle (Wolf & Seuring, 2010). Actual emission calculation is more of a technical service offering. It is used to measure and calculate the carbon emission impact from transportation (Elhedhli & Merrick, 2012). Carbon emission reduction and actual emission calculation are closely related to each other. Carbon emission reduction aims to reduce the impact of transport activities that generate carbon emissions (Elhedhli & Merrick, 2012). More efficient packaging solutions could help a company to reduce its impact on the environment. Some organisations are working with transport operators to find packaging that uses less volume and therefore fewer shipments will be required to send the same amount of products. This may offer a customer a good load optimisation which could
reduce the amount of space in a transport vehicle needed to transport products. This could help to decrease the amount of journeys undertaken and this can decrease the amount of carbon emissions released through the transport activities (Carter, Kale, & Grimm, 2000). Environmental certification like the ISO 14001 standards could help a transport operator to provide evidence of its environmental credentials to its customers (Byrne, Ryan, & Heavey, 2013). This allows companies to not only present their customers with a transparent view of their activities, but the activities of their wider supply chains too. The appeal for companies to adhere to these ISO standards is high for those in particular who care about their image and how they are perceived in the eyes of their stakeholders. The latest standard ‘ISO 14001’ is mainly focused on environmental impact and the consequences to the environment of running a business activity. ISO 14001 standards were designed specifically to deal with environmental management through improving business processes (not actual products) which affect the environment negatively (ISO, 2015). Environmental certifications could be especially beneficial for companies that have a portfolio of customers concerned about the environmental aspect or to attract new customers that could possibly be concerned about environmental issues (Yu, Elinger, & Haozhe, 2010). The following figure (10) outlines the process of the ISO 14001 standards which transport operators will have to adhere to if they wish to be ISO 14001 certified. The following table (2) lists the identified green service offerings.

<table>
<thead>
<tr>
<th>Green service offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eco driving</td>
</tr>
<tr>
<td>Eco vehicles</td>
</tr>
<tr>
<td>Transport planning management</td>
</tr>
<tr>
<td>Actual emission calculation</td>
</tr>
<tr>
<td>More efficient packaging solutions</td>
</tr>
<tr>
<td>Carbon emission reduction</td>
</tr>
<tr>
<td>Load optimisation</td>
</tr>
<tr>
<td>ISO certification</td>
</tr>
<tr>
<td>Intermodal transportation</td>
</tr>
</tbody>
</table>

**Figure 10:** Author’s own interpretation of the ISO 14001 set of standards

**Table 2:** List of green service offerings from transport operators
3.7. The selection of transport operators by retailers

The selection of a transport operator for a retailer depends on the objectives of the retailer and on the considerations of the final customer (Yu, Elinger, & Haozhe, 2010). There are certain motivators which could encourage retailers to select certain transport operators (Chkanikova & Mont, 2015). Retailers are operating in a competitive and dynamic segment where there is a high pressure from stakeholders on sustainability issues which could encourage or motivate a retailer to improve their environmental practices. However, there are also certain reasons which could prevent a retailer from using green service offerings (Chkanikova, et al., 2013).

CSR is a topic that is important for companies across different industries; it still remains a difficult issue to tackle in business practices (Chabowski, Mena, & Gonzalez-Padron, 2011). This is especially the case for retailers, since they are held more responsible for actions in the supply chain (Amaeshi et al., 2008). Retailers are not only motivated to employ CSR practices because of laws, regulations or ethical motives. The main driving force is that their customers are becoming more aware of the retailers social responsible behaviour (Wagner, Bicen, & Hall, 2008).

CSR tends to be more complex in the retail industry than in other industries. According to Schramm-Klein, Morschett, & Swoboda (2015) the main reason for this is because the retailer usually is an intermediary in the distribution and marketing channel. This implies that the retailers CSR not only relates to their own activities, but also the responsible behaviour of supply chain partners such as suppliers and logistics providers (Homburg, Stierl, & Bornemann, 2013).

Therefore, the activities and behaviour of business partners of a retailer are perceived and associated by the end consumers to the products that the retailers sell. Due to the broad network of suppliers and logistics providers retailers try to avoid a negative carry over effect on their CSR, if their business partner’s activities do not fit their way of conducting business in a corporate responsible way. Moreover, retailers are seen as the gatekeepers in a supply chain between the supply chain actors and the final consumers. This means that CSR has an influence on a retailer’s selection of manufacturers, suppliers, distributors and logistics providers (Chabowski et al., 2011; Homburg et al., 2013; Schramm-Klein et al., 2015).
3.7.1. Motivators for the uptake of green service offerings

Retailers who are seen as being environmentally conscious could expand their customer base by attracting consumers who are concerned about the impact business activities might be having on the environment (Murphy & Poist, 2003). According to Chkanikova et al. (2013), various drivers can influence Swedish retailers into engaging into more environmentally friendly practices. Expectations of customers can influence and increase a retailer’s motivation to use green services, since their level of influence is high (Martinsen, 2014).

Governments are looking for ways to make their economies greener and encourage organisations to adapt to a green way of conducting business. Government deregulation could help to reduce barriers to entry and ease the uptake of green services by increasing competition and through that improve efficiency and innovation (Lai, Cheng, & Tang, 2010). Economic incentives could encourage a company to try new services which they would not have considered before due to financial concerns. Economic incentives could include tax breaks or grants for organisations that fulfil the criteria set by the government (Darnall, Jolley, & Handfield, R.2008). Moreover these economic incentives may eventually improve the business activities of a retailer. Nordas (2008) mentioned that customers are largely seen as the main motivator to encourage retailers to use green services. This corresponds to Martinsen’s (2014) findings which have been visualised in figure 1.

Retailers could also be encouraged to use green service offerings by their stakeholders and using green service offerings could also have an effect on their brand reputation. Stakeholders, as described by Freeman (1984) can be individuals or groups who, in one way or another are affected by, or (themselves) have an effect on the objectives of a company. Therefore, pressure from stakeholders can influence an organisations’ decision making (Lee 2011). Robinson and Wilcox (2008) have identified that brand reputation may help organisations to have a competitive advantage; increasing their position in the markets they operate in. Moreover, by enhancing their brand reputation, retailers could appeal to a wider range of customers. Sustainability, green and carbon emission issues were listed by Robinson and Wilcox (2008) as having an effect on brand reputation. It has also been claimed by Claver, Lopez, Molina, & Tari, (2007) that organisations could be receptive to services such as green service offerings that could offer them a measureable improvement within their business activities.
3.7.2. Unwillingness to use green service offerings

There are a number of challenges that companies face when attempting to adopt green policies to improve their activities, which include financial, regulatory as well as customer related issues (Srivastava, 2007).

From a financial perspective, the initial investments for the transport operator could increase the price of the green service offerings for retailers. Providing green service offerings could therefore increase the cost of the transport operator and these costs could be pushed onto their customers. Additionally, it may not be possible for a retailer to recoup these extra costs (Chkanikova & Mont, 2015). The fact that some customers may have a lack of interest in environmental concerns could dissuade retailers from engaging with a transport operators with green service offerings. Gunn & Mont, (2014) mention that even though some consumers live in societies with a high level of concern for the environment, it does not necessarily translate to them choosing environmentally friendly products.

A lack of economic incentives could reduce the attractiveness of transport operators who offer green service offerings. Customers of transport operators may be unable to pay extra for green service offerings and therefore without support in the form of tax breaks or grants for example they may be restricted (Chkanikova et al., 2013). Unclear regulations could also result in retailers being less willing to choose a transport operator that offers green service offerings. This could be due to the fact that certain green offerings require specific regulatory controls which retailers for example cannot abide by or are unsure about (Chkanikova & Mont, 2015). The following table (3) lists the five identified reasons why a retailer may be unwilling to use a transport operator who provides green service offerings.

<table>
<thead>
<tr>
<th>Table of reasons retailers might be unwilling to choose a transport operator who provides green service offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td>High initial investments</td>
</tr>
<tr>
<td>Uncertainty about the return on investment</td>
</tr>
<tr>
<td>Lack of customer interest / support</td>
</tr>
<tr>
<td>Lack of economic incentives</td>
</tr>
<tr>
<td>Unclear regulations</td>
</tr>
</tbody>
</table>

Table 3: Unwillingness to choose a transport operator who provides green service offerings
3.8. Analytical model

The following model (figure 11) is a visual representation of the literature within the theoretical framework, it will be used to analyse the empirical data and discuss the outcomes. The model displays the selection of a transport operator from the perspective of French, Dutch, Swedish and UK retailers. The chapters related to each part of the model are mentioned into brackets. The first arrow leads to the different services offerings box identified through the literature. Into this box, to the left of the model the traditional service offerings of a transport operator are listed in a box and to the right are the green service offerings in another box. These are the service offerings which could come into play when a French, Dutch, Swedish and UK retailer selects a transport operator. This leads to the selection of a transport operator box. Then the motivators to uptake green services offerings is displayed on the top right box for the retailers that could use green service offerings of a transport operator. This leads to the transport operator box on the top right, proposing green service offerings to the retailers. The unwillingness to use green service offerings is displayed on the left of selection of a transport operator box. This box lists the reasons identified in the literature for retailers to not use green service offerings. The arrow then goes to the top left transport operator box, showing the transport operators displaying traditional service offerings. Moreover, the analytical model will be the foundation for the design of the questionnaire used to collect data from French, Dutch, Swedish and UK retailers.
Figure 11: Author’s analytical model

Unwillingness to pay for green services 3.7.2
- High initial investment
- Lack of customer interest
- Uncertainty about R.O.I.
- Lack of eco. Incentives
- Unclear regulations

Motivators 3.7.1
- Government deregulation
- Economic incentives
- Customer expectations
- Measurable improvement for your business activities
- Brand reputation

Selection of a transport operator 3.7

Service offerings of a transport operator 3.6.1

Traditional Service Offerings 3.6.2
- Cost of services
- Lead time improvement
- Quality of service offered
- Reliability
- Reputation
- Transport planning management

Green Service Offerings 3.6.3
- Eco Vehicles
- Eco Driving
- ISO certification
- Actual emission calculation
- More efficient packaging
- Carbon emission reduction
- Load optimisation

Transport Operators 3.6

Retailers 3.2/3.3/3.4/3.5
4. Empirical data

This chapter presents the empirical data findings which have been collected through questionnaires. A brief overview of the respondents including their sector of activities and size will be presented. Then the data collected through the questionnaires will be presented by following the structure of the questionnaire. Moreover, for each of the questions, a comparison of the combined results will be made as well as the individual results of the French, Dutch, Swedish and UK retailers. Finally, in the last part of this chapter there will be a model summarising the key findings which will allow an expansion of the analytical model which will be presented in chapter 5. The data has been collected through google docs’ survey and analysed with SPSS.

4.1. Respondents

In total, 385 retailers responded and completed the questionnaire of which 107 were French, 95 from the Netherlands, 85 from Sweden and 98 from the UK. In terms of percentage, the retailers from France represent 27.8%, The Netherlands 24.7% Sweden 22% and the UK 25.5% of the sample. The questionnaire consisted of twelve questions. Table 4 shows the number of employees for each of the retailers who responded. It is interesting to note that none of the respondents had more than forty employees at the time of the questionnaire.

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 10 employees</td>
<td>169</td>
<td>43.9</td>
<td>43.9</td>
</tr>
<tr>
<td>11 to 20 employees</td>
<td>108</td>
<td>28.1</td>
<td>71.9</td>
</tr>
<tr>
<td>21 to 30 employees</td>
<td>65</td>
<td>16.9</td>
<td>88.8</td>
</tr>
<tr>
<td>31 to 40 employees</td>
<td>43</td>
<td>11.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>385</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Respondents number of employees

It is noticeable that the frequency of different sizes of the retailers diminishes as the “number of employees” increases. Table 5 below shows the different sectors of activity of the respondents.
The supermarkets make up the highest group of respondents (22.6%). This followed by fashion, electronics, house and garden furniture, sport and outdoor goods and convenience stores who each account for around 10% of the respondents. The remaining retailer sectors have scores of below 10% each.

<table>
<thead>
<tr>
<th>Retailer Sector</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy</td>
<td>8</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>9</td>
<td>2.3</td>
<td>4.6</td>
</tr>
<tr>
<td>Games and toys</td>
<td>13</td>
<td>3.4</td>
<td>8</td>
</tr>
<tr>
<td>Supermarkets</td>
<td>87</td>
<td>22.6</td>
<td>30.6</td>
</tr>
<tr>
<td>Beverages</td>
<td>21</td>
<td>5.4</td>
<td>36</td>
</tr>
<tr>
<td>Fashion</td>
<td>44</td>
<td>11.4</td>
<td>47.4</td>
</tr>
<tr>
<td>Automotive</td>
<td>29</td>
<td>7.5</td>
<td>54.9</td>
</tr>
<tr>
<td>Electronics</td>
<td>44</td>
<td>11.4</td>
<td>66.3</td>
</tr>
<tr>
<td>House and garden furniture</td>
<td>41</td>
<td>10.6</td>
<td>76.9</td>
</tr>
<tr>
<td>Sport and outdoor goods</td>
<td>38</td>
<td>9.9</td>
<td>86.8</td>
</tr>
<tr>
<td>Convenience stores</td>
<td>51</td>
<td>13.2</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>385</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Respondent retail sectors

4.2. Willingness to use green service offerings

The next section of the questionnaire was designed in order to make a distinction between the retailers willing to use green service offerings and those not willing to. This was done in order to be able to identify the reasons for those not willing to use particular services and the most important services according to them when selecting a transport operator. On the other hand, this division of the questionnaire was also done in order to identify the most important green service offerings according to those willing to use them and the reasons that could explain their motivation when selecting a green transport operator. Table 6 below shows that 199 of the 385 respondents indicated that they would be willing to use green service offerings. It is noticeable that the respondents were fairly evenly split with 51.7% of them willing to use green service offerings.
Chart 1 below presents charts of the responses from all the respondents according to the country in which the retailers are operating in (France, The Netherlands, Sweden and the UK).

Table 6: Willingness to use green service offerings

<table>
<thead>
<tr>
<th>WTUGSO</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>199</td>
<td>51.7</td>
<td>51.7</td>
<td>51.7</td>
</tr>
<tr>
<td>Valid</td>
<td>No</td>
<td>186</td>
<td>48.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>385</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Respondents’ willingness to use green service offerings

- **France**
  - Yes: 57%
  - No: 43%

- **Netherlands**
  - Yes: 67%
  - No: 33%

- **Sweden**
  - Yes: 41%
  - No: 59%

- **U.K**
  - Yes: 67%
  - No: 33%

Chart 1: Willingness to use Green Service Offerings of a transport operator
When looking in greater detail, it can be noticed that the bigger nations (France / UK) were less willing than the smaller nations (The Netherlands / Sweden) to use green service offerings of transport operators. It could be related to the smaller nations being more environmentally aware or that it is easier to implement green initiatives in these nations.

4.3. Retailers not willing to use green service offerings

This section of the questionnaire was focused on the reasons why French, Swedish, Dutch and U.K retailers are not willing to use green service offerings from transport operators as well as the most important criteria of selection when choosing a transport operator. Finally the last question in this section was designed in order to see if there was a correlation with the company’s objective or corporate social responsibility and the fact that they do not want to use green services.

4.3.1. Reasons for not being willing to use green service offerings

The respondents had the possibility to rank five different reasons between 1 to 5 (5 being the highest degree of importance) that could explain the fact that they are not willing to use green service offerings. The reasons were identified in the theoretical framework and the retailers have in general identified high initial investments, uncertainty about the return on investment and lack of customer interest as the three main reasons for not using green service offerings from a transport operator (chart 2). This however is only based on the average score. When looking at the standard deviation it shows that high initial investment and lack of economic incentives show a better score and a lower standard deviation. Furthermore, the standard deviation for high initial investment and lack of economic incentives (0.89 and 0.92) is lower than the mean standard deviation highlighting the fact that they did agree about the degree of importance.
The findings from the French retailer’s (chart 3) shows that high initial investments, lack of customer interest and lack of economic incentives had the highest average scores. However, when looking at the mean standard deviation and the standard deviation of each variable, the results show a different outcome. The mean standard deviation is 1.08 and the reasons for French retailers not to use green service offerings are: high initial investment (Standard deviation 0.88), uncertainty about the return on investment (Standard deviation 0.79) and lack of economic incentives (Standard deviation 0.84).

Chart 2: Reasons for not being willing to use green service offerings (combined)
In the case of the Dutch retailer’s (chart 4) high initial investment, uncertainty about the return on investment and lack of economic incentives were given the highest average scores. However, when comparing this to the standard deviation the results are not the same. The mean standard deviation is 0.97 and the reasons for Dutch retailers not to use green service offerings are: uncertainty about the return on investment (Standard deviation 0.84), lack of customer interest (Standard deviation 0.85) and lack of economic incentives (0.76).
The Swedish retailers (chart 5) gave the highest average scores to high initial investment, uncertainty about the return on investment and lack of economic incentives. The mean standard deviation is 0.88 and according to the standard deviation the reasons for Swedish retailer not use green service offerings are: high initial investment (standard deviation 0.64), lack of customer interest (Standard deviation 0.70), and lack of economic incentives (standard deviation 0.82).
The results from the U.K retailers (chart 6) shows that high initial investment, uncertainty about the return on investment and lack of customer interest have the highest average scores. However, this is not directly in line with the standard deviation. The mean standard deviation is 0.84 and the only variable that had a high average score and a low standard deviation is high initial investment with a standard deviation of 0.63. Furthermore, lack of economic incentives seems to be important for U.K retailer with a standard deviation of 0.59. Finally, lack of customer interest had a standard deviation of 0.84, which is exactly the same as the mean standard deviation.
4.3.2. Most important service offerings from transport operator according to the retailers

The retailers unwilling to use green service offerings were then asked to select the most important service offerings according to them when selecting a transport operator. Six different service offerings were used in the questionnaires which are based on the analytical model. These service offerings consist of only traditional service offerings, since these retailers are not interested in green service offerings. Chart 7 shows the average degree of importance for each of the service offerings and the standard deviation. When looking at the average, it can be seen that cost of services, quality of service offered, and reliability have been seen as very important when selecting a transport operator. However, cost of services and transport planning management have a low standard deviation showing that they tend to agree on the degree of importance. Quality of service offered has a standard deviation above the mean suggesting a lack of consensus amongst the respondents.
The French retailers (chart 8) agreed with these results, showing that they found *transport planning management* and *cost of service* very important. However, they tend to find *reputation* more important than *reliability*. Moreover, the standard deviation for *reputation* does not show a tremendous difference when comparing with the mean standard deviation.
The findings of the Dutch retailers (chart 9) showed similar results to the French retailers, they find transport planning management and cost of services very important. Even though transport planning management did not receive the majority of the votes, it had the lowest standard deviation, which shows that they agreed on this service offering.
The Swedish retailers (chart 10) tend to agree with the Dutch retailers in terms of important service offerings. They find transport planning management and cost of services very important. Overall the findings of the Swedish and Dutch retailers seem to be similar for all the variables.

Finally, the U.K retailers (chart 11) are in agreement with the French, Dutch and Swedish retailers. They also find transport planning management and cost of services to be very important service offerings.
A Cronbach’s alpha reliability analysis was conducted to measure the internal consistency (table 7). The results showed a relatively low Cronbach’s alpha of 0.390, which means that the internal consistency is low. This could be due to the fact that the retailers found most of the traditional service offerings close to the same degree of importance. It was possible to improve the internal consistency of this part by deleting one of the variables used to compute Cronbach’s alpha. By deleting reliability Cronbach’s alpha could be improved to 0.560.

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th>N of Items</th>
<th>Cronbach’s Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's Alpha</td>
<td>N of Items</td>
<td></td>
</tr>
<tr>
<td>.560</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Table 7: Reliability Statistics of service offerings

After conducting this analysis it becomes possible to determine if there are any correlations between the service offerings. This is possible when using the Correlation matrix using Pearson’s correlation. (Table 8) makes it possible to identify the correlations and also the intensity of each of the correlations. If the Pearson correlation is close to 1, it means there is a strong correlation if it is closer to 0 the correlation is not that strong. If the number is positive it means that when one variable is increasing the other correlated variable will increase. The opposite can happen when Pearson’s correlation is negative. The second piece of information presented in the table is the Sig (2-tailed) showing if it is possible to notice a statistically noticeable correlation between two services. If the value is higher than 0.05 the variables are not related to each other (Hair, Black , Babin, & Anderson, 2009). The noticeable correlation was between cost of services and quality of services, as well as cost of services and reliability. However, both correlations significance is not close to 0.05, but it does indicate that these retailers correlate the cost of services offered with the quality and reliability of the transport operator.
The retailers that were not willing to use green service offerings were asked if CSR or the company’s objective plays a role when selecting a transport operator. The results showed in chart 12 indicate that it is a mixed response. 50% of them said “yes” and 50% said no. It is interesting to see that CSR plays a more important role for the Dutch and Swedish retailers, with 53% of the Dutch retailers and 73% of the Swedish retailers saying yes that CSR does play a role when selecting a transport operator. CSR is less important for French and U.K retailers when selecting a transport operator, with 60% of the French retailers and 54% of the U.K retailers saying that CSR does not play a role when selecting a transport operator.

4.3.3. Is CSR playing a role when selecting a transport operator?

The retailers that were not willing to use green service offerings were asked if CSR or the company’s objective plays a role when selecting a transport operator. The results showed in chart 12 indicate that it is a mixed response. 50% of them said “yes” and 50% said no. It is interesting to see that CSR plays a more important role for the Dutch and Swedish retailers, with 53% of the Dutch retailers and 73% of the Swedish retailers saying yes that CSR does play a role when selecting a transport operator. CSR is less important for French and U.K retailers when selecting a transport operator, with 60% of the French retailers and 54% of the U.K retailers saying that CSR does not play a role when selecting a transport operator.
4.4. Retailers willing to use green service offerings

For the retailers willing to use green service offerings, various questions were asked in the questionnaire in order to find out which motivators are the most important for them when using green service offerings from transport operator. Then the retailers had the possibility to rank 14 criteria of selection when choosing a transport operator and finally to identify the most important green service offerings according to them as well as the role of CSR and the price of green service offerings.

4.4.1. Reasons for being willing to use green service offerings

The retailers had the possibility to select between six different motivators in order to find out which are the most important (chart 13). They had the possibility to pick as many motivators as they wanted. The 385 retailers willing to use green service offerings from France, The Netherlands, Sweden and The UK seem to have defined customer expectations collectively as being the most important motivator. It has a high average score (0.72 out of 1.00) and in addition to this, the standard deviation (0.45) is noticeably lower than the mean standard deviation (0.47). Another motivator that scored highly is measureable improvements to business activities. With the highest average score of 0.93 and the second lowest standard
deviation below the mean (0.46), it appears that the respondents are in agreement. Interestingly, *brand reputation* scored the second lowest average and had the highest standard deviation (0.50) which was above the mean. This could suggest a lack of agreement amongst the respondents.

![Chart 13: Reasons for being willing to use green service offerings](image)

When further breaking down the empirical data and looking at it from an individual nation’s perspective, it is possible to see that French retailers (chart 14) suggested that *customer expectations* and *economic incentives* were the most important and had a standard deviation below the average signalling a general agreement amongst the respondents although this figure is not significantly lower. Moreover, *measureable improvements to business activities* had a high average response and the standard deviation is level with the mean standard deviation which could suggest a less statistically significant level of agreement. *Government deregulation* had the lowest average and *stakeholder expectations* the highest standard deviation and were therefore less important than the other motivators.
The next country to be discussed is the Netherlands. Chart 15 below shows that customer expectations is clearly important in the decision making process for retailers from the Netherlands. This is characterised by a high average and below average standard deviation. Once again, none of the motivators had a noticeably low standard deviation and government deregulation can be seen to be less important than the other motivators.
The results of the Swedish respondents can be seen below in chart 16. It would appear that in Sweden, both stakeholder expectations and brand reputation have the highest level of above the average response rate. The former offering a slightly lower standard deviation than the later, however neither of the two is significantly low. Interestingly, economic incentives was seen as being the least important of the motivators presented to the Swedish respondents.

The findings for the final market, the UK, can be seen in chart 17. Economic incentives, customer expectations and measureable improvements to business activities can be seen as having the highest number of responses. The standard deviation for economic incentives and measureable improvements to business activities is marginally below the mean standard deviation signalling a relatively low amount of agreement amongst the respondents. The standard deviation for customer expectations is actually above the mean. Finally, like the combined response, brand reputation was low on the respondents’ selection of motivators as was government deregulation.
In general it can be noticed that when looking from an individual perspective, the respondents suggest that they may be more interested in using green service offerings if there would be economic incentives, expectations from customers and a measurable improvement in business activities. However, the respondents from Sweden identified more strongly with stakeholder expectations and brand reputation and less so with economic incentives.

4.4.2. Most important criteria when selecting a transport operator

The retailers were then asked to indicate the degree of importance of service offerings when selecting a transport operator. The list of services was composed of 5 traditional service offerings and 9 green service offerings. Chart 18 clearly shows that the retailers seem to be unanimous in their decision about the cost of services since the mean is almost at the highest possible average and with one of the lowest scores for the standard deviation.
In general *cost of services* is the most important service offering when selecting a transport operator. The outcome of this figure also shows that the retailers find *transport planning management* to be an important service offering. Moreover, one green service offerings play a role for retailers when selecting a transport operator. This green service offering is, *ISO certification*. It is interesting to note that *load optimisation and intermodal transportation* are two service offerings that the retailers could not agree upon. Both of these service offerings show a standard deviation that is very close to the mean standard deviation. To summarise the combined responses of important service offerings, *cost of services* is clearly the most important for retailers that are willing to pay for green service offerings. After that, the retailers seem to find *transport planning management, quality of services offered* and *ISO certification* important service offerings but to a lesser degree than *cost of services*.

The results of the French retailers (chart 19) shows a tendency that is similar to the combined responses. The French retailers identified *cost of services* as the most important service offering, with the lowest standard deviation and the highest mean. Interestingly enough they did not find *ISO certification* important, but identified *quality of services offered* as an
important service offering. This was followed by *transport planning management* and *eco driving*, which were also included in the results of the combined responses.

According to the Dutch retailers (chart 20), *cost of services, reliability, transport planning management* and *eco driving* are the most important criteria when selecting a transport operator. In the case of the Dutch retailers it is noticeable that for these services listed, all of them have a standard variation lower than the mean standard deviation showing that they almost all agreed with this ranking. However, *ISO certification* and *intermodal transportation* were service offerings that received mixed responses since the standard deviation was very close to the mean standard deviation. Three out of the four service offerings identified by the Dutch retailers show a tendency with the combined responses these are; *cost of services, transport planning management* and *eco driving*. 
The most important service offerings identified by the Swedish retailers (chart 21) show a tendency that is almost similar to the combined responses of all the retailers. The most important service offerings for Swedish retailers are cost of services, ISO certification, eco driving and transport planning management. All these service offerings show a standard deviation that is lower than the mean standard deviation. Moreover, intermodal transportation seems to be important for Swedish retailers as well.
For the U.K retailers (chart 22) cost of services is the most important service offering since it shows the highest average and lowest standard deviation. Furthermore, all the service offerings that were presented in the combined responses are service offerings that the U.K retailers take into account as well when selecting a transport operator. These service offerings are, transport planning management, eco driving and ISO certification. Additionally the U.K retailers identified quality of service offered and reliability as important service offerings as well.
It was then possible to conduct a Cronbach alpha analysis for all the retailers (Table 9). The findings showed a Cronbach’s Alpha of 0.739 which means that there is an internal consistency for the variables used for this part of the questionnaire. Based on Cronbach’s alpha which is a measure of reliability, 1 being high, 0 being low, the reliability is above the half way point of the scale indicating a more reliable outcome.

![Chart 22: Most important criteria when selecting a transport operator (Swedish responses)](image)

Reliability Statistics of service offerings

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.739</td>
<td>14</td>
</tr>
</tbody>
</table>

Table 9: Cronbach’s Alpha
After conducting the Cronbach’s Alpha analysis it is possible to see if there are any correlations between the service offerings. This is possible when using the Correlation matrix using Pearson’s correlation. Table 10 allows us to identify the correlations and also the intensity of each of the correlations.

If the Pearson correlation is close to 1, it means there is a strong correlation, if it is closer to 0 the correlation is not that strong. If the number is positive it means that when one variable is increasing the other correlated variable will increase. The opposite can happen when the Pearson’s correlation is negative. The second piece of information presented in the table is the Sig (2-tailed) showing if it is possible to see a statistically noticeable correlation between two services. If the value is higher than 0.05 the variables are not related to each other (Hair, et al., 2009). In this case it is noticeable that the strongest correlation is shown in the row of transport planning management and cost of services. Transport planning management is fairly strongly correlated with the following service offerings: lead time improvement, eco vehicles, load optimisation and ISO certification. Cost of services is highly correlated with: lead time improvement, actual emission calculation, eco vehicles, load optimisation and intermodal transportation. Furthermore, cost of services is negatively correlated with more efficient packaging solution. Actual emission calculation shows a strong correlation with eco vehicles. Whereas eco vehicles shows a negative correlation with carbon emission reduction and reputation, but a positive correlation with load optimisation and intermodal transportation. Quality of services is negatively correlated to carbon emission reduction. Finally, load optimisation shows a positive correlation to intermodal transportation.

It is interesting to see that the two service offerings (transport planning management and cost of services) that showed the most correlations with other variables, also seemed to be identified as two of the most important service offerings for the retailers.
<table>
<thead>
<tr>
<th></th>
<th>Transport planning management</th>
<th>Cost of services</th>
<th>Eco driving</th>
<th>Lead time improvement</th>
<th>Actual emission calculation</th>
<th>Eco vehicles</th>
<th>Quality of services offered</th>
<th>More efficient packaging</th>
<th>Reliability</th>
<th>Carbon emission reduction</th>
<th>Reputation</th>
<th>Load optimisation</th>
<th>ISO certification</th>
<th>Interno del transporte</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>1</td>
<td>0.334*</td>
<td>0.247**</td>
<td>0.141*</td>
<td>-1.14*</td>
<td>247**</td>
<td>.329**</td>
<td>0.106</td>
<td>-1.24</td>
<td>-1.171</td>
<td>0.171*</td>
<td>-0.026</td>
<td>-1.098</td>
<td>-0.038</td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
<td>0.000</td>
<td>0.013</td>
<td>0.046</td>
<td>0.006</td>
<td>.008</td>
<td>0.285</td>
<td>0.102</td>
<td>0.032</td>
<td>1.000</td>
<td>0.002</td>
<td>0.001</td>
<td>0.009</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>Actual Correlation</strong></td>
<td>-1.14*</td>
<td>-1.18**</td>
<td>0.106</td>
<td>0.006</td>
<td>0.006</td>
<td>-0.835</td>
<td>0.006</td>
<td>0.006</td>
<td>1.000</td>
<td>0.006</td>
<td>0.002</td>
<td>0.009</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>Reliability</strong></td>
<td>-0.24</td>
<td>-0.325**</td>
<td>0.106</td>
<td>0.006</td>
<td>0.006</td>
<td>-0.325</td>
<td>0.006</td>
<td>0.006</td>
<td>1.000</td>
<td>0.006</td>
<td>0.002</td>
<td>0.009</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>Carbon emission reduction</strong></td>
<td>-0.27</td>
<td>-0.325**</td>
<td>0.106</td>
<td>0.006</td>
<td>0.006</td>
<td>-0.325</td>
<td>0.006</td>
<td>0.006</td>
<td>1.000</td>
<td>0.006</td>
<td>0.002</td>
<td>0.009</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>Reputation</strong></td>
<td>-0.12</td>
<td>-0.325**</td>
<td>0.106</td>
<td>0.006</td>
<td>0.006</td>
<td>-0.325</td>
<td>0.006</td>
<td>0.006</td>
<td>1.000</td>
<td>0.006</td>
<td>0.002</td>
<td>0.009</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>Load optimisation</strong></td>
<td>-1.24</td>
<td>-1.171</td>
<td>0.106</td>
<td>0.006</td>
<td>0.006</td>
<td>-1.171</td>
<td>0.006</td>
<td>0.006</td>
<td>1.000</td>
<td>0.006</td>
<td>0.002</td>
<td>0.009</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>ISO certification</strong></td>
<td>-0.27</td>
<td>-0.325**</td>
<td>0.106</td>
<td>0.006</td>
<td>0.006</td>
<td>-0.325</td>
<td>0.006</td>
<td>0.006</td>
<td>1.000</td>
<td>0.006</td>
<td>0.002</td>
<td>0.009</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>Intermodal transportation</strong></td>
<td>-1.24</td>
<td>-1.171</td>
<td>0.106</td>
<td>0.006</td>
<td>0.006</td>
<td>-1.171</td>
<td>0.006</td>
<td>0.006</td>
<td>1.000</td>
<td>0.006</td>
<td>0.002</td>
<td>0.009</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Table 10: Correlation matrix**
4.4.3. Most important green service offerings

The respondents had the opportunity to choose between eight green service offerings which were identified in the literature. It was possible for the respondents to select more than one option if they felt it was necessary. The retailers could then rank them by degree of importance (4 being the highest degree) and the average of the votes has been calculated. The data shows that two green service offerings stand out as being selected by most of the retailers. These include ISO certification (3.52) and actual emission calculation (3.46) (chart 23). The standard deviation being lower than the mean also highlights that the retailers were in general agreement with the ranking of the degree of importance for these two green service offerings. The remaining green services except for eco driving, all had a standard deviation above the mean signalling a lack of consensus amongst the respondents.

![Chart 23: Most important green service offerings (combined responses)](chart23.png)
When further breaking down the empirical data, it is possible to see that the French retailers see *eco vehicles* as being most important as it has the lowest standard deviation (chart 24). The highest average response was for *ISO certification* (3.48) and it also received a standard deviation below the mean showing that most of the French respondents agreed with this ranking.

![Chart 24: Most important green service offerings (French responses)](chart24.png)

When analysing the responses from the Netherlands is it possible to see that like France, *ISO certification* (3.48) scored highest in terms of average response, but also had the lowest standard deviation (chart 25). The next most highly chosen green service offering is *actual emission calculation* (3.36), again it had a standard deviation lower than the mean standard deviation.

![Chart 25: Most important green service offerings (responses from the Netherlands)](chart25.png)
The Swedish retailers in their case were similar to the French as they highlighted “ISO certification” (3.47) as being the most highly responded services. This was followed closely by “eco vehicles” (3.37) and then “actual emission calculation” (3.32) as being very important services that should be offered by a transport operator. The three services all have a standard deviation lower than the mean standard deviation (chart 26).

![Chart 26: Most important green service offerings (responses from Sweden)](chart26)

- **Sweden**
- **Average**
- **Standard deviation**
- **Mean Standard deviation**

**Green service offerings**
The final market, the UK (chart 27) indicates that *actual emission calculation* (3.83) and *ISO certification* (3.63) were the most favoured offerings. Both of which had a noticeable standard deviation lower than the mean standard deviation, suggesting a high degree of agreement amongst the respondents. Interestingly, *more efficient packaging solutions* is also seen as being an important service.

Some interesting points to note include, *ISO certification* as being one of the reoccurring services that most of the nations’ respondents believed to be important. Another point is that *eco vehicles* scored highly for France and Sweden; however for the Netherlands and the UK it scored poorly. This could be due to a lack of investment in green transport technologies or perhaps recharge stations. Alternatively, the cost of petrol and diesel have been falling throughout 2015, this drop in price could have made eco vehicles too costly when compared with conventionally vehicles.
4.4.4. Is CSR playing a role when selecting a transport operator?

The retailers that were willing to use green service offerings were asked if corporate social responsibility or the company’s objective plays a role when selecting a transport operator. The results shown in (chart 28) clearly indicate that for 68% of the respondents it does.

When comparing the four countries it shows that for two countries more than 70% confirmed that CSR does play a role when selecting a transport operator. These countries are Sweden and the U.K with respectively 79% and 71% confirming that CSR is a factor that they take into account. This is lower for France and the Netherlands with a score of 61% and 57%.
4.4.5. Willingness to pay extra for green service offerings

The respondents who were motivated to use green service offerings were asked if they would be willing to pay extra for them. Chart 29 shows a pie chart, of the combined of the retailers’ willingness to pay extra in order to use green service offerings. Adjacent to the combined responses is that of the remaining countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>32%</td>
<td>68%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>38%</td>
<td>62%</td>
</tr>
<tr>
<td>Sweden</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>UK</td>
<td>44%</td>
<td>56%</td>
</tr>
</tbody>
</table>

It is noticeable that Swedish and UK retailers are clearly divided on this question with the French retailers being less willing and the Dutch retailers more willing to pay extra in order to use green service offerings.

The respondents also had to indicate that if they were willing to pay extra for green service offerings, by how much more they would be prepared to pay in order to use those services. They had to choose between different percentages from 0-2.5% to 7.5-10% (chart 30).
The results clearly show that most of the respondents are willing to pay extra between 0 to 2.5% more than they are actually paying. The Netherlands and Sweden were the only countries with respondents willing to pay over 5% (5%-7.5%) on this criterion.

4.5. Empirical model

The model shown in figure 13 is a visual representation of the key findings collected from the empirical data. This model follows the path and structure of the questionnaire and this is symbolized by the blue arrows. The same structure has been used when writing the empirical data chapter. The French, Dutch, Swedish and UK retailers have identified motivations to use green service offerings and reasons for being unwilling to use those services. Those findings are exposed in the boxes above the French, Dutch, Swedish and UK retailer’s box. The services are displayed with the level of importance. Only the three most important service offerings for each country are displayed. The level of importance of the service offerings is represented by plusses (+), three for the most important service, two of them meaning that the service has been seen as very important and one for important. The green services are displayed with the level of importance. The level of importance of the green service offerings is also indicated by plusses (+) in the same way as for the traditional service offerings. Then
the retailers were asked if they are willing to pay extra for those services. For those that would pay extra for green service offerings indicated the extra amount as a percentage of their yearly transport operator costs.

Figure 12: Empirical model
5. Analysis and discussion

This chapter focusses on analysing the empirical data in relation to the theory discussed and identified in the theoretical framework. The analysis will be structured in such a way that for each research question the theory and empirical findings will be linked to identify and explain any trends or relations. Additionally, in each section of the analysis, the authors will provide their own contribution.

5.1. Sub research question 1: Are the retailers willing to use green service offerings and why?

There are different motivators that could encourage Dutch, French, Swedish and UK retailers to use green service offerings from transport operators. Retailers who are seen as being environmentally conscious could expand their customer base by attracting consumers who are concerned about the impact business activities might be having on the environment (Murphy & Poist, 2003). According to Chkanikova et al. (2013), various drivers can influence Dutch, French, Swedish and UK retailers into engaging into more environmentally friendly practices. Expectations of customers can influence and increase a retailer’s motivation to use green services, since their level of influence is high (Martinsen, 2014).

It is then interesting to note that the three main motivators that the respondents were in most agreement which could potentially encourage all them to adopt green service offerings from transport operators are customer expectations, measurable improvements to their business activities, and economic incentives.

The main reason selected by the majority of the respondents from all the countries was customer expectations which could be one of the main barriers to using green service offerings. This could be due to customers being largely seen as one of the main influences to encourage Dutch, French, Swedish and UK retailers to use green service offerings (Nordas, 2008). In the opinion of the authors, this could be due to the fact that the highest level of influence as previously mentioned in the theoretical framework by Martinsen (2014) begins with customers and the level of influences reduces the further back up the supply chain it goes. The authors also think that the retailers tend to be more and more aware of the importance of satisfying customer expectations in an increasingly competitive market. The
Dutch, French, Swedish and UK markets, as discussed in the theoretical framework, seem to face a high level of competition from both within as well as outside their countries.

The second motivator selected is *measurable improvements for their business activities*. As mentioned by Martinsen (2014) implementing green service offerings can ultimately enhance the business performances of the organisations. It appears that the Dutch, French, Swedish and UK retailers could be motivated by an the increase in their business activities even if, as mentioned in the literature, using green service offerings could increase their costs (Isaksson K, 2012). The authors believe that the retailers are becoming more aware of their customers’ concern about the environmental impact of their activities. In order to please their customers and meet their expectations, retailers could be willing to implement green services and ultimately hope to attract more customers. Furthermore, some green services such as reverse logistics have proven that it is possible to lower both business expenses and a business’s carbon footprint resulting in a reduction of costs in the long term.

Interestingly, the Dutch, French and UK retailers selected another reason that could encourage them to use green service offerings that the Swedish retailers appear to be less keen on. *Economic incentives* could motivate Dutch, French and UK retailers to use green service offerings from a transport operator in order to try new services which they might not have considered before due to financial concerns. These economic incentives may eventually improve the business activities of a retailer. Nordas (2008) mentioned that customers are largely seen as the main motivator to encourage retailers to use green services. This corresponds to Martinsen’s (2014) findings which have been visualised in figure 1. Economic incentives could include tax breaks or grants for organisations that could be set by the government (Darnall, Jolley, & Handfield, R.2008). Moreover, it is curious to see that government deregulation was generally selected as being an unimportant motivator by the Dutch, French and UK retailers and second from last for the Swedish retailers. On possible explanation could be that the Swedish market, as mentioned previously by Allianz & WWF (2009) is already one of the leaders in terms of environmentally friendly ways to conduct business activities. Therefore, government deregulation could already be having a visible impact on reducing barriers to entry and ease the uptake of green services by increasing competition and through that improve efficiency and innovation (Lai, Cheng, & Tang, 2010).
As previously discussed, several reasons can explain why customers would be willing to use green service offerings. However, some reasons show that retailers could also be unwilling to use green service offerings. Srivastava, 2007, mentioned that organizations are facing financial and customer related issues when attempting to adopt green policies. This appears to be true for the retailers who were unwilling to pay more for green service offerings and they suggested reasons as to why. These include high initial investment and lack of customer interest. Unclear regulations was the next most important reason, however the standard deviation is above the mean and the average response is low. Individually, the retailers were not in complete agreement over these choices. The French retailers see uncertainty about the return on investment as the most highly rated, followed by lack of customer interest and high initial investment. The Dutch respondents indicated that lack of economic incentives, uncertainty about the return on investment and then lack of customer interest were the main reasons creating unwillingness to use green service offerings. Retailers from Sweden see high initial investment, lack of customer interest and lack of economic incentives as being more strongly associated with being demotivating factors above all else. Finally, the UK retailers suggested that a lack of economic incentives was the main reason, followed by high initial investment and then lack of customer interest which has a standard deviation very close to the mean.

The literature suggested that a high initial investment on behalf of the transport operator could result in high costs (Chkanikova & Mont, 2015) which might be passed on to the retailers and ultimately push up their costs. Therefore, this could be a reason why some retailers who are unable to increase the price of their products would reject green service offerings of a transport operator. Lack of customer interest was also put forward as a reason which the combined respondents may not be prepared to use green service offerings (Ramanathan, Bentley, & Pang, 2014). As identified in the empirical data, lack of customer interest or support seems to have an important role in the decision making of the retailers. Customers of the retailers may have a lack of interest in environmental concerns which could dissuade retailers from engaging with a transport operators with green service offerings. According to Gunn & Mont (2014), it seems to be possible to assume the fact that retailers could have difficulties in recovering the additional costs associated with using a transport operator who provides green service offerings and if there are unclear regulations from the respective governments could compound the retailers’ reluctance to risk using green service offerings. In the opinion of the authors, the financial perspective is obviously the main barrier
when using green service offerings. This can be confirmed when looking at the fact that the retailers mentioned *measurable improvement of their business activities* as being a strong motivator. The retailers may not be willing to invest in green service offerings if they can invest in other fields which they can quantify the return on investment or benefits. The green service offerings may be perceived nowadays as a secondary tool to use in order to attract customers or improve business performances.

When discussing the motivators and barriers, it is interesting to mention that on three different markets, many of the retailers broadly agreed on the ranking of the different criteria. This can highlight the fact that these concerns can be specific to the European market or to this sector of activity. The financial perspective is ultimately also linked to the customer perspective as long as most of the retailers are attracting customers into their point of sales through communication. A lack of customer interest or on the opposite, support from customers can influence a lot the decisions from the retailers when considering using green service offerings and investing in them.

Therefore, the respondents were asked if they would be willing to pay extra for green service offerings. The Dutch, French, Swedish and UK retailers who were not willing to pay extra for green service offerings were almost the same as those willing to pay (51.7% / 48.3%). Therefore, 57% of those who mentioned that they were willing to pay have indicated that it will be only if the extra costs are between 0 to 2.5% more on top of their current expenditure on transport. 29% suggested they could be willing to pay between 2.5 and 5% and 14% stated 5-7.5%. This criterion shows that the financial perspective is definitely the main concern for the retailers especially when thinking that they are operating in a fierce market on which the end price is the main argument. Interestingly, only the retailers from Netherlands and Sweden signalled their willingness to pay the higher bracket (5-7.5%). The others were not willing to pay extra; this could be in order to avoid any extra cost and potential loss of any competitive advantage against their competitors.
5.2. Sub research question 2: Which of the green service offerings are important for French, Dutch, Swedish and UK retailers in their selection of transport operators?

The empirical data collected allowed the authors to identify which green service offerings are important for retailers from France, the Netherlands, Sweden and U.K. The combined data responses showed that two green service offerings seemed to be very important and were standing out. These two are ISO certification and actual emission calculation. These green service offerings are closely linked to reduce the environmental impact of transport operations. This could be explained by the fact that customers and retailers are more concerned about the environment and willing to make changes to improve it (McKinnon, 2010). Almost all the retailers seemed to agree on the importance of ISO certification and actual emission calculation except for the French retailers, who did not find actual emission calculation as important as the rest.

It was explained by Elhedhli & Merrick (2012) that actual emission calculation refers to the set of actions taken by an organisation to show and track that they reduce the impact their activities have on the environment, such as transport activities. Moreover, actual emission calculation is a relatively simple tool that can be used by retailers and transport operators. Therefore, the authors believe that due to the fact that it is a simple and easy to use tool, it can be used to promote and show that a retailer is conducting their business in an environmentally friendly manner. It could also be due to the fact that norms and regulations may have increased the willingness of companies to decrease the impact of their activities on the environment.

Being environmentally friendly could benefit companies by expending their customer portfolio and attracting customers that are environmentally aware (Yu, Elinger & Haozhe 2010). Thanks to environmental certification such as the ISO 14001 standards, a transport operator can provide evidence of its environmental credentials (Byrne et al., 2013). Which ultimately might benefit retailers and their customer base. It seems that the respondents are well aware of this since they identified ISO certification as an important green service offering. Moreover, it is the only green service offering that all the respondents from four different countries agreed on the degree of importance. According to the authors this could be due to the fact that more and more retailers are aware of this certification and can use it to
promote their green credentials. This could also be related to the fact that customers know more about these standards than before.

Furthermore, it could help retailers that are operating in a competitive environment to differentiate themselves and gain a competitive advantage. It is clear that ISO certification and actual emission calculation are the green service offerings that the retailers, in general all agreed on. However, there are other green service offerings that the retailers found important as well, but they did not have the same consensus on those.

The French retailers were the only ones that had a different degree of importance for actual emission calculation. They identified eco vehicles as the most important green service offerings, followed by ISO certification, eco driving and finally actual emission calculation. As mentioned by Wolf and Seuring 2010, several solutions related to vehicles exist in order to reduce the impact of company activities on the environment. Thanks to more environmentally friendly fleets of vehicles, companies may be able to lower their negative impact on the environment. They may also be able to openly communicate on the actions they conduct to operate their business activities and better respect the environment. Also, the main reason why eco vehicles seems to be so desirable for French retailers may be because it is a physical service that can be seen, not only by the retailers, but also by their customers (Isaksson, 2012). Eco vehicles have been clearly identified as a green service offering by the French respondents. The authors assume that this could be due to the fact that environmentally friendly vehicles are becoming more and more available. This may help customers to become more aware of the impact of the transportation of goods and then be more receptive to retailers using this green service offering.

It is interesting to note that the results for the Netherlands are very similar to the overall combined responses of all the retailers. There is one additional green service offering that the Dutch retailers found important, which is load optimisation. According to Carter, Kale & Grimm (2000) load optimisation allows companies to use packaging that uses less volume and therefore fewer shipments will be required to send the same amount of products. The authors believe that this could be an important green service offering for the Dutch retailers because it can reduce the amount of space needed in a transport vehicle and directly reduce the yearly number of journeys undertaken by a transport operator. Which in return can reduce the transportation costs and the carbon emissions released through transport activities.
Moreover, the Netherlands is a small country with large ports and airports where there is a lot of international road and freight transportation, so more efficient load optimisation could possibly reduce cost and emission. The sequence of important green service offerings for the Dutch retailers is *ISO certification*, followed by *actual emission calculation* and finally *load optimisation*.

For the Swedish retailers there is one green service offering which seems to be more important for them than *ISO certification* and *actual emission calculation* and this is *eco driving*. Eco driving is usually referred to as a driving method to reduce the environmental impact of transport activities (Isaksson, 2012). It also refers to the ability of the transport operators to provide eco driving instructions to their employees. Furthermore, the Swedish retailers identified *eco vehicles* and *carbon emission reduction* as green service offering that they find important as well. Wolf & Seuring (2010) consider eco vehicles to be less damaging to the environment than standard transport vehicles. These eco vehicles could be more environmentally friendly due to; alternative fuels, better environmentally friendly engines or adjustments to a vehicle. The main aim of carbon emission reduction is to reduce the impact of transport activities that generate carbon emissions (Elhedhli & Merrick, 2012). It is noticeable that the important green service offerings that are identified by the Swedish retailers are all closely related to the reduction of carbon emissions and reducing the carbon footprint of their activities. The authors believe that a possible explanation for this could be due to the fact that Sweden is recognized as a leading country in improving the environment. Moreover, the retailers could be influenced to act by their customers as well, especially if their customers are looking for products that are not only sustainable, but also handled in an environmentally friendly way. Furthermore, this can also be seen by the amount of green service offerings that the Swedish retailers found important. In total the Swedish retailers found five green service offerings important, which is more than the other countries. The sequence of important green service offerings for the Swedish retailers is *eco driving, actual emission calculation, ISO certification, eco vehicles* and finally *carbon emission reduction*.

The U.K retailers identified *actual emission calculation* as the most important green service offering, which was followed by *ISO certification* and this is similar to the combined responses. However, two more green service offerings play a role for U.K retailers as well. The first one is *more efficient packaging solutions*. More efficient packaging solutions could reduce the amount of space in a transport vehicle needed to transport products (Carter, Kale,
Moreover, the amount of journeys made could possibly be reduced. The author therefore believes this could lead to reduced transport costs for retailers as well as carbon emission reductions due to fewer journeys. The fourth important green service offering for U.K retailers is eco driving. As mentioned before Eco driving can help to reduce the impact of companies transport activities on the environment, by giving vehicle operators training and instructions on ways to drive more sustainably. The authors believe that a reason to prefer eco driving instead of eco vehicles could be due to the cost of eco vehicles. Eco driving is a cheaper alternative to reduce the carbon footprint of transport activities. The sequence of important green service offerings for the U.K retailers is actual emission calculation, ISO certification, more efficient packaging solution and finally eco driving.

5.3. Research question: Which service offerings are important for French, Dutch, Swedish and UK retailers in their selection of transport operators?

In order to reply to this question, the Dutch, French, Swedish and UK respondents had the possibility to rank the traditional service offerings in terms of importance and then do the same ranking, but including the traditional service offerings and the green service offerings.

The empirical research findings show that traditional service offerings seem to be ranked the same way by Dutch, French, Swedish and UK retailers when looking at the three most important service offerings. Those traditional service offerings are cost of services, quality of service offered and transport planning management. The authors believe these service offerings are all closely related to cost and service. This corresponds with Chen & Wu (2011) who explained that cost and service have traditionally been closely related to retailer’s selection when looking for transport operators. Interestingly enough two out the three most important service offerings for the retailers showed the highest correlations with other service offerings in Pearson’s correlation matrix. These two service offerings were: transport planning management and cost of services. This could possible mean that these service offerings are imperative for retailers in their selection of transport operators.

The Dutch and U.K respondents noted one slightly more individual response and that was putting reliability above quality of services offered for the Dutch retailers and reliability above transport planning management for the U.K retailers.
Hinterhuber & Friedrich (2002) found that the retailers will attempt to find the most cost effective method to transport their goods. They continue by explaining that retailers look for a high value service provided at the lowest cost possible. When making a decision on the selection of transport operators Cakir et al. (2009) suggest that cost of services plays a role. It appears that the respondents have indicated that they are in agreement with the authors from the literature. The combined retailers ranked cost of services at the highest level of importance. This is backed up by the standard deviation being the closest one to zero. The authors assume that due to the competitiveness of the retail markets, cost will always be one of the main considerations for a retailer. Therefore it may be realistic to assume that retailers could look for the most competitive offer when considering their choice of transport operator.

It was suggested by Lynch (2000) that, not only is the quality of the services provided by transport operators important for their customers, but also being able to fulfil their expectations. The respondents appear to have answered in agreement with this statement. It can be seen that the mean average ranking is 3.09 out of a possible maximum of 4 and a standard deviation of 0.76, which is lower than the mean standard deviation. This signals that the majority of the retailers who responded, rate quality of service as a very important service offering and are in agreement about this. In the opinion of the authors, this could be due to the competitive nature of the transport operator industry which could make the quality of services provided important when satisfying a customer’s needs. Furthermore, it could be fairly easy for a retailer to replace a transport operator if the quality of their services is low.

Stadtler (2005) mentioned that transport planning management optimises transportation efficiency and could ensure that the most optimal transport route is planned. The authors believe that transport planning management is a fairly important service offering for the retailers because it could improve communication about the products that are still in the pipeline within the supply chain. Furthermore, by enhancing the distribution system and combining orders and deliveries the overall transportation costs can be reduced. This corresponds with the suggestions of Stadtler (2005) that network collaboration and integration about supply and demand between the actors in a supply chain could ensure an efficient form of transport planning and reduce costs.

Reliability is a service offering that the Dutch and UK retailers found more important than respectively quality of services offered and transport planning management. Reliability was
described by Lynch (2000) as being a service offering that is able to increase both customer satisfaction and retention. Lai (2004) further elaborates on this by suggesting that consistency helps a customer to feel confident in the service of a transport operator. The data collected from the retailers who responded to the questionnaire seem to confirm this with an average a score of 3.26 out of 4, but with a high standard deviation of 0.89 since only the Dutch and UK retailers agreed on this. This could possibly be related to the expectations of retailers’ customers who may choose to use the service of a competitor if the products they demand are not available as and when they require them. Additionally, in the Netherlands and the UK retailers are fairly common and price their goods at a similar rate. This could result in their customers purchasing goods from a competitor if they cannot find the goods they want.

The traditional service offerings clearly play a more important than green service offerings when selecting a transport operator. To recapitulate, ISO certification and actual emission calculation best represent green service offerings in the opinion of the retailers. First of all ISO certification could be important for retailers due to the reason that it can provide transparency throughout the supply chain (Byrne, Ryan, & Heavey, 2013). Additionally it can provide a comfort that the transport operators are following strict environmental laws and requirements. Actual emission calculation seemed to be important as well and the author believes this could be related to the fact that in order for the retailers to be able to measure their carbon footprint they need to calculate the actual amount of emissions their activities are producingc. The author believe that this could be due to retailers wanting to be seen to be actively reducing the impact their activities have on the environment, especially in the opinion of their customers. The customers are again the most important part of the equation for the retailers when identifying green service offerings.

To summarize, the retailers had the opportunity to pick between traditional and green service offerings in order to identify which service offerings were important when selecting a transport operator. This showed that it seems that the retailers put more emphasis on traditional service offerings rather than green service offerings. An interesting finding comes from this confrontation, the French, Dutch, Swedish and U.K retailers completely agreed on one service offering being the most important when selecting a transport operator. This service offering was, cost of services. The authors believe that the traditional service offerings are still perceived as being the most important when selecting a transport operator.
because of the guaranties provided by these services. When selecting a transport operator it seems to be the most important services when conducting a business activity.

Finally it is interesting to see what the role of CSR is for retailers that are willing to use green service offerings. The empirical data showed that for 68% of the retailers CSR or the company’s objective play a role when they are selecting a transport operator. CSR is an important business practice for retailers, especially because they are held more responsible for actions in the supply chain (Amaeshi et al., 2008). The main driving force for retailers is because their customers are becoming more aware of the retailers social responsible behaviour (Wagner, Bicen, & Hall, 2008). However, the results show that the three most important service offerings when selecting a transport operator are traditional service offerings. This does not directly mean that green service offerings are not important for retailers when selecting a transport operator. The authors believe that retailers will mainly select transport operators based on traditional service offerings and use green service offerings if the retailer has a more prominent role within the supply chain.
6. Conclusion

In the concluding chapter, the research question will be answered. Furthermore, suggestions for future research in this specific field will be presented. Finally, the authors will give their reflection on writing the thesis.

In the past the main focus for retailers in selecting transport operators was predominantly focused on cost and quality optimisation. They consisted largely of traditional service offerings. The findings of the paper showed that this is still the case for the French, Dutch, Swedish and UK retailers who responded to the questionnaire. They identified cost of services, quality of service offered and transport planning management as being the three most important service offerings.

It appeared that traditional service offerings where mostly seen as being more important than green services offerings. Three motivators were discovered which might encourage French, Dutch, Swedish and UK retailers to pay extra for green service offerings. These were customer expectations, measureable improvements to business activities and economic incentives. Even though traditional service offerings seemed to be more important than green service offerings, 51.7% of the respondents were willing to use green service offerings of a transport operator. Two reasons that could explain why traditional service offerings seem to be more important were identified as being, high initial investment and lack of customer interest.

The study also aimed to identify important green service offerings. The results of the questionnaire determined that the most identifiable green service offerings are ISO certification and actual emission calculation. Interestingly, the authors noticed that two of the identified green service offerings appeared to be related to carbon emissions and tools easy to use in order to communicate about. It was thought that this might be due to the reason that carbon emissions are a topic that is well known to consumers.

Another area that was explored was the willingness for retailers to pay extra for green service offerings. It was discovered that some of the respondents are willing to pay extra for green services and most notably those who operate in the fast moving consumer goods industry such as supermarkets and convenience stores. 57% of the respondents who said they would
be willing to pay extra for green services indicated that they would be willing to pay between 0 to 2.5% more, 29% of the respondents were willing to pay 2.5 to 5% more on top of their current expenditure on transport. The remaining 14% were willing to pay 5 to 7.5% more and they were interestingly enough only Dutch and Swedish retailers.

Furthermore, CSR seems to play a role for retailers as well when selecting a transport operator. This is the case for nearly 68% of the retailers that are willing to use green service offerings. This could indicate that cost and quality optimization are clearly more important for retailers but the customer and stakeholders encouragement might influence them to seek green service offerings. Finally, it was noticed, that one green service offering seemed to be important when selecting transport operators for the retailers. This green service offering is environmental (ISO) certification. It seemed that the retailers do associate this green service offering as an important tool to integrate to their business and ultimately communicate about, especially in were it is possible to see some communication about it.

6.1. Societal and/or Sustainability aspects
Retailers have an influential role in the supply chain and are usually the ones to drive innovation in the chain. Furthermore, the transport industry has a major impact on the environment and therefore indirectly on the society as well. Nowadays, companies are trying to reduce the carbon footprint of their business activities. Some organisations are driven to do this by external stakeholders such as, customers and shareholders. Retailers may be able to reduce their carbon footprint by utilising greener services, especially in their transport operations. However, this is a difficult aspect to measure at the moment. It would be interesting to conduct this research in the future and to see if then the green service offerings have become more important and if this has helped to reduce the carbon footprint.

6.2. Limitations
The authors aimed to produce a well-rounded and carefully prepared research paper. However, as with any research documents, limitations exist. Firstly, although the authors went through an exhaustive process to contact as many retailers as possible for data and the response rate to the research was acceptable, an even higher rate could further improve reliability and credibility. Additionally, co-ordinating such large scale data collection from different countries is extremely time consuming and at times frustrating. Having more
contacts to aid in the process and access to more databases would help to improve the efficiency of the data collection process.

6.3. Suggestions for further research

For further research suggestions, it would be relevant to have a larger population sample to expand the respondent pool. More extensive empirical research would increase the validity of the paper. It would also be interesting to include a qualitative research with the perspective of the retailers and transport operators. Furthermore, other areas of interest to explore could be to focus on a different perspective such as manufacturers or wholesalers. Moreover, it is noticeable that the retailers that replied to the questionnaire appear to find green service offerings interesting but at this time not as important as traditional service offerings. Therefore it would be interesting to find out if the results of this study would be different in a future study. Additionally, it could be interesting to benchmark the results against different countries.

6.4. Reflections

When reflecting upon this thesis, the authors believes a higher a response rate from the retailers would have improved the reliability of the findings of this paper. This could have been achieved by contacting more respondents. Additional follow ups could also have resulted in extra responses and ultimately a stronger foundation upon which to draw conclusions. It is worth noting that although the findings from this thesis present an indication of the beliefs of French, Dutch, Swedish and UK retailers, no decisive inferences can be taken due to the limited pool of responses.
7. References


Lang, Å. (2012). City Retailers’ Perceptions of Competition: A Choice Experiment. *Department of Business Administration, School of Technology and Business Studies, Dalarna University, Falun, Sweden*.


Appendix

All relevant documents and models created by the author that have not been included in the main thesis document can be found in the appendix.

Questionnaire introduction letter

Importance of Green Service Offerings When Selecting a Transport Operator

We are conducting a questionnaire as part of our Master degree in Business Process and Supply Chain Management at Linnaeus University in Växjö. You have been selected because our focus is on the selection of transport operators from the perspective of Swedish retailers. The survey aims to determine the importance of green service offerings when selecting a transport operator. It is vital for our research that we receive a variety of replies from Swedish retailers that operate in different sectors.

We would appreciate if you would be willing to spend a few minutes of your valuable time completing the questionnaire. It should not take more than five minutes. The responses that we receive will be completely anonymous and confidential. All the participants of the questionnaire will not be identified by organization, but instead by sector of activity. Additionally, data from all respondents will be compiled and analysed as a group.

Thank you very much for taking the time to complete the questionnaire.

If you have any questions, please feel free to contact us on the following email or telephone number:

Email: db222gg@student.lnu.se
Phone: 0725 407 955

With Kind Regards

Abukar Amin
David Broadbent
Questionnaire (English)

Importance of Green Service Offerings When Selecting a Transport Operator

Company profile (Section 1)
1. Please, indicate the number of employees within your company
   - 1 - 10
   - 11 - 20
   - 21 - 30
   - 31 - 40
   - 41 - 60
   - 61 – 99
   - 100 or more

2. Please indicate which sector of activity best represents your area of retail
   - Pharmacy
   - Cosmetics
   - Games and toys
   - Supermarkets
   - Beverages
   - Fashion
   - Automotive
   - Electronics
   - House and garden furniture
   - Sports and outdoor goods
   - Convenience stores
   - Other

Willingness to use Green service offerings (Section 2)

3. Would you be willing to use GSO of a transport operator? (Even if this increases your transport operation expenses)
   - Yes (Skip to section 4)
   - No (Proceed to section 3 and section 4 can be skipped)
4. Please indicate which of the following prevents you from using GSO of a transport operator?

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5. Please indicate in your opinion the most important criteria when selecting a transport operator?

Note: The main task of transport operators is to handle the transport from one location to another. The services that transport operators provide are always related to the transportation of goods and can include the handling of documents, scheduling, inbound and outbound transportation. A transport operator can be an airline, shipping line, railway or road operator.

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6. Does CSR or the company’s objectives play a role when selecting a transport operator?

- Yes
- No
Willing to use Green service offerings (section 4)

7. Which of the following would encourage you to use a green transport operator?

Note: More than one option can be selected

- Government deregulation (Easier implementation)
- Economic incentives (Tax breaks, Grants)
- Customer expectations
- Stakeholder expectations
- Measurable improvement for your business activities
- Brand reputation

8. Please indicate in your opinion the most important criteria when selecting a transport operator?

Note: The main task of transport operators is to handle the transport from one location to another. The services that transport operators provide are always related to the transportation of goods and can include the handling of documents, scheduling, inbound and outbound transportation. A transport operator can be an airline, shipping line, railway, or road operator.

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<td>Intermodal transportation</td>
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9. Please indicate according to you the most important green services that should be offered by a transport operator

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<td>Carbon emission reduction</td>
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10. Does CSR or the company's objectives play a role when selecting a transport operator?
   - Yes
   - No

11. If there would be an increase in your costs, would you be willing to pay more to provide green service offerings?
   - No (Skip the next question)
   - Yes

12. If Yes how much?

Note: as a percentage increase on top of transport operators spending on a yearly basis.

   - 0% - 2.5% more
   - 2.5% - 5% more
   - 5% - 7.5% more
   - 7.5% - 10% more
   - 10% - 15% more
   - 15% and more
Questionnaire (French)

L’importance de l’offre des services écologiques dit « vert » durant le processus de sélection d’un transporteur.

Le profil de l’entreprise (Section numéro 1)

1. S’il vous plaît, veuillez indiquer le nombre d’employé(e)s au sein de votre entreprise
   - 1 - 10
   - 11 - 20
   - 21 - 30
   - 31 - 40
   - 41 - 60
   - 61 – 99
   - 100 et plus

2. S’il vous plaît, veuillez indiquer quel secteur d’activité représente le mieux votre type de commerce
   - Pharmacie
   - Cosmétique
   - Jouets et jeux
   - Supermarchés
   - Boissons et vente d’alcool
   - Mode
   - Concessionnaire automobile
   - Electronique
   - Produits pour la maison ou le jardin
   - Sports et équipements de loisirs
   - Commerce de proximité
   - Autre

Désir d’utiliser des services écologiques dits « vert » (Section numéro 2)

3. Serez prêt à utiliser des services écologiques dit “vert” d’un transporteur ? (Même si cela résulte en une hausse de vos coûts de transport)
   - Oui (Passez directement à la partie 4)
   - Non (Poursuivez directement à la section 3 et omettez la section 4)
Non désireux d’utiliser des services écologiques dits « vert » (Section numéro 3)

4. S’il vous plaît, veuillez indiquer lesquels de ces raisons vous freinerez dans l’envie d’utiliser des services écologiques dits « vert » d’un transporteur?

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<td>Investissement initial élevé</td>
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5. S’il vous plaît, veuillez indiquer selon vous les critères les plus importants quand vous sélectionnez un transporteur?

NB: La principale tâche d’un transporteur est de prendre en charge le transport de vos produits d’un point A à un point B. Les services offerts par un transporteur sont toujours liés au transport de biens et marchandises et peuvent inclure la gestion des documents relatifs à ce transport, la planification, les flux de transport entrant et sortant. Un transporteur peut être une compagnie aérienne, de fret par bateau, de train ou de camions.

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6. Est-ce que la responsabilité sociétale de votre entreprise (RSE) ou les objectifs de votre entreprise jouent un rôle quand vous sélectionnez un transporteur?

○ Oui
○ Non
Désireux d’utiliser des services écologiques dits « vert » (Section numéro 4)

7. **Lesquelles de ces propositions vous inciteront à utiliser un transporteur labellé “vert” ?**

NB: Plus d’une réponse peut être sélectionnée

- la dérégulation du marché par le gouvernement (implémentation plus facile)
- incitations économiques (réduction de taxes, subventions)
- les attentes de vos clients
- les attentes de vos parties prenantes (actionnaires, collectivités locales...)
- des améliorations mesurables de vos performances économiques
- l’image de marque

8. **S’il vous plaît, veuillez indiquer selon vous les critères les plus importants quand vous sélectionnez un transporteur ?**

NB: La principale tâche d’un transporteur est de prendre en charge le transport de vos produits d’un point A à un point B. Les services offerts par un transporteur sont toujours liés au transport de biens et marchandises et peuvent inclure la gestion des documents relatifs à ce transport, la planification, les flux de transport entrant et sortant. Un transporteur peut être une compagnie aérienne, de fret par bateau, de train ou de camions.

<table>
<thead>
<tr>
<th>Gestion de la planification des transports</th>
<th>Très important</th>
<th>Important</th>
<th>Pas important</th>
<th>Pas nécessaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coûts des services</td>
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<tr>
<td>Conduite écologique</td>
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<tr>
<td>Amélioration du délai de mise en œuvre</td>
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<td>Calcul des émissions de carbone</td>
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<tr>
<td>Véhicules écologiques</td>
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<tr>
<td>Qualité du service offert</td>
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<tr>
<td>Solutions de packaging plus efficaces</td>
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<td>Fiabilité</td>
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<td>Réduction des émissions de carbone</td>
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<td>Réputation</td>
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<td>Optimisation des chargements</td>
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<tr>
<td>Normes ISO</td>
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<tr>
<td>Transport multi modal</td>
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</tbody>
</table>
9. S'il vous plaît, veuillez indiquer selon vous les services écologiques dit « verts » qui devraient être proposé par un transporteur

<table>
<thead>
<tr>
<th>Service</th>
<th>Très important</th>
<th>Important</th>
<th>Pas important</th>
<th>Pas nécessaire</th>
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<tbody>
<tr>
<td>Conduite écologique</td>
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<td>Véhicules écologiques</td>
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<td>Optimisation des chargements</td>
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<td>Normes ISO</td>
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<tr>
<td>Gestion de la planification des transports</td>
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<td>Calcul des émissions de carbone</td>
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<td>Solutions de packaging plus efficaces</td>
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<tr>
<td>Réduction des émissions de carbone</td>
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</tbody>
</table>

10. Est-ce que la responsabilité sociétale de votre entreprise (RSE) ou les objectifs de votre entreprise jouent un rôle quand vous sélectionnez un transporteur?

- Oui
- Non

11. Si il y avait une augmentation dans vos coûts de transport, seriez enclin à payer pour des services écologiques dit « verts »?

- Non (Ne répondez pas à la prochaine question)
- Oui

12. Si oui combien?

NB: en plus de vos coûts annuels pour la logistique de vos marchandises et biens

- 0% - 2,5% plus
- 2,5% - 5% plus
- 5% - 7,5% plus
- 7,5% - 10% plus
- 10% - 15% plus
- 15% et plus
Questionnaire (Swedish)

Hur viktiga är miljövänliga alternativ vid val av transportoperatör

Företagsprofil (Del 1)

1. Hur många anställda har ditt företag?
   - 1 - 10
   - 11 - 20
   - 21 - 30
   - 31 - 40
   - 41 - 60
   - 61 – 99
   - 100 eller fler

2. Vilket av nedanstående alternativ överensstämmer bäst med ert företags inriktning
   - Läkemedel
   - Kosmetika
   - Spel och leksaker
   - Dagligvaruhandel
   - Drycker
   - Mode
   - Fordon
   - Elektronik
   - Möbler
   - Sport och friluftsvaror
   - Närbutiker
   - Annat

Inställning till att använda miljövänliga transportalternativ (Del 2)

3. Skulle ni kunna tänka er att välja miljövänliga transportalternativ från er transportoperatör? (Även om detta höjer era transportkostnader)
   - Ja (Fortsätt direkt till del 4)
   - Nej) (Fortsätt till del 3. Du kan sedan hoppa över del 4)
Om ni svarat nej på fråga 3, fortsätt här. (del 3)


   | 1 | 2 | 3 | 4 | 5 |
---|---|---|---|---|---|
Höga initiala investeringskostnader |   |   |   |   |   |
Osäkerhet kring investeringens lönsamhet |   |   |   |   |   |
Saknas stöd och intresse från kund |   |   |   |   |   |
Brist på ekonomiska incitament |   |   |   |   |   |
Otydliga regelverk |   |   |   |   |   |

5. Var vänlig uppskatta hur viktiga följande kriterier är för ert val av transportoperatör.


   | Väldigt viktigt | Viktigt | Mindre viktigt | Inte viktigt alls |
---|----------------|---------|----------------|------------------|
Operatörens logistiska prestanda |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
Tjänsternas kostnader |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
Förbättrade ledtider |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
Tjänsternas kvalitet |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
Operatörens pålitlighet |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
Operatörens anseende |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |

6. Påverkar företagets samhällsansvar (CSR) eller företagsmålen valet av transportoperatör?
   ○ Ja
   ○ Nej
Om ni svarat Ja på fråga 3, fortsätt här. (del 4)

7. Vilka av följande alternativ skulle kunna motivera er att använda en transportoperatörs miljövänliga transportalternativ?

Observera: Ni kan välja att markera fler än ett alternativ

- Statlig avreglering (Enklare implementering)
- Ekonomiska incitament (Skatteavdrag eller bidrag)
- Kundernas förväntningar/krav
- Aktieägarnas förväntningar/krav
- Måtbara förbättringar för företagsverksamheten
- Verksamhetens anseende

8. Var vänlig uppskatta hur viktiga följande kriterier är för ert val av transportoperatör.


<table>
<thead>
<tr>
<th>Väldigt viktigt</th>
<th>Viktigt</th>
<th>Mindre viktigt</th>
<th>Inte viktigt alls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operatörens logistiska prestanda</td>
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<tr>
<td>Tjänsternas kostnad</td>
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<td>Eco driving</td>
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<td>Förbättrade ledtider</td>
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<td>Beräkningar av Co2-utsläpp</td>
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<td>Eco-fordon</td>
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<td>Tjänstens kvalitet</td>
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<td>Effektivare packeteringslösningar</td>
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<td>Minskning av Co2-utsläpp</td>
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<td>Operatörens anseende</td>
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<td>Optimering av last</td>
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<tr>
<td>ISO Certifiering</td>
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<tr>
<td>Intermodal transport</td>
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</tbody>
</table>
9. Var vänlig uppskatta vad som enligt er är det viktigaste miljövänliga alternative som transportoperatörer bör erbjuda.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Väldigt viktigt</th>
<th>Vikligt</th>
<th>Mindre viktigt</th>
<th>Inte viktigt alls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eco driving</td>
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<td>Eco-fordon</td>
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<td>ISO certifiering</td>
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<td>Beräkningar av Co2-utsläpp</td>
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<td>Intermodal transport</td>
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<td>Effektivare packeteringslösningar</td>
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<tr>
<td>Minskning av Co2-utsläpp</td>
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</tbody>
</table>

10. Påverkar företagets samhällsansvar (CSR) eller företagsmålen valet av transportoperatör?

- Ja
- Nej

11. Även om det skulle innebära en ökning av era omkostnader, skulle n vara villiga att betala mer för att kunna erbjuda miljövänliga alternative till era kunder?

- Nej (Hoppa över fråga 12)
- Ja

12. Om ja, hur mycket?

Observera: ange svar i procentuell ökning av företagets årliga kostnad för transporttjänster.

- 0% - 2,5%
- 2,5% - 5%
- 5% - 7,5%
- 7,5% - 10%
- 10% - 15%
- 15% och över

Tack för ert deltagande!
Questionnaire (Dutch)

Hoe belangrijk zijn milieu vriendelijke services bij het selecteren van een logistieke transport aanbieder.

Bedrijfsprofiel (Sectie 1)

1. Hoeveel medewerkers heeft uw bedrijf?
   - 1 - 10
   - 11 - 20
   - 21 - 30
   - 31 - 40
   - 41 - 60
   - 61 - 99
   - 100 of meer

2. In welke retail sector bent u actief?
   - Apotheek
   - Cosmetics
   - Speelgoed
   - Supermarket
   - Drank
   - Mode
   - Auto
   - Elektronica
   - Huis en tuinmeubelen
   - Sport en vrijetijd
   - Kiosk
   - Andere

Bereidheid om milieu vriendelijke services te gebruiken (Sectie 2)

3. Bent u bereid om milieu vriendelijke services van logistieke transport aanbieders te gebruiken? (Ook, als dit mogenlijk u transport kosten verhoogt?)
   - Ja (Ga door naar sectie 4)
   - Nee (Ga door naar sectie 3, sectie 4 kan overgeslagen worden)
Niet bereid om milieu vriendelijke services te gebruiken (sectie 3)

4. Geef aan welke van de volgende voorbeelden u ervan weerhoudt om milieu vriendelijke services te gebruiken?

<table>
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<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>Hoge initiële investeringen</td>
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<tr>
<td>Onzekerheid over het rendement van de investeringen</td>
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<tr>
<td>Gebrek aan belangstelling van klanten</td>
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<tr>
<td>Gebrek aan economische stimuleringsmaatregelen</td>
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<tr>
<td>Onduidelijke regelgeving</td>
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</table>

5. Wat zijn in uw mening de belangrijkste criteria bij het selecteren van een logistieke transport aanbieder?

Opmerking: De belangrijkste taak van een logistieke transport aanbieder is het aanbieden van een transport service van de ene locatie naar de andere. De diensten die zij aanbieden zijn altijd gerelateerd aan het vervoeren van goederen. Dit kan de afhandeling van documenten, transport planning, inkomend en uitgaand transportatie bevatten. Een logistieke transport aanbieder kan een luchtvaartmaatschappij, rederij, spoorweg vervoerder of vrachtvervoerder zijn.

<table>
<thead>
<tr>
<th></th>
<th>Erg belangrijk</th>
<th>Belangrijk</th>
<th>Niet belangrijk</th>
<th>Niet noodzakelijk</th>
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<tbody>
<tr>
<td>Transport planning management</td>
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<td>Kosten van de diensten</td>
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<td>Lead time verbetering</td>
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<tr>
<td>Kwaliteit van de dienstverlening</td>
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<td>Betrouwbaarheid</td>
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<td>Reputatie</td>
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</table>

6. Speelt maatschappelijk verantwoord ondernemen of de doelstelling van de onderneming een rol bij het selecteren van logistieke transport aanbieder?

- Ja
- Nee
Bereid om milieu vriendelijke services te gebruiken (sectie 4)

7. Welke van de volgende zou u aanmoedigen om een groene logistieke transport aanbieder te gebruiken?

Opmerking: Meer dan één optie kan worden geselecteerd

- Deregulering van de overheid (makkelijker om te implementeren)
- Economische stimuleringsmaatregelen (Belastingvoordelen, Subsidies)
- Verwachtingen van de klanten
- Verwachtingen van belanghebbenden en aandeelhouder
- Meetbare verbeteringen voor uw zakelijke activiteiten
- Merk of naam reputatie

8. Wat zijn in uw mening de belangrijkste criteria bij het selecteren van een logistieke transport aanbieder?

Opmerking: De belangrijkste taak van een logistieke transport aanbieder is het aanbieden van een transport service van de ene locatie naar de andere. De diensten die zij aanbieden zijn altijd gerelateerd aan het vervoeren van goederen. Dit kan de afhandeling van documenten, transport planning, inkomend en uitgaand transportatie bevatten. Een logistieke transport aanbieder kan een luchtvaartmaatschappij, rederij, spoorweg vervoerder of vrachtvervoerder zijn.

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<th>Niet belangrijk</th>
<th>Niet noodzakelijk</th>
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<td>Kosten van de diensten</td>
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<td>Milieuvriendelijke voertuigen</td>
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<td>Kwaliteit van de dienstverlening</td>
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<td>Reputatie</td>
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<tr>
<td>Intermodaal vervoer</td>
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</table>
9. Wat zijn volgens u de belangrijkste milieuvriendelijke services die een logistieke transport aanbieder moet aanbieden

<table>
<thead>
<tr>
<th>Dienst</th>
<th>Erg belangrijk</th>
<th>Belangrijk</th>
<th>Niet belangrijk</th>
<th>Niet noodzakelijk</th>
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<tbody>
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<td>Emissie reductie</td>
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</table>

10. Speelt maatschappelijk verantwoord ondernemen of de doelstelling van de onderneming een rol bij het selecteren van logistieke transport aanbieder?
   - Ja
   - Nee

11. If there would be an increase in your costs, would you be willing to pay more to provide green service offerings? Bent u bereid om meer te betalen als er een toename in de kosten zou zijn om milieu vriendelijke services te verstrekken?
   - Ja
   - Nee (Sla de volgende vraag over)

12. Zo ja hoeveel?

Opmerking: Als een procentuele stijging bovenop de logistieke uitgaven op jaarbasis.

   - 0% - 2,5% meer
   - 2,5% - 5% meer
   - 5% - 7,5% meer
   - 7,5% - 10% meer
   - 10% - 15% meer
   - 15% en meer