The Swedish Container Shipping Industry: an Analysis of the Service Quality Perception and its Measurement

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Abstract

Title The Swedish Container Shipping Industry: An Analysis of the Service Quality Perception and its Measurement

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Purpose of the paper The aim of this research paper is to gain a greater understanding of the container shipping industry. This way the notion of service quality can be brought to the given industry and acknowledge the perceptions of various actors regarding the aspects of quality in seaports. This study aims to analyze the service quality in a container terminal as well as confronting the views of service providers and their customers.

Methodology In order to complete the study, a qualitative approach have been used, composed of 11 interviews, completed by 1 focus group. The interviews could be assimilated as case studies due to the access of several documents, analyzed at a later stage.

Findings The findings of this research show that the academia relates a globally accurate image of the industry practices within the container shipping industry. However, several components of the service quality could be evaluated differently, including a better understanding of the Swedish market specificities, and the application of some of the following factors to the named market. The factors concerned by the gap between the academia and the industry practices are the lack of insights on consistency, flexibility, service encounter and relationships, and an over-developed interest for security and safety, certifications and measuring scales.

Value This thesis was written with the objective of associating the academia with industry practices. In addition, the perception of quality by different actors in the container shipping industry are confronted to enlighten the gaps around the concept of service quality.

Research Implications This research study attempts to bring new insights on the Swedish container shipping industry and confront the results of previous studied to this specific market. In addition, the confrontation of perspectives from the actors interviewed aims to increase the academic knowledge on the service quality perceptions in the container shipping industry.

Practical implications Industry wise, this research study attempts to give insights to industry practitioners and increase their understanding of components of service quality. Additionally, this thesis aims to reduce the perception gap between seaports service providers and their business customers, using seaport on a daily or regular basis. The ultimate objective is to reduce the gaps by providing a better cost-service balance.

Key Words Supply Chain & Logistics, Transportation, Shipping Industry, Container Shipping, Sweden, Service Quality, Quality Perception, Business-to-Business, Seaport Services

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This thesis is dedicated to my beloved grandmother, Thérèse Balay, 20-04-2017.

Table of Contents

Table of Figures

List of Tables

1. Introduction

The introduction section presents the background of the topic studied in this research paper. Starting from a global picture, this section based on a funnel model, gradually, narrows down to the topic specifically. By following this path, the thesis aspires to link the academia and the industry. This section is built on several sub-sections, aiming at describing the underlying problems and purpose of the research paper. Various delimitations and specific focuses will also be considered.

1.1. Background

The container shipping industry is vast and made of several units and aspects (T. E. Notteboom, 2004), it can be illustrated by the fact that around 80% of the worldwide traded goods are shipped using seaborne cargoes (International Maritime IMO, 2018). Containers have revolutionized the shipping industry by offering a standards way of carrying all types of goods, being their own storage units and which are handled in a similar and globalized manner in seaports around the world. Though the container has been a technical progress for the industry, the seaports had to rethink their role and way of functioning in order to attract global cargo carriers (Rodrigue & Notteboom, 2009).

The role of seaports is then a determinant factor for the attractiveness as well as the efficiency of the container shipping industry. In fact, customers assimilate a seaport as the interface between ocean and hinterland transportation, where the port acts as a hub which forwards containers from one mode to another. Their role can be quite extensive, depending on their size, location, attractiveness, and the fierce competitions among players in this industry (Slack, 1985).

As previously shown, the freight transportation is important and global, making seaports more competitive. It can be noted that their function and abilities are creating attractiveness but the questions remaining is: what are the aspects benefiting the smoothness in the delivery flows? And, how seaports are able to retain the current customers, while increasing their activity level? (McKinnon, 2006). Consequently, several hypotheses emerged in the academia, trying to picture the container shipping industry, and how it can be analyzed. A variety of researchers agreed on the importance of quality as one of the crucial factors for a productive, efficient and profitable industry (Lopez & Poole, 1998; Pantouvakis, Chlomoudis, & Dimas, 2008; Slack, Comtois, & McCalla, 2002).

Yet, seaports are free to be internally organized and managed according to corporate strategies, which is where the notion of quality can be defined. In both cases of a well-developed or a fast-growing port, the quality must be defined in order to set goals and strategies to follow. Indeed, the quality is often assimilated to the quality of the service offered to the customer, which is what defines port sites as attractive or not (Durvasula, Lysonski, & Mehta, 1999; Lopez & Poole, 1998; Pantouvakis et al., 2008). Within the academia, the notion of service quality can be defined in several ways, however, the common point among the researchers is the consistency in meeting the customers' needs and expectations (Grönroos, 1984; Lewis, 1989; Anantharanthan Parasuraman, Zeithaml, & Berry, 1985).

Departing from the elements given above, the determinants of service quality applied to the container shipping industry are split into two main areas: the industry-driven factors and the customer-driven factors.

Some researchers recognize the industry-driven service quality components as the geographical location of the seaport container terminal, its efficiency at various levels, but also the various security and safety factors (Durvasula et al., 1999; Lopez & Poole, 1998; Pantouvakis et al., 2008; Slack et al., 2002; Ugboma, Ogwude, Ugboma, & Nnadi, 2007). On the other hand, the customer-driven factors could be defined by the company growth, the customer loyalty and satisfaction and the servicescape (Durvasula et al., 1999; Grönroos, 1984; Kim, 2009; Lewis, 1989).

Based on the academia and some researches executed in this industry (T. Notteboom & Rodrigue, 2009; T. E. Notteboom, 2004, 2005), the service quality has an undeniable impact on the attractiveness of a container terminal. Approaching this notion with another perspective and stance could then interesting to study. Additionally, as the literature review will highlight, the perception of quality regarding a service tends to be subjective and so, depends on individuals (Cronin Jr & Taylor, 1992; Gronroos, 1988; Grönroos, 1984; Lewis, 1989, 1993).

1.2. Purpose of the Study & Research Question

As mentioned previously, the concept of quality can be quite extensive and diverse. The idea behind this reasoning can be explained by the number of industries as well as practices. Each player in the industry has a different impact on the output and the handlings along processes, starting from its design to its delivery to the final customer. Unlike the later one, practitioners will have a different view on the process, due to the variety of objectives proper to the missions and strategies set to reach the requirements of the step they are in charge of. When looking at the bigger picture, and commonly to various industries, the more the supply chain is smooth and optimized, the better the outcome will be. This can be in terms of cost, quality or resource utilization (Croom, Romano, & Giannakis, 2000; Melo, Nickel, & Saldanha-Da-Gama, 2009).

As of quality, the Academia identified various factors that can be assimilated as influencers of the quality perceived by industry practitioners. However, the question raised could be, from which perspective are these factors found? In fact, the major part of the academic literature would focus on the quality perceived by the customers, without taking into account what the service provider understands as being qualitative. In activities having logistics at their core, service providers and consumers could agree on several factors in terms of cost, speed or efficiency (Chen, Chang, & Lai, 2009; Durvasula et al., 1999).

On the other hand, the Academia focused mainly on the role of ports and how their activities benefit the supply chain, in terms of efficiency and organization for the transfer of containers or other merchandises. While the maritime industry has been largely studied, identifying various aspects and promoting its importance for economies, development of regions and its impact on regulation, the role of container terminals stayed at its primitive aspect of being just a step in the supply chain (Alderton & Winchester, 2002; Fink, Mattoo, & Neagu, 2002; T. E. Notteboom, 2004, 2005).

The previous arguments, together with some aspects of the paper “Port choice and freight forwarders” (J. L. Tongzon, 2009), show a gap in the academic literature regarding the perception of quality or the criteria for port selection, presented from a dual perspective: seaport service provider and its users. In addition, these issues have not been brought to the Swedish market nor studied in this specific environment. All in all, the main problem that has been identified in when settling the background of this study is the lack of

application of the academic studies to the Swedish market. In addition, a problem rising in the logistics service studies is the unilateral view of a given situation, such as the concerns regarding the delivery of a good service level and quality.

Therefore, based on the previous arguments, this research paper will attempt to explore the service quality, as a broad spectrum of activities and components, influencing the outcome of the container terminal service level and offers. This study will try to share the perspectives of different industry professionals, evolving in this environment for several years. The service quality in the shipping industry is important as it concerns the container terminal itself, but also the activities link to it in order to carry the containers from and to a given place.

The starting point for this research paper is the identification of the aspects present in a container terminal, assimilated as qualitative for the industry practitioners. The aspects of service quality in the container shipping industry have been mentioned previously and studied in a global environment. For this reason, the first research question attempts to compare the global factors identified in the literature to the components that mattered in the Swedish market. This study is, indeed, focusing on the Swedish market, since there are few studies using the country as a case. In addition, the recent labor issues in Gothenburg, Sweden, have been a rising for the last years which has impacted the other ports of the country. Studying Sweden as the main reference point in this research paper aimed on reinforcing the maritime knowledge for this market. The research question is formulated as the following one:

RQ1: What are the main aspects of service quality in the Swedish container shipping industry?

The objective of this question is to understand whether the global factors shown in the relevant academic literature are also relevant to a given market and expose the potential differences. On an industry-based relevance, this question aims to enlighten practitioners on the aspects to focus on to provide a better global service.

In a second stage, the research study will focus on the perception of the quality, as part of the service. Once the aspects of the service quality will be identified, the following questions will aim on bringing a deeper understanding of the impact of service quality in the industry, and its perception in a daily environment. Two questions have been formulated for this inquiry:

RQ2: How is the service quality and its components perceived by the seaport service provider?

RQ3: How is the service quality and its components perceived by the seaport users?

The objective of these two questions is to first understand the service provider's point of view, and what is put in place to offer a qualitatively better service to its customers. In addition, and using the aspects found in the academic literature, the seaport service provider will be able to assess the degree to which these components are incorporated in the service offering. In opposition, the third question was created to gain similar insights, however, using the seaport customer perspective, regarding the service quality. On an academic level, these questions will attempt to join the perspectives of two actors of the shipping industry, as well as cross-checking the findings of the academia from another point of view. On the other hand, on an industry-based level, these questions are relevant to practitioners to master their offerings and understand better their business partners. The aim is then to optimize the service level and greater the customer satisfaction. Lastly, on a global level, the confrontation of the perspectives, will help to draw a more complete image of what is service quality in a container terminal.

In order to answer the research question at their best, this research paper will follow a qualitative approach. The reason is mainly to attempt understanding the different point of views and feelings of industry practitioners, which could not be accessed with a quantitative approach. In addition, the logistics industry lacks qualitative insights, which is why this paper will be written through the study of interviews, complemented by documents and reports if needed. The interviewees were, in majority, based in Stockholm and Gothenburg areas (Näslund, 2002).

1.3. Delimitations & Focus

Keeping in mind this statement, the research paper will be drawn around the container shipping industry, putting aside all other types of freight transportation. Most of the research process is accomplished within Stockholm's container terminal, in contact with professionals of the industry. However, the research process focuses on the head management team, on one side and looks into insights from business customers benefiting from the Ports of Stockholm services on the other side. The perspectives of the shipping lines and feeders will be taken into an account but not the ones from the cargo owners nor the cargo's personnel.

Additionally, this research paper focuses on the Swedish market. It is not excluding that insights from other seaports from Scandinavia will be considered, however, their influence on the research project is minor.

Lastly, it can be noted that the limited time allocated to this project (ed. around 5 months), can influence in some ways the number of interviews obtained, as well as the impossibility to have more than one interview per participant, however, the research was aimed at making the best understanding possible of this topic and being as reliable as possible within the given time frame.

1.4. Thesis Outline

This last sub-section of the introduction briefly presents the outline of the research paper as well as its organization. This thesis is built on 6 chapters, which will be illustrated as in the following figure (1).

- Chapter 1: Introduction
- Chapter 2: Theoretical Framework
- Chapter 3: Methodology
- Chapter 4: Findings
- Chapter 5: Analysis
- Chapter 6: Conclusion & Discussion

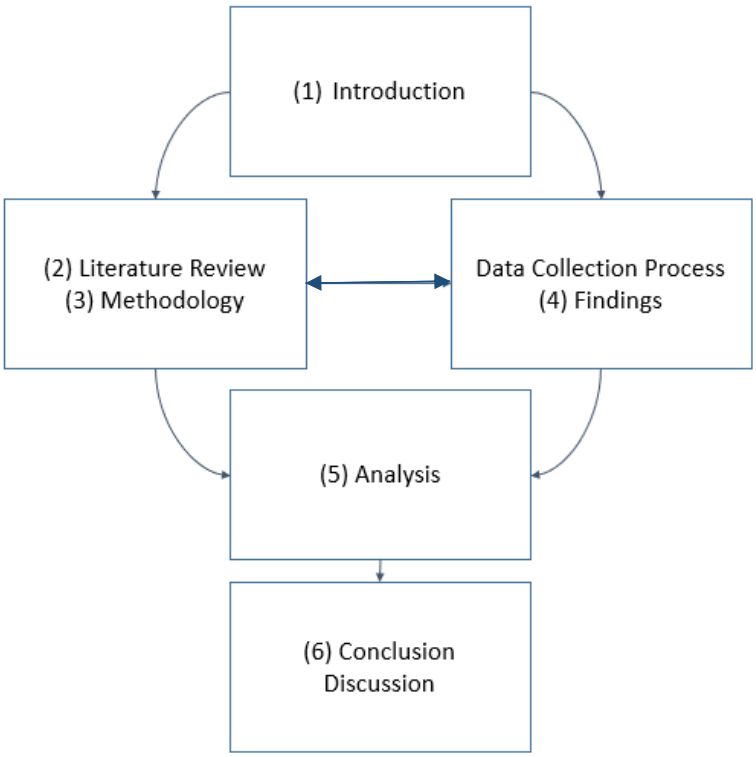

Figure 1: Thesis Outline and Research Process

In order to bring more details to the chart presented above, the author shared a brief overview of the process used in this researcher paper. This structure enabled to start by overviewing the field in which the study is taking place as well as the surrounding environment. The first part facilitates the formulation of three research questions that have been preliminary explored based on previous research and academic paper, which consists in the literature review. Based on the findings of previous studies, the methodology chapter have been set up to build a foundation to the research process. During the data collection process, the researcher has been researching additional information based on the respondents' statements back in the academic literature, which enabled follow-up interviews and a cross-check between all the data collected. Next, and founded on the previous chapters, the analysis of the collected data has been possible, deducting on a conclusion and discussion of the results.

2. Literature Review

The role of the literature review is to set a background for the study, as well as explain the context in which the research process will stand (Björklund & Paulsson, 2014). Setting a proper context for this research paper, the theoretical framework will explore the beginning of the quality measurements and will evolve into a more specific service-based research. The objective is to understand what makes the service quality so specific, and why the measurements will differ from a customer to a business customer. The third stage of this preliminary research is focusing on the container shipping industry, from where the service quality will be then studied. As it will be shown in the following subsection, the service quality is a broad concept which requires the authors of research studies to take a stance and specific perspective in order to give a focal point for the reader. In the case of this specific research paper, the study will be built upon the service quality, within the container shipping industry, and using the specificities of business customers. These four steps are constituting the foundation for the further stages of the research process, and most importantly, have the objective of bringing a solid basis for the first research question, in the identification of the service quality components in the container shipping industry. A fifth stage has been added during the research process based on industry insights which have not been focused on by the researcher at a prior stage. This sub-section focuses on a few aspects that have been noted as important by the research's respondents.

The literature review has been the first foundations to the creation of an interview guide for the later stage of the research study, for this reason, at the end of end sections will be exposed the preliminary interview questions that emerged from literature discussions.

The concept of service quality received extensive attention by the Academia since the 1980's and is still an ongoing process. On the other hand, service quality principles have been applied to various industries, and implemented by companies and corporations, due to the competitiveness in markets. In today's volatile markets, customers are less loyal to companies, have higher requirements as well as specific needs, which are asked with exigence on various levels (i.e. speed, customization, price etc.) (Gronroos, 1988; Lewis, 1989; Pantouvakis et al., 2008; Anantharanthan Parasuraman et al., 1985).

2.1. Quality and its Importance in Industrial Settings

Since the 1980s, quality has been a growing concept, which became a reference in the attraction of customers, measurement of performance as well as improvement of the company's offerings. In the latter years, together with the impressive growth of the tertiary sector, the concept of quality had to be adapted to different industries, products or services but also to different customer segments (Lewis, 1989). The interest in the study of quality has been growing in the researchers' sphere, for two main reasons. On the one hand, mainly due to the large interest for companies to use this concept to grow a long-term and profitable business, and on the other hand, due to the complexity in the definition of the concept. The concept of quality can be characterized as complex, because of various elements, starting with the number of definitions suggested to the reader. An extensive number of definition available to the reader or

researcher, shows the large number of research done on the topic, as well as the various levels the studies touched upon, and the details discovered by researchers (Crosby, 2006; Kara, Lonial, Tarim, & Zaim, 2005; Wicks & Roethlein, 2009). The complexity can also be explained by the perspective used by the authors of research papers. In fact, the quality of a service or product impacts many stakeholders, gravitating around the purchased service or product. The perspective of one stakeholder can completely differ from another, which shows the importance of the position of the author (Telford & Masson, 2005; Wicks & Roethlein, 2009). Lastly, the concept of quality, can be adapted regarding whether the purchase concerns a good or a service (Sower & Fair, 2005). The reason for this differentiation can be explained by the final use of the consumer but also by the evaluation process of the quality.

This research paper will be built on the definition of quality found in "A satisfaction-based definition of quality", defining the concept as being "the summation of the affective evaluations by each customer of each attitude object that creates customer satisfaction, where the term customer is defined as any internal or external stakeholder of the organization and an attitude object is any entity of interest" (Wicks & Roethlein, 2009, p. 92). Another stance taken for this paper is the area to study, which is reduced to services, and does not study goods nor products. The reasons for this decision can be seen in further development of the literature review, and later with the research methods. However, the concept of quality for services will be defined as "the measure of how well the service level delivered matches the customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis" (Lewis & Booms, 1983, in Anantharanthan Parasuraman et al., 1985, p. 42).

As seen in the previous definitions, the concept of service quality is quite broad, and the definitions can be vague for companies. The idea behind the stated definitions is that the quality of a service is evaluated by the customer when using it, the service quality can then be associated with the degree of conformity between the actual service and the customer's objectives or expectations prior to use. The quality is the result of the trade-off between the performance of the service and its price, which assesses its value (Ullrich, 2002). Even though the concept of service quality is complex, it does not take away its indispensability for industries due to its powerful impact on various levels.

Several reasons can explain the attractiveness of service quality, first, measuring quality enables the evaluations of the service offered. It is crucial for a company to know its service, what its offering consist of, and what are the performances sold to the customer. The ability of a company to know what its service is, shows its professionalism as well as its ability to adapt to customers (Bolton & Drew, 1991; Gronroos, 1988). In fact, by letting the customer evaluate the service, the company is, first willing to hear from its customers, and then able to improve it, enhance the performance and other aspects of the service to meet the specific requirements formulated by the customer (Lewis, 1989). This way the company can enter a process of customization and differentiation, which plays a role in the relationship between a customer and a business partner. Indeed, it tends to promote the long term benefits as well as loyalty and enhance the purchasing decision for future arrangements (Cronin Jr & Taylor, 1992). Another argument for the evaluation of the service quality, is its function of tool, which at a later stage enables the creation and adaptation of corporate strategies, such as distribution, marketing or pricing. In a similar way, the service quality has been defined as a "key strategic weapon", (Lewis, 1989, p. 5) which helps the company positioning itself in the market but also among its competitors (Lewis, 1989). By elaborating the right strategies, the company can understand better its customers as well as the underlying needs and wants.

It is important to notice that the more the company knows its customers, the more the company will be able to reduce its customers' uncertainties (Cronin Jr & Taylor, 1992; Lewis, 1989; Pantouvakis et al., 2008). Lastly, and in a similar way as the previous argument, service quality is the first step for many other aspects in management strategies. It is, together with serving better the current customers, retaining them and developing loyalty among them. The reasoning behind it, is mainly since, losing a customer in a competitive industry, will have consequences on both short and long runs, in terms of capital. Indeed, losing a customer reduce the potential amount of sales on the short term, but on a longer term, these customers tend to purchase services from competitors, which can be seen as a threat for the service provider (Reichheld & Sasser, 1990).

Through the literature introduced in this section, the importance brought to the notion of value has been noted. Consequently, the author chose to dedicate an interview question around the notions of service versus cost, in order to assess the value of the offered service.

2.2. Service Quality and Measuring Scales

After an introduction to some of the key notions regarding quality and why it is important for a company, this section is focusing on the quality of services and how it is measured in industrial settings. This research paper focuses on business customers rather than private customers, meaning that the literature will depart from the basics of service quality created for the business-to-customer sector, and explore its evolution onto the business-to-business sector, understanding the specificities as well as perspective of given industries.

Back in the 1980's, Grönroos published a number of articles focusing on service quality and explaining that the term quality and why service quality tended to be misinterpreted (Gronroos, 1988; Grönroos, 1984). The concept of service quality is partly based on consumer behavior theories and how quality is interpreted by the service user. Service quality can be described as the way customers perceive a service in order to evaluate it, where the evaluation factors are the performance and the value of the service (Bolton & Drew, 1991). The performance mainly consists of the evaluation of both the functional and technical qualities of the service offered. The functional quality focuses on the process while the technical quality focuses on the outcome, where the brand, image and reputation of the company can influence positively or negatively the overall evaluation (Grönroos, 1984). The objective for the service provider, once the customer assessed the service quality, is to understand and process this evaluation, in order to improve the service in a way that it would enhance the customer satisfaction (Lewis, 1993).

However, before the company access and manage the evaluation of the service quality, few factors should be considered in order to prevent a bad evaluation and increase the opportunity for the company to offer a better customer experience. There are several phases for customers to assess the quality of a service, which will usually start by looking at different aspects of the company itself. The starting point tends to be the professionalism and skills of employees, which is crucial since it is the first encounter or experience the customer will remember. These aspects of the company will be a part of the construction of its image

in the customer's mind and will influence the future interactions between both parties. The next step is the evaluation of the company's attitudes and behaviors, followed by the accessibility and flexibility. The latter dimensions are highly linked and aim to bring confidence in for the customer to facilitate the purchasing process. In fact, if the customer starts with a negative experience, it is foreseeable that the customer will be discouraged to continue the purchasing process. When these first steps are satisfying for the customer, he can then assess the quality of whether the company is reliable and trustworthy. This process tends to be accessed after using the service and will consider if the expectations have been met and if they have been exceeded, which brings the concept of service recovery if the service has not been delivered up to the expectations of the customer. The service recovery process, if offered in the best way, can act as a second chance for the company to reconquer the customer. Lastly, the customer will evaluate the credibility and reputation of the company, while keeping in mind its experience when using the service provided. This step can be assessed objectively or considering the customer's surrounding, which, in this case, can reduce the accuracy of the evaluation (Gronroos, 1988; Lehtinen & Lehtinen, 1991). The previous six elements explored in Grönroos's study, shows the importance of the buyer-seller interaction (also called 'service encounter' or 'moment of truth') which can influence the overall quality of the service. As a matter of fact, it is during the service encounter that the company can first evaluate the needs and wants of its customers, as well as communicate about the service and promote its benefits in order to enhance the perceived quality. By being customer-oriented, the company increases the customer satisfaction, the service quality as well as its image (Lewis, 1989). This process can then be defined as two dimensional since both parties will interact and evaluate each other.

In other words, understanding the concept of service quality enables service providers to provide a higher quality to their offers. As some studies showed, the links between service quality, customer satisfaction and purchasing behaviors are tight and so one tend to influence the others (Cronin Jr & Taylor, 1992). The service quality is formed by different dimensions, which complement each other in the overall evaluation of the service, however, the distinction between satisfaction, perception and service quality enable the service provider to focus on the right components to enhance the customer's experience. First, the perception, in the service quality literature can be defined as the wants and desires of customers. Second, satisfaction tends to be an overall mindset, which decline over time. Third of all, the perceived service quality, can be defined as being "a global consumer judgement or attitude, relating to service and results from comparisons by consumers, of expectations of services with their actual service performance" (Lewis, 1993, p. 4).

Most of the time, to assess the service quality, customers are unconsciously using either a three-dimensional process, evaluating a service on the physical, interactive and corporate qualities, or, a two-dimensional process, evaluating a service on the process and output qualities. Using a three-dimension approach, the physical quality of a service consists of the physical aspect of the offered service, for example, the facilities where the customer ordered the service, or the materials used to provide the service. The interactive quality can be summarized as, mainly, the service encounter, but it can equally be all interaction with equipment or online-based interactions. Lastly, the corporate quality, being the image, profile or reputation of the company, meaning how it has been built and how it is evolving over time. On the other hand, the two-dimensional process consists of the process quality, which is the customer judgement of his participation in the production process of the service, while the output quality focuses on the result of the

production process. The latter evaluation can also be influenced by the customer's surroundings as previously mentioned (Lehtinen & Lehtinen, 1991).

Service quality, regardless of the industry is a complex topic due to the large impact of the personal judgement of the customer, which can itself be shaped by its surroundings and environment. For this reason, the more the company can understand its customers, the better it will be able to provide the appropriate service with the best quality possible. If the evaluation of the service is based on a 'zero defect' policy, regarding both internal and external failures, the service level provided should be consistently delivered to the customer (Arun Parasuraman, Berry, & Zeithaml, 1991).

In order to better understand a customer's needs and desires, as well as improve the service quality, several tools, such as scales and models have been created. The SERVQUAL scale, created by Parasuraman, Zeithaml and Berry in 1985, has been, up to now, the most used scale regarding service quality. Even though its first purpose was to measure and improve service quality in a business-to-consumer environment, it has been used for all types of industries and services. This scale focuses on the gaps between the company's knowledge of the offered service and the perceived quality by the customer. The gaps identified, are evaluating the service quality on different levels in order for the service provider to face as many aspects of the service quality as possible (Anantharanthan Parasuraman et al., 1985). The SERVQUAL scale, is the most academically verified and so used in most of the service quality studies, at least as a departing point in order to validate other studies (Chen et al., 2009; Gounaris, 2005; Pantouvakis et al., 2008).

The SERVQUAL scale uses five main gaps between the company and the customer perceptions to measure the service quality, which later, enables the identification of ten determinants of the service quality, namely: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding and knowing the customer and finally, tangibles. Each of these dimensions are divided into several sub-factors which enable a more in-depth understanding of the customer's perception of the service. Each factor and its sub-categories are touching upon various areas of the service from the process to the outcome, where most of the service quality aspects can be identified and measured. Once the company access the customer's evaluation, it is easier to understand where the improvements should be made and what the customer is expecting when purchasing this specific service (Anantharanthan Parasuraman et al., 1985). To facilitate the evaluation of service quality, the previously stated ten dimensions are collapsed into five service quality dimensions which are: tangibles, reliability, responsiveness, assurance and empathy. Even though there is a large number of factors to consider and take into account, this complex scale aims to measure "the general expectations of customers concerning a service, and the perceptions of customers regarding the levels of service actually provided by the company within that service category" (Ladhari, 2009, p. 174). Moreover, the assessment of items is made based on a Likert-scale so that respondents can choose to which extent they agree with the statement provided by the company. The advantage given by the SERVQUAL scale is its adaptability to various industries, countries and types of customers. Measuring the quality of a service enables the creation of standards and promotes the strong points of the industry (Ladhari, 2009; Arun Parasuraman et al., 1991; Anantharanthan Parasuraman et al., 1985).

Yet, academics and practitioners have brought up some criticisms towards this scale. Indeed, some industries, services or specific environments (i.e. online, cultural contexts etc.) cannot apply to all extents

this scale as it was primarily published. For these reasons, other scales or model have been elaborated in order to fit the requirements of their studies, and so, having a more precise outcome to the measurement of the service quality (Ladhari, 2009). For example, the SERVPERF model studies, in depth, the performance of the service as the main component of quality. However, both the SERVQUAL and SERVPERF scales are complementary and by deepening the research on the performance of the service, ultimately, the company will benefit from this knowledge gained (Cronin Jr & Taylor, 1994). In addition, the result from a scale can vary from the result of the other one due to the weight given to different items, but also to the type of industry or the customization level of the service offered (Carrillat, Jaramillo, & Mulki, 2007).

By studying the performance of a service, researchers have been able to establish the link between service quality, customer satisfaction and purchasing behavior, resulting in the possibility of creating customers' loyalty program (Cronin Jr & Taylor, 1992). The link between these factors, as a part of the business-to-business service quality, has also been identified, to some extents, by Parasuraman (1998), with four gaps between the buyer and the seller. The first one being the market information gap, which is the difference between what the sellers know about the customer's expectations and their actual expectations. The following gap concerns the standards of the service, mainly regarding the service encounter. This concerns the difference between what the customer expects to experience when meeting employees or personnel. The third gap concerns the performance of the service and whether the company and its employees can deliver the service offered within the communicated standards. Lastly, the internal communication gap regards the difference between what the customer was told and the actual performance of the service due to miscommunication of employees beforehand (Anantharanthan Parasuraman, 1998).

Following a similar path, some researchers have been using the SERVQUAL scale as a first step to build on their studies and adapted it to the specificities of the chosen field of research. For instance, Durvasula et al. based their study *"Testing the SERVQUAL scale in the business-to-business sector: the case of ocean freight shipping services" (1999)*, on a three-dimensional scale, where responsiveness, assurance and empathy are combined into a single variable. Adapting the original scale to this one was a way to answer the needs of the shipping industry regarding the specificities of the given industry as well as including relevant factors that were not previously included. Nonetheless, it has been said that the five-dimensional scale could reasonably fit the needs of the service provider, though, it should be applied to the business-to-business sector with caution.

Due to the complexity of certain industries, the nature of the service or the researches previously done in this field, the SERVQUAL can be described as "too simple" (Chen et al., 2009, p. 222), and particularly for business customers. The authors added that, if applied, it will negatively impact the marketing strategies of the corporation, as well as potentially deteriorate the type of relationship the company has with its customers (Chen et al., 2009).

In regards of the service quality literature, it must be noted that the scales and models firstly made for final consumers must be adapted for the business sector, and even into the level of industry specific, if needed. In addition to this, lots of these new theories have been created without being linked to each other or even tested in the same industries. In their article *"Some new thoughts on conceptualizing perceived service quality: a hierarchical approach"*, Brady and Cronin (2001) brought together a large amount of concepts in order to use them depending on the level where the customer is, and aiming to unify the current literature. The first dimension of the model suggested, studies service quality as being a

mix between interaction quality, physical environment quality and outcome quality. By choosing these categories, the authors can construct a complete understanding of the service quality, regardless of the industry in which the service provider is evolving. Each of these categories is then divided into three categories, interaction quality is formed by attitude, behavior and expertise, physical environment quality is characterized by ambient conditions, design and social factors, while the last category, outcome quality is composed of waiting time, tangibles and valence. In the next step of the model, each sub-dimension previously enumerated is divided into three items being reliability, responsiveness and empathy, which enables a better comparison between the items and sub-dimensions. This new model is a way to combine several factors and variables that have been previously tested to assess a complete overview of the service quality in industries (Brady & Cronin Jr, 2001).

Gounaris followed this path when studying the differences between the SERVQUAL and INDSERV scales in the business-to-business sector. The principle of the INDSERV scale is, to some extent, similar to what Brady and Cronin created. Gounaris considered only the assessment of service quality in the business-to-business sector, completely leaving the business-to-consumer part, largely overwhelmed by the existing literature. Putting together industrial setting for this scale, it enables companies to identify their business customers in a faster and more complete way. This scale aims to evaluate service quality through five dimensions, being potential quality, hard process quality, soft process quality, immediate output quality and finally final output quality. These dimensions have been inspired by other researchers who were aiming to find a reliable service quality measuring tool in a specific industry (Bochove, 1994; Halinen, 1994; Kaynak, Kucukemiroglu, & Odabasi, 1994; Woo & Ennew, 2005), and the result seems to be conclusive for other researchers such as Lee (2011). The model proposed by Gounaris takes either four of five dimensions, depending if whether the intermediate output quality and the final output quality act as two different branches or as one named ‘output quality’. An explanation of this model is necessary in order to understand the difference from the SERVQUAL scale. The first dimension is the potential quality, which is all about the knowledge and information the customer has, prior the use the service. The next dimension is the hard process quality, meaning all the tasks and objectives both parties have in common, and that can affect the evaluation of the service quality, for instance, the financial issues, delivery agreements etc. The third factor is the soft process quality, which are all dimensions of the service referring to the buyer-seller interactions, communication or relations. Last but not least, the output quality can be characterized by the impact of the service on the profitability, image, poor operations of the customers (Gounaris, 2005; Lee, 2011).

Lastly, Woo and Ennew used the existing European (Grönroos, 1984) and American (Arun Parasuraman et al., 1991) frameworks and combined them in order to contribute to the industrial service quality literature. In order to find a balance in the combination of these existing frameworks, they used the IMP model (International/Industrial Marketing Purchasing group model) to nominate the various variables were Grönroos and Parasuraman et al. tended to overlap. The perspective given by Woo and Ennew describe service quality as the relationship between service exchange, financial exchange, information exchange, social exchange, cooperation and adaptation. Starting with the service exchange, it represents the biggest impact on the perception of service quality due to the interactive process. This dimension can be parented to either the technical quality from Grönroos (1984) or the tangibility, assurance and reliability dimensions from Parasuraman et al.’s model (1991). The information exchange dimension, which can be associated with the direct buyer-seller interactions and how the customer retrieve and process the information in

this environment. Financial exchanges are a new dimension in the assessment of service quality, however, it is a determinant part of the service quality for businesses. Then, the social exchange is comparable to the empathy dimension of the SERVQUAL scale, promoting trust and openness between parties. The cooperation dimension refers to the ease of following procedures and working together to enhance both parties' profitability. It is, to some extent, similar to the service recovery process mentioned by Grönroos (1984). Finally, the adaptation dimension link together all the previous factors, and can be understood as flexibility and responsiveness, concerning both parties in the relationship. From their perspective, such dimensions allow the industrial service quality to be understood and measured, resulting in two main consequences: customer satisfaction and behavioral intention. As studied by the authors, the exchange dimensions are typically describing the various activities related to the service encounter, and the adaptation and cooperation reflect on the future development and evolution of the previous one. It allows the service provider to understand the trends among its customers and see what impact the newest decisions and strategies implemented have on them (Woo & Ennew, 2005).

As exposed, the service quality is a concept that can be understood in a multitude of ways. The different stakeholders can adapt the quality to their own understandings, and so, consciously or not, influence the customer's evaluation of the service quality. For these reasons the author chooses to focus on the measurability of the service quality from the service provider and the service user during the interviews to get insights on how the service is measured, if so. On the other hand, the author found an interesting study path in the notion of relationship and its importance for stakeholders. These two aspects of service quality are then considered for an in-depth study with interview questions.

2.3. Container Shipping Industry Overview and the Role of Seaports

As many industries are available to study service quality, it is very interesting to note that the container shipping industry received very little attention. There are many tools, scales or models available to measure, with accuracy, the quality of container shipping offerings but few have been reliable (Durvasula et al., 1999; Ugboma, Ibe, & Ogwude, 2004; Ugboma et al., 2007).

The shipping industry, or container shipping industry, accounts for 80% of the worldwide traded good (International Maritime IMO, 2018), as impressive as the previous figure, 90% of goods transported inside or outside the European Union, is transported by sea, which results in a growth of port traffic by 3% each year (Pantouvakis et al., 2008). Due to the growth in port traffic, and the amount of goods carried by the seas, the shipping industry is characterized as being very competitive due to its efficiency and its cost pressure to offer competitive international transportation (Caschili & Medda, 2012; Song* et al., 2005). The container shipping industry is quite large, by the number of countries involved in international trades (i.e. over 150), by the number of vessels sailing (i.e. over 50.000), the number of containers being transported (i.e. over 690 million TEUs) but also by the networks of ports, hubs and intermodal option available on ports' sites (Otheitis & Kunc, 2015). Along with many other industries, the technological improvements enabled a shift in the container shipping industry, increasing the capacity of vessels, but also increasing the efficiency in on and off-loading operations, and handling cargoes within a shorter

period of time. In addition to these improvements, ocean freight has become safer and the value of merchandises transported through this mean keeps on increasing, local and international regulations being active actors in the implementation of new policies (Alderton & Winchester, 2002; Fink et al., 2002; T. E. Notteboom, 2004).

As the list of actors in the shipping industry is quite extensive, this research paper will primarily focus on seaports. This entity can be defined as the interface between land and sea, where specialized equipment enables the organization and handling of international trade. This area is designed to transfer goods from a transportation mean to another and is regulated to participate in the growth of national and international economies (Ducruet & Notteboom, 2012; Lopez & Poole, 1998; T. E. Notteboom, 2004). The role played by seaports in the shipping industry is crucial for the good functioning of the transport chain, aiming at optimizing lead time and costs. This interface between sea and land has been one of the first efficient way for nations to develop themselves and their hinterland but also it gave countries access to technologies to improve and compete on a global level (Montwiłł, 2014).

From this definition, the role of shipping can be deducted, and can be characterized by five main points. First, it increases the value of both customers and suppliers (i.e. there is an easier access to worldwide produced goods and services, easier sharing process of technologies and communication systems, etc.). Second, it increases market shares, indeed, the more a company ships, the higher its market growth, including gaining visibility in new markets. Third, it makes mass customization possible, and does so with the use of economies scales, together with the implementation of larger vessels to optimize costs. Fourth, it influences customer satisfaction, most of the time positively due to fast delivery programs at reduced costs. Lastly, it provides competitive advantage to companies shipping often and to various places. In addition to this last argument, the role of the port has a large influence on the competitiveness of a company, as it will be explained further in the review of literature (Kim, 2009).

The role played by seaports and shipping are so important for the transportation chain, that users of these entities usually rely on few criteria to select the entity that will answer at its best their needs. Using *'The worldwide maritime network of container shipping: spatial structure and regional dynamics'* (Ducruet & Notteboom, 2012), a summary of these criteria will be described as follow. First, the physical and technical infrastructure of the port represent the main point of interest for potential customers, it includes equipment, terminals as well as an overview of the overall efficiency of the port. It enables the smoothness and reliability of several operations. Secondly, the geographic location plays a significant role, both for the attractiveness of the port and its place among competitors. Yet, the location of the port is important due to the route used by shipping lines, but also regarding its connectivity to other transport means, facilitating the transfer of merchandises to hinterlands. Thirdly, the reliability and safety of services directly linked to the port operations but also of auxiliary services, including the cost and quality dimensions. Lastly, the reputation and image of the port can have a determinant effect on the customer's decision: it is the most important criteria regarding the type of relationship customers can expect. A good relationship will benefit both suppliers and customers by empowering long term agreement and trustworthiness among the different parties (Bennett & Gabriel, 2001; Pantouvakis et al., 2008; Tran, 2011).

Additionally, it is important to note that these criteria are weighted differently depending on the customer and his own needs and requirements. The explained criteria can be considered as a basis for the understanding of port selection and may be adapted depending on the customer (Chang, Lee, & Tongzon,

2008). It also shows that different managerial techniques have to be used for different customers in order to satisfy as many as possible and enhance their satisfaction (Chen et al., 2009).

Seaports, as explained, are portrayed as a link between several stakeholders, as well as several activities to enable the transport of goods from a place to another, however, this industry is threatened by several challenges. The shipping industry is known for optimizing cost and performance, customers are willing to be delivered at a faster pace, with a better flexibility and at the lowest cost possible (Yang & Lirn, 2017). The benchmark regarding the service level that has to be provided is high due to these factors, and tend to be challenged due to the fast changing environment, in which the transport industry evolve (Bichou, 2013).

Together with the optimization of cost and performance, seaports are challenged by the severe competition among international ports. Tongzon and Heng (2005) identified eight factors of competitiveness, that ports are evaluating upon: first, the port operation efficiency level, which includes the speed required to on and off-load the vessel, as well as the turnaround time of the cargo. Indeed, port terminals are more and more specialized in order to answer specific needs in the handling of containers or other products, but also need to be as performant as the transport hubs they are part of (Caschili & Medda, 2012). Second, the port cargo handling charges, meaning that the lowest the charges are, the more attractive the port is for its customers. Thirdly, the reliability. Even if the price plays an important role in the decision-making process of customers, reliability is at least as important, if not more. It can be characterized by "reliable schedules, price calculations, accurate documentation and cargo safety" (Panayides & So, 2005; Yang & Lirn, 2017, p. 896), but also by the general, consistent and predictable functioning of the port. Meaning that delays, breakdowns or weather are steady enough and the number of unforeseeable events is limited. Then, the port selection preferences can be studied as well, but concerns mainly the loyalty of customers. Due to the fast changing environment, customers are tempted to rearrange their routes and networks depending on their own offers and agreements (T. E. Notteboom, 2005). The next factor is the depth of navigation channel and basin, because of the cost pressure, carriers and shippers wants to benefit from economies of scales - this means that vessels are bigger in order to transport more loads. By increasing the size of the carried goods and vessels, extra space is required for the ship to sail in the basin but also in the warehousing and storage area. If these criteria are not satisfied, there is a high risk for the seaport to lose its customers. Adaptability is also part of a port's competitiveness, which includes the cooperation of port authorities in order to implement at its best new regulations, in the best conditions possible, but also its flexibility regarding a customer's needs and unexpected demands (Panayides & So, 2005). Then, the accessibility of the port is a main factor in a competitive environment, as the seaport needs to connect the maritime transportation, to the hinterlands and all types of transportation means required for door-to-door shipments. In order to encourage the use of the port, it is important that the access is easy and safe. Finally, product differentiation, is a strategy that can be used by ports to enhance their attractiveness. The differentiation in the service offered by ports can greater the value for its customers and so encourage loyalty (Bennett & Gabriel, 2001; Ducruet & Notteboom, 2012; J. Tongzon & Heng, 2005).

The overview of the container shipping industry created a number of questioning for the author of this research study, which then needed to be explored more in depth, and related to the Swedish market. Few

areas have been highlighted in the previous section, and due to the specificities of the container shipping industry, the author believed in the importance of gaining insights on, first, the aspects of the service quality that can be applied to the Swedish sector. Linked to the previous sections, the aspects binging extra value to the customers and the measures took by the service provider should also be focused on, at a further stage, and finally, the type of relationship existing in this given industry and market were beneficial for this study.

2.4. Specificities of the Container Shipping Industry and Measurement Scales

As seen in the overview of the shipping industry and the role of ports, such industry provides services mainly to businesses rather than final customers. By studying the business-to-business industry, it is foreseeable that some of the factors, determinants or scales used to measure the service quality will be changed and adapted to this specific environment. In fact, and as mentioned by several researchers, business customers tend to require higher quality, relationship with a longer length of time, and most importantly, some specific requirements such as the importance of deadlines or financially related issues that can greatly impact the service quality if they are not properly handled (Lee, 2011; Ullrich, 2002).

In order to understand what the main aspects of service quality in the shipping industry are, academic articles and previous studies in the area have been used. Durvasula et al. (1999) were the first researchers pointing out the lack of reliability the SERVQUAL scale can impose to the service quality measurement for shipping related organization. These researchers conducted their study with organization using regular ocean freight services in Asia. The main categories of the SERVQUAL scales have been used to conduct the study and applied to specific requirements. To understand the shipping industry, the researchers studied on the one hand, booking services, documentation, operations and claims, and on the other hand, marketing and sales department, telephone services and service rendered during personal visits. The five categories created by Parasuraman et al. (1991), are the following, tangibles, reliability, responsiveness, assurance and empathy, where, as a result the three last dimensions should be combined. Because of the results obtained from this study, the first step to the development of new scales and models to understand better the service quality in the shipping industry settings (Durvasula et al., 1999).

The study conducted by the previous researchers put in the light, what can be missing from the SERVQUAL scale when applying it to the shipping industry. To understand how the perception of service quality is built, various features considered by business customers, and have been relayed by several researchers. From many articles, the technical features of the service are the main points of evaluation to assess the quality. The importance of the technical qualities can be explained by some researchers (Lopez & Poole, 1998; Nelson, 1974), due to the fact that, in the shipping industry, the service offered tend to be evaluated at the outcome only. On the other hand, other researchers such as Lee (2011), Grönroos (1988) or Lewis (1989), believe that the quality of the service is assessed all along the process. In both perspectives, the technical qualities are fully part of the quality evaluation process. The technical qualities of the service can differ from a customer to another due to the operations they experience or the requirements they have. However, most customers and researchers can agree on the importance of pilotage, towage and mooring, these operations are the first contact between the customers (containerships) and the service provider

(the port). If these operations are executed impeccably, the first contact will have a positive impact on the customer's experience, and one's perception of the company's professionalism (Grönroos, 1984).

In addition, the previously cited operations are crucial for the following procedures due to the high impact of these technical movements on the efficiency of the overall supply chain. Indeed, as it tends to be time consuming, the better the operations are performed, the better it is to avoid the accumulation of lead times, congestion and delays along the supply chain (Lopez & Poole, 1998; Pantouvakis et al., 2008). The first consequences of the increase of lead time is most of the time, the increase of costs for both the customer and the service provider, and directly deducted from this, the customer satisfaction is impacted. In order to optimize the lead times, technologies have been applied to the shipping industry to enhance the operations in seaport sites. It means, better equipment for faster and safer on and off loading operations, software to optimize the storage of containers, bigger areas to carry out bigger vessels, with large container capacities, and lastly more efficient equipment to maneuver and organize the port site (Lopez & Poole, 1998; Pantouvakis et al., 2008).

The technology, as previously explained, enable a better handling process of the cargo, which includes the off and on-loadings of containers, the cargo consolidations but also the specific requirements for storage and warehousing of the containers. The efficiency gained with the technical operations, can be transferred onto the intermodal operations, consisting in the well-functioning exercise of relocating the containers to another transportation mode, from the seaborne transportation to the hinterland transportation. The technological improvements emerged, mainly to reduce uncertainties along the transportation process as well as deliver on time services and gain value over this. This process requires punctuality and expertise to produce an efficient and reliable work (T. E. Notteboom, 2004; Pantouvakis et al., 2008; J. L. Tongzon, 2009).

To increase the reliability of the company and give the proof of the service quality to actual or potential customers, business customers can rely on various type of certifications. The most notable ones in the shipping industry are the ISO ones, 9000 series. As explained by Lopez & Poole (1998), having this type of certification is a proof of excellence and ability to do the service offered. This kind of certifications are considered as a good plus in the relationship between the company and its customers, since it increases the willingness of both parties to work in a constructive and effective way. Partnering with a company which has recognized ability is a way for customers to reduce uncertainty as well as encourage loyalty and trust (Lopez & Poole, 1998; T. E. Notteboom, 2004; Wicks & Roethlein, 2009).

In order to assess the service quality, several other aspects of the seaport might be evaluated, such as the number of sailings, the equipment and infrastructure available at the terminal. Such indicators can be influenced by the technologies available at the port, as well as the overall efficiency and organization management of the port area. Concrete examples to illustrate this, could be, the efficiency and number of cranes, the number of berths or the size of the terminal. To complete the evaluation of the service quality, business customers tend to take into the administrative issues and so the contact they have with the personnel. This encounter usually set the tone for the relationship between service provider and customer, and enable sharing ideas, requirements or concerns (Kołowrocki & Soszyńska, 2006; Wu & Goh, 2010).

Thus, during the service encounter, the customer can evaluate the type of services offered, and may ask for specific adaptation for its business, which means that if the service provider is able to identify specific

needs, the more likely the customer will feel understood, and confident with the ability of the company to complete the service. The service encounter is a strategic key for service providers: in fact, by answering the interrogations and issues of customers, the company shows its professionalism, and so enhance the value of its service, potentially inducing a higher perceived service quality. In addition to the service encounter, the administrative support of a seaport is an important aspect of the service quality, since it enables the smoothness in operations. The administrative support can include the quality of customer handling, the value-added services as well as organization for warehousing processes, and most importantly the security and safety of the seaport area. When all the administrative tasks are properly completed, the lead times are reduced, which positively impact the efficiency of operations, which is one of the most important criteria for quality evaluation (Lopez & Poole, 1998; T. E. Notteboom, 2004; Pantouvakis et al., 2008).

By testing several scales to measure the service quality, the previously cited authors, mentioned the importance of the cost of the service. A too low price would give a low value to the service, which tend to be perceived as lower quality, whereas a too high price would not attract potential customers. The service quality is directly impacted by the perceived value of the service, and whether it is fairly calculated (Lee, 2011; Lopez & Poole, 1998; T. E. Notteboom, 2004; Pantouvakis et al., 2008).

All arguments cited above, are part of the company's reputation, which at a later stage can be seen either as a strength or as a weakness to attract future customers or attract new ones. As the reputation of the company is built over time, and on its ability to offer a service in a similar way over time, the more the customers are satisfied the more beneficial it is for further agreements (Bennett & Gabriel, 2001; Lopez & Poole, 1998; Pantouvakis et al., 2008).

Regarding this final section of the literature review, the author is then willing to emphasize on the notions of technology and innovation linked to the Swedish container shipping industry, and the degree to which it will benefit the industry actors.

2.5. The Human Factor in the Container Shipping Industry

In the data collection process, several additional aspects which have not been mentioned earlier in the literature reviewed, have been covered by the respondents, which greater the interest of the researcher to investigate these areas. Many interviewees mentioned the importance of having a good relationship within the container terminal, between management and dock workers, but also among employees. Starting from this point, the author decided to focus on the human factor and overview the relevant literature related to this topic.

Exposed in a number of related articles, managing human resources is challenging, however rewarding when it is assimilated as one of the most important competitive advantage of a company (Progoulaki & Theotokas, 2010). The shipping industry being highly competitive, and shipping lines or final customers looking to reduce their transportation costs as much as possible, extra services are a source of cost, as well as the delays, mishandling or lack of communication between parties (Lopez & Poole, 1998; Yang & Lirn,

2017). However, it has been recognized that in order to reduce these risks, the expertise and professionalism of actors was valued, in majority by customers, where the quality of the service is explicitly illustrated (Progoulaki & Theotokas, 2010).

The human factor, excelling with its expertise and beneficial for a company to bond with customers in order to create a good relationship (Gronroos, 1988; Lewis, 1989), can also be less reliable as a machine. The reliability of the container terminal can be affected by a number of issues proper to the human factor. These issues can initiate incidents and affect the overall safety of the seaport. Fatigue, stress or health are directly linked to the input of the employee to the workplace, whereas others like communication level, competence, skills or teamwork can emerged from employees' cooperation (Hetherington, Flin, & Mearns, 2006).

In order to promote the positive aspects brought to customers by employees, training, empowerment and commitment have been identified as beneficial for both a good coercion within the container terminal and as part of the attractiveness and competitive advantage of a seaport (Cheng & Choy, 2013; Hetherington et al., 2006). The expertise and excellence of seaports employees is crucial for the benefits of all actors in the industry without what the activities required to deliver a good service could not be completed in a safe and efficient manner, whereas international organization are setting standards, a number of researchers emphasize on the benefits of constant training and high education to reduce the safety hazards (IMO, 2018 ; McConnell, 2002; O'Neil, 2003).

All in all, it is critical for both the service provider and the customer to look back on the work performed by seaport's employees. Indeed, and as experienced by Choy and Cheng (2013), the performances of activities are directly linked to the well organization and management of a terminal but also to the efficiency resulting from the employees' teamwork. The notion of teamwork is directly linked to the safety one, from where efficiency is resulting. In fact, when working in a team, the perception of working in a safer place is increased, where employees are more focused on their actual work rather than the surrounding environment. In addition, working in a safe environment has been shown as beneficial in terms of acceptation feedbacks and follow-up measures, which appear to bring proactivity and stronger links within an organization (Oltedal & Wadsworth, 2010).

Apart from the previously exposed arguments, very few studies are showing the impact of feedbacks from the customers to service providers within the shipping industry. However, the perception of teamwork has been seen as beneficial for customers, mainly due to the better outcome of the service offered. In fact, by promoting the benefits of good relationship among employees, the results are seen by the users of the service. The service is recognized as being consistent, but also more reliable, more efficient and safer which encourage container terminals to empower their employees and following up on them to correct the areas where errors could have undesirable consequences (McConnell, 2002; Rodwell, Kienzle, & Shadur, 1998; Rothblum, 2000).

Based on the literature exposed and the first interviews, the author formulated more in-depth interview questions around the notion of teamwork in seaports and its benefits for the service provider but also for the service user. In addition, the role of feedbacks has been evocated in several interviews.

2.6. Summary

To summarize the literature review presented above, it is important to remember the complexity of the quality concept, together with its function of tool for companies. First of all, service quality enables the company to know better its service and how it performs (Gronroos, 1988). It is important to note that the service quality brings a lot of benefits for a company, starting with the relationships with its customers. Once the company knows perfectly its service, it will be able to understand what the customer wants, but also the underlying desires of the customer (Berry, Zeithaml, & Parasuraman, 1990; Lewis, 1989). This process can be done through the service encounter, which is when the customer can express specific requirements, as well as testing the professionalism of its service provider. Consequently, the more the service provider understands its customer, the better the relationship will be (i.e. long-term, loyalty, rewarding for both parties…), (Cronin Jr & Taylor, 1992). The last benefit presented for the service quality, is the incredible tool for the company to position itself in the market, among its competitors and for its customers. The goal for the company is to set its standards and create a good image of itself, which consists of the various corporate strategies such as pricing, distribution, customization or marketing (Lewis, 1989; Pantouvakis et al., 2008).

The next step is the identification of the scales to measure the service quality. Since the 1980's, a lot of scales and models tried to be recognized as standards. The one assuming this role could be the SERVQUAL scales created by Parasuraman et al. (1985). Such scale, though complex because of the number of parameters to consider, enables a company to have a full overview of its service. This scale has been one of the first academically recognized, which is why many researchers based their own studies on it (Berry et al., 1990; Cronin Jr & Taylor, 1994; Gounaris, 2005; Woo & Ennew, 2005). The reason behind this, is due to the specificities of industries, the service quality cannot be evaluated the same way regardless of the industry. Coming to the industry specifics, the container shipping industry, together with business customers, have requirements that impose standards. What can be remembered from the literature above, is that service quality in the shipping industry, can include timeliness, which means delivering the service in the time agreed upon. Furthermore, quality can be associated with innovation and technologies, to provide an efficient service, which will also, positively impact the reliability of the service. Lastly, the certifications of the company can be helpful in the relationship created between the business partners. Certifications are a proof of excellence for customers, which enhance their trust for the service provider, and engage in a long-term relationship (Lopez & Poole, 1998; T. E. Notteboom, 2004; Pantouvakis et al., 2008).

All in all, the service quality, regardless of the industry, can be remembered as the consistency when offering the service. It is important for a company to show, together with the consistency, the conformity between the offer and the actual service offered. This way, the customer can portrait the company as being reliable, professional and close from its market (Anantharanthan Parasuraman, 1998; Arun Parasuraman et al., 1991; Reichheld & Sasser, 1990; Ullrich, 2002). In addition, the academic literature showed a link between the consistency of the service offering, and the work done by organizations to work hands in hands with their employees to promote efficiency and safety to customers (Hetherington et al., 2006; McConnell, 2002).

It is essential to portray the service quality in container shipping industry from two perspectives, opposing or complementing one another. There is an important gap in the existing literature regarding this subject. Indeed, and as it has been exposed in the above sections, the service quality in this industry is often presented from only one point of view, mainly being the service quality perceived by the service user. Yet, this perspective overlooks an essential aspect of the industry, being what has been brought together by the service provider to set a good service level.

3. Methodology

The methodology section is a crucial part of a research paper, as it contributes to a better understanding of how the research project has been conducted, as well as the reasoning behind it. This section is built upon 4 chapters, firstly, the approach used by the author to perform the study is presented. Secondly, the practical features on which the study based, namely, the literature review, interviews, focus group and document analysis are overviewed. Thirdly, the process behind the data analysis will be provided, and lastly, a reflection on the methodology used as well as an evaluation of this process will be described.

3.1. Research Approach

3.1.1. Schools of Thoughts

Choosing and adopting the right methodology in a research project is a critical issue for many researchers, due to its impact on the stance they will take to pursue the process. The point of view of the researcher is undoubtedly linked with the nature of the research, quantitative or qualitative, which is being performed by the researcher. In order to clarify the stance taken along the research process, both epistemological and ontological approaches will be defined.

The ontology, in a research project aims to study and understand the notion of reality and what is it made of. This process aims to get a better insight of what people around the researcher, including potential interviewee, would mean by the notion of truth. In the present case, using a constructivist approach benefits the research process by understanding that the reality is locally constructed around people. Additionally, it is important to know that the reality is constructed based on experience, but is also shared by many (Howell, 2012). Using this approach, the researcher will be able to accumulate knowledge to understand her surroundings as well as evolution within a group of people sharing common characteristics. Because the research attempts to be a part of the group being studied, new norms and rules must be considered to keep a natural behavior among participants. These norms, rules but also codes, behaviors etc. have been constructed throughout time in order to be fully integrated in the given environment (Bryman, 2015; Howell, 2012).

Contrasting with the ontological school of thought, the epistemology can be defined as the science of the knowledge, and how are the surroundings of people known. The chosen stance regarding this specific aspect of the research project can be referred as interpretivism. Specific to qualitative methods, interpretivism aims to understand how reality is interpreted, as well as what are the difference in the interpretation of reality by different people. In this scenario, the truth among people can be developed based on social interaction. Yet, it is important to note that using this epistemological stance, the researcher is willing to be included in of the group of people studied. The objective is to study their own interpretation and beliefs concerning this topic. After gathering this information, the author brings its own interpretation in order to analyze what has been said beforehand (Bryman, 2015; Howell, 2012).

By using different schools of thought, together with their impact on the researcher's stance in the study project, a research approach has been drawn. The later approach considers the epistemology and ontology as well as the research process and how it is built. In this specific case, a combination of approaches has been followed to complete the research process. In fact, the author based the research, primarily on a deductive approach, which has been completed with an abductive one at a later stage. The reason behind this choice is that an inductive approach would not have been correctly used as the primary objective of the research paper is not to generate new theories, but rather using the ones that are already available to the researcher, which is one of the aspects of the deductive approach. In addition, the researcher was willing to explore new perspectives from the existing theories, using a qualitative method (Bryman, 2015; Howell, 2012; May, 2011). The abductive approach can be considered at a later stage of the research process when the researcher used the first set of interviews to go back to the literature and adjust the future interviews with some of the newest academic findings.

In conclusion, using a combination of approach with the evolution of the research project have been beneficial to the study because this study could be completed in the best conditions possible, respecting the researcher's stance and her research process. Previous knowledge on the given topic have been considered, based on theories, and is later completed by observations and data collected. These first steps aimed at increasing the interest of the researcher as well as understand better what can be considered as key principles in the service quality. For instance, by going back and forth from theory to observations, the researcher can provide a study following the reality and what is done in the industry, however, this practice is not often used logistics researches. In practice, this process started with prior knowledge about the service quality concept and have been applied to the shipping industry with observations and research at the Port of Stockholm (Kovács & Spens, 2005). The following figure illustrates more in details the abductive approach to research.

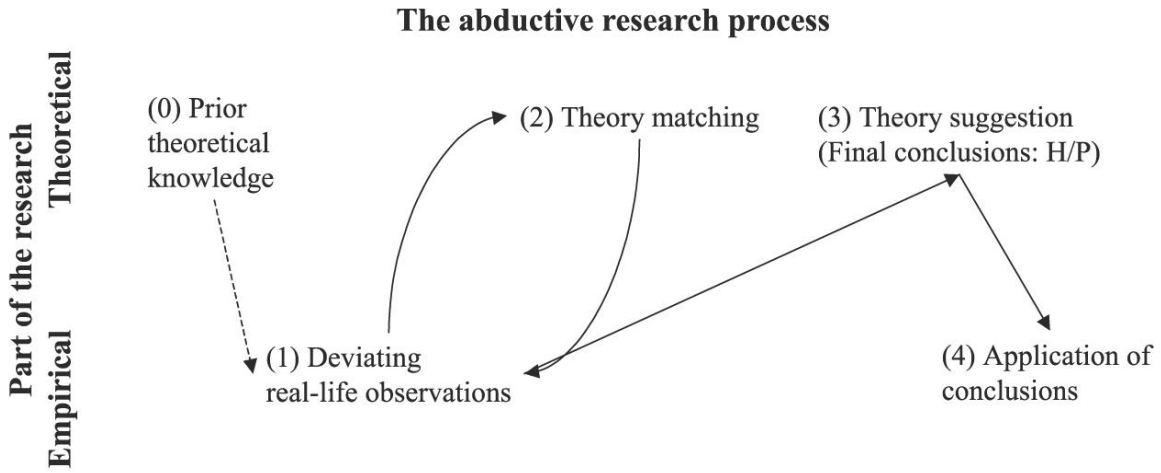

Figure 2: The Abductive Research Process, (Kovacs & Spens, 2005, p. 139)

3.1.2. Sampling

The sampling process and its identification has been one of the first step the researcher had to go through in order to foresee future events, meetings, and organize later steps of the research process. Because the study ally theories and observations from early stages, the most appropriate as well as interesting sampling option selected is a purposive technique. This technique is defined as non-probability sampling, and consists of selecting participants non-randomly, based on a strategical way, and where the sampled participants have an ability to answer the research question to some extent (Bryman, 2015; Kovacs & Spens, 2005).

As said by several researchers, qualitative-based research projects do not necessarily aim at generalizing the results to a bigger population than the chosen sample (Bryman, 2015, Silverman, 2013, May 2011). However, it is important to note that the purposive sample should not be assimilated to a convenience sample. The participants chosen for the sample, have in common a criterion as well as a knowledge of the industry, which enables the respondents to go towards the same direction in the study.

As a sub-criterion of the sampling method used, is targeting participants started from a typical case sampling. It can be defined as sampling a case which accentuate a specific interest within the research project. At latter stages, a snowball sampling method has been used, which enabled the researcher to access more participants which were known through the first interviewees (Bryman, 2015).

In the case of this research paper, the sampling process targeted, at first, port operators, within the Stockholm County. The objective of this first sampling was to get insights from seaport operators, in order to compare it with what have been said in articles' literature reviews. As previously explained, there are few academic articles available which combines the perspectives of the seaport service providers and their customers, so the objective of the second step in the sampling process was aimed to target business customers.

The next step when sampling future participants, was to access users of seaport services. In order to stay consistent and in phase between participants, the snowball technique have been used. This technique enables the access of new participants through the contacts of the initial participants that took part in the research project. This way, business customers and frequent users of the port have been contacted and interviewed, which aimed at opposing or completing what have been shared by the first interviewees. Contacting business customers from one specific entity, had an important and unexpected advantage. In fact, these customers usually tend to be customers from other seaports or similar entities, which gives profound insights on different aspects of the services available at different places.

In parallel, the decision of gaining insights from various aspects of the creation of the service have been an important issue. This way, the need for an interview with participants in the form of a focus group emerged. In order to gather interviewees, the sampling technique used could be assimilated with the criterion sampling. Consequently, the participants of this group interview, which will be explained in the next section, are part of the professional team from the container terminal in Stockholm.

In total, this research paper consists of 11 interviews, including 4 from seaports service providers and 7 business customers/users, and complemented by 1 focus group.

3.2. Research Design

The research design process consists of building a core to the research paper by combining several methods to gather data in order to answer the research question to as great extent as possible (Bryman, 2015; Silverman, 2013). This section of the methodology includes mostly, a qualitative logic. Usually, logistics and quality related studies would base their analysis on quantitative methods due to the fact that it is easier to measure as well as compare over time (Bryman, 2015; Silverman, 2013). As presented by Näslund (2002), there is a need for qualitative studies in the logistics industry, which encourage participants to share more insights and details, as they would do in the case of a survey. The objective of conducting a qualitative study was to offer something different to the Academia, but also a paper that companies evolving in the container shipping industry could use and benefit from in their daily activities. This section of the research paper starts with the reasoning behind the literature review, the interviews, focus group as well as document analysis as sources of information.

3.2.1. Literature Review

The research of relevant literature has been a key to narrow down the research subject, to what it currently is. To draw a global picture around this topic, Google Scholar has been the most used academic search engine. To create foundations to the research paper, the first hits to look for articles were *service quality* and *logistics quality*, which both led to an incredibly broad number of articles available. In a second time, the key words such as *seaport operations*, *service quality measuring scales in logistics, quality in logistics* or *shipping industry quality*, generated a lower number of responses and enabled an access to related articles, closer to the actual topic. At a later stage, the key words previously enumerated have been consolidated by words such as *container terminal, container shipping, seaports* or *seaborne transportation*. The academic literature research process, made in three major steps, have been very valuable to set the foundations of the literature review, as well as gave a basic understanding of the methods used in this type of research, which have then been applied in the first interviews.

The articles used for this literature review enable a broad overview of the topic, from a timeliness perspective where, the articles selected are from 1974 to 2017. On the other hand, the studies selected for this chapter are summarizing practices from all over the world, however, mainly focusing, on the European and American perspectives. The aim of such selection of articles was to provide the reader all the necessary knowledge as well as evolution of the studied concepts, prior to the data collection and analysis of results. All articles have been briefly read, key information wrote down and the articles have then been sorted out by relevance and within a chronological logic. From this process, the reference list of the articles has been explored in order to find similar articles which could complete the first sources.

3.2.2. Interviews

The first decision regarding the qualitative method chosen, was to conduct interviews. The process of interviewing participants can be declined to several forms, which are made to fit at their best different purposes, mainly depending on what the research theme and wanted outcome is about (Bryman, 2015; May, 2011; Silverman, 2013). Because this research paper aims to understand the perceptions and underlying processes or motivations, the unstructured type of interviews was chosen. The interviewing process took place between February and April 2018, and the following table, '*table 1: overview of the interviews'*, shows the scheme of the interviewing process as well as related details.

To have a harmonized set of interviews among actors with similar functions in the container shipping industry, few questions have been formulated to start the discussion or to focus on specific area of interest. As explained in the sampling section, the access to interviewees, was achieved in two steps which opened discussions with various actors evolving in the container shipping industry. The first set of interviews were focusing on the seaports service providers, which includes port owners, port operators or third-party logistics providers operating on different sites. At this stage of the data collection, the Port of Stockholm played an important role in accepting to be interviewed, giving access to members of its port operator organization, but also to some of their contacts, mainly in Gothenburg. It is known that Gothenburg is the biggest port in Sweden, due to its size and traffic, however, it is much more complicated to access these sites compared to a smaller one. The port of Stockholm is one of the biggest on the Swedish's East Coast and it is indispensable to the economy of the city to have a port located in the capital, where the level of consumption is higher than in the rest of the country. The second set of interviews concerned the seaport users, also called, business customers.

In both cases, the interaction between the interviewer and the interviewee increased the creation of qualitative content. This phenomenon can be explained by the identification of bridges between the academia and the industry during the discussion. Later on, when the interviewee was keen on sharing his knowledge and insights, these bridges could be understood better (Yin, 2003). The advantage of conducting unstructured interviews is that it enables the access to deeper understanding of the researched area, as well as open discussion to get larger industry insights. This method also grants flexibility to the researcher all along the research process. In fact, the data collection could be started at early stages and completed at any moment by newly accessed relevant academic literature. When using this type of interview, the generalization of results is harder or biased, because of the variety in the interviewees' testimonies, as well as their interpretation of the topic studied (May, 2011).

When researching through academic findings, a variety of questions have been formulated, which were composed of an overview of the existing academic literature, the previous questionings, researches or models created. Quickly after formulating these questions, the opportunity for conducting the first possible interview occurred, which was accompanied by the access to reports and documents regarding customer satisfaction surveys conducted in Stockholm. This interview was then based on the survey and so the questions previously formulated were not all used. This specific interview could be assimilated as a pilot interview, which then generated a new set questions, which the following interviews were based on.

Most interviews were audio recorded which enabled their transcription and coding to facilitate the analysis at a later stage. For the interviews that could not be recorded due to confidentiality reasons, an extensive number of notes have been taken. The transcribing process started as early as possible in order to contact the interviewee by phone or emails if precisions were needed, but also in order to formulate and understand better the interviews that were conducted later. Additionally, all interviews started by an oral agreement regarding confidentiality as well as statements regarding potential consent issues for the interviewees.

Table 1: Overview of the Interviews

Date	Company Name	Respondent #	Duration of the interview
19-02-2018	Ports of Stockholm	Respondent 1	80 min
06-03-2018	Hutchison Ports Holdings	Respondent 2	40 min
04-04-2018	Freightman AB	Respondent 3	43 min
04-04-2018	Greencarrier AB	Respondent 4	41 min
05-04-2018	Logent	Respondent 5	68 min
05-04-2018	CMA-CGM	Respondent 6	55 min
06-04-2018	Hutchison Ports Holdings	Respondent 7	42 min
12-04-2018	Unifeeder	Respondent 8	45 min
17-04-2018	MSC Sweden	Respondent 9	51 min
17-04-2018	MSC Sweden	Respondent 10	52 min
17-04-2018	MSC Sweden	Respondent 11	35 min

3.2.3. Focus Group

The idea behind conducting a focus group was mainly to complete what could have been said during the one-to-one interviews. The main advantage of focus groups is the gathering of people, industry professionals in this case, who are sharing a common experience, which could benefit the research study (Bryman, 2015).

The interaction among participants allow a better and deeper understanding of some concepts since individuals challenge each other by bringing to the conversation a variety of details (Bryman, 2015). Each participant is able to share his point of view, which enabled the researcher to get insights on every day's practices and what employees do to increase the perception of quality for their customers.

Conducting a logistics-based research, using only focus groups barely exists even if this type of data gathering would benefit the overall research (Näslund, 2002; Rodrigues et al., 2010). Bryman (2015) showed in his research method book that the number of groups required to conduct a full research study based on this single method, is ranged from 8 to 50. It is important to state that this thesis aims to show the complementarity of the focus group to another qualitative method, to gain more insights and other benefits to the study. Additionally, it is crucial to say that the theoretical saturation cannot be reached by a singular group interview, but the sayings could be verified when crosschecking data with other sources. In the context of this research paper, only one focus group has been used and aimed to be complementary

to the interviews, being the privileged source of information. The group interview was composed of 4 participants, having different functions in the container terminal.

The decision of conducting a focus group was also an important matter for the researcher due to the constructivist philosophy applied in the research process, which aims at making sense of phenomenon surrounding people as well as their interpretations and how meaning is constructed around them (Bryman, 2015; May, 2011). In order to fulfill the requirements of being as little intrusive as possible, the researcher had a role of mediator, where few questions have been addressed to the interviewees, or precisions asked when interesting arguments were brought up. This technique has been beneficial and the group could have an open discussion, and the mediator would make sure all participants would have a similar speaking time to be able to share their thoughts and experiences, or if participants would keep on interrupting each other during the interview process (Bryman, 2015).

Lastly, the focus group followed the same procedures as the one-to-one interviews, which is a phase of transcribing, shortly followed by a phase of coding aiming on facilitating the crosschecking of data and their analysis at a later stage.

Table 2: Focus Group Overview

Date	Company	Positions	Duration
26-03-2018	Ports of Stockholm	- Administrator - Foreman - Crane Driver - Truck Driver	44 min

3.2.4. Documents

As a complementary action to gather data, the access to documents were a precious source of information. There are different types of documents to be analyzed in order to complete or add value to the testimonies collected in the interviewing process. Additionally, the analysis of documents had a positive impact on the objectivity of the researcher in the data collection process. Indeed, qualitative researches tend to be assimilated as biased or subjective (May, 2011; Yin, 2003).

Internet is a fruitful and abundant source of information for a researcher, however, the decision to avoid internet sources has been taken. Indeed, because the variety of sources is important, as well as the contexts in which they are written. For these reasons and for a matter of consistency with the researching and writing process, all documents being part of analysis, have been accessed after discussions with companies, or when offered during interviews. These documents mainly consist of weekly and yearly reports, project reviews, business agreements as well as newsletters sent to customers or suppliers.

These documents have been crucial in the understanding of companies' structures as well as way of working. Having access to these documents give additional insights of the container shipping industry, the different activities performed by companies, as well as the measures taken by companies to enhance their

relationships. Lastly, these documents are a great source of knowledge to understand the underlying processes of this specific industry and the reasons why activities are done in a given way.

3.3. Data Analysis

The data analysis phase of the research project consists of the investigation of the case findings presented above. This investigation can be defined as the categorization of the amount of data collected into different sub-sections, as well as their confrontations and/or testing in order to measure the quality of the data collected. Once this process has been achieved, it is then possible for the researcher to draw some conclusions based on the categorized findings (Yin, 2003). Two options are available in the analysis of data, either the process can be continuous, and so proceeded all along the research phase, or, the analysis process can start once all data have been collected. In addition, while there is a large amount of techniques and strategies to analyze the collected data, it is important for the researcher to stay consistent and focused on the aim of the research (Bryman, 2015; Yin, 2003).

In a matter of consistency and data cross-checking, the data analysis process has been pursued on several stages. First, and as a starting point, searching the relevant literature enabled to set the basis for the literature review, which enlightened literature gaps in the academia. Once these gaps have been identified, it was possible to build foundations to the actual research paper. From this point on, the first strategies could be created, attempting to answer the research questions.

The second step in the research process was the elaboration of potential interview questions that could be used at a later stage of the research process. The interview guide, composed of the questions created after the overview of the literature, was used for the first couple of interviews as a basis for the conversations. Thought the interviewees had different backgrounds, functions and were coming from different companies, it has been a way to elaborate the questions and adapt them for future interviews. All key points of the interviews where then related to the existent literature which would build up potential new questions (Eisenhardt, 1989; Yin, 2003).

The third step consisted in going back to the literature review, based on what had been said in the first interviews and which were not covered in the primary literature review. This way an extra attention has been given to specific aspects of the literature, which then enabled the formulation of more specific question for further interviews.

In order to get more familiar with each case and interview, the transcriptions were done shortly after the interview, which enabled from the early stage of the analysis a cross-check of the collected data. This process has been fruitful for the researcher since it gave a lot of insights as well as contacts to reach out for future interviews. When comparing the various cases and interviews, the researcher could notice the number of valuable insights gained along the data collection process, as well as the complementarity in discourses, or on the other hand, their differences.

After the transcribing process, all interviews have been coded which enabled a better visualization of the elements shared by the interviewees. The coding process started from the first transcript and the same codes have been used for all interviews. As the number of codes was getting larger and larger, the

researcher decided to categorize them into 4 main categories, namely: 'Reliability', 'Infrastructure', 'Operations' and 'Service Provider & User Interface'. These categories are detailed in Appendix 8.4.

In order to complete the interviews, most of the interviewees were willing to show their offices as well as introduce key members of their team. These visits have been an enriching step for the data collection process, where it showed a lot to the researcher, and details about the company's organization or strategies were explained.

Once the coding stage was covered, the researcher noticed the similarities between some codes and so, some codes have been grouped to reduce their number. However, the parent categories remained the same.

3.4. Reflection on the Method and Critical Evaluation

This sub-chapter of the methodology section aims to look back on the presented chapter and assess its overall quality. This section will present the validity as well as the reliability of the study, followed by the ethical considerations that rose up during the research process and will be concluded with the critical evaluation of the method used (Björklund & Paulsson, 2014).

3.4.1. Validity

The validity of the study may be assessed with two items: the internal validity and the external validity. The first one aims to link the observation and findings of the researcher with the theoretical ideas accessed in the existing academic literature. This aspect of validity can be proved with the triangulation method, which means that the finding of the researcher has been send to a member of the industry in which the study is taking place. This way, the person is able to confirm the good understanding of the researcher (Bryman, 2015; Yin, 2003). In practice, for this research paper, the triangulation method has been used along the data collection where interviewees were proof-reading the transcript to limit the potential miscommunication that could have happened during the interview, and at a later stage of the process, a third person, which was not part of the interviewee panel insured the good understanding of the researcher.

The second aspect of the validity is the external validity, which can be explained as the degree to which this study can be replicated, and the results can be generalized. This aspect of transferability shows that a unique context, in which the study is performed, can be significant to the industry studied, but at a larger scale (Bryman, 2015). This research project can indeed be part of a database for researchers, thanks to the authenticity of documents studied and the variety in the background of interviewees, as well as the use of mixed methods to enhance the quality of the empirical findings.

Lastly, the researcher valued the authenticity of the data collected and aimed to conduct this project with fairness and openness towards participants. An objective position has been taken to prevent bias and fit better in the environment where the participants are evolving.

3.4.2. Reliability

The reliability test in a research paper proves the reader and other academic researchers that the current study can be replicated by another investigator, achieving the same or a similar result. The replicability of the study goes undoubtedly through the creation of prerequisites for another investigator (Yin, 2003).

In order to create a solid basis for future researches, the author detailed the reflection process behind the research project and emphasized the reasoning on *why* and *how* certain methods have been chosen over others. The interview guide used for the data collection have been shared in appendix, which aims to provide a better transparency to the reader, show the rigorous process behind all interviews, as well as provide a deeper understanding on how the interviews were proceeded. Additionally, it is important to note that the interview guide was made regarding two possible scenarios, first the interviewee was a seaport service provider, and second, the interviewee was a seaport customer, service user. As the same interview guide was used for all interviews, the comparisons between results were made easier and could increase the reliability in findings.

Furthermore, the author of this thesis has been interning in the offices of the container terminal of Ports of Stockholm, which decreased the risks of not understanding properly the industry or the activities performed in such place. And lastly, the research of relevant literature for the theoretical review was based on renowned academic journals (summary table available in *appendix*), which positively impact the relevance of findings, as well as the ability of the researcher to search articles in the right place. The information found and used for the purpose of this research study were stored in a database, created by the author for this given project (Yin, 2003).

3.4.3. Ethical Considerations

Ethical considerations are one of the most important aspects in the consistency of writing a thesis and providing interviewees the security that the information collected will be following the process presented. Though ethical considerations have been kept in mind along the whole project, the focus was put on the consent, confidentiality, participation as well as their potential consequences (Bryman, 2015; May, 2011; Silverman, 2013). Starting with the consent of participants, it was valuable to the researcher that all participants were aware of the topic and the purpose of the study, as well as the ways the research would be conducted. All participants contacted were given a brief introduction to the topic with the modalities of how it will be conducted. This brief introduction overviewed the following steps, and once met in person, more details were given (the introduction of the research can be viewed in appendix).

The following steps concerns the confidentiality issues, were participants were asked if the interview could be recorded for the only purpose of being transcribed. Following this path, the participants were granted anonymity, but also that the recorded tape would not be shared, and their names would not appear on the thesis. Yet, for the participants not willing to be recorded, an extensive number of notes have been taken, granting the same values as previously announced.

Thirdly, the author asked for a voluntary participation, as interviewees were not forced to answer some questions and were able to withdraw from the study at any time. In a matter of respect towards participants, the researcher was keen on sending the transcribed interviews to the participants willing to review or withdraw what could have been said, however, none of the participants had to change their sayings.

3.4.4. Evaluation of the Methods Used

Lastly, and in order to wrap up the methodology chapter, the author thought interesting to evaluate the methods used to complete this research paper and reflect upon the potential benefits of using a different method. As it can be understood, this chapter has been written after the process of collecting data and conducting interviews or meetings.

Consequently, the qualitative methods used has been beneficial for the researcher since it allows the access to a lot of insights as well as the evaluation of the perceived quality of the service they get. This aspect is important to the study as it concerns two of the research questions and was one of the axes to base the research on. However, this type of method has its drawbacks, where the researcher could be biased, or the level of misunderstandings are rising compared to a more quantitative approach.

For this reason, the researcher belief that mixing quantitative and qualitative methods could have been beneficial for the result of the study. In fact, as formulated in the introductory chapter, the first research question could have been answered in a more quantitative way, which could have resulted in a better, more accurate and easier ranking of the elements parts of the service quality.

All in all, the researcher believes that combining methods would have leveled up the final result for a specific part of the study and could have brought a better overview of the industry as well as its specificities and how the service quality is ranked in the Swedish market. In addition to this factor, the researcher believes that using a quantitative method could have increase the spectrum of research, accessing a larger number of participants, enabling a broader set of data collected and areas of interest.

4. Findings

This chapter of the research paper is the outcome of the data collection process. The 'findings' section is built on 4 sub-sections which are the coding categories. All categories are first defined to state the context as well as explaining the various components and what it includes. Later on, the details of the data collection process are shared to facilitate the understanding of readers prior to the analysis of results. This section of the thesis is critical to understand where the conclusions are coming from, as well as getting familiar with the respondents' statements and working environment. This section consists of raw information extracted from the interview transcripts and are bring real insights to the research questions. The interviews have been highly valued by the researcher as they allow the access to subjectivity from respondents and access both their thoughts and feelings on a given topic.

In order to state the general context in which the data collection took place, it is important to acknowledge that participants were interviewed on a voluntary basis, and most of the interviewees had access to the transcript of the meeting in order to correct what could have been said or misunderstood. The participants who accessed the transcripts were also keen on bringing more insights and details about some of the questions asked.

All the respondents who were part of the interviews procedure worked in the container shipping industry for at least 5 years and up to 25 years, whereas the focus group participants worked in the industry for at least 1 year and up to 14 years. The four themes for the sub-sections are cited often by academic journals as being crucial in the evaluation of the service quality, which is why they have been used in a similar manner to present the findings.

In addition, specificities to the Swedish market have to be taken into account, on the one hand, during the analysis of the data collected, and on the other hand, by the reader when apprehending this section. The Swedish market, and especially on the West Coast, has a limited number of seaports able to handle large long-haul cargo vessels, which limits the options to choose from for customers. As illustrated by the following quotes from *respondent 3*:

> *"In Gothenburg, you have the… it is the main hub in Sweden, where you have the main direct calls to the Far East"*

> *"But again, Sweden is what it is, so if a client requests a port, then you might have this one and only alternative"*

In addition to the limited number of container terminals with the ability to handle such vessels, there is usually a single operator by terminal as stated by *respondent 4*:

> *"A port with different operators, so we have some sort of competition. No competition, that's not good for the price nor the service, or for anything"*

Whereas these specificities are not mentioned in the academic literature, it is important to adapt some factors to the size of terminals as well as the geographical location of the country in order to understand at its best the context in which this industry is evolving.

4.1. Service Provider and Service User Interface

In this category, a number of components have been identified, either because of the repeatability in the interviews or are main aspects identified in the literature. The following chart aims to identify the components used as well as illustrating the repeatability in the coding process.

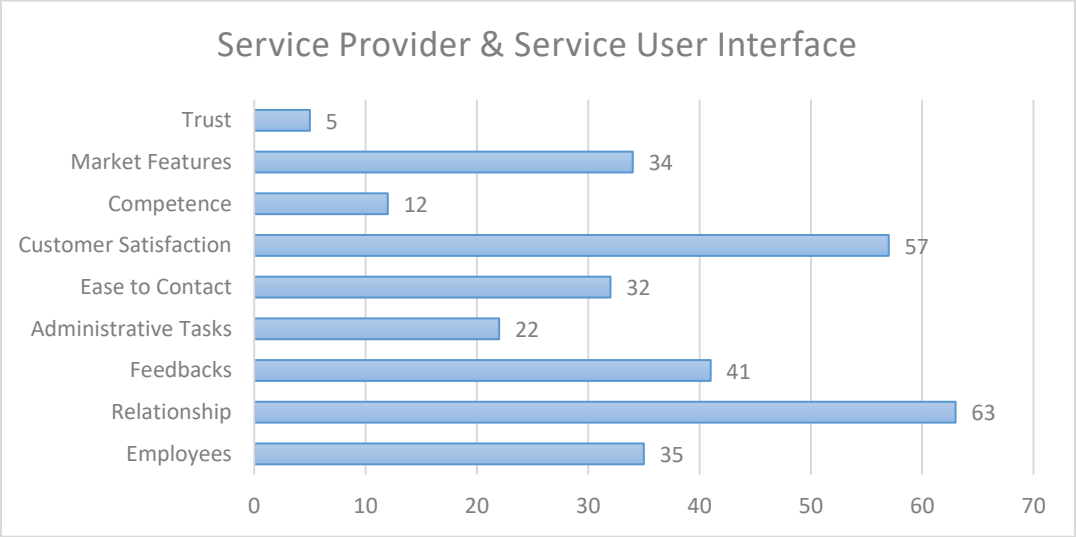

Figure 3: Illustration of Codes for the service provider and user interface

Due to the extensive number of quotes, the author decided to expose only a selection of quotes to illustrate the findings. The components part of the service provider and service user interface are trust, market features, competence, customer satisfaction, ease to contact, administrative tasks, feedbacks, relationship and employees. As those codes have been created at early stages in the data collection process it appears that come are part of a parent category, which can be in the same section. However, it helped the researcher to go straight to the point with some aspects mentioned by the interviewees.

In order to define in this context, the codes, the trust factor results from the relationship between the service provider and the customer. This can be due to a long-term relationship, a high level of cooperation among actors, or loyalty to cite few examples. The market features code has been created to give a better context around the industry and understand why the Swedish market was different from other European market. The feedbacks code concerns the frequency of feedbacks given, whether they are positive or negative, under which for they are given or if they have any consequences on future partnerships. Lastly,

the employees code groups the relationship among employees, their empowerment, the environment in which they evolve or the possible teamwork aspects.

The researcher thought appropriate to start looking into the customer satisfaction factor, as it is the foundation of a number of other codes present in this section. Generally speaking, the terminal operators stated the importance of being customer oriented as well as being attentive and thoughtful of customers in the daily actions and strategies undertook. The respondents described the customer satisfaction as being able to listen and understand their counterparts, both in the case of specific requirements but also in the case of a rising issue. As one of the respondent mentioned, 95% of the time, the handlings and procedures are the same and smooth, what needs to be taken care of with extra attention is the remaining 5%, on which the customer will make its opinion on the reliability and experience of the terminal operator. Additionally, the interviewees assimilated customer satisfaction to the expression of a fulfilled need or want, as well as reaching, if not exceeding the customer's expectations. Lastly, the service providers associate the customer satisfaction with the good communication between the parties but also within the team working in a container terminal. The following statements are illustrating this first issue.

"Everyone has the same information and, understand what the customer wants, to provide a good service" - respondent 7

"'The customer is always right in having an expectation, but that expectation can also be managed in understanding what the customer really wants and needs" - respondent 5

Regarding these two quotes, the interviewees are working for different terminal operators and in a different geographical location. The identification of needs as well as underlying requirements are showing the importance of the customer in the eyes of the service provider and are the foundation to a longer-term relationship among them. As previously mentioned, communication and feedbacks are one of the most efficient way to increase the quality of the service and if based on a daily or regular basis, the consistency and service level can be maintained. To confirm the statements of the service providers presented above, quotes from the service users have been extracted and will then be presented. In order to contextualize them, the researcher asked about these issues when asking about the type of relationship the business partners had as well as its evolution over time. Due to the extensive number of quotes available, the researcher decided to choose the most representative quotes, keeping in mind the global picture, overviewing most of the interviews.

"A port that can understand, sometimes can see a strategy of the carrier and try to adapt its business model to the strategies we try to promote" - respondent 6

"Daily cooperation to avoid future problem. It helps delivering a better service and develop business and cooperation between ports and feeders" - respondent 8

Departing form, the customer satisfaction factor, a lot of other factors can be linked and influence the perception of the service. The efforts of the service provider tend to emphasize the importance of communication to primarily acknowledge the area around their customers' businesses, but also to spread

this knowledge to their teams. The objective it to develop a relation with the customers, insuring them that the team in charge of their containers will be handled in the best condition. On top of this, in order to complete tasks with efficiency, the service providers have been keen on providing feedbacks regarding the importance of managing closely their employees in a team spirit, where each and every one is empowered and responsible for the good handling of their activities. The researcher noted in the various places where the interviews occurred that the employees liked working closely, and the relations among them was built on trust and respect. The immediate benefits can be seen on the productivity level, where the efficiency has been increased as well as their intentions to run the seaport in a positive spirit. At a later stage, it is beneficial for the reputation of the container terminal and its global image. The following two quotes are provided to exemplify this argument.

"Yes, we are a small team, friendly and helping each other out" – Speaker 2, FG1

"Any conflict with the workforce is dangerous because the customer could move its cargo via other ports" – respondent 7

In addition, this research paper aims to provide a double view on a single issue, and as mentioned in the last quote, the good relationship with the workforce is introducing the notion of reliability of the service as well as its provider (in depth exploration of this component later in this chapter). Indeed, the Swedish container shipping industry had known over the last summer months some issues with the labor forces and the seaports' customers did not forget to mention it, as being the top of the iceberg regarding the notion of teamwork. Generally speaking, the size of the team does not matter for the customers, as long as their expectations are fulfilled, however, it has been noted that the smaller the team is the more efficient is has to be in order to provide the same services as a bigger port. For some customers, the notion of teamwork does not seem to be perceived, possibly due to the contact person they have or their low involvement with the operational team. The following two quotes are provided as an illustration, for the different types of thoughts heard by the researcher.

"100% that teamwork and knowing that they have a good relationship with employees is also important" – respondent 3

"In 2017, we lost 20 to 30% of our turnover due to this conflict [in Gothenburg], and a lot of canceled calls" – respondent 4

Lastly, and as mentioned by a large number of interviewees, regardless of the perspective used, in the shipping industry, there is always something out of the plan happening, which qualify this industry as vibrant and unpredictable. As an illustration, both service providers and users are expecting from their counterparts, a good communication, expertise and experience in handling a given situation. This last argument is highlighted as follow:

"Drawing conclusions on little information, that is part of the experience" – respondent 5

"You always need to use your experience and your network to solve problems" – respondent 9

All in all, what should be remembered from the data collected and presented in this section, is the relative similarities in the actors' perceptions of the studied components, as well as the importance of the provider/customer interface. As illustrated by the above examples, Swedish customers, though subsidiaries of international shipping lines, do rank the importance of relationship, good teamwork and ease of contacting their partner relatively high. When summarizing and reflecting on the interviews the author noted the strong impact of the 'soft power' of service providers in Sweden.

4.2. Infrastructure

This section accounts less quotes then the previous section, however, the infrastructure of a container terminal is one of the key elements on which the interviewees have been insisting, both from the service provider's and their customers' point and views. As in the previous chapter some codes are part of parent ones, such as the location tends to be part of the connectivity, explaining the rather small number of quotes.

In addition, the researcher could notice a strong link between certain components. In this case, two or more factors can be mentioned together. In addition, some components such as the 'environmental issues' or the 'safety and security' ones, which were important for the researcher to explore, tended to be less mentioned by the interviewees, in this case these factors were on purpose asked.

The below chart illustrates the repeatability in codes for this sub-section.

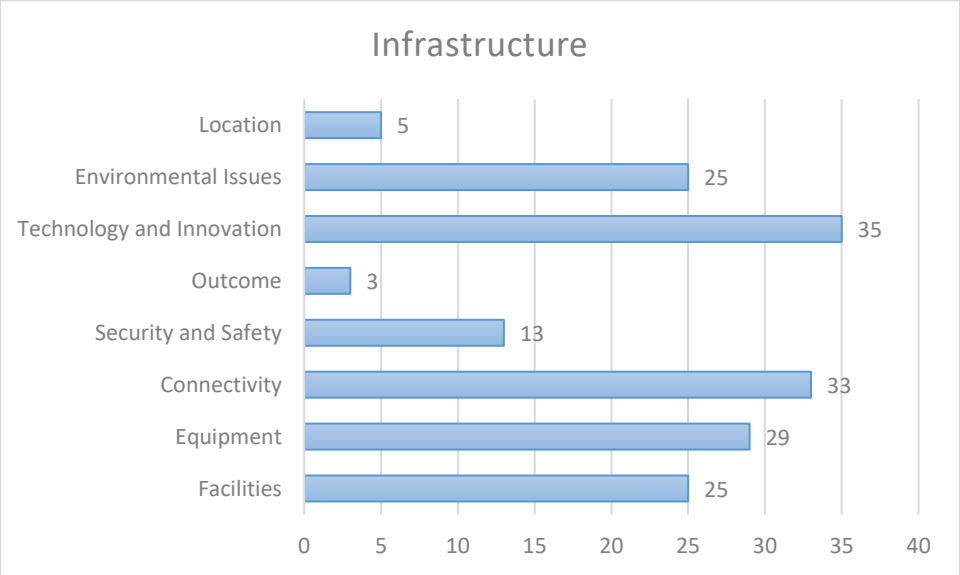

Figure 4: Illustration of Codes used for the Infrastructure

When bringing up to the interviewees the notion of infrastructure, and what matters the most in a container terminal, in almost all case the notion of equipment has been the first one mentioned. In a matter of consistency, the researcher was willing to follow a similar path to share the data collected. It was interesting to see the different perspectives of the respondents on this topic as their role in the transportation industry would not require the same interest with equipment. In fact, using the service provider's point of view, the interviewees would assimilate the equipment to the importance of being flexible and efficient in their daily tasks. Indeed, the equipment are an absolute necessity in a container terminal to complete tasks as well as being able to deliver a service with the agreed upon conditions. The notion of flexibility brought to the equipment is also due to the fact that sometimes, if the terminal is not fully automated, one equipment is performant enough to complete different activities but also that would be fast enough to accomplish tasks as efficiently as possible. In addition to these factors, seaport service providers mentioned the importance of keeping up with the innovative pace and making sure that the equipment and infrastructures in the terminal are up to date to handle the large vessels. The two following quotes are aiming on illustrating this argument.

"One truck does it all, and very fast. But maybe it is not the best way, but it is good for the customer, and it helps us to be flexible" – respondent 2

"Delivering infrastructure improvement in a good time for the customer" – respondent 7

In order to complete what has been said by the service providers, the researcher was keen on looking from the other perspective to access more details and insights. In fact, most of the interviewees believed in the availability of equipment, meaning that when a vessel arrives, it can immediately be handled, which reduces the waiting time and delay in between operations. In the availability of equipment, some interviewees mentioned this notion supporting the technical issues that can be related to this. Respondents were insisting on the minimum delay possible but also the constant check and improvements of existing equipment to avoid an unexpected dysfunction or impossibility to handle a vessel or the containers. Indeed, technical issues due to maintenance or lack of care are considered as a major inconvenience, which is directly affecting future businesses. Of course, technical issues are happening and are part of the process, however, the customers interviewed showed that they would rather be informed of this issue, in order to adapt plans and schedules to the situation. The two following statements are exemplifying this paragraph.

[Question asked: what the most important aspect in a terminal's infrastructure is?]
"Availability of the equipment" – respondent 8

"You have a very modern facility, you don't have any technical issues, so there is a high maintenance" – respondent 10

From these statements, a number of specificities linked to the notion of equipment and infrastructure can be explored. It happened on a regular basis that the interviewees tended to depart from the equipment

component and would introduce on other factors to complement their statements. Following this procedure, the factor 'technology and innovation' was added for further details on the equipment. In fact, one of the question asked to both the service provider and the customers was about the ideal container terminal to work on or with, and in many cases, the notion of technology was brought up. It has to be kept in mind that this notion can have several meanings depending on the perspective used, which is why, the first example used will be with the service provider point of view. In this given case, the technology aspects happened to be more related to the communication and information flows between them and their customers. Information flows are crucial in order to access information and be able to understand clearly the customers' requirements, it is also a way to provide a better service and keeping the other counterpart up to date in the operations happening and making sure that the service will be delivered on time or if the schedule needs to be adapted due to unforeseeable issues. In addition, some respondents were less receptive to the idea of technology and innovation in a container terminal, when taking automation of operations as an example. Of course, in the present case, machines and equipment are objectively reducing the workforce, which is not something terminal's employees are satisfied about. On the other hand, the automation, being more and more implemented in global ports are showing more regularity in operations than when these activities are completed by labor forces. As one respondent said, automation enables a steadier pace, meaning that it is slower than the peak, but also faster than when the workforce is slower. Overall, the service providers acknowledge the benefits of automation when implemented as it brings more flexibility and convenience for the customers, with the reduction of possible damages and larger opening hours. The following quotes are illustrating these arguments.

"The problem with technology as well is that it's a little slower than we can do but that's pretty normal, because we have a small port" – Speaker 1, FG1

"It has to be balanced with people, because it could induce the headcount, increase potential union conflicts, so decision has to be collaborative. But there is a need for technology in order to optimize the efficiency" – respondent 7

Whereas the statements of the service providers were split between positive and negative prospects, the customers view the implementation of technology and innovation in a more optimistic manner. However, some interesting thoughts have been emerging from the interviewees with seaport's users, and additional statements in the same direction have been complementing what the researcher previously heard of with the service providers. As thought, the service users tend to support more automated systems as it is also assimilated with a cost reduction and overall, a more flexible service for them. The aspects of technology regarding the information flows have also been mentioned by several respondents and went more in depth regarding technology available in the automation of gates specifically, which would immediately reduce queues to access the port or the areas where containers are located. As in the previous arguments, the main objective of technology and innovation is to reduce delays and be more efficient, as illustrated below.

"We fully support automation! And consequently, costs reductions!" – Respondent 8

"The yard is to the biggest part automated, mh and also automated gates" – respondent 10

"We work with what we have but there is a lot of things to develop, how to process data for example" – respondent 11

As it can be seen from the examples above, the infrastructures are a critical aspect to the efficiency and attractiveness of a port. Yet, the attractiveness of a container terminal goes in pair with its location and its surroundings, mainly shared throughout the interviews and coded as 'connectivity'. As the previous sections, a selection of relevant quotes is displayed from both the service providers and the service users. The location of a port as well as its surroundings has been defined as crucial for companies if they are willing to make business in a country or given area. What is in a port in terms of infrastructure or equipment is one thing but what is just outside the port is at least as important for the service users, as it is consider as an entry or exit point and so the accessibility of a port is determinant for the volumes as well as number of agreements for a service provider. From the service providers' perspective, very few quotes are available but to summarize the overall situation, the seaports are paying extra attention to the access, the ease to find the terminal but also the availability of intermodal transportation, with includes a developed access to railways and roads or highways. This way the terminal gains in accessibility and attractiveness, but also, works towards a possible development and growth with larger cargo volumes, vessels or vessels' calls. On the other hand, the service users have been very critical in regard to the connectivity and accessibility of seaports. Generally speaking, and in addition to the following, service users seem to care about the possible connections to other transportation modes, mainly railways, in order to carry containers to other regions. However, in order to move around containers, a number of other logistics companies are part of the surroundings of seaports, and these companies and the services they offer are also considered in the port selection, in fact, if the port is not close enough from the final customer, these companies act as a buffer between the different actors. Finally, some service users mentioned the up-scaling factor of portfolio of services that could come with the location and its connectivity, meaning that if there is a wide range of activities close by the seaport, these could be considered as a decision maker factor in the port selection. To finalize this component's presentation, the following quotes have been selected to draw the global picture in this environment.

"The ones [container terminals] where we have volumes are where there are railways, because it is really needed because […] imports and exports are never happening at the same time" – respondent 3

"The connectivity of the port is at least as important as the availability of equipment" – respondent 8

"You have the infrastructure in the port and so of course you also need the infrastructure just outside the port. It is equally important" – respondent 6

"It [the surrounding log. companies] can definitely be an up-scaling factor for a service and would provide good money" – respondent 10

An additional area of concerns was the impact of the environmental issues for the respondents asked. Generally speaking, these issues have not been mentioned by the respondents unless asked, which generated some questions for the researcher. As said by many interviewees, the environment is a growing issue in the transportation sector, which is not something that is considered as a priority for the interviewees. In fact, and as mentioned during the interviews, the shipping lines tend to ask more about alternatives and solutions to reduce their emissions once in the port, in addition, if the port happens to have a good location nearby a city or good connections to networks, this is beneficial to them. Nevertheless, the main reason behind the attention brought to the environment can be found in a possible reduction of cost for the shipping lines, when moving faster and efficiently rime with cost optimization. Indeed, many carriers mentioned the importance of efficiency, and after all, if it can reduce emissions and negative environmental impact, it is beneficial for all. Additionally, the environmental factor enables carriers to build their identity around it, promoting a new and greener way of transporting containers. Finally, it can be seen that some carriers and seaports are taking the lead in the implementation of measures to diminish the effects of transportation on the environment. Regulations are being created by local and global authorities, encouraging seaports to develop the alternatives and options to choose from for carriers. On a more specific level, as the Swedish market is evolving, and the taxation of roads will bring new issues in the industry, many customers have been talking about considering and implementing more railway services in order to avoid this problem in the future. The following quotes have been chosen to illustrate the above arguments.

"The port tries to show its customers that they are implementing solutions and improving their standards" – respondent 7

"It is becoming more and more important, partly because of the new regulations and partly because of the carrier's identity" – respondent 6

"It is getting better but very slowly, and there is nothing the customer is asking for, so if the customer doesn't push, nothing is going to happen" – respondent 11

The last element the researcher wanted to bring up to this section was the security and safety aspects, which are specific to the container shipping industry. As previously mentioned, none of the participants would bring up this topic unless ask, which brought a number of question to the researcher. In fact, container terminals and port operators are completing on a regular basis, around twice per year, reports in which they are assessing criteria regarding the current situation, the areas that are meeting the requirements or the ones that need immediate improvements. These assessment grids are made internally but based on local and global regulations. Whereas the service providers are spending more time reflecting on this matter, the customers seem not to pay too much attention on it and would rather focus on the items previously exposed. In addition, some customers mentioned the importance of safety rather than security, saying that the safety is all about the workforce and providing them a good working environment. On the other hand, security tend to be taken for granted due to the regulations the terminals need to stick to and have to justify of their state to authorities and insurances to prevent possible hazards.

"Making it more difficult for unauthorized people to come in, and so the authorized people can make it in a safer way" – respondent 5

"Yes, they [final customers] don't want their containers to be rubbed, but that's about it. It is taken for granted" – respondent 11

To conclude this section, it is important to remember that infrastructures are in important matter for both the customers and the service providers since it is a required component for the good functioning of the industry. Since this section was very dense, the researcher prioritized the global view on this topic to enlarge the understanding of the reader and bring up all possible aspects that the counterparts are considering when choosing a seaport as business partner. As seen, the connectivity and availability of equipment are important matters since they can attract but also retain volumes.

4.3. Operations

The present section aims to group all the elements related to the operations required to deliver a service to customers. This section accounts for 170 quotes, split into 6 categories. In a similar situation as the previous categories, some categories have been specified due to the insistence of the interviewees. As an example, the number of moves (i.e. To lift containers on and off the vessel) are part of the 'measurements' component, and the waiting time factor, part of the 'timing' component. In order to define the factor 'technical features', it concerns all the actions taken by the container terminal employees to handle properly the vessels, containers and yards. These actions are broad and require expertise and knowledge about the container shipping industry.

The following chart illustrates the codes used to identify key elements to be part of the data collected.

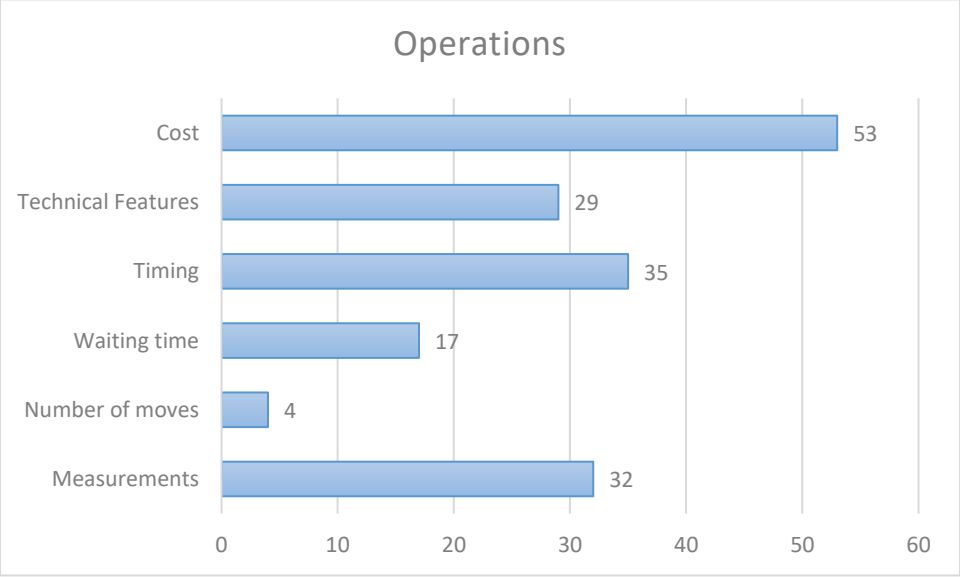

Figure 5: Illustration of Codes used for the Operations

As in many transportation related sectors, the cost of the service is one of the main aspect to take into consideration in the selection of terminals or business partners. Due to the importance of this factor, often associated to the trade-off with the service quality, the researcher decided to start this section by gathering all the aspects the interviewees presented and discussed. The following quote has been extracted from the service providers' statements and along with the data collected, the researcher could understand why cost optimization was such an important matter to service providers. Indeed, the transportation sector is a low margin industry where, in a competitive environment, customers tend to have a low loyalty towards their service providers. In order to stay competitive and attractive towards shipping lines, the seaports can offer a number of advantages to their customers. As seen the contract agreements, negotiated on a yearly basis, customers can benefit to a period of free storage (few days after off-loading the vessel), free storage of empty containers, or discounts depending on the overall volume brought in the port by the shipping lines.

> *"The transportation has to be as cheap as possible and the handlings as low as possible, at the end of the day. […] many customers will get as many units as possible out and as quickly as possible, or at least within the free time because it is not cheap to have your containers sitting here" – respondent 5*

On the other hand, and as illustrated by the above quotes, internally, employees tend to reduce unnecessary moves and work efficiently with combining activities in the same area of the yard. As mentioned several times in the focus group, the employees are aware of the costs generated with excessive number of moves, and the parent group of the terminal operator is measuring on a daily and weekly basis the number of moves made by all equipment and, this way, has been able to identify the bottlenecks.

> *"I think of the company because if you are running around with the truck, without a container in the spreader, it's just wasting money" – Speaker 1, FG1*

> *"This is not something that makes the customer happy, because he doesn't care! If you move it [the container] a hundred times before it's picked up, I don't care, but it will impact the cost internally" – respondent 1*

The second set of quotes are showing the trade-off between the cost and the service. The researcher has been asking this question on purpose to avoid a misinterpretation of their thoughts, and also in order to compare different possible solution. The quotes presented below are drawing the global picture around the data collected during the interviews, meaning that interviewees complete each other on some points but also disagree and have opposed opinion. Overall, shipping lines tend to privilege seaports offering a good service paired with a reasonable cost. As in many sectors, the interviewees insisted on the importance of investigating what is hiding behind a price tag and evaluate if whether or not the given service can increase their perceived value. Additionally, shipping lines appreciate the efforts provided by seaports to offer a large range of service to choose from in order to fit better their business and strategies. The following quotes are illustrating the contradiction or reasoning about this issue.

"If there is a high service level, then the service can be prioritized to the price […], we would normally not choose either a high service or a low price, but we will try to put a 'price tag' on each part of the cost component to investigate if for example, a high service is valuable or not" – respondent 8

"In the end it's also a matter of price because it's a very competitive business, so if we don't do it for 200$, someone else will do it" – respondent 3

"There is a cost for the flexibility and the extra capacity, which can impact the customers' decisions" – respondent 7

Finally, it can be seen that all the components of this 'operations' section is quite link one to the other and directly impact them. In fact, the professionalism and expertise of employees are beneficial to the technical manipulations of cargoes, the more experience employees have, the more efficient and responsible they are to deliver the service on the agreed upon time, which results in a better cost reduction or optimization. On the other side, a cargo mishandling directly results in an immediate time and delay accumulation, which, by definition will negatively impact the costs for both the service provider and its customers.

"Everybody is very into, be efficient, and be… wanting to work fast and as smooth as possible. […] the turnaround time for a car [ed. truck/haulage] in our terminal is just about 8 minutes, it's extremely low" – respondent 2

"When I'm driving a crane, it's just being pretty careful, don't make a hole in the container and don't damage anything or anyone. And try to do it as fast as possible" – Speaker 1, FG1

These insights provided by seaports show the time pressure that is present to complete the activities at a fast pace. Consequently, and as illustrated in the second quote, the possibility of damages is increased when willing to accelerate the operational speed, however, this specific feature has been exemplified by a lot of seaport's customers, and the importance of running efficient and advanced damage checks to enhance the handling quality but also repair the containers in need as soon as possible to avoid large charges or refused access to a certain container on the vessel due to safety reasons. Most of the shipping lines have been showing their personal dedication in inspecting the containers or checking the inspections in order to meet quality standards. Lastly, in order to detail the previous quotes, the researcher has been able to access a number of reports which gathered all the measurements made by the port operators and proving that every single action taken is measured. The measurements can focus on the frequency, such as claims, damages etc. but also on the number of moves, i.e. lifts on or off the vessel per hour, number of moves of containers before pickups etc. or also a variety of KPIs, which enable the comparison of data collected on a regular basis. These measurements are shared by the actors and are brought to meetings and negotiations.

4.4. Reliability

The present section is composed of the following components, flexibility, reputation and image, efficiency, access to information, consistency as well as certifications, and gather 99 quotes. As in the previous sections, these codes and their repeatability is illustrated as follow. This category is the smallest one in terms of number of quotes compared with the 3 others, however, the researcher did not need to ask the respondents about any of these notions and accessing this type of data happened to be very spontaneous.

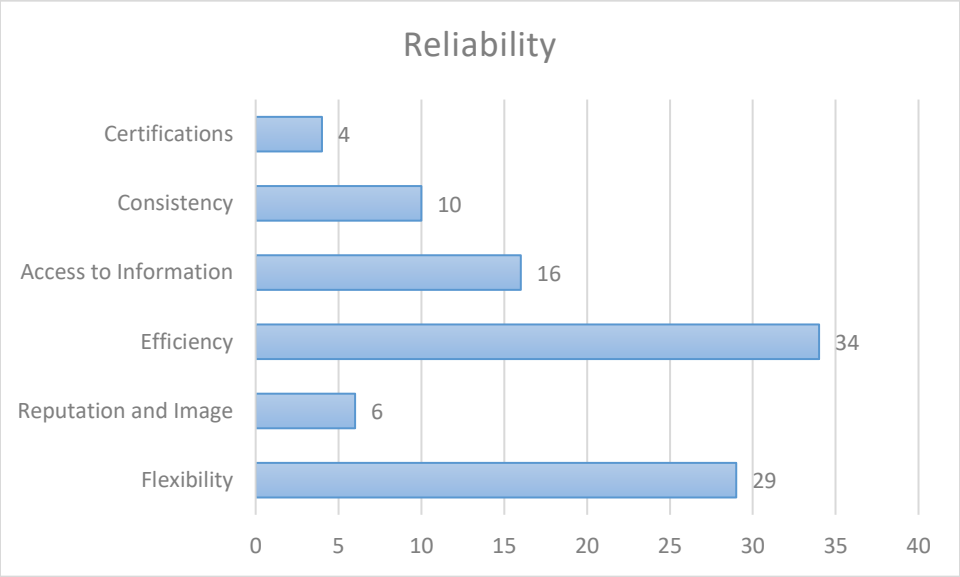

Figure 6: Illustration of Codes for Reliability

The graph presented above shows the trend in what are the most important aspects of the reliability for both the container terminal – service provider and the seaports' service users. The researchers paid attention not to disturb the thinking process of respondents in order to draw, afterwards, a more global picture regarding these aspects. In fact, some factors such as flexibility, efficiency and consistency are mostly shared by both parties, whereas the certification and reputation factors tended to be mentioned by the service users. The component 'access to information' can be assimilated to the good communication, presented in earlier section, for this reason, the researcher decided to refer to the previous statements to avoid repetitions, which enables a better reasoning and focus around the other factors.

In order to start the presentation of results, the 'efficiency' component will be demonstrated as it accounts for the most recurrent factor. In fact, regardless of the actor interviewed, efficiency is one of the most important measure and can be defined as a reference point for the counterparts. More precisely, the notion of efficiency has been defined by the respondents as working fast, being able to keep promises regarding the number of moves and having a reduced amount of damages, meaning that the work must

be done fast, but the quality should not be deteriorated. In addition, some respondents mentioned the importance of communication, as one of the main influence on efficiency. In fact, intra-organizational communication allows the workforce to operate in a steadier way, where the information is spread on a global level. However, the communication side of the efficiency has not only been mentioned by the service providers but also by their customers, where the use of EDI for instance, represent one of the most use mean of communication between parties. An efficient communication is then considered as a good soil for an efficient operational flow, building up to a good reputation for the seaport. In order to illustrate the efficiency of operations, the following statements have been extracted from the interviews' transcripts.

"A decent efficiency, and because we think that the trend in the business is, bigger ships stopping at fewer terminals, but handling more volume in each terminal instead" – Respondent 2

"We need them to be swift and efficient as well because we want to shift our containers as quickly as possible" – Respondent 3

"The performances of that terminal are well known, the customer knows what to expect more or less, the rules are also quite tight there, you have that free time and then you have to pay" – Respondent 5

As these examples illustrate the efficiency of the operations in a container terminal, this factor also links a number of other components previously exposed. In fact, the efficiency is measured based on the operational level, but also directly impacts the reputation and image of the seaport. During the interviews the service providers did not mention this criterion as they tended to say that service providers usually complete their operations as they always do, to satisfy their customers and considering their requirements. On the other hand, the seaports' service user, tend to consider the reputation of a port as in the selection criteria but it seems that this factor has a low impact on the final decision due to the local market, where there is only a limited number of seaport big enough to receive large cargo vessels. Yet, it has been noted by the researcher that some customers would pay more attention to the reputation than others, mainly regarding the overall cost of the operations and their efficiency. The reputation factor tends also to be more used on the Swedish East coast, where there is a larger amount of ports to choose from rather than for the West coast.

Alongside with the presented factors, the importance of offering a flexible service has been demonstrated by a number of respondents. Whereas service providers are showing the importance of being customers-oriented, the actors benefiting from the service are most of the time critical about the flexibility of their service providers. The flexibility component is assessed differently depending on the customer, his container volume or its size, but also depending on whether or not he is offering a very flexible service or not to his own customers. Furthermore, the service users mentioned their willingness of creating a long-term relationship with a seaport that tends to me more flexible and which is looking to implementing solutions and improvements than with others which could be stricter and following the rules. As an illustration, the following quotes have been selected, using the service user's perspective.

"We have storms, we have delays, we have problems with the channels, we have strikes, vessel doesn't always come when it is supposed to come, how good is the port to handle us when we come in the middle of the night or late evening" – Respondent 6

"They [given container terminal] are always open for discussion, if something happens or if we have a specific requirement" – Respondent 4

"Generally speaking the ports that we choose to work with are very flexible, and they are always willing to look at what they can do" – Respondent 9

In order to complement the above statements, the researcher found interesting to add some key points mentioned by the service providers. In fact, as some said, the service offered tends to be quite standardized among their customers, however, the 15 or 20% of the services that are not following this path are the ones where the service provider has to be more flexible, where the expertise and experience is required to allow a greater flexibility in operations. Thus, the seaports can provide an additional service depending on the customer's requirements or needs. As seen in the first quote, it can happen, due to external issues that the vessel will arrive out of the scheduled time, which implies that the seaport must implement the required measures to this given case. Using this example, one of the service provider interviewed noted that vessels tended to call more often to the port having a greater flexibility, even though the vessel does not always need a flexible service.

Part of the reliability section, the researcher noted the care brought to the consistency of the service offered, from both the service provider's and its customer's perspectives. In fact, the service providers mentioned the importance of consistency as the regularity in the offering, where the customers should receive the service required with the same care each and every time, whereas the customers appreciated the fact that their service provider is able to always provider the same service, and cares about all customers the same way, regardless of their size or the volume they receive. As an illustration, few quotes have been chosen as examples of this component.

"When the service matches what has been agreed upon, the company gains in reliability. And this consistency matters to shipping lines" – Respondent 7

"We try to perform consistently and as standardized as possible" – Respondent 5

"Maybe our expectations are higher because it has been the same service level for a long time" – Respondent 11

As it can be seen from the above examples, the consistency in the service or service level is crucial for all parties as it is part of offering a good service, over a longer period of time, and where the customer can measure and compare it based on several experiences. An important matter for the counterparts is that the service received reached or exceed the conditions agreed upon, and so during all the times the customer will be using this service. This aspect is very important as it is also what will be later turned into trust, longer term relationship and would also increase the cooperation of the counterparts regarding issues or given situations.

Last but not least, the certification code has been rarely used, and the researcher was willing to give the reasoning behind this. When asked to the respondents, the certifications were not a major criterion for the selection of a container terminal, in fact, for a terminal to open and being able to operate, several certifications, permits or regulations have to be followed. Taking this into account, the service users know that the container terminal selected is answering these requirements as well as standards, which is why this component does not have a greater effect on the reliability of the service.

To conclude this section, there are several components taken into account in the selection of ports, and the reliability of a port, its services and workforce is determinant in the decision making of a potential service user. Several other components could be added to the section, but the researcher decided to focus on the factors spontaneously brought up by the respondents during their interviews.

5. Discussion

This chapter of the research paper aims to use the data collected and presented in the above chapter and compare it to the relevant academic literature which has been exposed in the literature review. This chapter, in a similar manner as the findings will be presented with four main sections, the service provider and service user interface, the infrastructure, the operations and the reliability. This technique has been chosen in a problem of consistency but also in order to understand in an easier way for the reader the path adopted by the author. This final chapter before concluding the research study aims to provide an answer to the three research questions formulated in the introductory chapter. The answers to the research questions have been based on the relevant academic literature previously exposed and are then completed by applying the industry insights to the academic reviews.

5.1. Service Provider and Service User Interface

As seen with the data collected, and presented in the previous chapter, the respondents have been sharing a number of insights regarding the interface between the service provider and the user, emphasizing on the importance of the 'soft power' between the counterparts. In order to complete this chapter, the author has been gathering the equivalent elements from the academic literature and could compare them with the data collected from industry professionals. This section includes the evaluation of the factors related to the relationship between counterparts, the customer satisfaction, the ease to contact one another and the competences required to offer a good quality service. Last but not least, this section will be applied to the market features and specified to the Swedish container shipping industry.

Starting with the service encounter factor, the respondents have been insisting on the importance of identification of customers' needs and requirements regarding the service offered. As this component is extensively described in the service quality literature, it is surprising that it is not covered by the specific shipping industry literature. As this research paper focuses on the Swedish market, and the literature, unless specified, tends to overview the container shipping industry as a whole, the first major difference seen by the researcher is the lack of insights on the identification of needs and requirements. The industry literature tends to focus on the technicalities of the service outcome, rather than the communication and human factor during the service encounter.

Secondly, it was studied by the service quality literature that the quality of the service was affected by interactive elements between the customer and either the service features or human interaction. As seen in the literature review, many articles showed this aspect of the service quality, but when looking into the container shipping industry, the researcher noted the absence of such feature. Creating a relationship between the service provider and the customer was represented as very important for the interviewees, mainly due to the need of promoting trust among the players. Lastly, the researcher noted another difference with the literature, where the importance of the workforce can be seen as secondary, the respondents, mainly due to the labor unions in Sweden, showed that the relationship among employees

was as important as their relationships with the service provider as a whole. The reason behind it can be seen in offering a more reliable service.

Thirdly, the researcher noted the importance brought by respondents to the ease to contact its service provider, or the other way around. This aspect tends to be mentioned in the literature under the responsiveness factor, and where the communication is crucial for the industry professionals. However, the researcher discovered that the notion of feedbacks in the industry was not something academicians studied, when interviewing the participants, it was obvious that, from both perspective, the communication was the key to a successful relationship, however, feedbacks tended to be given mainly in a negative scenario. In addition, regardless of the type of feedback, both the respondents and the literature studied showed that a good information flow was required, and highly benefits the customer satisfaction.

Lastly, the researcher noted the importance of the administration related tasks in a port selection, based on the literature, however, the respondents showed that this issue was not a priority for them, and for a number of shipping lines, administrative service are out-sourced or internally done, which does not affect their choice when working with a specific port. The review happens to be similar when discussing the competence of the service provider. It is recognized as very important when assessing operational or technical issues, but it is rarely mentioned in terms of encounter or ability to sell a given service.

5.2. Infrastructure

The second section in this discussion concerns the analysis of the infrastructure related components, and their opposition to what could have been found in the related literature. As this section has been broadly developed in the presentation of data collected, the bond with the literature applied to the studied industry. Following a similar structure as the previous section, the infrastructure component will be evaluating the following components and assess their weight in the industry, in comparison with the academic literature. This section will be composed of the connectivity and location factor, the equipment and facility factor, the safety and security factor, and will end with the assessment of the various improvement possible to these aspects, both on a technological side and on an environmental side.

Starting with the assessment of the connectivity and location factors, by comparing their weight in from the data collected and what can be written in academic journals, the researcher noted the importance of these factors and most importantly, that from both sources, these factors were the most important ones in terms of seaport evaluation. Generally speaking, the location is the first thing that customers would take into consideration when establishing a partnership with a port, shortly followed by the connectivity, to both intermodal transportation, but also to other logistics companies. These two aspects are undoubtedly on the same level in the respondents' minds and as understood by the Academia.

The second aspect tested concerns the equipment and facilities that are used in a container terminal. For some academicians, these aspects are as important as the location of the seaport, but if not, they are ranked in the "top 3" criteria for a seaport selection, showing the overall importance of the equipment. Using the respondents' point of view to complement this statement, yes, the availability of equipment, as

well as the infrastructures are important. These aspects are considered as a first step to the efficiency of a terminal, meaning that the seaport is able to do business and handle a large volume as well as different types of vessels.

Thirdly, the academic literature emphasizes the role played by the security and safety factors in the port selection. Based on this, the researcher thought that this aspect would be often brought up by respondents, however, it has not been the case, consisting in another major difference between the academia and industry practices. As seaports are keeping up with regulations in order to be able to operate, the customers are not focusing on these factors. Surprisingly for the researcher, the respondents mentioned the importance of following corporate or regional directives, but as the seaport is able to operate, little time is spent on the evaluation of such factors when selecting a port.

Last but not least, the researcher decided to focus on the possible improvements for seaports and the industry in general. The literature emphasizes on the role played by innovation and technologies to cope with bigger vessels' sizes and larger volume, in the present case these aspects are part of a more efficient port, where the operations are reliable. This view is shared by seaport service users, where technologies and specifically automation is an up-scaling factor in the port selection. On the other hand, the service providers are not fully sharing this view, as exposed in the previous chapter, and this difference in perspective is what lacks in the academic literature. In addition to the technology and innovation, the literature has a reserved view on the environmental aspects, which is shared by the respondents, qualifying environmental issues as growing. Indeed, this last aspect is rarely taken into consideration when selecting a seaport.

5.3. Operations

The third section of this chapter consists of the evaluation of technical issues related by the respondents, and their perceptions compared to what can be expressed in the academic literature. As in the previous chapter, this section accounts for less quotes, however, not less important in terms of technical features and good delivery of the service offered. This section will be presented with the comparison between the respondents' statements and the previous field researches presented in the academic literature. 4 main arguments will be presented, namely, the cost-related components, the measurements aspects, the time aspects and finally the technical features and operations.

The first element studied in this section is the cost. In fact, this is one of the most heard and read component of the container shipping industry as it is a quite cost-sensitive industry. The cost factor is one of the most important one in the selection process of a seaport as the calls can be expensive for shipping lines, however, the respondents shared valuable insights on this feature, where of course, the cost of the service is considered, but the service and its value are as important as the cost, meaning that additional services or flexibility costs will be considered, and additional costs can be accounted if the customer needs it. In addition, most of the respondents mentioned that having a low-cost port in the wrong area, would not bring them any value which is why in this case the cost factor is secondary.

Secondly, the measurement factor is largely mentioned in the literature, where a number of scales are created and applied to this industry in order to measure the service quality. To the researcher' surprise, these scales seem not to be used by the Swedish interviewees. In fact, many things are measured, mostly regarding the efficiency of the service, but the service quality per se, is considered as a whole, combining all the studied factors. All in all, the overall service is measured based on a number of criteria and components but the quality, as part of the service, is not.

An important aspect of the service quality, extensively mentioned in the literature is the notion of time, including congestion, waiting time, delays or overall delivery time. This notion has then been evaluated by the respondents, where is can be ranked in the "top 3" most important factors to take into consideration when partnering with a seaport. In general, transportation activities are done under a strong time pressure, and the shipping industry does not differ from this. The literature reviews the time to deliver the service this way and it has been confirmed by the respondents.

Finally, this section ends with the assessment of technical features in the container shipping industry and how it is perceived by the respondents in comparison to the literature. The technical features of operations, per se, do not have a big share of the literature, however, specific components are often reviewed, and have a large impact on the efficiency of operations. The technical features are important to the respondents, where expertise and experience are required, however, the global picture shows that the way containers are handled is one of the most important aspects since it directly influences the availability of containers, the possible damages, as well as the overall efficiency. On a global level, the respondents' insights and the academia have a matching point of view, however, respondents are looking into more depth regarding this specific aspect of operations.

5.4. Reliability

The last section covered in the presentation of data collected consisted in the gather the component which evaluate the reliability of the service and of the service provider. This section happened to be crucial and one of the most discussed by respondents, which creates a greater interest in its comparison with the related academic literature. In this discussion, the arguments will be presented in a similar way as in the findings section, and will be composed of 4 main arguments, the evaluation of the efficiency factor, the reputation and certification ones will be evaluated together, then then flexibility factor and lastly, the consistency of the service.

As presented in the literature review, the notion of efficiency can be seen as one of the main components to rely on when choosing a seaport to partner with. In addition, and as seen in the presentation of the data collected, the efficiency of operations in a seaport can be seen on various levels. In fact, the efficiency of a seaport aims on reducing the waiting time, offering a faster paced service or being more responsive to customers' requirements. In addition, the efficiency of a service can also be considered as the link between the various components of a terminal, where, if all tasks are done properly, the outcome will have an efficient result. Overall, the literature is transcribing in a quite accurate way the industry practices and the importance of offering an efficient service.

The second argument part of this section concerns the reputation of the seaport, which is largely mentioned in the service quality literature. Whereas the shipping literature is reserved about this topic, the respondents have shared opinions on this topic, where it matters for some, but it tends not to be the most important criterion for selection, knowing that the Swedish market is limited in terms of number of large-capacity ports. In addition to the reputation of the container terminals, the researcher looked into the certifications, which seemed important in the shipping literature. As seen in the statements provided by respondents, this aspect is not the most considered due to norms and regulations container terminals need to respond to. This last aspect is an additional difference between the Academia and the industry practitioners.

Thirdly, the respondents had shared opinion on flexibility, as it usually generates additional costs due to the personalized service, but for some other carriers, this notion is critical for their businesses as it reflects their own offerings. On the other hand, the Academia tends to generalize that flexibility is a needed aspect of the service, but some precautions must be taken in this case, where the shipping industry is unpredictable, requiring flexibility, but keeping in mind that it might not always be in the "top 3" most important selection criteria for container terminals.

Last but not least, the notion of consistency of the service offered is rarely mentioned in the service quality literature nor in the shipping industry literature, which is an additional difference with what the respondents shared during the various meetings. For the respondents the consistency of the service represents a very important aspect as it directly influences the reliability of the port but also a good understanding of the customers' businesses, as well as a trustful relationship among business partners.

5.5. Answers to the Research Questions

In this final section, the researcher attempts to answer the research questions formulated in the introductory chapter and will do so by considering the differences and similarities presented earlier in the discussion. This section can be assimilated as a conclusion to the discussion chapter.

5.5.1. RQ1: What are the main aspects of the service quality in the Swedish container shipping industry?

Starting off with the first research question formulated in the introductory chapter, the answer is based on the related academic literature and adapted with the statements provided by respondents, which are evolving in the Swedish market.

As seen in the literature review and in the above discussion, there are a large number of criteria that can be part of the quality in the service offered. In order to be concise and straight to the point, the author decided to directly apply these criteria to the Swedish industry. From the various insights, the following components have been selected as crucial for the development of a good service quality.

- Trustful relationship among counterparts
- Connectivity of the container terminal and possible intermodal transportation
- Reliable and consistent service
- Constant availability and improvement of equipment
- Efficiency and reduced waiting time to access the service

These five areas of interest are covering a large spectrum of activities and components which have been identified during the various interviews, as part of the quality of the service. As many respondents mentioned, the Swedish industry is rather small in comparison to some other markets, and some aspects of the service quality might differ from other markets. The objective of this research was to identify the factors affecting the service quality in general and at a later stage apply them to the Swedish market and understand if whether or not the service quality is perceived the same way regardless of the perspective chosen. As an answer to this first question, the service quality in Sweden can be improved, generally, by answering the above component within, of course, the most reasonable cost.

5.5.2. RQ2: How is the service quality and its components perceived by the seaport service providers?

The answer for the second research question is based on 4 individual interviews with seaport service providers, as well as one focus group of a container terminal employees. The interviewees are based in different location, where the size and capacity difference have to be taken into considerations.

Based on the previous answer, the service quality in the container shipping industry tends to be based on a customer-oriented basis, where meeting the customer's needs and expectation is crucial. Departing from these notions, the efficiency and flexibility are needed to pursue this path and reduce as much as possible congestion and waiting time. Lastly, the service providers are paying an extra attention with the follow-up communications, making sure that all the information sent from one actor to another are accurate and the meaning is the same for both partners.

Generally speaking, the service providers in Sweden tend to prioritize the service encounter as well as providing a good and pro-active interface which enable a stable and long-term relationship with their customers. The last part of a good service quality from the service provider's perspective consist of offering an efficient and consistent service, which all in all, positively impacts the relationship between business partners.

5.5.3. RQ3: How is the service quality and its components perceived by the seaport users?

Last but not least, the answer to this research question was drawn based on the interviews for service users. As the perception is a personal and subjective notion, the researcher attempted to draw a global picture based on the insights given by the 7 service users interviewed. Overall, what should be remembered is that most of the respondents are working with the same seaport service providers in the country, which greater the possibility to generalize this answer.

Generally speaking, the Swedish seaport service users perceive the service quality as good, where their contact person are easily reachable, and where specific demands are heard. Due to the size of the market and volume handled, in most cases, the service users can benefit from more flexibility and a trustful relationship with their service providers. Furthermore, the service users mentioned the long-term relationship they maintain with their counterpart, resulting in a global high customer satisfaction.

When asked about the trade-off between service and cost, most of the respondents mentioned the importance of the service and are willing to pay extra if the service offered by their service provider is satisfactory and add value to their own business. Knowing that the shipping industry is relatively cost-sensitive, the service quality seems to play an important role in the customer's decision making in terms of seaport selection and business trends.

6. Conclusion and Further Studies

The conclusion chapter aims on finishing the presented study by presented a summarized version of the results and analysis, which have been displayed along the previous chapters. This summary is presented first and is shortly followed by a concluding discussion, aiming on discussion the research project as well as the previous studies in a similar path, which will be broaden in the limitations related to the present research paper, coupled with suggestions for further researches in this field of studies.

6.1. Conclusion

The primarily objective of this research paper was to understand what the service quality is, in the container shipping industry, applied to the Swedish market, but also identifying the specificities of the given market. The second objective of the present study was to understand and analyze the perception of this service quality, using the point of view of the service provider in a container terminal, and being able to confront it with the perception of the service users, namely their customers.

The research field being broad, three research questions have been formulated in order to cover these dimensions and answered along the research process. These questions have been answered by overviewing an extensive part of relevant academic literature and completed with the collection of data through interviews. In order to summarize the results obtained, the following figure illustrate the main components, part of the service quality in for Swedish industry practitioners.

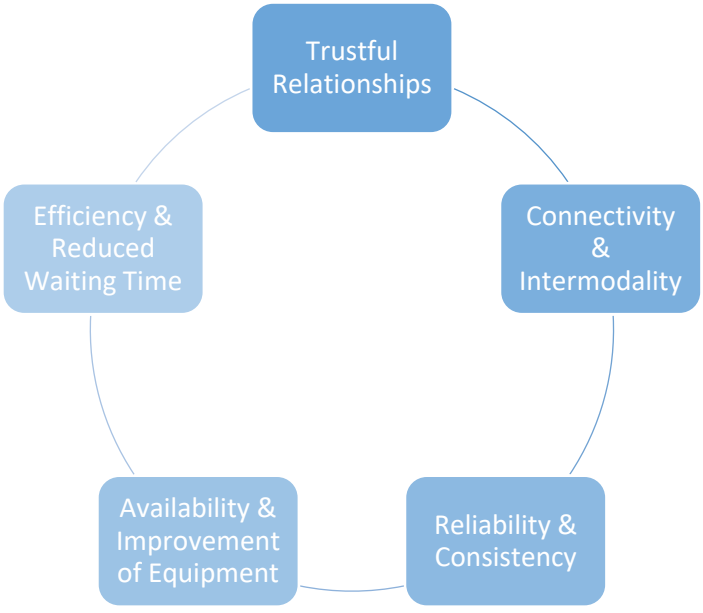

Figure 7: Factors affecting the Swedish service quality

All the above aspects are linked, and are influencing one another, which requires a good communication among counterparts. As the Swedish market is rather small, the customer/service users tend to expect a closer relationship with their service providers, with more dedication to their issues, which can be seen as a specificity of this market. On the other hand, and in order to increase the loyalty of their customers, the service providers are aiming at being more customer-oriented, where a lot of attention and flexibility is dedicated to the customer satisfaction.

Last but not least, the business partners studied for this research paper tend to be on a similar level in terms of expectations and offerings, where the standardized service offered has to meet high in-house requirements. All in all, it has to be remembered that neither the customer nor the service provider is using specific scales to measure the quality of the service offered but would rather use other measures to assess the quality of a given factor. As seen along the research process, the service quality is determined by the overall result and satisfaction of a variety of measures, and most importantly, by a good relationship among the partners, in which trust is the main variable to evolve in a successful cooperation.

6.2. Concluding Discussion

This sub-section of the concluding chapter aims on bringing a reflective view on the overall research project presented. This discussion aims on covering the various main parts of the study as well as assessing their value and critically evaluate what could have been done differently.

Starting with the introduction and literature review sections, the author believes that with a longer period of time available, the research could have been focusing on more specific aspects of the service quality since the overview here studied could have been only a fraction of the document. This way a deeper understanding of the industry as well as the market could have been combined, involving different types of actors if necessary. In addition, the literature review could have been following a similar path which would have made this research paper more specialized on on-going issues, proper to Sweden.

Next, the methods have been reviewed at the end of the chapter, however, the researcher thought that it could be interesting to add in the research process some observations or shadowing at different time and places around container terminals' interfaces. This way more defined aspects of the service encounter could be explored. Because of the language barrier in this case, shadowing or observations might lose some of their accuracy or details, but also, because the researcher decided to overview the different aspects of the service quality, spending more time on one given aspect would have impacted the study of others.

Finally, the findings and discussions sections are tightly linked due to the causality between one another. The findings are presenting the data collected along the research process whereas the discussion was a mean to oppose them to the literature. Reflecting on the work done, the quotes presented are giving an overall accurate image of the market, however, due to the amount of data collected, only 6,5% of the quotes where exposed, which might affect the quality of the initial global data collected as well as reducing the chances to pick up on some understated details. In regard to the discussion part, as the literature

barely focuses on the Scandinavian market, there might be an imbalance between the role played by the literature and the collected data.

Lastly, this research paper aims on increasing the visibility of the Swedish market on a more regional and global level, as seen in the academic literature few studies are performed on this topic, basing their cases in Scandinavian countries. This research paper attempted to highlight some of the main aspects of the market, as well as exploring a larger spectrum of participants' point of view. In fact, the presented research document could be used as a preliminary database for further researches.

6.3. Limitations & Further Studies

The author of this study is aware that this research paper could be used as a preliminary study and database for further research, though some parts could be improved. Indeed, the present study offers a broad overview of the container shipping industry, and the specificities related to the Swedish market. However, the author believes that further studies could benefit the industry, and some suggestions are presented as follow.

After reflection on the present research paper, the author believes that due to the broadness of the research field, focusing on one specific aspect of the service quality in this given industry, would have allowed deeper insights and the access to a wider range of details.

On another level, the use of mixed methods could have been beneficial to the overall study and would have enabled the quantification of results. This way, a ranking of the components of the service quality in the container shipping industry would have been feasible. In addition, using quantitative methods as a part of the study could be beneficial to reach a larger spectrum of respondents, by answering a survey, and so being able to generalize some of the results on a larger scale.

Lastly, the author believes that the number of respondents could be increased in order to include more customers and compare their views on the industry and would bring a number of valuable insights based on their level of operations and interactions with container terminals. In the same perspective, the author believes that more interviews in other cities and locations around Sweden would have been beneficial in order to adapt the components of service quality to a more global level. As this research paper is focusing on Stockholm and Gothenburg, there is no other points of comparison within the country.

7. References

Alderton, T., & Winchester, N. (2002). Globalisation and de-regulation in the maritime industry. *Marine policy, 26*(1), 35-43.

Bennett, R., & Gabriel, H. (2001). Reputation, trust and supplier commitment: the case of shipping company/seaport relations. *Journal of business & industrial marketing, 16*(6), 424-438.

Berry, L. L., Zeithaml, V. A., & Parasuraman, A. (1990). Five imperatives for improving service quality. *MIT Sloan Management Review, 31*(4), 29.

Bichou, K. (2013). An empirical study of the impacts of operating and market conditions on container-port efficiency and benchmarking. *Research in Transportation Economics, 42*(1), 28-37.

Björklund, M., & Paulsson, U. (2014). Academic papers and theses. *To write and present and to act as an opponent. Translation: Christina Nilsson-Posada. Studentlitteratur AB, Lund*.

Bochove, J. (1994). Bureaus scoren slecht op de belangrijkste succesfactoren. *Nieuwstribune, 21*, 27-36.

Bolton, R. N., & Drew, J. H. (1991). A multistage model of customers' assessments of service quality and value. *Journal of consumer research, 17*(4), 375-384.

Brady, M. K., & Cronin Jr, J. J. (2001). Some new thoughts on conceptualizing perceived service quality: a hierarchical approach. *Journal of marketing, 65*(3), 34-49.

Bryman, A. (2015). *Social research methods*: Oxford university press.

Carrillat, F. A., Jaramillo, F., & Mulki, J. P. (2007). The validity of the SERVQUAL and SERVPERF scales: A meta-analytic view of 17 years of research across five continents. *International Journal of Service Industry Management, 18*(5), 472-490.

Caschili, S., & Medda, F. R. (2012). A review of the maritime container shipping industry as a complex adaptive system. *Interdisciplinary Description of Complex Systems, 10*(1), 1-15.

Chang, Y.-T., Lee, S.-Y., & Tongzon, J. L. (2008). Port selection factors by shipping lines: Different perspectives between trunk liners and feeder service providers. *Marine Policy, 32*(6), 877-885.

Chen, K.-K., Chang, C.-T., & Lai, C.-S. (2009). Service quality gaps of business customers in the shipping industry. *Transportation Research Part E: Logistics and Transportation Review, 45*(1), 222-237.

Cheng, T., & Choy, P. W. (2013). A study of the relationships between quality management practices and organizational performance in the shipping industry. *Maritime Economics & Logistics, 15*(1), 1-31.

Cronin Jr, J. J., & Taylor, S. A. (1992). Measuring service quality: a reexamination and extension. *The journal of marketing*, 55-68.

Cronin Jr, J. J., & Taylor, S. A. (1994). SERVPERF versus SERVQUAL: reconciling performance-based and perceptions-minus-expectations measurement of service quality. *The Journal of marketing*, 125-131.

Croom, S., Romano, P., & Giannakis, M. (2000). Supply chain management: an analytical framework for critical literature review. *European journal of purchasing & supply management, 6*(1), 67-83.

Crosby, D. C. (2006). Quality is easy. *Quality, 45*(1), 58.

Ducruet, C., & Notteboom, T. (2012). The worldwide maritime network of container shipping: spatial structure and regional dynamics. *Global networks, 12*(3), 395-423.

Durvasula, S., Lysonski, S., & Mehta, S. C. (1999). Testing the SERVQUAL scale in the business-to-business sector: The case of ocean freight shipping service. *Journal of Services Marketing, 13*(2), 132-150.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of management review, 14*(4), 532-550.

Fink, C., Mattoo, A., & Neagu, I. C. (2002). Trade in international maritime services: how much does policy matter? *The World Bank Economic Review, 16*(1), 81-108.

Gounaris, S. (2005). Measuring service quality in b2b services: an evaluation of the SERVQUAL scale vis-a-vis the INDSERV scale. *Journal of Services Marketing, 19*(6), 421-435.

Gronroos, C. (1988). Service quality: The six criteria of good perceived service. *Review of business, 9*(3), 10.

Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of marketing, 18*(4), 36-44.

Halinen, A. (1994). *Exchange relationships in professional services: A study of relationship development in the advertising sector*: Turku school of economics and business administration.

Hetherington, C., Flin, R., & Mearns, K. (2006). Safety in shipping: The human element. *Journal of safety research, 37*(4), 401-411.

Howell, K. E. (2012). *An introduction to the philosophy of methodology*: Sage.

IMO. (2018 2018). Introduction to IMO. Retrieved from http://www.imo.org/en/About/Pages/Default.aspx

Kara, A., Lonial, S., Tarim, M., & Zaim, S. (2005). A paradox of service quality in Turkey: The seemingly contradictory relative importance of tangible and intangible determinants of service quality. *European Business Review, 17*(1), 5-20.

Kaynak, E., Kucukemiroglu, O., & Odabasi, Y. (1994). Advertising agency/client relationships in an advanced developing country. *European Journal of Marketing, 28*(1), 35-55.

Kim, Y.-d. (2009). An analysis of the measurement of the shipping service quality. *The Asian Journal of Shipping and Logistics, 25*(1), 41-55.

Kołowrocki, K., & Soszyńska, J. (2006). Reliability and availability analysis of complex port transportation systems. *Quality and Reliability Engineering International, 22*(1), 79-99.

Kovács, G., & Spens, K. M. (2005). Abductive reasoning in logistics research. *International Journal of Physical Distribution & Logistics Management, 35*(2), 132-144.

Ladhari, R. (2009). A review of twenty years of SERVQUAL research. *International journal of quality and service sciences, 1*(2), 172-198.

Lee, G. J. (2011). Measuring business-to-business customer service: A structural re-examination of the INDSERV scale. *African Journal of Business Management, 5*(8), 3179.

Lehtinen, U., & Lehtinen, J. R. (1991). Two approaches to service quality dimensions. *Service Industries Journal, 11*(3), 287-303.

Lewis, B. R. (1989). Quality in the service sector: a review. *International Journal of Bank Marketing, 7*(5), 4-12.

Lewis, B. R. (1993). Service quality measurement. *Marketing Intelligence & Planning, 11*(4), 4-12.

Lopez, R. C., & Poole, N. (1998). Quality assurance in the maritime port logistics chain: the case of Valencia, Spain. *Supply Chain Management: An International Journal, 3*(1), 33-44.

May, T. (2011). *Social research*: McGraw-Hill Education (UK).

McConnell, M. (2002). Capacity building for a sustainable shipping industry: a key ingredient in improving coastal and ocean and management. *Ocean & coastal management, 45*(9-10), 617-632.

McKinnon, A. (2006). Life without trucks: the impact of a temporary disruption of road freight transport on a national economy. *Journal of Business Logistics, 27*(2), 227-250.

Melo, M. T., Nickel, S., & Saldanha-Da-Gama, F. (2009). Facility location and supply chain management–A review. *European journal of operational research, 196*(2), 401-412.

Montwiłł, A. (2014). The role of seaports as logistics centers in the modelling of the sustainable system for distribution of goods in urban areas. *Procedia-Social and Behavioral Sciences, 151*, 257-265.

Näslund, D. (2002). Logistics needs qualitative research–especially action research. *International Journal of Physical Distribution & Logistics Management, 32*(5), 321-338.
Nelson, P. (1974). Advertising as information. *Journal of political economy, 82*(4), 729-754.
Notteboom, T., & Rodrigue, J.-P. (2009). The future of containerization: perspectives from maritime and inland freight distribution. *GeoJournal, 74*(1), 7.
Notteboom, T. E. (2004). Container shipping and ports: an overview. *Review of network economics, 3*(2).
Notteboom, T. E. (2005). The peripheral port challenge in container port systems. *International maritime transport: perspectives*, 173-188.
O'Neil, W. A. (2003). The human element in shipping: Springer.
Oltedal, H., & Wadsworth, E. (2010). Risk perception in the Norwegian shipping industry and identification of influencing factors. *Marit. Pol. Mgmt., 37*(6), 601-623.
Otheitis, N., & Kunc, M. (2015). Performance measurement adoption and business performance: An exploratory study in the shipping industry. *Management Decision, 53*(1), 139-159.
Panayides, P. M., & So, M. (2005). The impact of integrated logistics relationships on third-party logistics service quality and performance. *Maritime Economics & Logistics, 7*(1), 36-55.
Pantouvakis, A., Chlomoudis, C., & Dimas, A. (2008). Testing the SERVQUAL scale in the passenger port industry: a confirmatory study. *Maritime Policy & Management, 35*(5), 449-467.
Parasuraman, A. (1998). Customer service in business-to-business markets: an agenda for research. *Journal of business & industrial marketing, 13*(4/5), 309-321.
Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1991). Refinement and reassessment of the SERVQUAL scale. *Journal of retailing, 67*(4), 420.
Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *the Journal of Marketing*, 41-50.
Progoulaki, M., & Theotokas, I. (2010). Human resource management and competitive advantage: An application of resource-based view in the shipping industry. *Marine Policy, 34*(3), 575-582.
Reichheld, F. F., & Sasser, J. W. (1990). Zero defections: Quality comes to services. *Harvard business review, 68*(5), 105-111.
Rodrigue, J.-P., & Notteboom, T. (2009). The geography of containerization: half a century of revolution, adaptation and diffusion. *GeoJournal, 74*(1), 1-5.
Rodrigues, V. S., Piecyk, M., Potter, A., McKinnon, A., Naim, M., & Edwards, J. (2010). Assessing the application of focus groups as a method for collecting data in logistics. *International Journal of Logistics: Research and Applications, 13*(1), 75-94.
Rodwell, J. J., Kienzle, R., & Shadur, M. A. (1998). The relationship among work‐related perceptions, employee attitudes, and employee performance: The integral role of communications. *Human Resource Management, 37*(3‐4), 277-293.
Rothblum, A. M. (2000). *Human error and marine safety.* Paper presented at the National Safety Council Congress and Expo, Orlando, FL.
Silverman, D. (2013). *Doing qualitative research: A practical handbook*: SAGE Publications Limited.
Slack, B. (1985). Containerization, inter-port competition, and port selection. *Maritime policy and management, 12*(4), 293-303.
Slack, B., Comtois, C., & McCalla, R. (2002). Strategic alliances in the container shipping industry: a global perspective. *Maritime Policy & Management, 29*(1), 65-76.
Song*, D., Zhang, J., Carter, J., Field, T., Marshall, J., Polak, J., . . . Woods, J. (2005). On cost-efficiency of the global container shipping network. *Maritime Policy & Management, 32*(1), 15-30.
Sower, V. E., & Fair, F. K. (2005). There is more to quality than continuous improvement: listening to Plato. *The Quality Management Journal, 12*(1), 8.

Telford, R., & Masson, R. (2005). The congruence of quality values in higher education. *Quality assurance in education, 13*(2), 107-119.

Tongzon, J., & Heng, W. (2005). Port privatization, efficiency and competitiveness: Some empirical evidence from container ports (terminals). *Transportation Research Part A: Policy and Practice, 39*(5), 405-424.

Tongzon, J. L. (2009). Port choice and freight forwarders. *Transportation Research Part E: Logistics and Transportation Review, 45*(1), 186-195.

Tran, N. K. (2011). Studying port selection on liner routes: An approach from logistics perspective. *Research in Transportation Economics, 32*(1), 39-53.

Ugboma, C., Ibe, C., & Ogwude, I. C. (2004). Service quality measurements in ports of a developing economy: Nigerian ports survey. *Managing Service Quality: An International Journal, 14*(6), 487-495.

Ugboma, C., Ogwude, I. C., Ugboma, O., & Nnadi, K. (2007). Service quality and satisfaction measurements in Nigerian ports: an exploration. *Maritime Policy & Management, 34*(4), 331-346.

Ullrich, F. (2002). *Attenuated property rights and their impact on perceived service quality in business markets.* Paper presented at the Proceedings of 18th IMP Conference. France7 Dijon.

Wicks, A. M., & Roethlein, C. J. (2009). A satisfaction-based definition of quality. *The Journal of Business and Economic Studies, 15*(1), 82.

Woo, K.-s., & Ennew, C. T. (2005). Measuring business-to-business professional service quality and its consequences. *Journal of Business Research, 58*(9), 1178-1185.

Wu, Y.-C. J., & Goh, M. (2010). Container port efficiency in emerging and more advanced markets. *Transportation Research Part E: Logistics and Transportation Review, 46*(6), 1030-1042.

Yang, C.-S., & Lirn, T.-C. (2017). Revisiting the resource-based view on logistics performance in the shipping industry. *International Journal of Physical Distribution & Logistics Management, 47*(9), 884-905.

Yin, R. K. (2003). Case study research: Design and methods . Thousands Oaks. *Sage. Young, LC and Wilkinson, IR (1989). The role of trust and co-operation in marketing channels: a preliminary study. European Journal of Marketing, 23*(2), 109-122.

8. Appendices

8.1. Extract of the Academic Journals used in the Literature Review

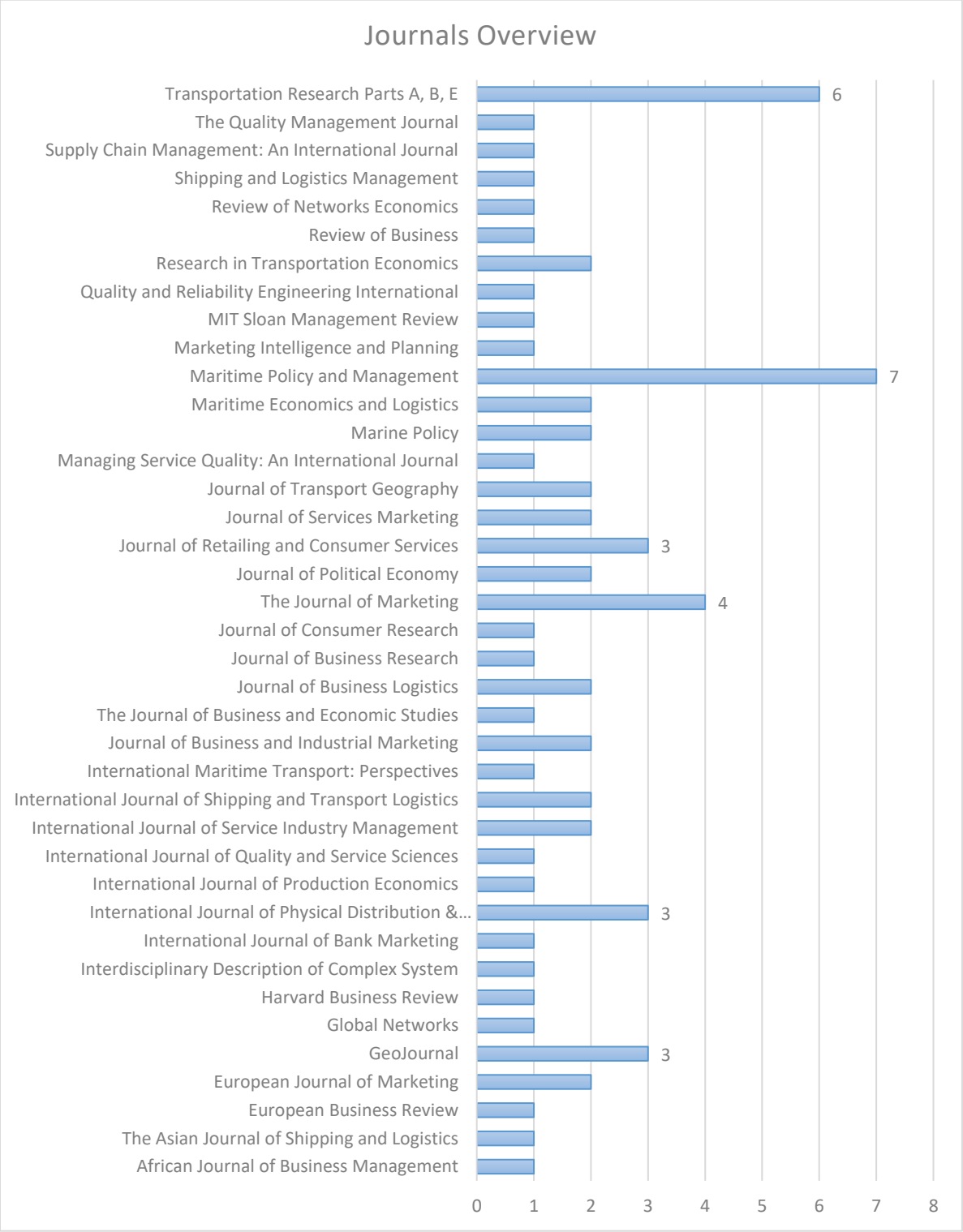

Figure 8: Academic Journals Overview

8.2. Interview Guide

The interview guide presented as followed is based on two scenarios depending on the position of the interviewee. The number of questions is limited in order to increase the sensation of open discussion and benefit from what the interviewee is saying. More questions have been elaborated in order to get more insights or details depending on each participant, bringing uniqueness to each interview. The introduction and conclusion were shared by both scenarios.

Introduction

I am a second-year master student of Service Management Logistics program in Lund University, and in order to complete my studies, I am currently collecting data for my master thesis. I would like to start by thanking you for your time and the valuable insights you are willing to share with me today.

To start, I'd like to introduce you to the research questions that were drawn from the academic literature and early findings from previous interviews. First, I am investigating the main aspects of the service quality in the container shipping industry, and then, I am attempting to understand the perception of service quality from two sides, the service provider and the users. In other words, I attempt to identify and understand what service quality in a container terminal is and what service provider and its users think of it.

The purpose of this interview is to gather industry insights as well as details on daily activities or measures that help enhancing the quality of a given service. In addition, this interview will be part of a study giving a better understanding of the container shipping industry, by confronting perspectives of various actors in the industry.

Would you agree that this interview will be recorded for the only purpose of this thesis? The objective is to transcribe what will be said in order to code it and analyze it in the best way possible. Of course, the recording will be confidential as well as anonymous.

Scenario 1: Service Provider Position

- Could you briefly introduce yourself and what are your daily activities related to the container terminal?
- What area do you need to focus on in your daily tasks? What requires specific attentions?
- Which activities are the ones bringing, in your opinion, values to your customers?
- What do you think of teamwork and relationships among personnel? Do you think it has any influence on the outcome of the service?
- What type of relationships do you have with your customers?
- What do you think of innovation and technologies in a container terminal?

- Do you measure the performance of the service you deliver? How?
- Do you receive any feedbacks from your customers?
    - If yes, under which form, how does it influence future work?
    - If no, what do you think it would bring you, how would you like to get feedbacks?
- How would you picture the ideal container terminal to work on?

Scenario 2: Service User Position

- Could you briefly introduce yourself and what are your daily activities related to the container terminal?
- What area do you need to focus on in your daily tasks? What requires specific attention in regard to the process of sending or receiving containers?
- What activities are the ones bringing you more value when you choose a specific seaport/business partner?
- Which aspect of the seaport are critical for you? On which criteria do you choose a port?
- What type of relationships do you have with your suppliers/seaport service provider?
- What do you think of teamwork and relationships among personnel? Do you think it has any influence on the service you receive?
- What do you think of innovation and technologies in a container terminal? Do you think you benefit from it?
- Do you measure the performance of the service you receive? How?
- Do you send any feedbacks (positive and/or negative) to your service provider?
    - If yes, under which form, how does it influence future work and partnerships?
    - If no, what do you think it would bring you and your service provider, how would you like to send feedbacks?
- How would you picture the ideal container terminal to work with?

Conclusion

Thank you very much for agreeing on being part of this research project and giving me valuable insights about your activities and any other related information. As I mentioned earlier, this discussion will be transcribed to be part of the data collection process, so if you are willing to access the transcript later to check what has been said, or make sure I understood you correctly, please let me know.

8.3. Introduction to the Research Project

Email format sent to participants contacted through previously interviewed persons.

Dear Mr./Mrs. XXX,

I hope this mail finds you well. I got your contact details by Mr./Mrs. YYY, in the context of my master thesis that I am completing with Ports of Stockholm, Sweden.

To briefly introduce you to the topic, I am studying service management, Logistics in Lund University, and I decided to study service quality in the container shipping industry for my final dissertation. The study approach is, mostly, qualitative and aims to confront the perception of service quality of seaports from both the service provider and the service user sides.

My objective for this research paper is to understand how the industry is related and portrayed in academic journals, as well as identify these differences and attempt to reduce them. On the other hand, and in a more practical way, this study aims to contribute to the maximization of the service quality perception by both the service providers and their customers.

In order to conduct this study, I am interviewing companies to get their insights. All interviews are treated in an anonymous and confidential manner.

From experience, interviews last between 30 and 60 minutes, and are more like an open discussion on the topic of quality, applied to the container shipping industry. Please let me know if you would be interested in helping me in this project, or if you need more details about it.

I am looking forward reading you,

Kind regards,

Héloïse Duault

8.4. Codes Used in Transcripts

Once the interviews and the focus group have been transcribed, their analysis have been done with a number of codes. These codes have been created by the researcher and applied to all interviews in a matter of consistency. The advantage was the possible comparison between the different transcripts, using the same code as a reference point.

Due to the large number of codes, they have been grouped into 4 categories, presented below, to facilitate the analysis and ease the reader's understanding.

Table 3: Codes used for the analysis of transcripts

Reliability	Service Provider & User Interface	Infrastructure	Operations
Flexibility	Employees	Facilities	Measurements
Reputation and Image	Relationship	Equipment	Number of moves
Efficiency	Feedbacks	Location	Waiting time
Access to Information	Administrative tasks	Connectivity	Timing
Consistency	Ease to contact	Security and Safety	Speed
Certifications	Customer Satisfaction	Outcome	Technical Features
	Competence	Technology and Innovation	Cost
	Market Features	Environmental Issues	
	Trust		

The graph shown as follow, aims to illustrate the utilization of the presented codes, all transcripts combined.

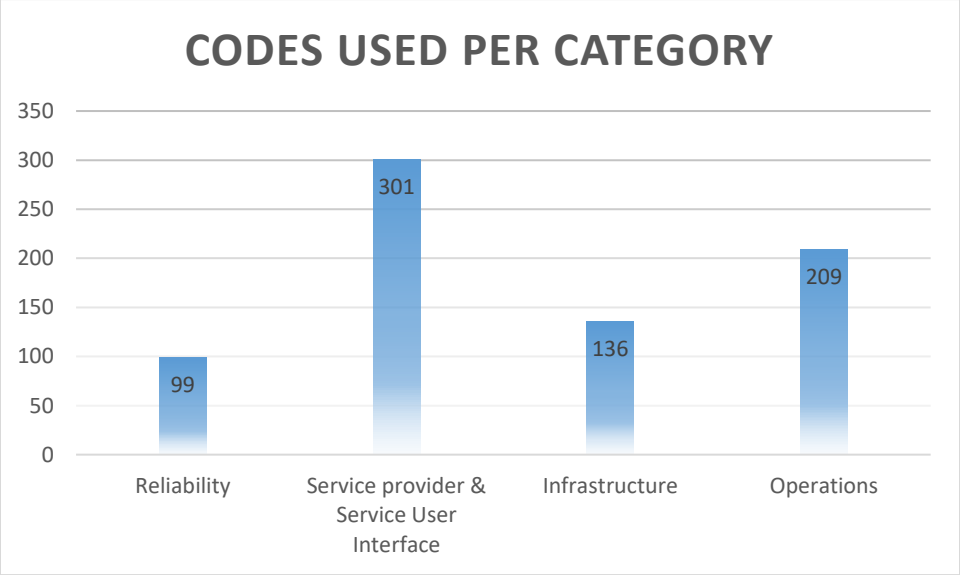

Figure 9: Overview of the Codes used in Transcripts