



UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

Master Degree Project in International Business and Trade
Master Degree Project in Logistics and Transport Management

Sustainability: Towards a Common Understanding

Case study of an international logistics chain between Sweden and Brazil

Marie Alderman and Ekaterina Ilina

Supervisor: Rickard Nakamura and Gordon Wilmsmeier
Master Degree Project No. 2014:3
Graduate School

Abstract

In pace with a growing awareness of sustainability, companies have started to adapt this concept into their corporate strategies. But today's lack of a common understanding of the concept based upon the specific industry and resources available, results in segmented and dispersed strategies. If businesses can realise what distinguishes perceptions of sustainability between industries and countries, the path towards a common understanding of the concept and mutual contributions to it will be considerably improved.

In order to investigate these different approaches, a case study is conducted, focusing on an international logistics chain of a Swedish trading company within the forest industry. Findings suggest three major aspects causing variation in the perception of sustainability. Primarily, sustainability's long-term orientation is problematic to adapt in Brazil. Rather, a short-term vision dominates people's perceptions, which in a business context means that profits and costs are the only important drivers. In Sweden, businesses have reached a next stage where consideration to sustainability is crucial for survival. Secondly, sustainability actions are stakeholder driven, where customers are the strongest force for changes and therefore cause imbalances due to their different impacts. Thirdly, poor institutional management complicates processes of sustainability.

Despite significant discrepancies among the countries, a unification of standards towards sustainability for all actors within a logistics chain is not only desired from interviewed parties, but may also stand as a potential solution to how overall efficiency of sustainability is founded.

Keywords: sustainability, logistics chain, perceptions, stakeholders, institutions, emerging markets.

Acknowledgments

This project has been a self-driven process in many ways. It is fascinating how much two persons are able to accomplish if interest, motivation and encouragement are present. By having a positive spirit as a foundation, with the purpose of learning something new every day, we believe this thesis truly contributes to increased wisdom.

We are surprised over how willing people were to help us! And because of that we have a lot of people to thank for taking their time to listen to us, show interest and provide us with both material and contacts to other people. Clearly, Tomas Hultgren, Annika Eriksson and Petter Olsson at Elof Hansson are the key persons for making this thesis possible. Without your contribution, we would never have come this far. Thank you very much for effort!

The warm welcome for us in Brazil requires its own acknowledgement. A man who exceeded all our expectations is Fabio Waldrigues, teaching us not only how the paper industry works in Curitiba but also showed a great interest in our project.

On the phone, Signe and Dr. Dubielzig made a huge effort to answer our questions and through that contributed significantly with their expertise. For that, we want to express our appreciation.

Surely, our supervisor Richard Nakamura deserves an acknowledgement who throughout the process has been positive and encouraging as well as Gordon Wilmsmeier has been, supplying us with material, ideas and Latin America inspiration.

Lastly, we want to thank Jesus who guided us all the way from Addis Abeba to Rio de Janeiro. Thank you for such a journey!

Ekaterina Ilina

Marie Alderman

Göteborg

2014-05-19

Table of content

| | |
|--|-----------|
| 1. INTRODUCTION | 6 |
| 1.1 BACKGROUND | 6 |
| 1.1.1 SUSTAINABILITY AS A BUSINESS TOOL | 6 |
| 1.1.2 NATIONAL CONTEXT OF SUSTAINABILITY | 7 |
| 1.1.3 LOGISTICS AND SUSTAINABILITY | 8 |
| 1.2 PROBLEM DISCUSSION | 8 |
| 1.3 RESEARCH PURPOSE AND QUESTIONS | 9 |
| 1.4 REASONS FOR CHOOSING BRAZIL AND SWEDEN | 10 |
| 1.5 LIMITATIONS | 11 |
| 1.6 DISPOSITION | 11 |
| 2. THEORY | 12 |
| 2.1 SUSTAINABILITY AS MULTIFACETED PHENOMENON | 12 |
| 2.1.1 DIFFERENT CONTEXTS OF SUSTAINABILITY | 14 |
| 2.1.2 CONCEPT OF LOGISTICS | 15 |
| 2.2 STAKEHOLDER THEORY | 17 |
| 2.2.1. DISCUSSION OF THE THEORY | 17 |
| 2.2.2 THE STAKEHOLDER | 18 |
| 2.3 INSTITUTIONAL APPROACH | 22 |
| 2.3.1 WHAT ARE INSTITUTIONS? | 23 |
| 2.3.2 MECHANISMS OF INSTITUTIONAL IMPACT | 23 |
| 2.3.3 INSTITUTIONALISM AND SUSTAINABILITY | 25 |
| 2.4 ENVIRONMENTAL REGULATIONS | 25 |
| 2.5 SUSTAINABILITY AS A BUSINESS STRATEGY | 26 |
| 2.5.1 INTEGRATING SUSTAINABILITY IN THE CORPORATION | 26 |
| 2.6 MEASURING SUSTAINABILITY | 27 |
| 2.7 CONCEPTUAL FRAMEWORK FOR AN EMPIRICAL DATA ASSESSMENT | 28 |
| 3. METHODOLOGY | 30 |
| 3.1 RESEARCH APPROACH | 30 |
| 3.2 RESEARCH DESIGN | 31 |
| 3.2.2 THE CHOICE OF RESPONDENTS | 32 |
| 3.3 RESEARCH METHODS | 33 |
| 3.3.1 PRIMARY SOURCES | 33 |
| 3.3.2 SECONDARY SOURCES | 35 |
| 3.4 RELIABILITY AND VALIDITY | 35 |
| 4. EMPIRICAL FINDINGS | 37 |
| 4.1 ACTORS INVOLVED IN THE STUDY | 37 |
| 4.2 SWEDISH PERSPECTIVE | 39 |
| 4.2.1 PERCEPTIONS OF SUSTAINABILITY | 39 |
| 4.2.2 STRATEGIES TOWARDS SUSTAINABILITY | 41 |
| 4.2.3 MEASURING SUSTAINABILITY | 43 |
| 4.2.4 SUSTAINABILITY COORDINATION IN THE BUSINESS CHAIN | 44 |
| 4.2.5 IMPORTANT STAKEHOLDERS | 46 |
| 4.2.6 FUTURE CHALLENGES FOR THE SUSTAINABILITY | 47 |
| 4.2.7 EXTERNAL ACTOR'S EXPERTISE | 48 |
| 4.3 BRAZILIAN PERSPECTIVE | 48 |
| 4.3.1 PERCEPTIONS OF SUSTAINABILITY | 48 |

| | |
|--|-----------|
| 4.3.2 STRATEGIES TOWARDS SUSTAINABILITY | 50 |
| 4.3.3 MEASURING SUSTAINABILITY | 51 |
| 4.3.4 SUSTAINABILITY COORDINATION IN THE BUSINESS CHAIN | 52 |
| 4.3.5 IMPORTANT STAKEHOLDERS | 54 |
| 4.3.6 FUTURE CHALLENGES FOR THE SUSTAINABILITY | 55 |
| 4.3.7 EXTERNAL ACTORS' EXPERTISE | 56 |
| 4.4 DIFFERENT APPROACHES TOWARDS SUSTAINABILITY | 60 |
| 5. ANALYSIS | 62 |
| 5.1 REASONS FOR DIFFERENT APPROACHES | 62 |
| 5.1.1 DIFFERENT PERCEPTIONS OF SUSTAINABILITY | 62 |
| 5.1.2 STAKEHOLDERS | 64 |
| 5.1.3 INSTITUTIONS | 66 |
| 5.1.4 BUSINESS CONTEXT | 68 |
| 5.1.5 ASPECTS NOT EXPLAINED BY THE THEORY | 70 |
| 5.2 CONSEQUENCES OF DIFFERENT APPROACHES TOWARDS SUSTAINABILITY | 71 |
| 6. CONCLUSIONS | 73 |
| 6.1 SUGGESTIONS FOR FURTHER RESEARCH | 75 |
| 7. REFERENCES | 76 |
| APPENDIX | 84 |
| 1. INTERVIEW GUIDE | 84 |
| 2. LIST OF INTERVIEWEES | 85 |

Abbreviations

CSR: Corporate Social Responsibility

EMS: Environmental Management System

FSC: Forest Stewardship Council

GDP: Gross Domestic Product

IMO: International Maritime Organization

ISO: International Standard Organization

NGO: Non-Governmental Organization

SCM: Supply Chain Management

SECA: Sulphur Emission Control Areas

SMEs: Small and Medium Sized Enterprises

PEFC: Programme for the Endorsement of Forest Certification

“Not only is the concept poorly understood, its content is dispersed among industries and actors, which lead to interpretative discrepancies that harm the overall development of sustainability”

(interview with Ingrid Maria Öberg and Vivian Merola)

“Because sustainability has to be sustainable. Right?”

(interview with Mario Veraldo)

1. Introduction

The aim of this chapter is to introduce the topic of this thesis for the reader. A necessary background is presented as well as the current problem area. After that, the research purpose and questions are stated. The chapter also contains a section of argumentation for why the applied countries have been chosen. Not to be forgotten, limitations in the research are discussed followed by a disposition of the thesis as such.

1.1 Background

1.1.1 Sustainability as a business tool

In pace with a growing awareness of sustainability issues, companies have started to adapt the concept into their corporate strategies. To some extent, the implementations are obligated with governments as the enforcing institutions. However, more often companies set sustainability goals themselves, in order to meet external demands coming from a growing number of concerned stakeholders and to ensure staying in business. As a matter of fact, there has been an attitudinal shift towards the importance of sustainability strategies in businesses over the recent years. The viewpoint of perceiving sustainability actions as costly, time consuming and non-value-adding appears to be decreasing. Rather, a majority of today's businesses consider the concept an important contributor to the firm-specific competitive advantage. Furthermore, several companies indicate that the sooner sustainability goals are implemented in the business strategy, the more concrete benefits will be obtained (Haanes et al. 2012).

In order to develop sufficient sustainability strategies, it is of a high importance to define this phenomenon. To trace the roots of the definition of sustainability, it is relevant to refer to the Brundtland report (UN 1987), where sustainable development was formulated as “[...] *development that meets the need of the present without compromising the ability of future generations to meet their own needs*”. Since then this definition has been widely used in research articles. In the beginning, however, the major concern was addressed to the efficient usage of natural resources. This approach has then evolved to a consideration of various stakeholders that a company has to deal with and the concept of Corporate Social Responsibility (CSR) was developed. The World Business Council for Sustainable Development offers following explanation (WBCSD 1998, p.3): *“Corporate Social Responsibility is the continuing commitment by business to contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large.”* Despite the fact that CSR is often seen as a credible strategy, there is still an issue of inconsistency between what is said to be done and what is actually done. Several companies are proactive in establishing aspirational goals but when it comes to actual actions taken, the results come off as mediocre, if not poor (Kiron et al. 2013).

1.1.2 National context of sustainability

How sustainably companies operate depends on the environment, where they do business. A combination of economic, political and social dimensions of the country forms the conditions for sustainable development. Traditionally, European conditions are seen as favourable, considering a strong involvement of governmental institutions, which shape corporate responsibilities of a company (Carbone et al. 2012). However, emerging economies are now catching up and increasing their commitment to sustainability at higher rates than the developed Western world. This trend can be explained by the need to deal with environmental degradation in developing areas (Haanes et al. 2012). Due to changes in the geography of trade, new economic growth centers now relocate to the developing countries. As a result, this entails increased interest in logistics chains that involve trade with emerging markets, and in sustainability issues that arise as a consequence of growing economies (Wilmsmeier 2013).

1.1.3 Logistics and sustainability

It is evident that logistics has a strategic importance for running many businesses, but at the same time it is significant a contributor to CO₂ emissions worldwide. As a result, main sustainability changes take place in the field of logistics and many companies struggle to implement sustainable practices into their transport and distribution systems (Appel et al. 2010). As the economy grows, a need for transport increases respectively, and this need has to be fulfilled in an efficient and effective manner, which is not an easy task for logisticians. It is often said that logistics' responsibility is to deliver the right item at the right place, time, price, condition and quality (Bidgoli 2010). As it was mentioned, managers put sustainability on the agenda and a company has to integrate green practices in such a way, that they do not compromise overall efficiency. However, sustainable logistics is usually associated solely with the transport segment and many companies fail to employ a broad-base logistics perspective (Rodrigue et al. 2013). For example, the firm may focus on reducing energy consumption in one particular segment, or it can reconsider the whole transport chain and implement, for instance, co-modality, where less polluting transport modes will be used (Monnet & Le Net 2011).

1.2 Problem discussion

As it can be concluded from the text above, sustainability is indeed of a high importance nowadays and it is accompanied by a number of issues important to raise. To start with, sustainability is often perceived as a general academic concept associated with costs and obligations. Also, when the sustainability components are unclear, it is difficult for businesses to efficiently implement it (Muller & Kolk 2009). A vast variety of definitions can be found in the business world as well as in the academic literature. Even though the essence of the concept basically remains similar, there is a lack of standardized approaches towards sustainability (Appel et al. 2010). This consequence is particularly problematic to deal with in logistics chains that involve various actors integrating sustainability strategies in accordance with their own experience, beliefs and stakeholder pressure to mention a few aspects. Therefore, to evaluate and measure sustainability in a chain with multiple actors is a complex process since all actors have their own way of interpreting the concept (Rodrigue et al. 2013).

In order to understand how and why these approaches vary, a comparative perspective is required. Sustainability research lacks efficient comparative analysis in the academic literature, which partly can be explained by the absence of a unified approach. Because of that, it is suggested to further investigate what impact country and industry specifications have on sustainable performance (Carbone et al. 2012; Williams & Aguilera 2006). Today's research examines sustainability approaches in different countries, but it tends to lean towards the Western world or Asia (Maignan & Ralston 2002; Muller & Kolk 2009). Thus, Southern trade patterns seem to be forgotten, making findings somewhat limited. Furthermore, Campbell (2007) stresses the gap in research of concrete reasons for differences in perceptions from a country perspective and suggests research to be directed towards that. As a final remark, there is no sufficient information in the academic literature about what the consequences of this non-standardised approach are. Understanding these consequences, along with possible coordination issues and problems with measurability indicators, could serve as an important outcome for various companies as well as the academic world.

1.3 Research purpose and questions

Based on the presented background and problem discussion, the research purpose is defined:

The study aims to investigate differences between actors' approaches towards sustainability along the international logistics chain as well as implications of these differences. In order to examine this, the following main research question is formulated:

RQ: What are the reasons for different understanding of sustainability in the international logistics chain?

In order to answer this question, it is essential to discuss how sustainability perceptions and strategies vary in the logistics chain and what influences companies' decision about sustainability. When having access to this information, a comparison between different actors in different countries will be possible to conduct. Having understood the nature of different approaches, it is relevant to identify the impact of a non-standardised approach on the overall efficiency of the logistics chain. Hence, the next question, formulated as a sub-question in order to emphasize its dependence, is:

Sub-Q: What are the consequences of these differences in the logistics chain?

To investigate coordinational issues that may arise due to various perceptions, the question is relevant and constitutes an interesting part of the research. Difficulties of measurement aspects will be analysed, as they are expected to be one of the implications of the multiple sustainability understanding.

1.4 Reasons for choosing Brazil and Sweden

Because of sustainability's international relevance, practically any countries could be used in comparison and still generate applicable results. But as stated earlier, north-southern trade paths are somewhat forgotten and to make a fair contribution to the academic literature, this pattern has been chosen to investigate. In specific, Brazil and Sweden have been targeted in this study and the reason for that rests upon a solid base of argumentation. Sweden has a global advantage in sustainable development and the country, together with other Nordic nations, is often used as a benchmark when actions regarding sustainability are discussed (Environmental leader 2013). Furthermore, Sweden has a well-developed regulative climate not only regarding environmental issues but also regarding social aspect, which makes it a country far in the process of implementing sustainability in society (Roberco 2013). The fact that both authors live in Sweden makes the country convenient to choose and the process of interviewing people becomes remarkably easier.

The choice in favor of Brazil for the comparison has another foundation. The primary reason is its status as an emerging market with a remarkable growth in GDP (UNCTAD 2013). With such development, one can conclude that the sustainability adaption may be in a developing phase as well, making it interesting to investigate and compare to one of the "leaders". In addition, as of 2013, Brazil was Sweden's 21th most important export destination with roughly 1% of Swedish import. It may not seem too remarkable but considering that Brazil is the only Latin American country represented on Sweden's top 30 list of exporting nations, it captures interest to be investigated (SCB 2014).

Between the countries, forest products are among the most frequently traded goods (Badecel 2014), serving as twofold argument for our choice of countries and company: The Swedish firm Elof Hansson, operating as a trading house in the forest industry. Its international logistics chain will be targeted in this case study.

1.5 Limitations

The research will inevitably be associated with certain limitations, which are important to highlight. To start with, the focus will lie upon the trade and logistics chain of one company. Therefore, only those actors that are involved in its logistics process are investigated. However, some external actors will be consulted for comparative purposes as well as in order to gain a more comprehensive view. The number of actors in every link of the logistics chain is relatively small, which may complicate comparative processes between these links. Besides, logistics providers that are examined in the thesis are large enterprises, who have a good expertise in sustainability issues. Thus, the perspective of smaller logistics companies is not taken into consideration. Furthermore, emissions of various kind as well as their impact on the environment will be omitted in the text, since a more general approach is prioritized. Finally, representatives of suppliers and customers are not included in the chain, however, they are often discussed and referred to by other companies in the study.

1.6 Disposition

For the better understanding of the research structure, a brief presentation of what the thesis consists of is formed in this section. Firstly, the chapter with theoretical framework is set, which serves as the thesis' knowledge foundation, where important concepts are defined and a framework for gathering the empirical data is presented. Further, methodology chapter leads the reader directly into how the thesis is conducted and what the settings to it look like. After that, all empirical findings are collected, which mainly consist of material obtained from interviews. Then, the analysis section deals with earlier material presented in connection with established theory. Strategically, this chapter leads towards the conclusion part and suggestions for further investigation.

2. Theory

In this chapter, the theoretical framework will be presented. A logical order is organized where the reader, with the earlier problem discussion in mind, can follow the issues of sustainability raised from a primary stage. Not only sustainability and its contents will be discussed, the later section in this chapter will head towards stakeholder and institutional theories as well as business strategy perspective and measurement issues that arise due to complexity of the sustainability concept.

2.1 Sustainability as multifaceted phenomenon

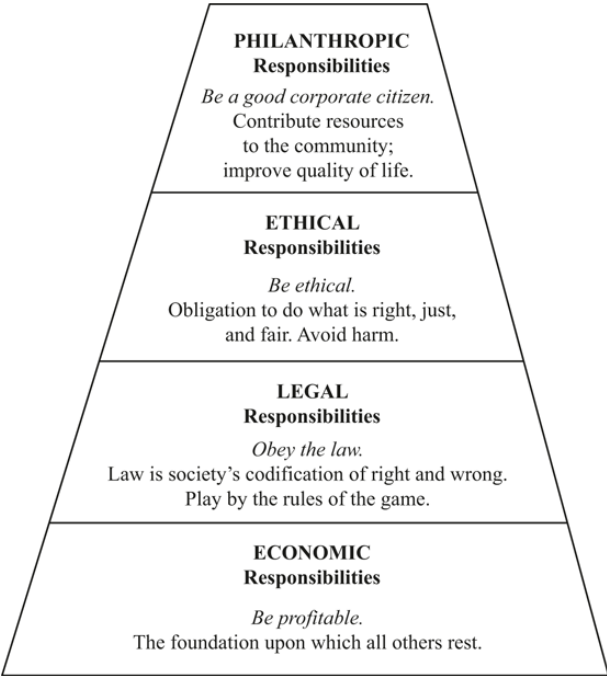
The discussion about diversity in terminology of sustainability started in the introductory chapter of the paper. As noticed by Bretzke and Barkawi (2013, p.3), “*You cannot design what you cannot define*”, it is therefore relevant to observe several various concepts in order to gain understanding of what sustainability actually is.

The issue of scarce resources and a need to consider future generations, sacrificing short-term profits, was addressed long before the Brundtland report (UN 1987) was released. However, Bretzke and Barkawi (2013) argue that approaching sustainability only as a preservation of resources is not sufficient, considering that much of the raw materials do not fall into this category anymore. For example, oil resources will obviously not last long for future generations to fulfil their needs that involve this material. Bretzke and Barkawi (2013) develop their own definition, which suggests naming a system sustainable if it has reached a “desired state”; in other words this system should not be adapted any more, since it is designed in such a way that it meets the requirements, imposed by constantly changing conditions. “Desired state” is dictated by society and the goals of the system. Taking logistics networks as an example, if transport does not fulfil its main responsibility then such a system is not sustainable. Furthermore, “desired state” may come in a form of reduction of consumer demands and claims in order to decrease environmental impact (Bretzke & Barkawi 2013). This definition deserves attention, since it approaches sustainability from the system point of view, however, its complexity may hinder its wide application.

The sustainability concept in the business world is referred to as corporate social responsibility (CSR), which can be depicted by employing well-recognized triple bottom line approach, where three dimensions of CSR are described, namely People, Planet, Profit. The

first category implies business practices that are considerate towards workforce and community, where a company performs. Safety working environment with fair rules and salaries for employees is a typical example. The second side of the triangle deals with environment sustainability, when a company is responsible for reduction of the damage that it causes to the environment. Logistics activities contribute significantly to the ecological footprint and therefore green practices are needed for a company in order to obtain a title of a sustainable enterprise. Finally, as the name of the last category implies, a company should generate profit and thus create an economic value for the society. To sum up, a company should be environmentally friendly, financially secure and comply with social demands in order to develop credible sustainability (Weele 2010). As it can be seen, a company has to balance between interests of different actors and thus, CSR is about treating all stakeholders ethically and responsibly (Hopkins 2011). This will be explained in the stakeholder theory and analysed later in the thesis. Another model to explain sustainability is the CSR pyramid of responsibilities, developed by Carroll (1991), and it consists of the four sequential levels: economic, legal, ethical and philanthropic.

Figure 1. CSR pyramid of responsibilities



Source: Carroll (1991, p. 42)

The foundation of the pyramid is economic responsibility of the company and, similarly to the triple bottom line, it implies company's profitability. Legal responsibilities include compliance with governmental rules and regulations. Ethical side requires a firm to be consistent with societal expectations, whereas philanthropic responsibilities are fulfilled when a company contributes to the quality of life. Contribution can take forms of charity or voluntary work, for instance (Carroll 1991). Analysing this pyramid, Hopkins (2011) points out the lack of attention towards external stakeholders. In addition, he claims that legal responsibilities are not always applicable, especially in countries with political instability or corrupted government. Despite this, however, the pyramid model of Carroll gave rise to a substantial number of various CSR theories (Hopkins 2011). It is remarkable that responsibilities appear as a reflection mechanism on various institutions that surround a company. A wide discourse into institutional theory and its impact on organization will be presented further in the paper.

Among other relevant concepts there is so-called corporate citizenship, which may be referred to in different contexts. The term can be understood as a company's contribution to the local community where it operates, or its involvement on the global level, since there are corporations that have influence on the governmental entities (Carriga & Mele 2004). In any case, this concept highlights aspects of the social part in the triple bottom line, leaving aside the corporates' focus on profitability. However, some researchers define corporate citizenship as company's ability to meet economic goals too, as well as to fulfil expectations from various stakeholders (Post & Berman 2001). This approach blurs boundaries between concepts of corporate citizenship and CSR. The boundaries between CSR and corporate responsibility (CR) are loose as well, since the former term advocates that a company has responsibilities in the society, similar to CSR. The discussion about diversity in sustainability concepts can obviously be continued, but it will be paused here, since the essence of this phenomenon is understood. For a company to be sustainable, it should balance between environmental, economic and social responsibilities, equally considering interests of its stakeholders, while preserving its main goals.

2.1.1 Different contexts of sustainability

Dependence of sustainable performance on the national context is apparent and a Western European approach is often benchmarked. Nordic European countries have surpassed southern and eastern member states, where the pressure on companies is not very high and

where corruption hinders sustainable performance (Halme et al. 2009). In addition, different economic systems lead to the situation where different aspects of sustainability are put into focus. For instance, a regulative European system pays much attention to environmental issues, whereas in the USA corporations make more philanthropic contributions (Baughn et al. 2007). However, this discussion mostly concerns developed countries. Regarding emerging markets, the sustainability trend leans towards growing economies, such as Brazil, China and India, where the need to hinder environmental degradation is acute (UN 2007).

A type of an enterprise has also a significant influence on the scope of sustainability practices. Big international corporations are usually in focus, since they may serve as a benchmark in terms of sustainability or as an object for critics. However, small and medium sized enterprises (SMEs) are often left aside, even though they account for approximately 90 % of the businesses worldwide. This is not surprising, since smaller companies do not possess necessary amount of financial or/and knowledge resources in order to widely implement sustainable practices (Inyang 2013). The smaller the scale of businesses, the more isolated from each other the three main sustainability aspects become (Kechiche & Soparnot 2012).

Finally, industry type matters when it comes to sustainable performance. According to the study, conducted by Carbone et al. (2012), industries that experienced most pressure from stakeholders and regulations demonstrate better results in CSR practices. Regarding the environmental dimension, most polluting segments, such as transport, achieved good results, while in the social dimension labour-intensive industries, for example textile, have significantly improved their sustainable performance. Besides, segments with proximity to the end customer tend to pay special attention to CSR aspects (Hoepner et al. 2010). Rare studies in the comparative sustainable performance motivate investigating the dependence of a country, industry and company on sustainability. Most research papers are segmented, highlighting only one particular dimension of CSR (Williams & Aguilera 2006). When it comes to cross-cultural analysis, the major focus is often made on legal or institutional aspects of sustainability (Carbone et al. 2012).

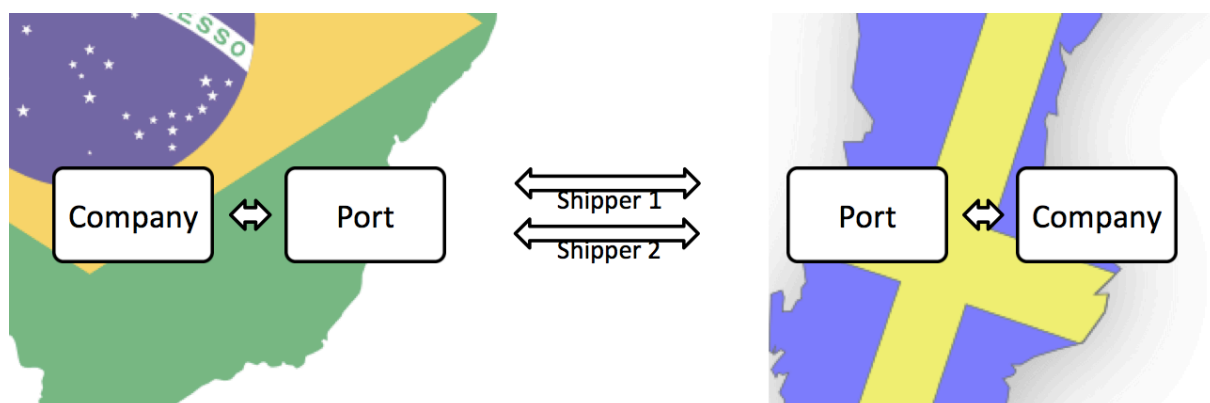
2.1.2 Concept of logistics

Similar to the sustainability concept, logistics have many variations in definition and it is sometimes used as interchangeable with transportation and supply chain management. Since these terms will be often referred to in the thesis, it is important to distinguish them.

Transportation can be simply defined as movement of goods that creates time and place utility (Bergqvist 2012). It is a substantial part of logistics, which in turn encompasses other managerial tasks as well. Originated from military science, the concept of logistics has been modified and is now widely applicable in the business environment. The Oxford dictionary (2014) defines logistics as a task to organize and implement complex operations, which is, however, inconsistent with the opinion of the researchers in this field. For instance, Harrison and Van Hoek (2011) differentiate between material and information flows that logistics have to manage in the supply chain but the definition is still broad and omits other important tasks. Sufficient explanation was developed by the Council of Supply Chain Management Professionals (CSCMP page) (2013): “*Logistics management is that part of the supply chain management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements*”. Thus, besides transportation, logistics deals also with warehousing, packaging, material handling, inventory management, third party logistics services as well as planning of supply and demand. Managing the return of unwanted goods is also a part of daily operations and is called reversed logistics (CSCMP 2013).

The following figure is a simplified model of the logistics chain, being investigated in this study.

Figure 2. International logistics chain in the study



Source: Own elaboration

Logistics is performed as part of supply chain management, which serves a purpose to create a sufficient and competitive supply base for a company (Weele 2010). Broadly, it is a well-coordinated network of channel partners, from raw material segment to the ultimate consumer. Its major function is to integrate supply and demand in the company and make all actors work in cooperation. In addition to logistics responsibilities, SCM also coordinates, for instance, product design, manufacturing processes and financial services (CSCMP 2013). However, as stated before, SCM is not of primary interest in the paper, since it shifts focus from the research purpose and takes too detailed and time-consuming approach.

2.2 Stakeholder theory

In order to comprehend and fully understand the concept of sustainability, a theoretical framework is needed. Referring to the discussion in the previous chapters, logistics is a network with multiple actors, each of which has its own perception of sustainability and implements its own sustainable strategies. Therefore, it is relevant to approach sustainable logistics from the perspective of the stakeholder theory, which will be a helpful tool to understand how different companies in the logistics chain view sustainability, considering also that sustainability itself is about treating stakeholders properly.

2.2.1. Discussion of the theory

Four academic fields of studies can be said to derive from the stakeholder theory. These are politics, economics, sociology and ethics, which in a narrower division has system theory, corporate social responsibility, corporate planning and organization theory as influencers (Mainardes et al. 2011). This is agreed upon and further explained by the pioneer Freeman (1984), arguing that stakeholder theory specifically comes from an organizational context. He claims companies not to be fully self-sufficient but dependent on the internal and external environment in order to progress. Furthermore, he describes the theory as strategic management of organizations and suggests corporations to consider stakeholder interests before making strategic decisions. In pace with globalization, increased competitiveness and complexity within organizations, this consideration has grown. Thus, stakeholder theory can be explained as a theory, which regards success as the outcome of how well the corporation conducts relations with their stakeholders. At the same time, it explains and pictures the structure and way of operating for the corporation.

There are other approaches towards the theory as well. For example, Tullberg (2011) takes a rather negative standpoint and claims that the stakeholder theory comprises the cooperation issue among important business partners, where interests from both sides need to cohere in order to avoid conflicts. Therefore, it is crucial for contemporary corporations to find out what the most relevant stakeholders are and what interest they may claim, since they will affect the corporation's survival (Hill & Jones 1998).

Moreover, Donaldson and Preston (1995) argue for the stakeholder theory not to be a single theory but rather a mix of three common theoretical approaches based on descriptive accuracy, instrumental power and normative validity. These approaches describe in what stage a certain external force affects the company. The descriptive layer explains the broader perspective of how the firm is organized, whereas the instrumental part has the purpose to explain how corporate goals are met in a most efficient way. Lastly, the inner layer, normative, identifies the corporations' philosophical and moral management. What Donaldson and Preston (1995) specifically stress with these layers is that they serve as the cumulative base for what stakeholder theory comprehends. As an extension of this description, the authors further explain what the term stakeholder comprises. This will be examined in the next section.

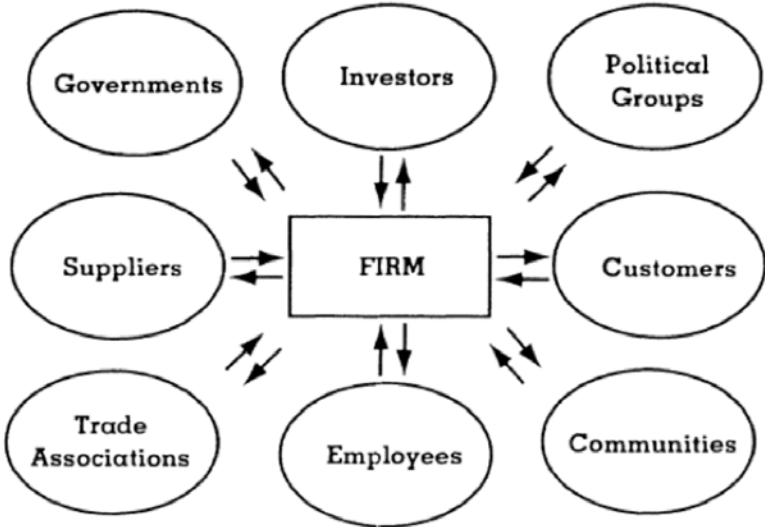
2.2.2 The stakeholder

The term stakeholder has been frequently used over the past decades and is currently not only used to explain business relations; an increasing number of governmental institutions as well as organizations are adopters of the concepts for explaining their relations to the surroundings. Despite the extended usage, the definition of stakeholder and its function remain somewhat spread (Mainardes et al. 2011). According to Donaldson and Preston (1995) stakeholders are groups or persons that claim or have specific interests or ownership on a corporation in past, present and future perspectives. Stakeholders with the same interest and overall aim are categorized in a common group. This way of interlinking stakeholders with the corporations is of further interest for the theory. Clarkson (1995) makes an important contribution to clarification when suggesting that the term stakeholder relations contains three fundamental variables which are (1) the corporation, (2) parties surrounding the corporation and (3) the nature of the corporation-actor relationship. Thus, the variation of what the term stakeholders and what its relations contain is substantial and the definition becomes industry oriented.

A number of authors divide stakeholders in accordance with their importance for the company; namely, primary and secondary stakeholders are distinguished. Clarkson (1995) explains the concepts as subcategories where primary stakeholders have a formal or officially confirmed relationship with the corporation in focus. Secondary stakeholders, on the other hand, do not have any formal contracts but can still substantially affect the corporation. This is further developed by Tullberg (2011), arguing that the stakeholders are grouped as “influencers”, who are crucial for the company’s survival and thus powerful and “claimants” with less power and a rather large chance to become victims of the corporation’s actions. He also argues that it is important for a company to clearly define whether a potential stakeholder is really a stakeholder or just a party with interests, since a corporation can jeopardize its own future survival when neglecting demands of actual stakeholders. Thus, serious considerations are required in the division process.

In order to facilitate the understanding of stakeholders, several researchers have contributed to models illustrating the ongoing relations. In this thesis, the model established by Donaldson and Preston (1995) will be used due to its relevance and comprehensiveness. In a business chain several stakeholders are involved, and the bigger the company is, the more stakeholders may possibly impact the business.

Figure 3. The stakeholder model



Source: Donaldson and Preston (1995)

In this figure, Donaldson and Preston (1995) place the influencers or primary stakeholders in vertical and horizontal lines, which are investors, customers, suppliers and employees. Stakeholders in diagonal, which comprises trade associations, governments, communities and political groups, are thus considered as secondary for a company. To further explain the chosen figure, specific stakeholders and their impact on the business need to be observed. Various types are presented in the following sections.

2.2.2.1 Primary stakeholders

Suppliers

According to Donaldson and Preston (1995), suppliers are regarded as of primary importance and thus have a considerable impact on the corporations' actions. When it comes to the definition of the concept "supplier", Garvare and Johansson (2010) make it clear by describing the supplier as organizations or individuals who are relevant in the upstream process of the corporation's business activity. Suppliers are providers of goods in a crude condition or finished and semi-finished products, prepared to meet the end customer.

Investors

A reasonable assumption regarding the importance of stakeholders may be that the more significant financial input stakeholders contribute with, the stronger their voice will become. Private and institutional stockholders are common examples of this category. Once financial resources have been put into a corporation, the contributor has a legal right to certain claims, impacting the business. Besides stockholders, potential investors and stock exchange markets may also have significant influence on the corporation and affect the financial flow, despite their position as secondary in comparison to intrinsic stockholders (Friedman & Miles 2006).

Employees

Inevitably, employees are a considerable stakeholder. With power to affect the direction of the firm, they have legal claims in the corporation. Thus, they become one of the priorities for the company (Friedman & Miles 2006). When considering employees, Tullberg (2011) goes one step further and argues that managers are even more important due to their executive power and insight into the firm. Freeman et al. (2002) agree upon the managers' importance and add that they also have a significant responsibility to maintain the relation with other stakeholder groups and to maximize common interests over time.

Customers

The customer may be foremost an important stakeholder, due to its role in income generation (Garvare & Johansson 2010). To stress the importance is rather simple compared to finding a static and agreed definition of what the concept customer comprises. Bergman and Klefsjö (2003) explain a customer as the person that a corporation or organization wishes to create value for, while the Swedish Institute for Quality (SIQ 2002) defines customer as the person, for whom an organization exists. A third definition from Garvare and Johansson (2010) is that customers are the organizations or individuals in the downstream part in the life cycle process of a given product, which means that customers are receivers of the products. In the very end, all authors agree upon and make it clear that the customer is reached in the later part of a value creating process and that its response clearly sets the future for the company.

2.2.2.2 Secondary stakeholders

Communities

Local communities, as well as charity organizations, are considered secondary but can still affect a corporation by, for instance, imposing limitations of expansion plans and can drive lobbying campaigns. But enforcement and claims of these actors are external to the corporation, thus not directly affecting but still important to consider. Hence, a corporation should aim to keep a good relation with these actors, in order to increase the possibility to get demands enforced at present or in the future (Friedman & Miles 2006).

Political groups

Political associations can impose claims and as well drive lobbying campaigns aligned with or against the corporations' interests. Their direct power to affect a firms' surrounding and indirect power to affect the firm as such, make the group important to consider. In addition to interests raised by political parties, these stakeholders can serve other interests such as human rights, anti-violation and environmental organizations. Even with a rather limited direct effect on the corporation, claims should be considered by the corporation in order to minimize conflicts of interest and potential boycotts to mention some actions (Friedman & Miles 2006).

Trade associations

In pace with growth in trade, an increased number of actors have an interest in impacting trade. It can be related to tax issues, sales, ways of conducting the business or be directly

market related. Commonly, a corporation cannot choose whether to cohere or not to restrictions from trade associations because of legitimacy. Inevitably, these associations will impact what a company can and cannot do and thus, congruence is of priority to keep the business running smoothly (Friedman & Miles 2006).

Governments

Governments set various standards for a company's scope of actions by implementing rules and regulations, which are obligated to be complied with. Governmental regulations have the intentions of serving the nations and its citizens in an edifying manner as well as establishing minimum legislative requirements for certain issues. In general, these regulations cover what a corporation does within the domestic area. What happens abroad may not be of the national governments primary interest, even though suggestions and recommendations can be raised (Friedman & Miles 2006).

Even though primary stakeholders can be said to have the determinative impact of a firm, secondary stakeholders should not be neglected, due to their possible future power and ability to impact the firms' other stakeholders. Indeed, the corporation is required to have a clever and well-planned strategy towards prioritization of interests.

It should be noted, however, that the main idea with the stakeholder model is based upon the assumption that stable relations as well as a less dynamic world are preferred, which is seldom possible to achieve in the reality (Voss et al. 2005). Needs of different groups of stakeholders vary from one industry to another, from one country to another, and in order to fill this gap authors chose institutional theory, which offers explanations for certain company's behaviour based on institutions that influence organisation. This framework is presented in the following chapter.

2.3 Institutional approach

The main idea behind the theory is that there are a number of particular institutions that shape strategies of organisation and make it act in quite a predictable manner (Scott 1995). In order to understand why companies treat sustainability differently across industries and countries, institutional approach seems to be a relevant option and a sufficient complementary tool to the stakeholder theory. Moreover, Campbell (2007) raises an interesting discussion, when aligning similarly stakeholders and institutional points of view: The company may fulfil basic

requirements for its stakeholders but it may fail to acknowledge its irresponsible behaviour or improve its performance if no institutions are present.

2.3.1 What are institutions?

Institutions encompass rules, regulations, norms, routines, expectations and incentives that impact a company's performance to a great extent (Matten & Moon 2008). Scott (1995) developed a three-pillar framework, which facilitates better understanding of institutions and their role in business and society in general. According to him, "*institutions consist of cognitive, normative, and regulative structures and activities that provide stability and meaning to social behaviour*" (Scott 1995, p.33).

To start with, regulative aspects of institutions are the most common ones and establish rules, control compliance with these regulations, incentivise or punish in case of violation (Scott 1995). Only if provisions of these institutions are legitimate and taken for granted, these structured can be called regulative (Clegg & Bailey 2007). Organizations are expected to obey these rules and they do so because of pure profit interest, since if companies do not follow obligatory standards, they risk losing money (Hechter et al. 1990). Normative aspects imply values that are common in the particular environment and, as a result, expectations from individual or organization are based on these values. One example is obtaining various certifications. This action is not necessarily governed by the state, but is dictated by norms in this environment. Finally, the third pillar is a cognitive aspect of institutions. Different roles created by society have major influence, and behaviour that does not fit into the framework of these roles is seen as inappropriate. For example, a firm as a business structure is designated to earn money first and foremost and if no profit is obtained, then it will cease to exist (Scott 1995).

2.3.2 Mechanisms of institutional impact

During this section, it is relevant to discuss such concepts as isomorphism, which is widely used by institutionalists. It arises as a result of institutional impact on organizations and is defined as "*a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions*" (DiMaggio & Powell 1983, p.66).

Three possible ways of how institutions can pressurise organizations can be named. The first mechanism is coercive isomorphism, which is a tool for regulatory institutions. Companies in

this case follow external rules and laws (DiMaggio & Powell 1983). For example, recently many governmental regulations in the field of sustainability have taken place in Europe and companies have no other options but to implement certain sustainable strategies to stay in business (Matten & Moon 2008). The second mechanism is normative and as the name indicates, it corresponds to a normative pillar of institutions. Organizations experience pressure from educational units or professionals, which create a new set of standards. For instance, education in sustainability is gaining more and more importance in Europe and therefore graduates will bring similar frameworks of new sustainable trends, which will have an impact on organizations. Finally, mimetic isomorphism is a common mechanism in the business world and is peculiar to cognitive pillars. When any uncertainty is in place, then companies tend to imitate actions of each other. Such behaviour is also observable, when new standards in industry appear. Firms rush to implement them sometimes without questioning their value. When it comes to such concepts as sustainability, then coercive mechanisms play a major role. However, if the state is not directly involved in certain industries, then a mimic mechanism is the most common one (Jennings & Zandbergen 1995).

The table below demonstrates all named institutional pillars, corresponding to mechanisms as well as indicators of these structures, the basis of compliance and legitimacy.

Table 1. Pillars of institutions

| | Regulative | Normative | Cognitive |
|---------------------|------------------------|------------------------------|-------------------------|
| Basis of compliance | Expedience | Social obligation | Taken for granted |
| Mechanism | Coercive | Normative | Mimetic |
| Indicators | Rules, laws, sanctions | Certification, accreditation | Prevalence, isomorphism |
| Basis of legitimacy | Legally sanctioned | Morally governed | Culturally supported |

Source: adapted from Scott (1995, p.35)

2.3.3 Institutionalism and sustainability

One of the tasks of institutionalists is not only to investigate what role institutions can play, but also how an item becomes institutionalised (Jennings & Zandberg 1995). It is of particular interest to apply it to the concept of sustainability. If a certain scheme or term can categorize reality, then this concept and its aspects may be institutionalised to a certain extent. As Jennings and Zandbergen (1995, p.1025) state, “...*the more typified and rationalized the concept of "sustainability" becomes, the greater the likelihood that some of its components will be accepted and legitimated by action in society, including business organization*”. Translating it to the company environment, it can be said that if a firm has a clear picture of this concept and its components, then the company’s work in this direction is more saturated.

Furthermore, coming back to the Carroll’s pyramid (Carroll 1991, p. 42) (figure1), one can see an evident relationship between a company’s CSR and institutions that impact a particular company. For instance, a firm has to comply with rules and governmental regulations and thus has legal responsibilities, described as coercive institutions. Ethical and philanthropic responsibilities arise as a result of social expectations, that a company should fulfil, referred to as the normative approach. Finally, the basis of pyramid is economic obligations, which can be understood from the perspective of cognitive aspect; as was stated, a firm’s main widely acceptable role is obtaining profit and it is odd to deviate from this role.

2.4 Environmental regulations

Undoubtedly, regulative institutions shape a company’s sustainable performance. Environmental regulations should be highlighted particularly. Considering that most emissions are caused by logistics, it is not surprising that limitations and standards are imposed mostly in this industry. In the international context, differences between environmental regulations can impact trade between countries, since governments may implement standards that are inconsistent in an international perspective (Gurtoo & Antoni 2006). Environmental standards can be classified as mandatory or voluntary. As the name of the first group indicates, companies are obliged to follow these sets of rules. An example of the regulations in the international shipping is the enforcement from the International Maritime Organization (IMO) which develops a number of conventions and regulations, with an aim to minimize the environmental impact of the sea carriers. Though shipping is seen as the least environmentally damaging way of transportation, it is still responsible for negative

outcomes of marine fuels (Stopford 2009). IMO designates sulphur emission control areas (SECA), where shipping companies ought to stick to the allowed emissions level (IMO 2014).

Among voluntary standards, environmental management system standards (EMS) is recognised internationally. EMS is a framework to set up and operate management systems in a way, that reduces environmental impact. When a company wants to acquire certification in EMS, then ISO standards are a common approach. The procedures may involve assessing the current state of environmental performance of the company, creating goals for improvements, developing relevant policies and measuring sustainability. A family of standards, ISO 14000, are relevant for logistics operations, since among other things they provide a model to decrease cost of waste management and distribution and save energy (ISO 2014). Additionally, the company dealing with forestry can obtain an FSC-certificate, which is issued by the Forest Stewardship Council. If forestry was handled in a sustainable way, according to standards of this organization, then products can be labelled as FSC-certificated (FSC 2014). Similarly, Programme for the Endorsement of Forest Certification (PEFC) verifies that sustainable practices were employed in harvesting the forest (PEFC 2014).

2.5 Sustainability as a business strategy

In pace with an increased debate of sustainability, the attention is frequently directed towards corporations. From firms' early attempts to contribute by decreasing electricity usage and making regular controls of suppliers, the current trend assumes a specific sustainability plan from companies to obligate onto. Naturally, time and capital are crucial components to formulate these strategies, which may have a substantial impact on the corporation. Thus, it is important to discuss the business side of the sustainability concept and raise important arguments for why a company should care about these issues rather sooner than later. It is dealt with in the next section.

2.5.1 Integrating sustainability in the corporation

As sustainability becomes more acknowledged, the need for a well developed and structured plan is crucial. An increasing number of today's companies are adding sustainability goals to their overall missions to stay in business, which make concepts such as "CSR" not too fuzzy any more. Lorenzo (2011) among several researchers recognizes the trend for an increased involvement in sustainability in the business world. He stresses that sustainability covers not

only environmental but also social and economic factors, and these are set in present, nearest future and longer-term perspectives. One of the major succeeding factors with an established sustainability strategy is, according to Lorenzo (2011), the understanding of it. A corporation must understand their current situation, develop a solid plan for future activities and continuously keep a dialogue with stakeholders in order to constitute proactive work. In order to do it properly, the firm's leader needs to take an active role in this process and direct the company towards these goals. When doing so, changes can be made faster and the strategy has a greater chance of being followed.

Furthermore, Clifton and Amran (2010), argue that all impacts generated through the firms' value chain are their responsibility. Hence, these consequences have to be dealt with by corporation and not forwarded to externalities, which has been a common way of avoiding costs related to efforts in the past. As of today, sustainability regulations have been sharpened and it has been difficult for a corporation to ignore these requirements. Because of that, a corporation should start integrating sustainability considerations as soon as possible in order to minimize future costs for neglecting these issues.

Garvare and Johansson (2010) extend the discussion about a corporation's value chain and argue that economic activities cannot only add value but must be performed in a sustainable way, to ensure life for future generations and maintain the corporations' chances to survive. When it comes to global issues like sustainability, not only the giant corporations but all types of organizations must obligate to sustainability strategies and comply with stakeholder demands. Furthermore, Garvare and Johansson (2010) define global sustainability as the combination of the natural environment and future generations where organizational sustainability rather comprises only the relation to stakeholders, primary and secondary. Thus, integration of these concepts is required. This is agreed upon by Clifton and Amran (2010), suggesting that the concepts of "sustainability" and "corporation" should be integrated into "sustaining corporation". This kind of company makes sure and proves a successful combination of holding a corporation running while living up to sustainable world objectives.

2.6 Measuring sustainability

The importance of measurements is undeniable, since this is a platform for improvements and comparisons. Also, presenting results of the logistics performance to the public is a major part

of transparency policy, which creates a good image among the company's stakeholders. However, a number of issues complicate the efficient measurement of sustainability. Firstly, all three dimensions of triple bottom line are impossible to measure equally and the focus is usually shifted towards environmental aspects. In addition, it is relatively easy to define benefits of logistics changes, but to quantify its damage to the environment is not a simple task and this issue is often ignored (Appel et al. 2010). Further, there is a lack of international standards for measuring sustainability and companies often have to develop their own practices to work in this direction. Lack of data in regard to some parameters in logistics performance hinders measuring of sustainability and it is complicated to collect emissions statistics in door-to-door services, considering a number of external parties involved (Cullinane & Edwards 2010). On the other hand, some researchers argue that there is a big variety of input data and the problem is to select relevant indicators (Kiron et al. 2012).

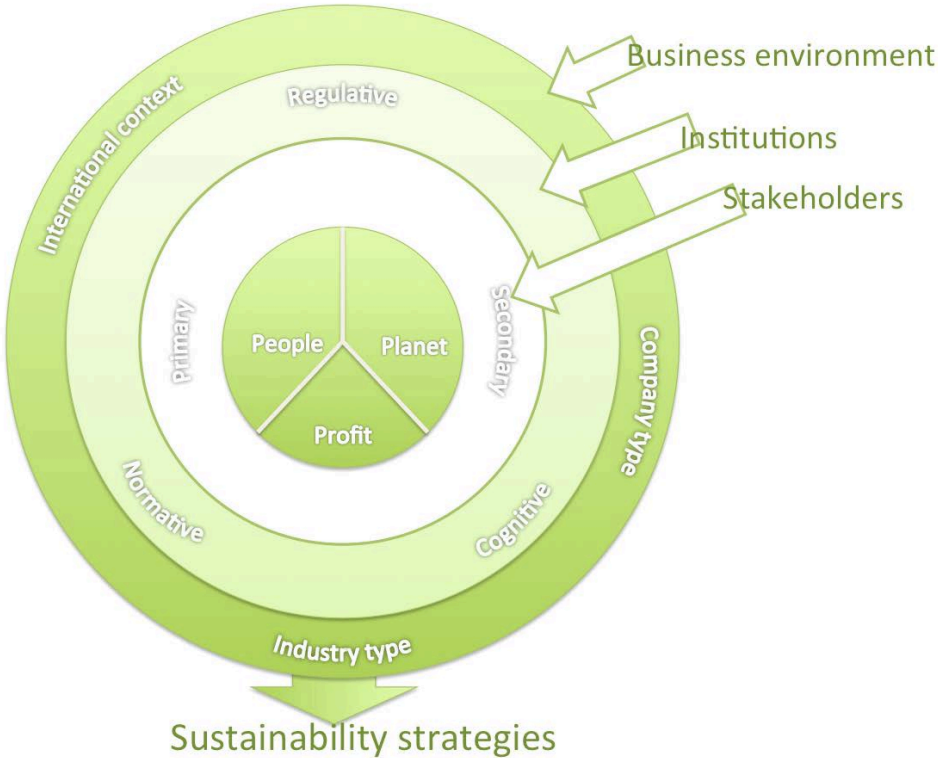
Clearly, companies pay greater attention to measuring environmental impact than economic and social. Emissions volumes, water and energy use, land waste as well as hazardous material content are examples of indicators of environmental performance. In order to make sufficient calculations, companies tend to segment complex logistics processes into smaller ones and count emissions for each operation and every vehicle, for example (Appel et al. 2010). Regarding economic aspects, transportation cost per unit, defect rate and productivity are some of the key determinants. For social aspects wages, safety training and accidents can stand as indicators (Kiron et al. 2012). Based on this discussion, it should be noted, that it is difficult to present comprehensive framework for measurement of sustainability.

2.7 Conceptual framework for an empirical data assessment

Various aspects, relevant for building up an empirical base, were observed previously. The main components of sustainability are not perceived equally and the attitude of different actors in the chain towards this concept is formed by a number of factors. Firstly, as it was emphasised, stakeholders' expectations impact sustainability behaviour of a company to a large extent, where primary influencers usually are more significant for a company than secondary stakeholders are. We believe that this theory will be most important in explaining different approaches towards sustainability. However, stakeholders may vary in different contexts and therefore, institutional theory comes as a complementary tool for the research

purpose. A major contribution of this theory is that it can guide in understanding why approaches to sustainability differ between countries. Is it regulative institutions that cause diffusion in particular contexts? Or if there is no direct governmental involvement, than what are the drivers in this case? Similar questions will be a helpful framework in analysing empirical material. Finally, there is a broader perspective and academic literature suggests country of origin, company and industry type as general reasons for variation. Having this discussion in mind, we suggest a conceptual model that depicts factors influencing a company’s sustainability decisions. The priorities are presented in order, named in the previous section: stakeholders, institutions and business environment.

Figure 4. Model for different sustainability approaches



Source: own elaboration

This figure, serving as a framework, will be a helpful tool to gather and assess empirical data, considering that the first part of the research purpose is about how and why sustainable strategies differ among actors in the logistics chain. After this is examined and understood, we will investigate whether these differences have any impact on the overall efficiency of the logistics chain, which constitutes the second important aspect in the research.

3. Methodology

In order to understand how the study is conducted, a methodology chapter is needed. Therefore, the text below will describe how the thesis is set up, what paths of methodology have been chosen and how data has been collected and analysed. Lastly, a discussion about reliability and validity will be raised.

3.1 Research approach

As a helpful tool in creating a framework, Collis and Hussey (2009) suggest determining a research paradigm as a primary step. The positivist paradigm is associated with natural science and singular reality, which is objective and independent of the researcher. However, this approach is not suitable in this study, which leans more towards interpretivism, taking into consideration a certain bias in the research due to different interpretations of empirical data. Many actors are involved, which are applicable to this study, and they have their own perceptions of reality. It should be noted, that these two paradigms are seldom employed in pure form and sometimes their features are combined in the research (Collis & Hussey 2009). The nature of the research in the interpretivism is usually qualitative (Bryman & Bell 2003), which goes for this thesis as well. Merriam (1998) investigates in detail characteristics of the qualitative approach. For instance, the researcher is the most important instrument for working with data and thus, computer calculations are not necessarily employed. Furthermore, fieldwork is required, meaning that researchers have to visit sites and respondents themselves. Because of that, the results of the research are extensive and mainly descriptive, compared to the quantitative approach (Merriam 1998). Considering these features as well as the fact that focus is rather directed towards perceptions and interpretations instead of units and values, the choice was made in favour of the qualitative research. Along the advantages of the qualitative method, some weaknesses should be mentioned. Bryman and Bell (2003) point at subjectivism of the qualitative research as a pitfall. Inevitably, authors of the thesis highlight factors that they find the most important and interpret data in their own way, being aware of a certain bias in the research results. Besides, the research outcome is hard to replicate and generalize, since researchers' way of working is unique as well as their interpretations (Bryman & Bell 2003). Having this in mind, an objective approach may be easier to maintain.

Another important element in the research strategy is defining relation between theory and empirical data (Collis & Hussey 2009). In this thesis, an implementation of both inductive and deductive approaches was made, despite the fact that inductive is the most common one in qualitative research. First of all, it was essential to acquire extensive information about sustainability in order to define the problem area. Secondly, a theoretical framework was suggested based on its relevance to the subject, meaning the inductive approach. After the theory and concepts were set up, deep investigation took place, which was guided by the framework of a deductive approach. We suggest a combination of stakeholder and institutional theories as well as conditions of business environment to be helpful methods to answer our research questions. Figure 4 compiles these layers and guides the process of gathering empirical data.

3.2 Research design

Research design provides a framework for collecting and analysing necessary data, which makes it important to carefully choose a specific design (Bryman & Bell 2003). Among several types of research designs, case study was chosen as the most relevant one. Obviously, there is a need to justify the choice. Defined by Yin (1994) as a way of gaining in-depth knowledge about a singular phenomenon in the natural settings, we found that a case study would be the most suitable for this thesis. Merriam (1998) claims that the main condition for the research to be qualified as a case study is a presence of boundaries. In other words, there should be a possibility to obtain finite data about the case. Since this thesis examines an international logistics chain of an organization, namely Elof Hansson, a finite number of people and informative sources are involved in this network. Hence, it fulfills the conditions required to be a case study.

Furthermore, a number of reasons point at the advantages of case study for research like this. Firstly, this design aims to answer types of “why” and “how” questions in order to provide understanding of the phenomenon (Yin 1994). Secondly, case studies allow gathering various types of data from different sources and different opinions. Not only does that contribute to a broader perspective of the phenomenon studied, it does also lead to increased research validity (Merriam 1998). In addition, Ghauri (2004) states that for the international business context case study is an important tool, since there is a need for in-depth understanding of context differences. With these guidelines in mind, we found that our research questions and

overall mission of the thesis were appropriate for a case study. However, challenges with these studies should not be neglected; difficulties in deciding upon scope of the study as well as its time consuming characteristic. With the strict time limits that were set, the scope of the research had to be narrowed down, comprising no more actors than company, logistics providers and ports.

3.2.2 The choice of respondents

Regarding the choice of the chain, we tried to approach a number of companies, dealing with international trade of forest products. Elof Hansson was the first company to show interest in the project and to offer assistance in contacting key people in the chain. Therefore, it was chosen for further investigation. However, some time was spent at considering Elof Hansson's appropriability as focus company. Its position as a trading house, thus acting as a middle hand between customers and producers and with no production or transporting itself, made us hesitate as to its ability of explaining businesses of today's sustainability performance. After discussion, we concluded its position would rather contribute to find explanations due to its close contact to all actors. After all, our ambition was to find out about perceptions within a chain independent of a corporation's type. Because of that, we chose to stay with Elof Hansson, both in Gothenburg and Sao Paulo, and got in touch with relevant actors both in Sweden and Brazil. The idea behind such a structure is to present main actors in the chain with an equal number of representatives in both countries.

Several different sea carriers are involved in cross-continental transportation likewise ports served, but to limit the scope of the logistics chain the shipping companies Maersk Line and Hamburg Süd have been chosen for investigation. In addition, we approached the port of Gothenburg, as it is the major port in Sweden. Similarly in Brazil, the port of Santos has a strategic importance and was intended to interview but was unfortunately not possible to get in touch with. As a substitute, based on their close contact with port authorities, representatives of Transport and Logistics Laboratory (LabTrans) were interviewed.

In order to avoid the study being too dependent on one company's chain, we made the choice to consult external sources, still in a similar logistics chain. The choice of doing so contributed to a broader perspective and deeper understanding for how these chains work. The external actors originate from different industries and were chosen upon relevance and convenience. On the Swedish side, one external logistics consultant, working in Stora Enso,

was interviewed with a purpose of providing a general frame of how logistics in the paper industry is organized and how the sustainability concept is perceived and developed. From Brazil, four persons in total were asked. Firstly, we met a sales manager from the forest products supplier Berneck and thereafter a man working with logistics in the Curimbaba group, which is a cooperation among eight industry-oriented corporations. Finally, we interviewed two experts represented the academia; one of them is a doctoral student focusing on port development and the other is a former IBAMA employee but currently a master student. To clarify, IBAMA (Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis) is a governmental body dedicated to regulate and control environmental standards and procedures (IBAMA 2014) and thus, relevant when it comes to environmental sustainability.

3.3 Research methods

Research design usually dictates appropriate research methods, which are tools to collect data. In qualitative case studies it is common to combine interviews, observations and document reviews to create an empirical base, and through that strengthen the information presented (Bryman & Bell 2003). For this study, observations were omitted based on the nature of research questions chosen. It was necessary to evaluate and interpret oral information, obtained from interviews with the relevant actors, documents or other secondary data. But despite that, both interviews and documents were used in order to create a strong empirical base.

3.3.1 Primary sources

As this thesis focuses on perceptions and approaches towards sustainability, we found it essential to use primary sources in order to find reliable answers. Because of that, the major information in this thesis is based upon interviews. In the qualitative research, respondents are seldom selected randomly. Rather, the researchers carefully decide a number of respondents, based on the depth of information they intend to gather in order to answer research questions sufficiently (Esaïasson et al. 2004). We have conducted our study in accordance to this. As mentioned before, the chosen international logistics chain has certain boundaries and we tried to seek relevant people to interview within this case.

Regarding what type of interview to conduct, we decided upon semi-structured interviews, due to the fact that they allow to follow a certain question guide and at the same time to deviate from the original script (Bryman & Bell 2003). Based on all actors' different position in the logistics chain, we concluded that with a strict set of questions there is risk of missing an interesting actor's specific perceptions. Thus, we created a frame of seven independent questions asked to every actor but with adjusted follow-up questions depending on the respondent. The questions were prepared from the initial purpose of the research and to reflect the theoretical framework. Questions for interviews (see Appendix 1) were formulated with the idea to define how different actors understand sustainability and how they work with it. Further, straightforward questions about coordination issues were posed, in order to see whether companies discuss sustainability standards along the logistics chain and if they found any discrepancies because of multiple sustainability perceptions. After that, respondents were often asked about stakeholders' impact. It can be noticed that institutional influence and business environment do not appear in the question list. We found these aspects more of interpretative nature and difficult for actors in the context to answer. Instead, answers to these questions were obtained while analyzing data.

Respondents, specifically requesting the questions list, received them before the interview was held, but respondents that did not were given them at the meeting. As Bryman and Bell (2003) stress, revealing questions in advance can be both advantageous and disadvantageous. If an interviewee is prepared it increases the possibility to get solid answers but also increases the risk of forming answers and through that, adjusting answers until a suitable reality is met. Among the advantages with not revealing the questions come the chances for more frank answers since respondents are not prepared. Also, it does not require any time spent from the company before the interview. But spontaneity may also result in answers of lower quality. With no preparation, some important information may be forgotten or not considered (Esaiasson et al. 2004). For this study, we decided that spontaneous answers would be advantageous since most of the questions had attitudinal origin.

Before every interview, the research purpose was introduced in order to assure a proper understanding. In Sweden, interviews were conducted in Swedish, which is beneficial for the research, since this is the native language of the respondents and therefore more convenient for them to express their opinions in. Also, it avoids linguistic misunderstandings to a large extent (Bryman & Bell 2003). With permission from respondents, conversations were

recorded and then transcribed, so that researchers could effectively analyse collected data as Esaiasson et al. (2004) suggest. The same procedure was conducted in Brazil. However, the interviews were held in English. The Brazilian respondents had a printed copy of the questions at the interview in order to maximize the understanding.

3.3.2 Secondary sources

In order to conduct a comprehensive foundation for the research, a literature review was made through the usage of secondary sources. This information was further interpreted and transformed into the base of the introductory and theoretical parts. According to Yin (1994), all kinds of documentary studies are suitable for case studies and one of the advantages with this material is the possibility to go over it several times and thus, continuously increase the understanding of it. Because of that, considerable time was spent at finding material of a good quality which mainly consisted of academic papers and books. Some sustainability reports reports produced by international organizations have been used as well in order to understand the current situation.

3.4 Reliability and validity

Two concepts deserving their own dedicated space in the method section is reliability and validity. As far as reliability is concerned, it helps to value whether the measurements developed for the concept in focus are consistent and whether the results of the study are repeatable (Bryman & Bell 2003). One way to increase the reliability of the study was to ensure that the number of representatives from both countries was as equal as possible. Also, the same companies contacted in Sweden were interviewed in Brazil in order to follow the pattern of reliability. However, more respondents from each actor could have facilitated better comparison between companies, but due to time constraints it was impossible to increase the number of interviewees. To enhance the reliability further, we decided to go beyond the investigated logistics chain by conducting interviews with external actors with relevant expertise. Additionally, summaries from the interviews were sent to all respondents to assure that they were correctly understood. Along with positive replies from respondents, we also got a confirmation that we can use their names in references. This is a good way of increasing reliability as well as validity (Esaiasson et al. 2004).

Validity assures that the data collected is relevant for the study in focus (Bryman & Bell 2003). To make this research valid, we had to make sure to be provided with the data of same kind from the actors. Thus, we tried to target people in the same position in every company, who possess the necessary knowledge to answer our questions. Table 2 in empirical findings depicts respondents and their job position. It can be seen that it is not always sustainability managers that were interviewed, which in some way can jeopardise the validity. However, this made us see how sustainability in the company was perceived in general and we believe that this approach is beneficial since the aim of this study is to understand perceptions.

4. Empirical findings

This chapter will serve as an explanatory text of what empirical findings have been demonstrated. The text is based upon conducted interviews with both Swedish and Brazilian actors. To grasp who has been interviewed and what company is represented, a list will be provided. The structure follows the same order of questions that were asked and to avoid confusion with interviewees and authors, interviewees' first names are used. Emphasis is put on aspects relevant for further analysis.

4.1 Actors involved in the study

Some introductory words about actors in the study will further ease the understanding of the network. Elof Hansson is a trading house operating with trade in the paper, pulp and timber industry. Obviously, its role as a trader is in focus in this thesis. Brazil is the biggest market in Latin America for the company and it currently operates two offices in Brazil, located in Sao Paulo and Curitiba. The supply chain could be briefly described as follows: a supplier or producer delivers an agreed cargo in containers to the Swedish port, from where the shipping company, acting as a subcontractor of Elof Hansson, transports the goods further to the Brazilian port, where the customer finally picks up its cargo (Elof Hansson 2014). Regarding the shipping lines, both Maersk Line and Hamburg Süd are global logistics providers with a major focus on container shipping. Hamburg Süd is mainly oriented on North-South trade and Latin America is the biggest market for the company (Hamburg Süd 2014), while Maersk is globally oriented (Maersk 2014). The Port of Gothenburg is the largest and municipally-owned port of Scandinavia that handles a third of foreign trade in Sweden (Göteborgs Hamn 2014). LabTrans is working with logistics planning in Brazil, including such entities as ports, airports, railways, etcetera (LabTrans 2014). In addition to these actors and as mentioned in the methodology chapter, some external parties have been interviewed.

A table below depicts a list of respondents, their title and company's names, with purpose of making it easy for the reader to follow references in the interview findings presented further on. We chose to present these findings in a simple and clear structure, where actors follow one another; in this way it is possible to see different approaches towards sustainability for every company and country.

Table 2. List of interviewees

| Actor | Representative | Interview type |
|--|--|--|
| 1. Elof Hansson, office in Gothenburg (Sweden) | Tomas Hultgren , Senior Vice President (paper division) Petter Olsson , Area manager (shipping division) Annika Eriksson , Sales manager (paper division) | Face-to-face group interview, 1 hour |
| 2. Port of Gothenburg | Anna Jiven , Environmental Manager | Face-to-face interview, 40 minutes |
| 3. Maersk Line, office in Gothenburg | Charlotte Evans Blomberg , Communication Manager | Face-to-face interview, 30 minutes |
| 4. Maersk Line, office in Copenhagen (Denmark) | Signe Bruun Jensen , Senior Global Advisor, Environment and CSR | Telephone interview, 30 minutes |
| 5. Hamburg Süd, office in Gothenburg | Petra Hjortmarker , Sales Manager | Face-to-face interview, 40 minutes |
| 6. Hamburg Süd, office in Hamburg (Germany) | Frank Dubielzig , Sustainability Manager | Telephone interview, 1 hour |
| 7. Stora Enso logistics, office in Gothenburg | Stig Wiklund , Vice President | Face-to-face interview, 40 minutes |
| 8. Maersk Line, office in Sao Paulo (Brazil) | Mario Veraldo , Sales director | Face-to-face interview, 40 minutes |
| 9. Hamburg Süd, office in Sao Paulo | Fabio Grandchamp , Procurement and Business Intelligence Manager | Face-to-face interview, 1 hour |
| 10. Elof Hansson, office in Sao Paulo | Waldir Moidim , Managing director Vanessa Salgado , Foreign Trade Analysts Ednea Synthes , Sales department Nurya Fernanda Saito , Sales department | Face-to-face group interview, 40 minutes |
| 11. Elof Hansson, office in Curitiba (Brazil) | Fabio Waldruiges , Area Manager | Face-to-face interview, 40 minutes |
| 12. Berneck, office in Curitiba | Daniel Kokot , Sales Manager | Face-to-face interview, 40 minutes |
| 13. Federal University of Santa Catarina, Florianopolis (Brazil) | Enzo Morosini Frazzon , Professor Jonas Mendes Constante , Project Manager | Face to face group interview, 1 hour |
| 14. Grupo Curimbaba, office in Sao Paulo | Fabrizio De Paulis , Corporate Logistics Manager | Face-to-face interview, 1 hour |
| 15. University of Sao Paulo | Vivian Merola , Consultant Ingrid Maria Öberg , earlier employed at IBAMA as regional chef | Face-to-face group interview, 1 hour |

4.2 Swedish perspective

4.2.1 Perceptions of sustainability

Actor 1. Elof Hansson in Sweden

The word “sustainability” as such, is not present in the employees’ vocabulary but the concept was still defined by the company’s representatives. Annika named environmental the aspect as the main indicator of sustainability, and environmentally friendly production, products as well as green transportation constitute this concept. Further in the discussion, the definition of sustainability was mentioned again and all three dimensions of it were briefly raised. It was emphasised several times that in any sustainability performance a company has to prioritize economic goals. As Tomas commented, *“One can work around this [sustainability], talk about one thing or the other. But even if you are the world champion of ethics and environment and act nice to everyone, you will die [as a company] if you do not earn money”*. It was agreed upon, by all respondents, that the initiative of implementing sustainability mostly comes from the supplier side, since Elof Hansson is an intermediary between customers and suppliers.

Actor 2. Shipping lines: Maersk Line in Sweden and Copenhagen and Hamburg Süd in Sweden and Hamburg

At Maersk Line, sustainability is seen as a holistic concept, encompassing economic, social and environmental aspects. The major idea of this is to guarantee long-term profitability and growth. To ensure that proper actions are taken, a broad perspective towards sustainability is vital. According to Signe, nowadays it is almost impossible for a firm to ignore sustainability issues, even though the economic profitability is a first and foremost goal for any company. A sustainability definition with more internal focus on the company was suggested by Hamburg Süd. Frank claimed that sustainability is about *“the integration of environmental aspects into business operations and taking over responsibilities for employees as well as customer requirements”*. Additionally, compliance with laws was emphasised as well as social aspects covering safety of vessels and seamen. Both companies clearly prioritize economic aspects of sustainability as a foundation for further work. When the environmental dimension was discussed with Maersk Line, some important points were made. Considering the size of the company and wide scope of its business, it is evident that the company has a major impact on the environment. Therefore, a reduction of the negative environmental impact is seen as an

absolute “must” in Maersk Line, as it was stressed by Charlotte. For Hamburg Süd, in turn, social aspects is the second important variable. Due to the fact that company is family owned, employees are naturally in focus.

Sustainability in Maersk is not only perceived as a necessity, but as a source of efficiency due to savings that the company will get if it integrates sustainability into its business strategy. For shipping companies these savings may come from fuel cost reduction and less fuel employed means less negative environmental impact. Therefore, cost reductions are often associated with energy usage and Signe reasons that a win-win situation is apparent. This view is supported by Frank. However, he stated that the issue can be more complex when it comes to reduction of sulphur content in the fuel. In this case, significant investments would be required, which cannot be passed on to the customers until now. Furthermore, the respondents elaborated on the perception of the logistics role in sustainability. The concept of sustainable logistics in Hamburg Süd was rather questioned. Shipping is indeed the most efficient transport mode, but every transport mode has certain negative environmental impact and the only choice is to minimize this impact. Both companies agreed upon the fact that besides mitigation of environmental damage, sustainable logistics should perform the task to enable better access to global trade and global markets for local producers, which increases well-being of the society.

Actor 3. Port of Gothenburg

Anna named the three dimensions of sustainability and, similar to previous respondents, pointed at economic component as the most important. Sustainable growth was often mentioned by the interviewee, claiming that the main mission of the port is to provide sufficient growth in order to handle increasing trade volumes. Thus, financial profitability and expansion are seen as parts of sustainability. The environmental dimension is naturally associated with transport coming in and out of the port and not with the port itself. However, it is a part of the port’s sustainable practice to influence environmental performance of transport. It should be mentioned that the port is accountable to the Gothenburg city government and therefore all main initiatives, rules and visions are dictated from outside, according to Anna.

4.2.2 Strategies towards sustainability

Actor 1. Elof Hansson in Sweden

No comprehensive sustainability strategy is implemented by the company. However, certain actions and thoughts were still mentioned in relation to this question. Annika described forest protecting FSC and PEFC certifications as frequently used factors in sustainable performance. In that sense, sustainability is considered, but regarding transportation, the direct influence on sustainable performance is not as clear. Since Elof Hansson does not possess its own fleet, it does not have a broad scope to affect the sustainability performance of its transport, Petter explained. He also argued shipping to be the less environmentally damaging transportation mode and thus advantageous for the company, considering that most products are delivered by ships. An issue of eliminating empty containers was raised where the company currently employs discharged containers from Latin America and effectively uses them for its own benefit.

Furthermore, the corporation's ethical approach was discussed and argued about. Tomas stated that even though there are no strict rules or scale to follow, the company carries out visits to its suppliers and producers with purpose of controlling their compliance with requirements. Throughout the interview, the respondents referred to the phenomenon of "self-regulation". The concept can be explained as follows; when a firm fails to have good indicators in, for example, quality, price, energy consumption and ethics, by natural means it is not seen as an attractive partner and cooperation will end. Tomas claimed "self-regulation" to be a way of selecting partners. Finally, the social dimension was discussed and the company does not neglect that dimension of sustainability. For example, it transfers part of its profit to the fund "Elof Hansson", which assists the University of Gothenburg and Chalmers among other organizations. Tomas did also add that the company financially contributes to a school project in Cameroon. However, this is not performed intentionally as part of a unified sustainable strategy.

Actor 2. Shipping lines: Maersk Line in Sweden and Copenhagen and Hamburg Süd in Sweden and Hamburg

For Maersk Line sustainability itself is treated as a differentiation strategy, aiming to facilitate customer choice in favour of the shipping line, according to Charlotte. The company also implements a number of concrete sustainability strategies, which appeared on the company's agenda already ten years ago. Nowadays, the sustainability performance has been transformed

into a so-called three-pillar strategy, consisting of the three equally important elements that Signe explained in detail. The first pillar is said to be a responsible business partner and includes initiatives such as responsible procurement and commodity governance to mention a few. Each initiative is controlled by specially designated employees. The second pillar deals deliberately with environmental issues, taking into consideration energy efficiency and business performance perspective. The company aims at reducing energy consumption, investigating opportunities for alternative fuels, as well as paying attention to recycling and waste management. The third and final pillar aims at commercialising sustainable performance by working closely with customers. Questions such as “Is it possible to use sustainable performance of Maersk Line as a tool to build a better business relationship?” and “Is it possible to build low carbon supply chains with the customers?” are major factors dealt with within the pillar. Additionally, certification schemes are common practices in the company and the Maersk is ISO-certified, including ISO 14001 and 1001.

Similar to Maersk Line, sustainability concerns started to appear in Hamburg Süd approximately 15 years ago, when specific environmental, quality and safety policies were implemented. Such certifications, for example ISO 14000 and ISO 9000 are facilitators to operationalize this policy but no clearly defined sustainability strategy is yet developed by the company, according to Frank. At the same time, the shipping line positions itself as a quality carrier, which to some extent reflects sustainability since being environmentally friendly and socially responsible is also part of a quality. Additionally, the company devotes resources to education of its employees in sustainability questions.

Actor 3. Port of Gothenburg

The sustainability performance in the port is managed by specialists. One person is responsible for the environmental dimension, another person for social issues and lastly, the economic part is taken care of by the corporate’s management. No specific sustainability strategy was named by Anna, but certain policies are established by directions from the municipal government. As far as the environmental dimension is concerned, the port has a dredging project on the agenda. Environmental damages caused by the port are rather obscure in comparison to what all vessel traffic generate and because of that, the port’s effort lies in encouraging environmental improvement of transport performance. For instance, the port tries to steer shipping companies towards using cleaner fuel by imposing higher fees for arriving ships with heavy polluting fuel. Anna claimed that controlling and measuring environmental

performance of ships is relatively easy, compared to land transportation, which is significantly behind in terms of sustainability. Not much attention is put by the port so far to radically improve that situation. Regarding social aspects, the port of Gothenburg sees its contribution to society as an employer, providing a substantial number of working places for society where approximately 22 000 employees are, directly or indirectly, involved in the port activities. Also, every employee is allowed to work some hours for charity organizations and get fully paid from the port. The economic aspect itself manifests in the form of efficient distribution of financial resources, that are provided by the state.

4.2.3 Measuring sustainability

Actor 1. Elof Hansson in Sweden

When having measurability on the discussion agenda, the respondents did not stress any significant importance of keeping track of sustainability performance. The reason for such an attitude was explained by its position as a company. When it neither produces, nor transports the product itself, measurements and evaluations of performance become somewhat irrelevant, our respondents reasoned. Rather, measuring is a responsibility of suppliers and shippers contracted since these actors have the direct impact on the environment.

Actor 2. Shipping lines: Maersk Line in Sweden and Copenhagen and Hamburg Süd in Sweden and Hamburg

Measuring environmental sustainability is straightforward and relatively easy, according to representatives from both shipping lines. Signe stated that performance metrics such as carbon emissions, waste, water and electricity consumption are published in annual reports by Maersk Line. Both companies report their performance to Clean Cargo Working Group as well as to Clean Shipping Index. However, according to Frank, measurements may be associated with some obstacles. For instance, indirect emissions can be abundant but are by far more troublesome to measure due to lack of relevant environmental data and doubt in the correct method to use.

Looking at the non-environmental side of sustainability, Maersk pointed out the lack of metrics for social aspects and explained that currently a specific social standard type metrics for the shipping industry is under development. As of today, the main metrics for social issues is a number of trained staff in various programs such as anticorruption, Signe explained.

Actor 3. Port of Gothenburg

As Anna claimed, the problem with measurements is not the measuring process itself but how to define what to measure. Handling quantitative data of emissions is relatively easy due to the fact that all tangible equipments are provided. Results are published in annual reports, available for public purposes, which is a legislative requirement. But when it comes to the social aspect, Anna stresses that the port does not actively work with social indicators, mainly due to the ambiguity of what to present and how to emphasize development. In general, measuring sustainability is seen as a good instrument for the industry and a source for transparency and improvements.

4.2.4 Sustainability coordination in the business chain

Actor 1. Elof Hansson in Sweden

As mentioned previously, the company coordinates trading flows between customers and suppliers. When a customer requires ISO or other certificates, Elof Hansson has to make sure that the chosen supplier falls into this category. On the contrary, when the initiative in sustainability comes from producers, the right client has to be found. This way of conducting business means that customers who are not interested in sustainability issues, are not willing to pay extra for this and thus, another match has to be made. Customers in Brazil are not perceived as a very interested party, Annika stressed, while customers in the Nordic countries in general have a greater interest. Petter did not mention any special sustainability criteria towards sea carriers, explained by the fact that shipping is a strictly regulated business and no further demands in terms of sustainability are needed. He regards the SECA rules, which are to be enforced in 2015, as challenging to a certain extent since prices for shipping services will most likely increase in the areas where these rules are applied. A change in the trading pattern is expected, as companies would prefer to avoid obligated areas.

Actor 2. Shipping lines: Maersk Line in Sweden and Copenhagen and Hamburg Süd in Sweden and Hamburg

In terms of sustainability coordination with other actors, customers' requirements are named first by both companies. At Maersk Line, the bigger customers tend to demand CO2 footprint for shipment or complete audit, including information about suppliers and sub-suppliers. Signe continued by giving an example of some customers that ask for a CO2 benchmark against other carriers. Charlotte noticed no conflicts of different sustainability perceptions, considering that customers usually do not possess necessary expertise in these questions and

rely on the company's knowledge. Maersk Line has a practice of talking to customers, discussing sustainability options for transport services and it was, during the interview, pointed out that interest in this subject from the consumer side is growing. Though, according to Frank, a customer's willingness to pay extra for sustainability options is not growing at the same pace and at in very end customers tend to choose the cheaper carrier instead of the more sustainable one. Both shipping lines stressed that legislation plays a significant role in the shipping industry and that their firms are obligated to comply with all the imposed regulations. A discussion about SECA rules was raised as well and the risk of increased prices for transportation in these areas. At Hamburg Süd, regulations are perceived as constraints and challenges for industry due to substantial expenditure for environmental improvements. Maersk Line presents a rather positive standpoint towards regulations, seeing it as a helpful tool. The company even stands for stricter measures, according to Signe. Currently in ports there is no standardised global approach, resulting in that all actors have their own demands, criteria and regulations, including the field of sustainability. Signe is confident that global unified regulations in ports would facilitate faster and better operations.

Finally, suppliers' relations should not be omitted. Both companies have a set of certain minimum requirements for its suppliers, which includes environmental demands. Hamburg Süd has a substantial number of transport providers and a questionnaire with cost issues and environmental credentials such as ISO 14000 are distributed to a potential service provider with the purpose of ensuring that the cooperation aims towards same vision. According to respondents from Maersk Line, this process is more complicated for smaller suppliers in emerging markets, who lack transparency and necessary knowledge and because of this, the company experiences problems working with them.

Actor 3. Port of Gothenburg

Because of its public ownership, perception of and actions towards sustainability in the port mainly depend on the city government and therefore, cooperation between these parties is frequent. Besides the port's higher taxes for the shipping lines with high environmental impact, it redistributes the fees and lowers it for vessels with a more efficient fuel utilization. It is remarkable that the port receives no complaints from shippers regarding high fees, which could partly be explained by growing awareness in the sustainability issues, as Anna concluded. In addition to those actions, the port donates a part of the money for research purposes.

4.2.5 Important stakeholders

Actor 1. Elof Hansson in Sweden

As already agreed upon, financial goals are the main driving force for all sustainability initiatives. Annika added, that even environmental benefits, such as effective usage of containers, come as a side effect of initial economic goals as well as the earlier described concept “self-regulation” contribute to. But there are still other driving forces for Elof Hansson in terms of sustainability. Since the company is an intermediary between suppliers and customers, these two groups of stakeholders have sufficient impact and dictate conditions for sustainable performance. According to the respondents, the concept of sustainability is strongest among suppliers, actively working with it and often promoting their products as sustainable. Elof Hansson then finds a relevant customer, willing to buy these goods at a good price and quality. When the customer demands certain sustainable factors, Elof Hansson has to fulfil it by selecting a relevant producer. Sustainability perspectives are directly relevant in that process, according to the respondents.

Actor 2. Shipping lines: Maersk line in Sweden and Copenhagen and Hamburg Süd in Sweden and Hamburg

Maersk Line named customers as a first and foremost stakeholder for the company. Customers’ pressure and demands are seen as positive forces, since it is a driver for environmental improvements in the industry. Signe believes that cooperation in sustainability issues between the company and customers is advantageous, since mutual work leads to better access to data for performing metrics and improvements in the logistics system. Government is another institute, influencing sustainability performance at Maersk Line. Frank defined the engine for sustainability performance in Hamburg Süd as the “*mixture of external pressure and internal objectives*”. Customers, regulations and owners’ demands come as an outside force and at the same time, top management initiates sustainable practices beforehand. However, he claimed that radical and costly changes in terms of sustainability will not be introduced by companies until certain regulations are imposed. As agreed upon in both shipping lines, employees are regarded as important stakeholders. Referring to what Signe said, “*We are a very big company, obviously, and we are our people. We have to make sure that our people understand what our mission is in sustainability and what minimum requirements we have, what we will accept and what we won’t accept*”.

Actor 3. Port of Gothenburg

When discussing this issue with Anna, she stated that major driving forces for the port to implement sustainability are to stay in business, enabling trade and simply ensuring the position as a long-term player on the market. Due to its municipal ownership, the main stakeholder and the only actor with legal requirements and expectations is the city authorities of Gothenburg. Because of that, external forces are rather limited. In addition to local and national legislation, Anna pointed out that international legislation also forms the framework for the shipping industry and thus, how the port should be run.

4.2.6 Future challenges for the sustainability

Actor 1. Elof Hansson in Sweden

Annika and Petter stated that implementation of sustainability strategies is inevitably growing in businesses as well as in societies. However, the need for further education in the comprehended aspects is crucial, especially in developing countries. When it comes to Brazil, for instance, its qualifications in production facilities are sometimes even ahead of European ones, considering that there are much bigger volumes of production in Latin America. But the customers' demands in sustainability credentials are not significant. This is something that should be dealt with, according to the respondents, in order to increase the overall understanding of the concept.

Actor 2. Shipping lines: Maersk Line in Sweden and Copenhagen and Hamburg Süd in Sweden and Hamburg

Considering that the major aspect of sustainability for a business is of economic nature, a company has to ensure long-term profitability. This is a particularly complicated task in the shipping industry, due to high market volatility. As an additional challenge, Signe emphasizes the necessity of developing sufficient metrics, including the one that assists in choosing qualified suppliers for the company. Finally, she stated that a closer cooperation with customers should be encouraged further in order to have a total supply chain view. Frank, in turn, stressed regulation constraints as a strong challenge for the future, since the costs associated with radical changes will be significant.

Actor 3. Port of Gothenburg

Anna brought up another dimension of challenges and argues that the creation of space to allow the port's growth is an important aspect to deal with. Not only should just space be

created, at the same time it should be done in a way that minimises environmental impact and does not exceed the given budget. Also, to afford and plan dredging project is another obvious challenge for the port, requiring considerable resources and not possible to postpone.

4.2.7 External actor's expertise

Stig Wiklund from Stora Enso

Stig Wiklund was contacted to give his opinion regarding sustainability issues and his first statement concerned dependency of sustainability understanding on the living standards in countries and maturity of the society. When the country is occupied with solving everyday operational problems, sustainability is naturally neglected until the moment when better times come. He added that the concept of sustainability develops gradually. Companies first struggled to stay in business and to keep sufficient financial resources. When industries started to pay attention to eliminating heavy pollutants, environmental aspects gained interest and after that, the social dimension was added. Along this way, necessary knowledge of sustainability has been obtained in society. In Sweden, this process started earlier than in many developing countries and therefore sufficient expertise in sustainability makes Sweden one of the leaders in the concept. Similar to other respondents, Stig named customer power as a decisive instrument in implementing sustainability. Referring to Stora Enso, he stated that the first steps in sustainability were made due to first requirements from the company's major customers. This power was even more significant than various legislation and according to Stig, sustainability actions and cost efficiency go hand in hand. When a company starts realising these relations, it will look at sustainability from another angle and will be more proactive in implementing relevant practices.

4.3 Brazilian perspective

4.3.1 Perceptions of sustainability

Actor 1. Elof Hansson in Brazil

In terms of sustainability, it became clear that Elof Hansson in Brazil is following the Swedish mother company's enforcement. Respondents stressed that they do what the Gothenburg office tells them to do and rarely take initiatives beyond that. Waldir explained that sustainability has to do with the whole business chain, meaning from how to get raw

materials and to how they are transformed into the final product. The discussion with interviewees highlighted the environmental part and one of the respondents pointed out that companies as well as people should be more concerned about the environment than they currently are. As it seems, social aspects do not have any priorities, since none of the interviewees could give an example of one of those, except the fact that Brazilian legislation demands companies to establish health insurance as well as the right of vacation for their employees. Regarding the economic part, no specific sustainability strategy seemed to be established. Waldir emphasized that their function as a middle hand in the business chain determines their work towards sustainability. Many of the company's suppliers have certificates for a variety of sustainability actions, but not all of them. When the question came up of whether the respondents take the opportunity to advocate their customer to choose sustainable alternatives, the answer was a hesitating no. Thus, if a customer does not ask for certification, Elof Hansson does not offer that either. As it was stated before, in most cases the price is the determining aspect.

Actor 2. Shipping lines: Maersk Line and Hamburg Süd in Brazil

Maersk Line in Brazil, as well as their Swedish and Danish colleagues, has a clear defined perception of sustainability. Mario stressed sustainability to cover several aspects, such as climate and environment, human rights, labour standards, anticorruption and responsible procurement. He named economic goals as a first dimension of sustainability, since all actions in the company are usually taken for business purposes. Further, what is legally required should be fulfilled, which is the second level, according to him. Finally, societal expectations are seen as another sustainability aspect. The world, however, constantly changes and sustainability circles around moving targets. Together with customers, Maersk Line strives to create a shared-value approach. All of these aspects are internationally negotiated and then disbursed to local Maersk Line office, meaning that what the company does is agreed upon centrally and not a decision of their own.

Hamburg Süd in Brazil, on the other hand, does not have as clear a definition of sustainability as Maersk Line has, but Fabio mentioned almost the same significances. For him, efficiency is a key concept, which goes hand in hand with sustainability and it is mainly applicable to maximize the utilization of ship capacity. By doing so, economic goals are met as well as the effective utilization leading to less emissions per transported good. The respondent stressed that economic and environmental aspects are prioritized in the company in mentioned order

and as far as Fabio knows, there are no social actions implemented. Due to national legislation, social security and medical insurance are paid by the company for every employee, but other socially oriented programs do not exist. The reason why the economic aspect has got the most attention, according to Fabio, is because Brazil is still at the developing stage. Even with significant improvements in the recent years, the country and its businesses are still heavily driven by economic factors and many companies have not yet reached that point of profitability where social and environmental aspects of sustainability can be prioritized.

Actor 3. Port consultants

Jonas and Enzo pointed out a correlation between economic aspects and the environmental dimension, arguing that these aspects require consideration when a port is planned. These aspects together result in a sustainable development, which should be the aim for every port. When the vessels are fully loaded, the efficiency of every transport increases and thus, the transport is improved in terms of sustainability. To achieve and benefit from this, the structure of ports needs to be reorganized and often extended, to be able to serve the increasing size of ships.

4.3.2 Strategies towards sustainability

Actor 1. Elof Hansson in Brazil

As it was stated before, Elof Hansson in Brazil acts directly under its Swedish headquarter, which means that they implement the same strategies. Since the Swedish office does not have a clearly defined strategy towards sustainability, the Brazilian offices mirror that. However, discussions about the concept as such appeared in the organization about ten years ago, according to Waldir, and the company is well aware of it. No ISO standards are introduced and the reason for that, according to the respondents, is their middle hand position.

Actor 2. Shipping lines: Maersk Line and Hamburg Süd in Brazil

Maersk Line has a distinct strategy as well as a target to operate in a sustainable way. In terms of environment, Mario pointed out that energy efficiency and reduction of the carbon footprint are the most prioritized goals. Regarding social dimensions, the company aims to overcome corruption and to educate rather more people than sufficiently needed, with justification of the good societal effect skilled labor brings. Later on, what these two aspects come down to is that they appear in a long-term positive economic aspect. The respondent

stated that “*What is good for the society, is good for us [Maersk]*” and when efficiency is high, based on utilization of capacities and educated employees, the productivity becomes higher and leads to solid profitability. Hence, all aspects of sustainability are important to consider for the final outcome, according to Mario.

Regarding strategies towards sustainability in Hamburg Süd, Fabio said that the company has a specific department working only with these types of questions. Thus, a detailed description of strategies was better provided by them. However, the respondent made it clear that the company is following external demands and existing legislation when formulating strategies and the bottom line is efficiency and cost reduction.

Actor 3. Port consultants

The respondents explained that Brazilian ports are driven either by public authorities or by private actors. In the latter case, the actors are free to set their own sustainability standards as long as they are coherent with national economic, environmental and social legislation. The port may be driven either by national or regional authorities and because of that, there are no such things as unification in sustainable strategies, according to interviewees.

4.3.3 Measuring sustainability

Actor 1. Elof Hansson in Brazil

As Waldir said, Elof Hansson does not measure their own sustainability performance due to their position in the business chain. However, customers may ask for certifications and compliance to certain sustainable programs and in those cases, the company forwards those from the supplier to the end customer.

Actor 2. Shipping lines: Maersk Line and Hamburg Süd in Brazil

Regarding measurements, Mario at Maersk Line stated that the company works with several aspects of sustainability that they regularly evaluate and are trying to improve. The central factors to be measured are carbon footprint and costs for transport per kilometer, but effects from implemented social programs are also measured together with positive outcomes from these. The measurements are later on published publicly, giving all potential stakeholders the opportunity to value Maersk’s contribution to sustainable businesses. Fabio from Hamburg Süd similarly claimed that the company as such publishes numbers for what they are doing such as carbon emissions. However, he says that currently in Brazil, the government does not

ask for measurements. This goes for most customers too, but sometimes certain customers require this kind of data and in these cases, the customer is most certainly international. Local Brazilian companies do ask for it too to some extent, but according to Fabio, it is not because of serious interest or consideration but to enhance their image for the customer. Because of this, there is no strong incentive to publish such numbers for public purposes in Brazil.

Actor 3. Port consultants

Regarding measurements, Jonas and Enzo explain that there are few incentives for controlling this. In Brazil, there exists an abundant mass of legislation within the environmental field but paradoxically the follow-up procedure is weak. The government does not require ports to continuously report environmental impacts and as a result of that, the incentives to consider such issues are lost. Furthermore, the ports' sustainability impact becomes somewhat forgotten in comparison to the one that shipping companies have and because of that, together with the fact that Brazilian ports still combat primitive managerial problems, measurements for ports' sustainability impacts are not well developed.

4.3.4 Sustainability coordination in the business chain

Actor 1. Elof Hansson in Brazil

A step further from how the company as such defines and works with sustainability is the question of whether this definition is agreed upon or not within in the business chain. From Waldir's point of view, there are different perceptions of sustainability. These shifted perceptions, turned into virtual discrepancies, are related to what kind of industry the business acts within. Furthermore, Waldir says that the perceptions start from governmental legislation and requests, which are interpreted by each industry and then implemented to businesses based on the industry definition. The company rarely falls into disagreements with customers regarding what sustainable businesses comprise and it also makes it quite pointless for Elof Hansson to convince their customers to choose more sustainable options.

Actor 2. Shipping lines: Maersk Line and Hamburg Süd in Brazil

When raising the issue with Mario, the discussion leaned towards a question of priority. Sustainability as a concept has gained much attention in Brazil and more often people do understand the concept, but still the environmental dimension is prioritized and beyond that, fewer incentives are made. Mario stressed costs to be the major determinant when it comes to sustainability strategies and depending on the corporation's size, different aspects can be

expected. For example, multinational corporations are required to act in terms of sustainability and do have specific plans for how to achieve relevant goals. This concerns Maersk Line as well, and because of that, there are usually no problems in terms of perceptions among large companies, Mario explained. Rather, discrepancies occur when dealing with local Brazilian companies, prioritizing nothing but economic factors. He explained that these firms most likely do not pay the extra price for a sustainable transport and from that point of view, they are not willing to make an effort towards sustainable businesses. To maintain the benefits of sustainability, there is a need of understanding it, to see how it can be used and lastly to push that knowledge forth in the society. When stuck at the first stage, no wonder that no more has been achieved today.

The discussion of these questions with Fabio turned into a reflection over how sustainability is perceived by their customers. About three years ago, the company started to receive more requests from customers, with a majority of global customers, regarding these issues in specific asking for CO₂ per tonne. This mirrors today's situation as well and Fabio said that Brazilian customers are still too cost oriented, making environmental and social impact not prioritized. Hamburg Süd in Brazil works continuously with presenting measurements of emissions and other quantitative reports and from that point of view, the perception of sustainability is in correlation to customers. Rather, the difficulties with the concept lay upon the overall Brazilian neglect of these issue. Local businesses, according to Fabio, are reluctant to pay extra for something that has no direct and obvious benefit. Fabio believes that the awareness of the concept is spread and that most Brazilians could explain sustainability if asked for. But due to poor quality of school education, the understanding of the concept is not comprehensive since different aspects are emphasized with different strength.

Actor 3. Port consultants

Jonas and Enzo talked the problem with a common understanding of sustainability. In Brazil, the concept is mainly oriented towards environmental factors, which can complicate processes of cooperation with Europe, where the concept has a rather complex significance. The Brazilian government's tendency to employ short-term vision does also problematize understanding of the concept. Since all ports have their own budget to consider, a variation of embracement of this issue is seen and thus, natural discrepancies occur with only legislated minimum requirements as unification. The ports' individual responsibility to conduct the port

planning does not facilitate cooperation either, resulting in a greater gap of how sustainability should be understood and handled.

4.3.5 Important stakeholders

Actor 1. Elof Hansson in Brazil

Simply put, customers affect the company the most, since their demands frame the company's way of conducting business. Then, what is possible to do and required from a legislative perspective is formulated by the government, who is the stakeholder imposing limitations. Suppliers also have considerable impact, which goes for the Swedish office too. Thus, these three stakeholders can be assumed to be the most important since they are the only actors mentioned during the interview.

Actor 2. Shipping lines: Maersk Line and Hamburg Süd in Brazil

Due to Maersk Line's considerable size and spread around the globe, it has an advantageous position when it comes to enforcing its own demands. But still, as in any other market-driven corporation, there are stakeholders whose interests have to be considered. According to Mario, governments and local authorities are the major stakeholders, since their legislative framework come above Maersk's own interests and form their business structure, particularly in terms of issues related to infrastructure. The other most important stakeholders are the customers. By working closely with this stakeholder group, benefits can be exchanged and enhanced, as Mario explained, and this can be one way of working towards shared values, which Maersk has as an overall sustainability vision. In general, stakeholders' strength depends on how much is already regulated and thus, the stakeholder impact varies with the country of operation. Fabio from Hamburg Süd similarly claimed the government as the main stakeholder. According to him, in Brazil there are very strict environmental regulations which companies are obligated to comply with, especially when it comes to the transport sector. Additionally, he named customers as important stakeholders, influencing the company's behaviour.

Actor 3. Port consultants

Because of the irregularities in ownership of ports, the only common stakeholder is the government, Jonas explained. Governments' role is to set the framework for how the port should operate and since those incentives are mainly based upon legislation, the formation is usually standardized. However, depending on the ports' importance and location, a variety of

stakeholders have an impact. Specifically for private ports, but not fully excluding the public ports, customers are the main stakeholders, able to push through demands for their own interests. If privately financed, there are no limits to what can be done. For example, a private port or its important customer, can build their own railroad system with access to the port to be used only for their purposes. This is fully possible in Brazil and is not considered to be specifically remarkable. Hence, government and customers share the greatest stakeholder position with a variation of importance depending on port ownership.

4.3.6 Future challenges for the sustainability

Actor 1. Elof Hansson in Brazil

Sustainability has been increasing in the businesses during the last ten years, according to Waldir. Due to its relatively new appearance and expansion, the concept comes with a variety of future challenges. According to the respondents, the main issue is to make people care about it. In dynamic industries, where prices heavily fluctuate, the sum a buyer has to pay becomes the first priority when doing business. This, argued by Waldir, becomes a reason for choosing a cheap option over a sustainable and due to Elof Hansson's business model, they have obscure scope to improve in this area. Waldir also desiderated for initiatives taken by the government towards sustainable obligations for companies, in order to facilitate process of sustainability implementation. Thus, another main challenge faced is to establish proper legislation regarding this.

Actor 2. Shipping lines: Maersk Line and Hamburg Süd in Brazil

From the transport sector's point of view, Mario from Maersk Line argued that the main challenge for sustainability is to make it tangible in the sense that consequences of sustainable actions affect. He mentioned water access as a good example of what makes people care due to its tangibility, but if no evidence is shown, the discussion will remain stuck in between. The need of tangible proof is related to the fact that Brazilian people have an overall short-term perspective towards things. Many people live by an "here and now"-attitude, making it problematic to grasp that actions today will impact what happens in 60 years. Mario added that they either do not understand or simply do not care about long-term consequences and with such an approach, sustainability becomes complex to implement.

Regarding future challenges, Fabio's frank answer was that sustainability will remain only a concept until it gets a price tag. Only when actors know what it will cost and what the benefits are, a unifying contribution to sustainable business will appear. As of today, Fabio continues, people and businesses are looking at sustainability in different ways and with no settled price and required effort, sustainability will only be regarded as an additional cost. Thus, the bottom line is to price the bad impacts that unsustainable businesses bring and push for the benefits, that changes will contribute to. According to Fabio, governmental regulations are not enough for a business to change its behaviour. If firms can see the advantages with sustainability, the incentive will be enhanced and that changes are made. But someone in the chain has to start making price tags for the process to start, and at the moment few are willing to do this.

Actor 3. Port consultants

When sustainability from a future perspective is discussed, Jonas and Enzo argued that education in the concept is the greatest future challenge. Due to today's spread of the concept and discrepancies of understanding, incentives are problematic to push through. Another main challenge, emphasized by other interviewees as well, is the lack of governmental actions. In Brazil, many people in the government positions do not care too much about the future. Rather, they prioritize their own interest in a short-term perspective and thus planning ahead simply does not occur. This situation causes few actions to be taken, particularly regarding sustainability, since the concept as such refers to future concerns. Therefore, the challenges become twofold: to increase interest in sustainability and to make people understand what it is all about.

4.3.7 External actors' expertise

Daniel Kokot from Bernek

To further deepen how people perceive sustainability, the concept was discussed with external actors in Brazil from both the business and the academic world. Daniel Kokot from Bernek is aware of the three parts of sustainability and says that at his company, economical aspects are prioritized, closely followed by environmental aspects. He argued that corporations have to pay attention to sustainability in order to stay in business and thus, they need to care about long-term operations as well as utilize materials efficiently. These efforts will also lead to sustainable profits. The respondent further mentioned that the market pushes them to enhance sustainable operations by having customers asking for it. Social aspects are not as prioritized

as the other dimensions. Surely, the company pays salaries they are obligated to, but beyond that, there are no additional initiatives taken. In addition, when the question about measurements came up Daniel replied that there are some numbers of achievements available but they are not published externally, or even internally to all employees. Hence, there is no transparency regarding the issue in the company.

Despite that, Daniel discussed the increased understanding of sustainability. Corporations in Brazil have a rather similar perception, mainly based on the fact that environmental considerations are implemented if they bring benefits to the business and do not hamper profits. If not so and if no regulative framework directs, sustainability is not interesting. Local businesses are heavily oriented towards the short-time perspective and understanding that company's actions today will have consequences in the future is simply not an argument to build business on, as many other Brazilian respondents mentioned. However, stakeholders have a rather large scope to impact and in general, authorities lay down basic requirements for what has to be conducted in terms of sustainability, while customers keep up the efforts by demanding the sustainable products. Thus, from Daniel's point of view, the greatest challenge for sustainability is to make people fully understand the concept and to start care about it.

Fabrizio De Paulis from the Curimbaba group

Fabrizio De Paulis, representing the Curimbaba group, defined sustainability as the linkage of economic and environmental actions good for the society, even though the integration of the concepts needs improvements, as industry today tends to work separately on each dimension. The economic part is prioritized while consideration to the environmental part is growing, mainly because of its correlation to profitability. The social dimension is the least prioritized which, in coherence with Daniel from Berneck, is overall poorly developed in Brazil. However, Fabrizio claims that Curimbaba is considering these aspects and for example, the group supports all employees with middle range education and has a detailed safety at a work program among other things. Sustainability became an important concept in the group during 2008 and since then, the included companies have established their own sustainability strategies. They implement such strategies based on the increased scope of the public debate around this concept and as a result of customer demands. Similar to Daniel, Fabrizio claimed that there are no measurements for sustainability at the moment. Reporting does not appear and the rate of the transparency is low, mainly explained by the absence of

customer and governmental requests as well as lack of obligation to publish such data, Fabrizio explained.

When reflecting over perceptions of sustainability, Fabrizio does not emphasize any serious problems with the issue among corporations even though some discrepancies regarding what the concepts includes and how it should be dealt with. For example, many corporations fail to integrate and synchronize the dimensions, resulting in a less effective strategy. Also, to make people care is difficult, Fabrizio explains and relates to the Curimbaba group's broad safety program for its labor force, not 100% accomplished by all the employees in the daily work. According to Fabrizio, this is a result of the overall poor compliance with and respect for regulations and laws in Brazil. He argued that improved education and awareness of consequences are the strongest tools to overcome the problem. Furthermore, Fabrizio's opinion about stakeholders is similar to Daniel's, namely that government and customers are the main actors where the latter are pushing the group forward by imposing demands.

Overall, sustainability has many challenges important to deal with. According to Fabrizio, this concerns the citizens the most, since many people do not understand the full meaning of the concept deriving from a lack of education. Businesses have improved, mostly due to international influences, but the social dimensions priority is still insufficient. Another challenge is how to handle violations of environmental and societal regulations. Currently in Brazil, there are a lot of environmental protection laws, but penalization of violations as well as modes of procedure are deficient. The responsible authority is not clearly acknowledged either, resulting in few violations restituted and the overall attitude toward these "crimes" as not too serious. Lastly, a main problem is that people have difficulties in understanding the seriousness of future effects, since Brazil's short-term perspective, so often discussed by other respondents, influences the way people perceive reality.

Ingrid Furlan Maria Öberg and Vivian Merola from the University of São Paulo

Ingrid Maria Öberg and Vivian Merola have as clear a perception of sustainability as the other external respondents and they explained that it covers economic, environmental and social aspects. However, they emphasised that the word sustainability is often used in economic analyses to mean a sustainable economic growth, independent of environmental or social aspects. So one must be careful with the word in Brazil. Sustainable development is more common when referring to the social-environmental concept of economic growth. Ingrid and

Vivian state that it is a complicated task to apply unified sustainability strategies in ports, since ports are run both by private and public actors and thus, prioritize different interests. This is also one major reason for the lack of proper establishment and evaluation of sustainability interventions. Ingrid said that there is a law, obligating port terminals to publish an environmental report every other year, but the weak follow-up system as well as a general low interest for these issues have resulted in that only a few operators bother to measure and publish such data.

According to Ingrid and Vivian, Brazil's problem is that the perceptions of sustainability are abundant. Not only is the concept poorly understood, its content is dispersed among industries and actors, which lead to interpretative discrepancies that harm the overall development of sustainability. Domestic authorities and international companies tend to have a more coherent definition of and strategy towards sustainability, compared to local Brazilian businesses, and in interaction among these actors obligations and benefits become the only driving force to reach a common sustainable approach. Corporations are keen to obtain ISO-certificates and similar verifications are more driven to establish sustainability frames but with no such interest, only legislation steers the work, as the ladies explained. Similar to other respondents, Ingrid and Vivian pointed out the government as the main stakeholder that sets requirements for sustainability actions. In Brazil, this is specifically regulated by IBAMA, which deals with the details of what is possible to do by minimizing environmental impact but it do not work with improvements of strategies. Thus, a corporation, whose plans have been rejected by IBAMA, has the full responsibility itself of finding an alternative plan.

Also, both respondents discussed future challenges from two perspectives. The first one comprises tangible interventions in ports, such as waste handling, safety plans to reduce accidents and to overcome the current poor logistics planning. The main challenge for sustainability, however, lies in another dimension: how to overcome the poor governmental management in the country. As of today, many ports are controlled by authorities located in the capital. Therefore they lack both applied knowledge of ports and proximity to it. Because of that, it is common that decisions are not built on expertise but on subjective opinions. Furthermore, different authorities monitor different aspects of the port, resulting in that several instances enforce their own regulations without synchronization to other parties. This makes the comprehensiveness of port development irregular and if problems occur already in this phase, the path toward making the port act sustainably is more challenging.

4.4 Different approaches towards sustainability

Before investigating reasons for different approaches, it is relevant to discuss how these approaches actually vary. Abundant information was presented above, however, to fully understand the material and ease analytical process, we will summarize data that concerns the way companies define, work with and measure sustainability. To start with, the table below briefly summarises different perceptions of sustainability among respondents.

Table 3. Understanding of sustainability among actors

| | Sweden | Brazil |
|-----------------------------|---|---|
| Elof Hansson | <p><i>Economic aspect is the strongest:</i> profitability comes first</p> <p><i>Environment:</i> supplier's and shippers' responsibilities</p> <p><i>Social:</i> good conditions for employees</p> <p>Sustainability should bring profit, otherwise - no interest</p> | <p><i>Environment:</i> control from raw materials to final products.</p> <p>Suppliers' responsibilities</p> <p><i>Legal:</i> compliance with Brazilian legislation</p> <p>The concept should be driven by customers/suppliers</p> |
| Maersk Line | <p><i>Economic aspect is the strongest:</i> to guarantee long-term profitability and growth</p> <p><i>Environment:</i> reduce environmental footprint</p> <p><i>Social:</i> care for employees, enable better access to global trade</p> <p>Sustainability is a "must", but it is equal to efficiency</p> | <p><i>Economic aspect is the strongest:</i> all actions are for business purposes</p> <p><i>Legal:</i> compliance with legislation</p> <p><i>Social:</i> what is expected from society</p> <p>Sustainability implies long-term vision, plan ahead</p> |
| Hamburg Süd | <p><i>Economic aspect is the strongest:</i> the company should earn profit first of all</p> <p><i>Social aspect as second important:</i> care for employees, safety for vessels and seamen</p> <p><i>Environment:</i> reduce environmental footprint</p> <p><i>Legal:</i> compliance with laws</p> | <p><i>Economic aspect is the strongest:</i> maximise profit</p> <p><i>Environmental:</i> reduce environmental footprint</p> <p>Sustainability leads to operational efficiency</p> |
| Port representatives | <p><i>Sustainable growth is decisive:</i> to handle increasing trade volumes</p> <p><i>Social aspects:</i> provide working places</p> <p><i>Environment:</i> reduce environmental footprint</p> | <p><i>Sustainable development:</i> efficient planning in order to handle trade flows</p> <p><i>Economic aspects</i> are correlated with <i>environmental</i></p> |

In general, practices are considerably segmented, targeting particular aspects of sustainability. Shipping lines demonstrate a more comprehensive approach and in particular Maersk Line, who is the only respondent with a clearly defined strategy towards sustainability. This company is working proactively with these issues, trying to influence even other actors and stakeholders. For instance, they have a practice of increasing customers' awareness in sustainability by commercialising this concept. On the contrary, Elof Hansson, for example, is expecting suppliers and shippers to take major responsibilities for sustainability issues, explaining its business position as an intermediary between stakeholder groups and thus not a direct influence on sustainability performance. Certification schemes were named by all respondents, as a way to facilitate integration of sustainability in the company, as is the case for Hamburg Süd or a way to fulfil customers' demands in these certifications, as Elof Hansson does. Social programs are missing when it comes to the Brazilian perspective. Out of all respondents, shipping lines seem to have more profound measures towards this issue.

As is evident from empirical data, ports approach sustainability differently due to the role that they play in the network. They have to provide efficient infrastructure for transport coming in and out and handle these flows in a sustainable way. The port of Gothenburg covers both aspects, working towards the port's expansion and controlling the environmental impact of transportation. However, Brazilian ports are still in the process of overcoming operational issues, such as ports' congestion and because of that, a limited comprehensiveness is expected.

Regarding measurability, the most apparent difference is that measurements of sustainability and public presentation of results are not widely practiced in Brazil, unless the company is international and thus, has to comply with internationally set standards. In general, the Swedish respondents did see the benefits of employing measurement tools that lead to better transparency and performance improvements. They also understood the purpose of doing so. The impression from the Brazilian interviewees was not the same. None of them stressed the incentives for measuring sustainability and publishing data, which was explained by lack of demand from the customers' and government's side. Finally, all European actors were unanimous that industries are lacking social indicators for sustainability, since it is complicated to define what the social dimension actually encompasses. The shipping lines emphasised that this issue has gained much interest and that a discussion about it is needed.

5. Analysis

In this analytical chapter, empirical findings will be discussed from a theoretical perspective and the conceptual framework, namely figure 5, will serve as a guideline. The first part has the purpose of guiding the reader into the main findings regarding perceptions of sustainability among various actors, while following sections will contain linkage to each of the layers in the model: stakeholders, institutions and business environment.

5.1 Reasons for different approaches

In coming this far in the thesis, it is appropriate to refresh earlier statements. As explained in the introductory chapter, the study aims to “*investigate differences between actors’ approaches towards sustainability along the international logistics chain as well as implications of these differences*”. This phrase has served as the overall focus when conducting the research, together with the main research question and its following sub-question:

RQ: What are the reasons for different understanding of sustainability in the international logistics chain?

SubQ: What are the consequences of these differences in the logistics chain?

With these statements in mind, we will conduct the analysis in a way that fulfils the research aim.

5.1.1 Different perceptions of sustainability

As was expected, there is no unified definition of sustainability in the business world. This became particularly clear when the comparison among the countries was conducted, as table 3 indicates. In order to capture the differences, the initial idea was to approach the definition from the triple bottom line view and thus the discussion with respondents was directed towards the three major sustainability aspects. Obviously, these dimensions were not treated equally and in some cases, not all of them were named. According to the empirical findings, the focus in Brazil turned out to lean towards a segmented understanding of sustainability, explained by Carroll’s model (Carroll 1991, p. 42) (figure 1), while in Sweden, there was a better integration of the concepts’ dimensions.

Since most of the actors named profitability as a first and foremost criterion for being sustainable, we find that the economic dimension of sustainability stands out. This is coherent

with Carroll's model (Carroll 1991, p. 42), which has economic responsibilities as the base for sustainability. As Tomas from Elof Hansson said: *"One can work around this [sustainability], talk about one thing or the other. But even if you are the world champion of ethics and environment and act nice to everyone, you will die [as a company] if you do not earn money"*. Thus, he explicitly confirmed the economic dimension to be the root of efforts. In Brazil, this criterion was even stronger. Many respondents stated that since the economy in Brazil is at the developing stage, cost-orientation among companies is the main priority, automatically giving other dimensions of sustainability less scope. Even in the academic world in Brazil, the word "sustainability" is associated mostly with economic growth, according to external experts Indrid and Vivian. In addition to that, the fact that different economic development truly affects sustainability performance is also raised by Baughan et al. (2007), discussed in depth later in the analysis.

Furthermore, most companies interpret sustainability as a reduction of negative environmental impact. This was the second crucial responsibility after economy for the Swedish respondents. In turn, many Brazilian interviewees stressed that legal responsibility follows the economic dimension and thus, companies have to comply with these laws in order to proceed to the next stage of sustainability. Thus, Carroll's pyramid (Carroll 1991, p. 42) can be referred to again and justifies our findings, since the regulative aspect is the next layer after economy. In Sweden, this dimension was also understood but none of the companies, except Hamburg Süd, emphasized that they clearly include legal responsibilities into the concept, which we interpret as that regulative institution plays a more significant role in Brazil than it does in Sweden. The social component was named by all Swedish actors, contrasting the Brazilian approach where social aspects were most often neglected. Therefore, we can see that Brazil is at the second stage of the sustainability pyramid, coping with institutional obstacles before it can move forward. Remarkably, the respondents did not discuss stakeholders' requirements when defining sustainability, which is in contrast to what Hopkins (2011) suggests.

The statement of Bretzke and Barkawi (2013, p.3), *"You cannot design what you cannot define"*, serves as the overall explanation to what we experienced for our interviewees. Indeed, it differed among the actors and the companies with more comprehensive understanding of sustainability had more efficient strategies towards it too, including clear measurements. For example, Maersk Line and Hamburg Süd describe all sustainability aspects in detail, emphasize the positive effects and therefore work extensively with it. This has to do with other factors as well, which will be described further in the text.

As a general finding, the understanding of sustainability plays a significant role in how the concept should be dealt with. According to institutionalists Jennings and Zandbergen (1995, p.1025), “...the more typified and rationalized the concept of "sustainability" becomes, the greater the likelihood that some of its components will be accepted and legitimated by action in society, including business organization”. This is supported by what Mario from Maersk Line claimed. He argued that sustainability should be tangible in order for people to grasp the concept and start to care about it. If people have a concrete understanding of sustainability with its benefits as well as consequences of its neglect, they will be more motivated to comply with legislation and implement actions towards it. Thus, institutional theory helps us to define some of the differences among the perceptions.

It is interesting that none of the theorists develop a wide discussion about sustainability as a long-term originated concept. Only the Brundtland report (UN 1987) stresses that considerations of future generations should be raised when implementing sustainability, which was not as substantial a concern for the respondents. As argued by Bretzke and Barkawi (2013), defining sustainability from the perspective of preservation of resources is not sufficient for making people consider the concept and start acting towards it. We find this argument solid and the Brundtland report’s (UN 1987) suggestion as too vague to serve as a major driving force for companies to implement sustainability. Companies are too focused on concrete benefits, which is particularly true for Brazilian companies according to our empirical results. However, many interviewees emphasised that a long-term approach should be included when applying this concept into businesses. An understanding of sustainability from the future perspective accompanied by the benefits would be optimal, according to all Brazilian respondents.

5.1.2 Stakeholders

Reasons for different understandings of sustainability can be further explained from a stakeholder perspective, turning out to be quite distinguished among the countries. To understand the whole picture, stakeholder theory needs to be refreshed. Freeman’s (1984) argumentation of this theory rests upon his statement that the company is not fully self-sufficient but dependent on the external as well as internal environment for further development. This is to some extent in line with the thesis’ empirical findings. The fact that all respondents, independent of position in the logistics chain and country of origin, recognized the government and customers as the most important stakeholders proves that

companies are clearly not self-sufficient. What Freeman (1984) further suggests is that companies should consider stakeholder interests before making strategies. Our findings show that this is done with different enthusiasm among the actors. Apart from the shipping lines, the companies are quite passive in formulating strategies in consideration to stakeholders and often responsibility is passed on to be implemented by other relevant actors. This means that stakeholders have abundant scope to affect the company in focus and since the stakeholders are not actively considered, the consequence becomes that strategies are not only dependent but randomly imposed. Based on what was found during interviews with Elof Hansson, this seems to be the case, leading us to assume that sustainability is not that important after all. As a consequence of such variation, we argue that a consistent definition and understanding of sustainability is problematic to constitute in such environment.

It is also important to understand the different types of stakeholders that influence a corporation. Donaldson and Preston (1995) classify stakeholders as primary, covering investors, customers, suppliers and employees, and secondary, comprising trade associations, governments, communities and political groups. This classification as such might be reasonable but it is not fully applicable, according to our findings. Almost all respondents mentioned the government and customers as the by far greatest influencers on corporate actions and strategies regarding sustainability. Governments set the minimum legislative requirements and customers determine directions of sustainability actions. In Sweden, customers were named as the strongest force, creating demand for sustainability. External actor Stig from Stora Enso even claimed that the whole process of changing attitude towards sustainability in their company started when their major customers began to ask about information on the company's environmental impact. But in Brazil, the customers' demands are not as strong as in Sweden, leading to that actions towards sustainability are consequently not very strong. The government is therefore the most important stakeholder for Brazilian businesses. Hence, the reality and theory is not completely the same, considering that stakeholders' classification is not static. A further proof of this could be that employees as a stakeholder group was not regarded as an equally important influencer of sustainability strategies in both countries and among all actors. Actors in Sweden turned out to have come longer down the path regarding employees' issue than Brazilian actors.

From the shippers' perspective, the stakeholder dimension is somewhat similar. Still, government and customers set the foundation of impact but besides that, Maersk Line stated that due to their superior position on the shipping market, they have to adapt a proactive

approach towards sustainability instead of only meeting expectations. Hamburg Süd argued for the same position even though not as strong as Maersk. To fully understand the driving force towards proactivity, the stakeholder theory needs to be complemented with the business context approach, to be further developed in later sections.

The port consultants claimed that stakeholders' influence depends on how the port is run. Generally, the sustainability strategies are developed in accordance with legislation where a private port can expect a rather considerable external demand compared to public ports. Since the port of Gothenburg, for example, is driven by a public authority, the stakeholder perspective is not particularly relevant for the port. Hence, we find the theory that Donaldson and Preston (1995) present about primary and secondary stakeholders is not applicable to non-market driven organisations.

To conclude, when it comes to approaches towards sustainability, the model of primary and secondary stakeholders (Donaldson & Preston 1995) does not sufficiently describe how the stakeholders influence the corporation in focus. The main reason is that the impact of stakeholders tends to vary among industries and countries and the model does not capture this dynamic. As stated before, customers' demand drives sustainability and the actors in Sweden emphasized high customers' awareness and interest in sustainability. We believe that this partly explains why the Swedish approach towards sustainability is more explicit and efficient compared to the Brazilian one.

5.1.3 Institutions

As an additional tool for the stakeholder theory, we discussed institutional theory in order to explain the behaviour of actors in different circumstances, since a number of various institutions influence company's decisions. Scott (1995) further classifies these institutions into three major categories, namely regulative, normative and cognitive, applied to this thesis.

A regulative institution is found to be dominant, when it comes to sustainability actions, which is in line with the statement of Jennings and Zandbergen (1995). One aspect we noted during the interviews was that the shipping lines behaved in a rather similar, proactive way. This phenomenon derives from institutional theory and DiMaggio and Powell's (1983) suggestion that companies behave similarly as a consequence of the fact that they met pressures by the same external laws and regulations. Since the industry is heavily regulated internationally, sea carriers work more extensively with environmental issues compared to

other actors in the chain. Thus, we find that the regulative pillar is the determining force that pushes the shippers towards isomorphism. Furthermore, Heckter et al. (1990) state that companies follow regulations of pure profit interest as the costs for non-compliance may impact financial performance. However, the rather proactive position of Maersk Line towards regulative institution questions this view. As Signe emphasised, the company even strives for stricter regulations in the industry, seeing it as a strong force for positive environmental changes. Because of that, we believe that institutional theory tries to explain company's behaviour from the perspective of external aspects, omitting the factor of companies' initiatives, not being forced by government or other institutions. The external influence has also been raised in discussion about a company's stakeholders and similarly, the stakeholder theory does not fully explain the fact that approaches towards sustainability partly depend on the internal drivers. At the same time, we find that these internal managerial decisions do not exist in isolation, meaning that the company's type and industry matter. This will be further developed in the business context section.

Indeed, regulative institutions set rules, control compliance, punish or incentivise depending on circumstances (DiMaggio & Powell 1983). Taking a broader perspective, Sweden and Brazil seem to cohere when it comes to regulations for the environment, where both countries conform to rather strict laws. However, Brazilian port representatives as well as external actors claim that the follow-up procedure is weak and overall poorly regulated. Ingrid and Vivian stated that control systems and penalisation are not efficient, which lead to decreased compliance with legislation. This partly explains why transparency is not on the due level in the country. Also, as mentioned before, terminals in the port are obliged to present environmental reports, but do not perform it on a regular basis since it is costly and as no sanctions will be raised if not published. In addition, not many social aspects, except general employment regulations, are enforced in Brazil compared to Sweden, which we interpret as one of the reasons for the hierarchical division in businesses in Brazil and the low interest in developing social aspects of sustainability. Overall, we find that the regulative approach targets important issues but that it is not sufficient by itself to explain the reasons for different approaches of sustainability.

To deepen that understanding, another group of institutions has to be raised. Identified by Scott (1995), normative aspects shape behaviour of the company by means of values and social obligations that are common in a particular environment. This type of institutions can also be observed in our empirical findings. For every actor there are different expectations

and norms that are dictated by the environment. In Brazilian companies, there were not many expectations towards social practices and because of that, these practices were not widely implemented. In Sweden, on the other hand, people in general has a more comprehensive understanding of sustainability's importance and thus, it puts more pressure on businesses. Therefore, if a company operates within an industry with significant environmental impact, it is expected to implement certain practices towards improvement. For example, Mario from Maersk Line, stated that societal expectations play a big role in their company. Since regulative institution creates the framework for what the company has to comply with in terms of social aspects, we find the regulative approach prevailing the normative.

Finally, cognitive aspect is the last pillar in the framework, developed by Scott (1995). In a business perspective, this is seen through the company's primary purpose, namely to be financially secured and bring profit. The importance of this pillar is observable when it comes to prioritization of sustainability dimensions since companies always value economic aspects when determining upon sustainability efforts. Because of this pillar's obviousness, it does not assist us in explaining reasons for different approaches towards sustainability.

5.1.4 Business context

Another aspect that might suggest an explanation for different approaches towards sustainability, is the context the company operates within. As a primary factor, the country's economic development affects performance and secondary, industry and type of business influence a lot. This can be concluded from the differences in answers of our respondents and it is coherent with Baugan et al. (2007), claiming that different economic systems lead to different priorities of sustainability. For example, Europe leans towards the environmental aspect, compared to US where a rather philanthropic view dominates. The authors do not explicitly regard the case for Latin America but from the interviews findings we can clearly confirm that economic climate matters. Sweden, as the wealthy, high skilled labor country, has come to a certain degree in development where both required knowledge and financial resources exist to deal with sustainability issues. This was not seen in Brazil, where the market is emerging and does not allow this yet. UN (2007) extend this theory by claiming that in emerging markets, such as Brazil, the involvement of the sustainability is growing and the need to cope with environmental degradation is acute, but due to its growth, priorities such as environment are not applicable in current situation. Thus, what UN and Baugan et al. (2007) state is in line with what we found throughout the interviews.

Furthermore, depending on companies' size, it is fair to expect different scope of sustainability practices. Argued by Inyang (2013), big international corporations are in focus with not only potentially greatest budget but with greatest risk to public criticism. Thus, they need to take a rather strong proactive standpoint in the question. From that point of view, the theory seems to be applicable in the reality, since the largest companies we interviewed were the shippers who also had the most developed sustainability strategies. Furthermore, Inyang (2013) suggests that medium and small companies would have a more limited input in such strategic development, which seems reasonable. For example, Elof Hansson can be referred to as a relatively small enterprise and its size clearly mirrors its sustainability effort. However, we find a considerable limitation in the theory. If only this aspect is considered, it will be unclear if the reason for the shipping company's involvement in sustainability mainly depends on its size or other factors, such as heavy international regulations or pressure from customers, as our findings suggest. Surely, a company's size does affect, but with such power, the firms would practically be able to ignore sustainability issues and still remain strong. Because of that, Inyang's (2013) argumentation fails in comprehensiveness and we argue that other perspectives need be added in order to understand different approaches towards sustainability.

Another important aspect to lift is the differences among industries, which we found to be quite determining when sustainability was discussed. Carbone et al. (2012) argue that differences in sustainability performance can vary considerably among industries and that stakeholders put the most pressure. As we were talking to representatives from mainly three different industries, namely paper trading, shipping and port services, it turned out that their effort was different. As mentioned, Elof Hansson has a rather defensive approach towards sustainability which goes for both Sweden and Brazil. But both offices reported that its suppliers contracted are obligated to conform to sustainability requirements, meaning that Elof Hansson does care about sustainability even with absence of a direct contribution. Still, what the customer asks for is what at the very end will be delivered. Based on that, our understanding is that if customer does not ask for such products, there is no incentive for the company to develop sustainability, which seems characterize trading houses. This finding is in line with what Kechiche & Soparnot (2012) suggest: The smaller scale of businesses, the more isolated from each other the three main sustainability aspects become, as in the case of Elof Hansson.

From the shipping industry's perspective, the view is different. The sustainability aspect is rather well developed compared to the other industries, as mentioned before. However, the industry factor should be complemented with other dimensions. Because of its significant part of emissions worldwide, the transport industry is among the primary actors targeted when sustainability is discussed. In addition to the industry factor, we also want to raise that the potentially strict control from stakeholders as well as the company's advantageous position as market leader may force the shippers to take an active sustainability approach. Even though industry as such matters, it is clear that stakeholders and institutions do affect sustainability perceptions.

To conclude, we argue that there is a correlation between institutions, stakeholders and business context when it comes to sustainability perceptions, as it was suggested in our conceptual framework (figure 5). However, all aspects need to be considered and are not sufficient if applied independently. Thus, a combination of these theories contributes to the most solid explanation to why sustainability is perceived differently in the logistics chain.

5.1.5 Aspects not explained by the theory

In addition to our presented findings, some other aspects are important to raise as strong influencers, which the chosen theory lacks explanation for or simply ignores. These issues encompass discrepancies on a national level and primarily, the perception of time and value of the future is regarded as differently among the countries. Swedish respondents never explicitly emphasized that the corporation holds a long-term approach for its operations but when comparing their strategies and goals with the Brazilian actors, it became obvious. Likely, the Swedish society's structure impacts in a subliminal way and corporations established in Sweden are aware that a long time frame is required in order to stay in business. Then, Brazil applies the reverse approach. For instance, Mario at Maersk Line claimed that Brazilian people have a "here and now"-perspective of time. They live for today and do not bother with concerns about the future. Because of that, it is difficult for people to understand sustainability due to its rather long-term orientation. This was further discussed with Daniel from Berneck who argued that profitability today is a most important matter. Social aspects, in terms of wage differences, were also related to the discussion in the sense that if you live on a low salary, which most of the Brazilian citizens do, the focus becomes to survive instead of planning the future. Stig from Stora Enso also stated that for developing countries, the most crucial aspect has to be dealt with before sustainability aspects such as proper labor conditions

and environmental regulations can be established. Therefore, we argue that time perceptions clearly form sustainability approaches.

Another factor, which relates to far more issues than what sustainability is concerned, is the governmental management and how it is conducted. All Brazilian actors interviewed, recognized their government as poorly organized with a complex system of different executive bodies, legislating without synchronization of decisions. Discussion was also raised regarding some port authorities' lack of specialized applicable port knowledge, resulting in unequal dispersion of resources. For the port, Jonas argued, this kind of management is specifically harmful since insufficient organization leads to problems such as congestions and stagnated innovation. In the end, this may result in hampered growth since this hassle slows trading procedures considerably. No Swedish respondent emphasized any considerable managerial issues in the Swedish government.

Based on our findings, the short-time perspective and poor management affect the Brazilian attitude towards sustainability. The seriousness of the concept is not valued particularly significantly compared to Sweden, which indicates a rather strict approach. When governmental management is poorly organized and when consequences in the future are not of concern, we see that sustainability becomes a rather unimportant concept, forming the attitude.

5.2 Consequences of different approaches towards sustainability

It becomes evident from primary data collected that different approaches towards sustainability do not affect relations between investigated actors in the logistics chain where a rather broad scope of approaches are applied. We suggest that the major consequence of various perceptions turns into an issue when it comes to customers' understanding and behaviour. Customers in general are reluctant to pay extra for sustainability, not ranking it as a high priority. In addition, the less comprehensive understanding of sustainability in Brazil automatically leads to a decreased demand for it. Many people and companies treat sustainability as a costly and complicated concept, not a concern of theirs. But in Sweden awareness of sustainability is rather high and the general demand for sustainable solutions is stronger than in Brazil. Despite this, almost all respondents stated that the interest in it is growing significantly, but the main problem remains: When it all comes down to decisions, the cheapest options are still preferable over sustainability.

We argue that low level of discrepancies in the investigated logistics chain partly can be explained by a low level of expertise among customers. When parties negotiate, it often happens that one party does not possess the necessary expertise and relies on the service provider. Additionally, when sustainability requirements are set, not much negotiation about its perceptions takes place between actors. The process is more straightforward: Either you comply with our sustainability standards or we find another partner.

If we look beyond the logistics chain in focus, we notice a number of coordination issues, related to institutional entities as consequences. For instance, almost all respondents expressed concerns about SECA rules, explaining that potential increase of prices for sea transport may lead to switch of transport modes where land transport may be prioritised over sea carriers. The shipping lines raised the interesting question of abundant number of legislations globally, including environmental standards, and claimed that unification of a regulative framework would facilitate more efficient operations. Coordination issues were apparent in Brazil with its complicated environmental regulations and mentioned already poor compliance.

Finally, as it was expected, measuring sustainability is a challenging task, that can be said to be a result of unclear perception of sustainability. Quantitative measures such as emission rates and budget goals were described as the least troublesome, while social aspects were regarded as more problematic to measure and present considering that indicators for these aspects are not evident. The issue seems to be relevant for shipping industries. Maersk Line, for instance, is currently working on creating these standards. Here, the statement of Bretzke and Barkawi (2013, p.3), "*You cannot design what you cannot define*", deserves acknowledgement again. As long as there is weak understanding of sustainability components, the measurability process will be dispersed as well as the validity of the data presented can be questioned. In Brazil, however, even measurements of the environmental dimension are not paid attention to, which lead to the situation when western corporations experience significant difficulties dealing with local companies in emerging markets; the transparency is low and these companies may simply be avoided by global enterprises.

6. Conclusions

This final chapter will conclude our research with major findings obtained during investigation of the different actors in the chosen case study. Firstly, the aim of the research will be described. Further, answers on the research questions as well as discussion upon their implications will be presented. Lastly, this discussion will lead to suggestions for further research.

The study aims to investigate differences between actors' approaches towards sustainability along the international logistics chain as well as implications of these differences.

The theoretical background identified that the sustainability content is truly dispersed. Upon this fact, we found it important to investigate the reasons for this phenomenon as well as the consequences of this in the international business chain with Sweden and Brazil as countries in focus. However, some considerations have to be made regarding the research purpose. In the primary stage of this study, we assumed the international business chain to be a static concept that would be sufficient to serve our research aim. But the scope of this chain was not enough to fully understand the nature of the problem raised and a rather broad perspective was included in our findings.

Our first research question is:

What are the reasons for different understanding of sustainability in the international logistics chain?

Our suggested conceptual framework (figure 4) helps us to explain what forces affect company's sustainability performance. Firstly, we can conclude that independent of business context, sustainability actions are stakeholder driven for all actors. Customers and government are by far the strongest influencers. The government will impose the minimum requirements, but it is the customer that drives the demand for sustainability. In Sweden, this stakeholder group is more powerful and thus the country demonstrates better performance in sustainability compared to Brazil, where customers in general do not have a substantial impact due to their cost orientation, low interest and educational limitations. Secondly, poor institutional management complicates processes of sustainability. This has to do with the fact

that a considerable part of the sustainability concept is imposed by governmental legislation. When synchronization among legislative bodies is low, the penalization system is not in place and regulations are constantly changing, the level of compliance to laws becomes low. With such issues, the path towards full integration of sustainability becomes problematic. This situation is particularly the case for Brazil. Even with major improvements, several other issues have to be settled before developing sustainability in the country. Thirdly, sustainability is a very contextual concept, which further explains differences in sustainability approaches. Such factors as country, industry and company type matter. Larger enterprises, in our case shippers, demonstrate more comprehensive understanding of the concept, which can also be explained by the nature of the logistics industry that is heavily regulated.

However, our conceptual framework does not explain every affecting factor. After conducting the research we can conclude that differences in understanding of sustainability also have to do with cultural aspects. In particular, time perceptions turn out to affect the perceptions. The short-term perspective in Brazil influences people's attitude: individuals and companies want to achieve results immediately and benefits of effective planning are not widely recognized which is reasonable when you live "here and now". In such a context, the concept of sustainability is not applicable efficiently, compared to Sweden with its strategic vision towards future outcomes.

The second research question is:

What are the consequences of these differences in the logistics chain?

Interestingly, the investigated chain did not demonstrate any significant discrepancies in terms of different perceptions. The effects can be seen though in a wider scope. Different attitudes towards sustainability are apparent among customers, who in general are reluctant to pay extra for sustainability options. Additionally, various approaches may impact trading pattern between countries; if companies in a particular national context are not transparent and do not work with sustainability explicitly, their competitive advantage is lowered, making them less attractive partners for international companies. Finally, a non-standardised approach complicates measurability of sustainability, which concerns particularly the social dimension; not many actors understand which indicators should be used and thus this data is seldom collected and presented.

6.1 Suggestions for further research

Based on the results of this thesis, we find several aspects for further research interesting to investigate. Firstly, in order for people to understand and value sustainability, the benefits of complying with it, as well as the consequences of neglecting it, have to be obvious. Secondly, the long-time perspective of this concept makes actors reluctant to implement it since the distance between cost and benefit is too far. Hence, the question becomes: How can you make sustainability tangible?

Furthermore, all respondents named customers as primary stakeholders, not only affecting the company as such but to be the driving force for implementing sustainability strategies. Paradoxically, almost every interviewee also mentioned customers as reluctant to pay extra for sustainability. How can this paradox be explained?

As the scope of affecting parameters for every actor in the chain turned out to be much wider than we primarily thought, several factors were added into the considerations. One of them was culture, as time perception turned out to have substantial influence on the perception. To change a person's behavior and beliefs is far more complex than a knowledge-based understanding. Thus, how can you overcome cultural differences in perceptions of sustainability?

Finally, one of the main problems with sustainability is that all actors have their own definition of the concept and apply it in accordance to their own surroundings. A solution to this problem, leaning towards a better cooperation, would most likely improve the overall contributions to sustainable development. Therefore, a question interesting to investigate would be: Will unified international standards facilitate the understanding of and contribution to sustainability?

7. References

Appel, F. et al (2010) “Delivering tomorrow: Towards sustainable logistics”. Bonn: Deutsche Post AG

BADECEL (2014) Statistical database on foreign trade in Latin America and the Caribbean. Available at: <http://interwp.cepal.org/badecel/index.html> (Accessed April 10).

Baughn, C. et al (2007) “Corporate Social and Environmental Responsibility in Asian Countries and Other Geographical Regions”. *Corporate Social Responsibility and Environmental Management*, Volume 14, Issue 4, pages 189–205.

Bergman, B., & Klefsjö, B. (2003) *Quality from customer needs to customer satisfaction (2nd ed.)*. Lund: Studentlitteratur.

Bergqvist, R. (2012) Lecture notes distributed on Transportation course at the School of Business, Economics and Law, Sweden, in September, 2012.

Bidgoli, H. (2010) “The Handbook of Technology Management”, Volume 2: *Supply Chain Management, Marketing and Advertising, and Global Management*. Available at: <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-047024948X.html> (Accessed January 30)

Bretzke, W-R & Barkawi, K. (2013) *Sustainable Logistics: Responses to a Global Challenge*. Berlin: Springer.

Bryman, A., & Bell, E. (2003) *Business Research Methods*. 3rd ed, New York: Oxford University Press.

Campbell, J. L. (2007) “Why Would Corporations Behave in Socially Responsible Ways? An Institutional Theory of Corporate Social Responsibility”. *The Academy of Management Review*, Vol. 32, No. 3, pp. 946-967.

Carbone, V. et al. (2012) "Mapping Corporate Responsibility and Sustainable Supply Chains: an Exploratory Perspective". *Business Strategy and the Environment*, 21, 475–494.

Carriga, E., & Mele, D. (2004) "Corporate Social Responsibility Theories: Mapping the Territory". *Journal of Business Ethics* 53: 51–71.

Carroll, A., B. (1991) "The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders". *Business Horizons*, vol. 34, no. 4, pp. 39-48.

Clarkson, M. (1995) "A stakeholder framework for analysing and evaluating corporate social performance", *Academy of Management Review*, Vol. 20 No.1, pp.92-117.

Clegg, S., & Bailey, J., R. (2007) *International Encyclopedia of Organization Studies*. SAGE publications.

Clifton, D., & Amran, A. (2010) "The stakeholder Approach: A sustainability perspective". *Journal of Business Ethics*. Vol 98 (2011), pp. 121-136.

Collis, J., & Hussey, R. (2009) *Business Research: A practical guide for undergraduate & postgraduate students*. 3rd ed, Gordonsville: Palgrave Macmillian.

Council of Supply Chain Management Professionals (CSCMP). (2013) "Glossary of CSCMP". Available at: <http://cscmp.org/about-us/supply-chain-management-definitions> (Accessed February 20, 2014).

Cullinane, S & Edwards, J. (2010) *Benefits and costs of switching to alternative fuels*. From: McKinnon et al (2010). *Green Logistics*. Kogan Page

DiMaggio, P. J., & Powell, W. W. (1983) "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields". *American Sociological Review*, Vol.48, No. 2, p.147-161.

Donaldson, T. & Preston, L.E. (1995) "The stakeholder theory of the corporation: concepts, evidence and implications", *Academy of Management Review*, Vol. 20 No.1, pp.65-91.

Elof Hansson (2014) "Elof Hansson Trade". Available at: <http://www.elofhansson.com/elof-hansson-trade/>. (Accessed April 20)

Environmental leader (2013) "Sweden Most Sustainable Country in the World". Available at: <http://www.environmentalleader.com/2013/08/19/sweden-most-sustainable-country-in-the-world/>. (Accessed May 10, 2014).

Esaiasson, P., et al (2004) *Metodpraktikan: Konsten att studera samhälle, individ och marknaden*. Stockholm: Norstedts juridik

Forest Stewardship Council (FSC) (2014) "Certification FSC". Available at: <https://us.fsc.org/certification.194.htm>. (Accessed February 19)

Freeman, R. (1984) *Strategic Management: A Stakeholder's Approach*, Pitman, Boston, MA.

Freeman, R. (2002) "Stakeholder theory of the modern corporation", in Donaldson, T., Werhane, P. (Eds), *Ethical Issues in Business: A Philosophical Approach*, 7th ed., Prentice-Hall, Englewood Cliffs, NJ, pp.38-48.

Friedman, A., Miles, S. (2006) *Stakeholders: Theory and Practice*, Oxford University Press, Oxford.

Garvare, R., and Johansson, P. (2010) "Management for sustainability - A stakeholder theory", *Total Quality Management*, Vol. 21, No. 7, pp. 737-744

Ghuri, P. (2004) "Designing and Conducting Case Studies in International Business Research", in Marschan-Piekkari, R. and C. Welch (eds.) *Handbook of Qualitative Research Methods for International Business*, pp. 109-124.

Gurtoo, A. & Antony, S. J. (2009) "Deliberating indirect consequences of environmental legislations on economy and business", *Int. Jl. Environment and Sustainable Development*, 8(2), 113-131.

Göteborgs Hamn (2014) “Välkommen till Göteborgs Hamn”. Available at: <http://goteborgshamn.se/>. (Accessed April 15)

Haanes, K. et al (2012) “Sustainability nears a tipping point”. *MIT Sloan Management Review*, Vol. 53, no.2 69-74. Available at: <http://sloanreview.mit.edu/issue/winter-2012/>. (Accessed March 15)

Halme, M., et al (2009) Corporate Responsibility: Reflections on Context and Consequences. *Scandinavian Journal of Management* 25 (1): 1-9.

Hamburg Süd (2014), “About us”. Available at: <http://www.hamburg-sued.com/group/en/corporatehome/index.html>. (Accessed April 10).

Harrison, A., & Van Hoek, R. (2011) *Logistics management and strategy. Competing through the supply chain*. 4ed. Gosport: Ashford Colour Press Ltd.

Hechter, M., et al (1990). *Social Institutions: Their Emergence, Maintenance, and Effects*. New York: Aldine de Gruyter.

Hill, C. &, Jones, G. (1998) *Strategic Management Theory: An Integrated Approach*, Houghton Mifflin, Boston, MA.

Hoepner, A., G. et al (2010) “Corporate Social Responsibility Across Industries: When Can Who Do Well by Doing Good?” Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1284703 (Accessed February 15, 2014)

Hopkins, M. (2011). *A Planetary Bargain: Corporate Social Responsibility Comes of Age*. UK, Macmillan

IBAMA (2014), “Brazilian Institute of Environment and Renewable Natural Resources”. Available at: <http://www.ibama.gov.br>. (Accessed April 20).

International Maritime Organization IMO (2014) “Sulphur Oxide regulations”. Available at: [http://www.imo.org/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Sulphur-oxides-\(SOx\)—Regulation-14.aspx](http://www.imo.org/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Sulphur-oxides-(SOx)—Regulation-14.aspx) (Accessed March 3, 2014).

Inyang, B., J. (2013) “Defining the Role Engagement of Small and Medium-Sized Enterprises (SMEs) in Corporate Social Responsibility (CSR)”. *International Business Research*; Vol. 6, No. 5.

ISO (2014) “ISO 14000 - Environmental management”. Available at: <http://www.iso.org/iso/home/standards/management-standards/iso14000.htm>. (Accessed March 10, 2014).

Jennings, P. D., & Zandbergen 95P: “Ecologically Sustainable Organizations: An Institutional Approach” *The Academy of Management Review*, Vol. 20, No. 4 (Oct., 1995), pp. 1015-1052.

Kechiche, A., & Soparnot, R. (2012) “CSR within SMEs: Literature Review”. *International Business Research*; Vol. 5, No. 7.

Kiron, D. et al (2013) “Sustainability’s Next Frontier”. *MIT Sloan Management Review*. Available at: <http://sloanreview.mit.edu/projects/sustainabilitys-next-frontier/>. (Accessed March 15).

LabTrans (2014) “Laboratório de Transportes e Logística”. Available at: <http://www.labtrans.ufsc.br/>. (Accessed April 25)

Lorenzo, R. (2011) *Addressing stakeholders and better contribution to sustainability through game theory*. Sustainability research institute, School of earth and environment, London

Maersk (2014) “About us”. Available at: <http://www.maerskline.com/sv-se/> (Accessed April 11).

Mainardes, W. A. H., & Raposo, M. (2011) “Stakeholder theory: issues to resolve”. *Center for studies in management science*, Vol.49 No. 2 2011, PP.226-252.

Merriam, S. B. (1998) *Qualitative Research and Case Study Applications in Education*. San Francisco: Jossey-Bass Publishers.

Maignan, I & Ralston, D. A. (2002) “Corporate Social Responsibility in Europe and US Corporate Social Responsibility in Europe and the U.S.: Insights from Businesses' Self-presentations”. *Journal of International Business Studies*, Volume 33, Number 3, pp. 497 – 514.

Matten, D., & Moon, J. (2008) “Implicit and explicit CSR: A conceptual framework for a comparative understanding of corporate social responsibility”. *Academy of Management Review* 2008, Vol. 33, No. 2, pp. 404–424.

Monnet, J. M. & Le Net, E. (2011) *Assessment of logistics concept to sustainability: Development of a common approach to transport issues*. Torikatu: European Forest Institute

Muller, A., & Kolk, A. (2009) “CSR Performance in Emerging Markets Evidence from Mexico”. *Journal of Business Ethics* 85 (2):325 - 337

Oxford dictionaries (2014) “Logistics: definitions of logistics in English”. Available at: <http://www.oxforddictionaries.com/definition/english/logistics?q=logistics>. (Accessed February 9, 2014).

PEFC (2014), “Forest Certification”. Available at: <http://www.pefc.org/certification-services/forest>. (Accessed March 2, 2014)

Post, J. E., & Berman, S. L. (2001) “Global corporate citizenship in a dot com world”. In J. Andriof, ed. & M. McIntosh (Eds.), *Perspectives on corporate citizenship* (pp. pp. 53–65). Sheffield: Greenlea.

Roberco, G. (2013) *Measuring country intangibles: RobercoSAM's country sustainability ranking*. RobercoSAM AG 08/2013, Switzerland

Rodrigue, J-P et al. (2013) *The Geography of Transport Systems*, Hofstra University, Department of Global Studies & Geography. Available at:

<http://people.hofstra.edu/geotrans>. (Accessed March 15, 2014)

SCB (2014) "Export till våra 30 största handelspartner". Available at: http://www.scb.se/sv_/Hitta-statistik/Statistik-efter-amne/Handel-med-varor-och-tjanster/Utrikeshandel/Utrikeshandel-med-varor/7223/7230/26637/. (Accessed April 1st, 2014)

Scott, W. R. (1995) *Institutions and Organizations*. Thousand Oaks: SAGE.

Stopford, M. (2009) *Maritime economics. 3 ed.* New York: Routledge

Swedish Institute for Quality [SIQ]. (2002) "The SIQ model for performance excellence". Gothenburg: Author.

The World Business Council for Sustainable Development (WBCSD). (1998) Report "CSR: Meeting changing expectations". WBCSD Publications

Tullberg, J. (2011) "Stakeholder theory: Some revisionist suggestions". *The Journal of Socio-Economics* 2013, Vol. 42, pp. 127–135

United Nations. (1987) "World Commission on Environment and Development's (the Brundtland Commission)" Report *Our Common Future*. Oxford: Oxford University Press, 1987

United Nations. (2007) "Sustainable development knowledge platform". <http://sustainabledevelopment.un.org> (Accessed January 28, 2014).

UNCTAD (2013) "National and real GDP totalt, measured in US dollars millions, 2012". Available at: <http://unctadstat.unctad.org/TableViewer/tableView.aspx>. (Accessed April 1st, 2014)

Voss, Z., Voss, G. & Moorman, C. (2005) "An empirical examination of the complex relationships between entrepreneurial orientation and stakeholder support", *European Journal of Marketing*, Vol. 39 Nos 9/10, pp. 1132-50

Weele A. J. (2010) *Purchasing and supply chain management*. 5ed, Cengage Learning EMEA.

Williams, C. A., & Aguilera, R. V. (2006) "Corporate social responsibility in a comparative perspective". Available at;
<http://business.illinois.edu/aguilera/pdf/williams%20aguilera%20oupfinal%20dec%202006.pdf> (Accessed February 10, 2014).

Wilmsmeier, G. (2013) "Sustainable Logistics, future challenges". *The authors were provided with the article personally.*

Yin, R. K. (1994) *Case Study Research – Design and Methods*. Thousand Oaks: SAGE Publications.

Appendix

1. Interview guide

1. How do you define sustainability?

- Do you pay equal attention to all aspects of sustainability? (economic, social, environmental)
- According to you, what is sustainable logistics?

2. Do you have a specific strategy towards sustainability?

- If so, how do you implement it?
- Do you have any standards such as ISO needed to be followed?
- What forces are behind your sustainable decisions?

3. How do you measure your sustainability performance?

- Do you face any obstacles with measurements?
- Do you measure your sustainability performance using indicators? If, yes which indicators do you use?

4. Is your way of valuing sustainability coherent with the companies you work with in your logistics chains?

- Do you discuss/agree sustainability standards with your logistics supply chain partners?

5. Do you perceive any discrepancies among actors in your supply chain regarding sustainability?

6. What are your most important stakeholders?

- Do you experience a lot of pressure from stakeholders?
- What actors do shape your sustainability strategies the most?

7. In terms of sustainability, what do you see as the main three challenges in improving your logistics supply chain performance in..

... the next year?

...next 5 years?

... next 10 years?

2. List of interviewees

| Actor | Representative | Interview type |
|--|--|--|
| 1. Elof Hansson, office in Gothenburg (Sweden) | Tomas Hultgren , Senior Vice President (paper division) Petter Olsson , Area manager (shipping division) Annika Eriksson , Sales manager (paper division) | Face-to-face group interview, 1 hour |
| 2. Port of Gothenburg | Anna Jiven , Environmental Manager | Face-to-face interview, 40 minutes |
| 3. Maersk Line, office in Gothenburg | Charlotte Evans Blomberg , Communication Manager | Face-to-face interview, 30 minutes |
| 4. Maersk Line, office in Copenhagen (Denmark) | Signe Bruun Jensen , Senior Global Advisor, Environment and CSR | Telephone interview, 30 minutes |
| 5. Hamburg Süd, office in Gothenburg | Petra Hjortmarker , Sales Manager | Face-to-face interview, 40 minutes |
| 6. Hamburg Süd, office in Hamburg (Germany) | Frank Dubielzig , Sustainability Manager | Telephone interview, 1 hour |
| 7. Stora Enso logistics, office in Gothenburg | Stig Wiklund , Vice President | Face-to-face interview, 40 minutes |
| 8. Maersk Line, office in Sao Paulo (Brazil) | Mario Veraldo , Sales director | Face-to-face interview, 40 minutes |
| 9. Hamburg Süd, office in Sao Paulo | Fabio Grandchamp , Procurement and Business Intelligence Manager | Face-to-face interview, 1 hour |
| 10. Elof Hansson, office in Sao Paulo | Waldir Moidim , Managing director Vanessa Salgado , Foreign Trade Analysts Ednea Synthes , Sales department Nurya Fernanda Saito , Sales department | Face-to-face group interview, 40 minutes |
| 11. Elof Hansson, office in Curitiba (Brazil) | Fabio Waldruiges , Area Manager | Face-to-face interview, 40 minutes |
| 12. Berneck, office in Curitiba | Daniel Kokot , Sales Manager | Face-to-face interview, 40 minutes |
| 13. Federal University of Santa Catarina, Florianopolis (Brazil) | Enzo Morosini Frazzon , Professor Jonas Mendes Constante , Project Manager | Face to face group interview, 1 hour |
| 14. Grupo Curimbaba, office in Sao Paulo | Fabrizio De Paulis , Corporate Logistics Manager | Face-to-face interview, 1 hour |
| 15. University of Sao Paulo | Vivian Merola , Consultant Ingrid Maria Öberg , earlier employed at IBAMA as regional chef | Face-to-face group interview, 1 hour |

