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Quality control of infrastructure construction in the Swedish market

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Title

Quality control of infrastructure construction in the Swedish market
Commissioned by JLab Oy

Abstract

This paper examines the current situation and future of the Swedish market regarding quality control of infrastructure construction. It offers insights into the Swedish market for the commissioning company JLab Oy.

The objective of this thesis is to find out whether the Swedish market is suitable for a Finnish company to expand its operations. This paper aims, in addition to conducting market research on the Swedish market, to examine the market's competitiveness and find out if there would be opportunities to expand. The research question regarding this thesis is following: How is infrastructure construction conducted in Sweden in comparison to Finland?

The thesis was mainly conducted by analyzing the data from interviews with professionals in the industry. Additionally, the thesis uses secondary data from numerous verified sources regarding the Swedish market and the whole sector of infrastructure construction and the quality control aspect of it.

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Appendix 1 Questionnaire for the interviews

1 Introduction

1.1 Background

As internationalization has become even more relevant for companies, more and more companies are looking for ways to shift their operations abroad. Internationalization refers to companies designing their products and services to be used and consumed in foreign markets. Also, economically speaking, internationalization means companies capture a much larger market share as the area where the company operates increases. (Hayes 2021.)

This thesis is commissioned by JLab Oy, a family business situated in Vantaa, Finland, that specializes in infrastructure construction and the quality control aspect of this domain. While the company has not yet ventured beyond the Finnish market, there's a growing interest in expanding internationally.

1.2 Objectives and limitations

Focusing on the potential expansion to Sweden, this thesis aims to dig into the Swedish market, explicitly looking for possible differences in quality control practices within infrastructure construction between Sweden and Finland. The primary objective is to identify opportunities for JLab Oy's possible expansion by conducting a thorough market analysis of the foreign market.

Although JLab Oy offers comprehensive quality control services in infrastructure construction, this thesis won't delve deeply into this field, as the field is rather broad. Besides exploring potential market expansion avenues, this paper will also evaluate the company's strengths and weaknesses. Such an evaluation is paramount for a successful expansion, necessitating an understanding of the target market and a comprehensive analysis of the company's internal operations. It also must be stated that the primary goal of this thesis is not

immediate market entry but rather to provide the company with insights into the new market and how infrastructure construction is carried out in Sweden.

The limitations of this thesis were to leave out the financial aspects of the market research phase, such as budgeting, investments, and risk analyses. The knowledge base includes and represents market research at a general level and in a simplified manner by using and analyzing literature from scientific sources.

2 Knowledge base

2.1 Quality control of infrastructure construction

Infrastructure construction takes into consideration everything needed for a working infrastructure. It goes beyond just building physical structures on land and water. It includes developing technical networks, constructing working road systems, and even building underground structures like parking facilities. It also involves specialized tasks from different industries related to construction. (Rakennusteollisuus 2023.)

The general quality requirements for construction work consist of documented outlines of appropriate construction practices. These practices include quality specifications that apply across various construction projects. This outline offers a practical guide that can help plan and execute construction projects in alignment with established construction practices and methodologies. This approach promotes a universally agreed-upon comprehension of quality in the real estate and construction sectors. (InfraRYL 2023.)

Both the client and the contractor have the right to assume that a commonly recognized good construction practice exists when signing contracts. The design documents define the specific building materials, products, and supplies for constructing infrastructure structures and systems. The general

quality requirements for construction include quality requirements for materials based on European or international product standards. (InfraRYL 2023.)

This implies that the main goal and objective of the general requirements for construction work is to establish the desired outcome of construction engineering. Nearly every final product must meet the specified tolerances for the completed structure and overall quality standards for both the craftsmanship and the construction materials used. (Rakennustieto 2017, 13.)

2.1.1 Connection to the case company

JLab Oy works in the field of infrastructure construction and, moreover, in the quality control area of it. They must consider all the previously mentioned various factors in their daily operations. However, their business scope is a bit narrow, focusing heavily on specific aspects of infrastructure construction rather than covering the entire field. They concentrate mainly on analyzing materials used in constructing roads and runways, putting them through multiple tests to determine their suitability for further use.

2.1.2 Case company's area of expertise

As previously mentioned, JLab Oy works as a quality controller in infrastructure construction. They oversee the production phases of construction to identify any deviances or issues that may arise, ensuring that the materials are still reusable for further construction. Additionally, their expertise lies in various types of rock materials, asphalt, and bitumen, which they examine to make sure the materials reach the quality requirements and can be used in construction.

Despite the vast concept of infrastructure construction, JLab Oy's quality control efforts primarily target materials used to construct highways and runways. They also analyze the feasibility of reusing older construction materials in new

projects. Additionally, they conduct various tests to measure the bearing and tightness of structures in roadbeds and buildings.

2.2 Infrastructure construction in Sweden

The infrastructure construction sector has an enormous promise in Sweden, with the country having a massive budget of 64 billion euros between 2019 and 2030 for railroad and road projects. Sweden's national transport plan for 2018-2029 includes around 70 billion euros in funded infrastructure projects. Together with the 70 billion euros added to local and regional investment plans, it becomes clear why Sweden's infrastructure market is experiencing a significant upswing. (Flanders investment & trade 2019, 3-7.)

Due to the country's size, Sweden's reliance on well-functioning infrastructure, including airports and ports, is paramount. Their penchant for innovation and willingness to explore new materials create substantial opportunities for foreign construction firms to collaborate with them in Sweden. (Flanders investment & trade 2019, 3-7.)

In addition, the construction industry will continue its steady growth in Sweden, preserving an average 2,5% annual growth rate during the 2023-2024 forecast period. The near-term economic challenges will have impacts on the residential construction industry. However, investments within the energy and transportation sectors are expected to persist. Also, the government has taken initiatives to speed up road development projects in the transport sector. (Fitch solutions 2024.)

In 2022, the European Commission granted approval for a financial package totaling 2,45 billion euros within the framework of the EU Recovery and Resilience Facility (RRF). This funding is intended to implement the Swedish Government's National Recovery Plan and projects for which the entire RRF is to be used by 2026. (Business wire, 2022.)

It is stated that Sweden's robust financial standing due to its high-income economy has allowed the nation to establish an advanced transportation sector. About 0.8 percent of Sweden's gross domestic product is allocated to transport infrastructure investments. The country's airports offer modern air transport services, and air cargo revenues are growing simultaneously with the number of passengers using Sweden's airports. However, in 2020, the Swedish aviation industry experienced a significant downturn due to its approach to the COVID-19 pandemic. The situation was made worse by the closing of neighboring countries' borders due to Sweden's high number of COVID-19 cases. (Statista 2022.)

2.3 The largest companies in infrastructure construction in Sweden

Blackridge research and consulting states, that when looking into the market capitalization in Sweden regarding the infrastructure construction market the three largest companies in this sector as of 2024 are Skanska AB, with a market cap of 33.6 billion euros. The second largest company is NCC with 14.2 billion euros market cap. The third one is JM AB and they have a market cap of 12 billion euros (Blackridge research & consulting 2024.)

2.4 Market research

When a company is thinking about expanding its operations into another country, conducting comprehensive market research in the target market becomes the most important step. This process is needed to gather crucial information that determines the viability and potential success of the expansion plan.

Makosiewicz (2021) states that the term "market research" covers a broad process of obtaining information about a new market and analyzing the information obtained later. Market research allows a company to gather

valuable insights about potential and current customers by delving into demographic, geographic, and psychographic data. (Makosiewicz 2021.)

Market research also includes evaluating the feasibility of a particular product or service in a new market. Identifying the right target market for a product or service is extremely important during the market research process, and comprehensive research helps in this definition. (Twin 2023.)

2.4.1 Conducting market research

In the initial phase of successful market research, the goals of the research are clarified. Each research project should aim to address a specific, well-defined problem. For example, a company can try to locate consumer preferences, evaluate brand awareness, or compare the effectiveness of different advertising campaigns. After this, the next step is to identify the participants in the study. Market research costs money, and a company cannot afford to waste resources collecting unnecessary information. Therefore, the company must define in advance the consumer groups participating in the research and outline the data collection methods. (Twin 2023.)

The next step after defining the research objectives and target persons is data collection and analysis. Researchers record important information such as age and gender. The data is then analyzed in a marketing report. In the final step, company managers make decisions based on this research, such as targeting different consumer segments or adjusting pricing and product features based on the results. (Twin 2023.)

2.4.2 Different types of market research

There are several methods available for conducting market research. However, for the company and industry in question, this article will focus on a select few. In marketing terminology, market segmentation means grouping potential buyers into segments based on everyday needs and corresponding marketing efforts. This approach allows companies to focus on distinct groups of consumers who see the value of certain products and services differently. Market segmentation enables more targeted and cost-effective marketing, which reduces the need to target the entire market and enables accurate communication to both the market and competitors, which helps differentiate products and creates a clear and memorable image. (Tarver 2023.)

Competitor market research focuses on identifying and understanding competitors and their strengths and weaknesses compared to your own organization. This research can also be about your competitiveness in the market or the strategies needed to enter new markets.

The primary goal of this research is to make your organization stand out and plan for the future by keeping up to date with horizon scanning and listening to customer preferences. (Quatrics 2023.)

For example, during a competitive analysis, researchers create SWOT analyses of your company and your competitors, allowing you to compare your company's performance. Primary research involves direct interviews with customers to find out their purchasing preferences, while secondary sources examine competitor information such as market position, sales, and organizational structure. This comprehensive analysis allows you to identify areas to improve your competitiveness and find innovative ideas to differentiate your company. (Quatrics 2023.)

2.4.3 Qualitative and quantitative data

Market research can generally be divided into two main types: quantitative and qualitative research.

Quantitative market research measures the market, calculating factors such as market segment size, purchase frequency, and brand shares. This type of research is typically based on numerical data and often involves gathering data from a smaller sample representing a larger population or market. When conducting quantitative research, it is essential that the company utilizes appropriate research designs and uses accurate sampling methods. (Hague, Hague and Morgan 2004, 8-11.)

Qualitative research is indeed different from quantitative research and is challenging to define precisely. It can be characterized as a type of research that aims to understand a topic or phenomenon. For example, if quantitative data shows that a larger number of people prefer product A than product B, qualitative research seeks to understand why this is the situation. It seeks to understand why product A is considered superior and why product B does not receive as much praise. In addition, qualitative research finds out why certain products or services meet consumers' needs. A significant part of qualitative research is devoted to understanding consumers' perspectives and interpreting the meaning they give to brands and products. (Hague, Hague and Morgan 2004,8-11.)

Quantitative and qualitative research often work side by side, complementing each other in the research process. Qualitative research can provide a diagnostic understanding of problems and illuminate what might be wrong or need improvement. In quantitative research, on the other hand, complex data is collected and analyzed from different groups of respondents, which enables concrete action recommendations to be drawn up. This combination of approaches helps determine the effectiveness of potential interventions to address the identified problems. (Hague, Hague and Morgan 2004,8-11.)

2.5 SWOT analysis

Swot analysis is an abbreviation for strengths, weaknesses, opportunities, and threats. It includes making a strategic assessment to assess the organization's competitiveness and designing strategic plans. Swot takes into consideration both the internal and external factors of a company. This analytical method examines internal and external factors, considering both current conditions and future possibilities. Strengths and weaknesses come from internal factors, whereas opportunities and threats are caused by external factors (Kenton 2023).

The purpose of SWOT analysis is to provide an objective, evidence-based, and data-driven review of the strengths and weaknesses of an organization, regardless of whether they relate to the organization itself, its initiatives, or its sector. For the analysis to be as accurate as possible, organizations must stick to existing ideas rather than focus on actual-world conditions. It is of paramount importance to view the SWOT analysis as a tool rather than a blueprint that allows companies to make informed decisions based on an assessment of internal and external conditions. (Kenton 2023.)

2.6 Porter's Five Forces

It is of paramount importance for a company to be fully aware of its business field and to identify the possible competitors seeking the attention of potential customers. Whenever a company looks into the competition in their area, Porter's five forces are a framework one should consider.

Porter's five forces is a rather useful tool that companies use to gain insights about their competitive landscape and use it to make informed decisions. The tool enables companies to evaluate the environmental forces that influence the future trajectory of their industry. (Danao 2024.)

The five forces that have an effect on every industry and that shape the competitiveness of an industry are:

1. Competitive rivalry:

Estimating the number and capabilities of already existing players in an industry. It's essential to evaluate the quantity of competitors and if their offerings outmatch your own in terms of quality.

2. Supplier power:

Suppliers significantly influence a company's profitability by furnishing vital resources for its operations. When a few suppliers dominate the market, they can easily impose terms and coerce businesses into accepting higher prices.

3. Buyer power:

The influence of customers on the business, affecting elements such as pricing, quality and service. The industry's substantial purchasing power can lead to requests for a reduced price or improved service, which can affect the company's profitability. In a market with multiple sellers and limited customers, companies can differentiate themselves by offering distinct value propositions such as loyalty programs or exceptional customer service.

4. Threat of substitution:

The probability that customers will opt for an alternative product or service. When the threat of substitution is high, companies are vulnerable to sudden changes in consumer preferences.

5. Threat of new entrants:

Assessing the risk posed by new entrants requires the possibility of new competitors entering the market and possibly disrupting existing operators.

Elevated barriers to entry, such as high initial capital requirements and limited supplier choices, can prevent new competitors from gaining rapid traction. (Danao 2024.)

Porter's Five Forces framework is an invaluable tool for businesses aiming for sustainable growth and competitive advantage. Here are some of the key benefits the framework contains:

1. Holistic analysis:

Porter's Five Forces provide a broad view of competitiveness, allowing organizations to divide resources wisely and make informed decisions based on multiple environmental factors.

2. Strategic insights:

The model encourages companies to thoroughly assess their position in their industry and analyze their current competitors, allowing them to make informed decisions.

3. Risk mitigation:

By identifying possible threats, companies can proactively address challenges before they escalate. This process allows them, for example, to create a unique value proposal to maintain their relevance among consumers.

4. Opportunity identification:

Identifying industry gaps and unmet needs allows companies to stand out and innovate solutions.

5. Long-term sustainability:

Strategies that consider Porter's Five Forces are more resilient against market fluctuations. (Danao 2024.)

2.7 Market structures

Understanding different types of market structures is very important when conducting market research. Understanding the market structure offers insights into the conditions of competition in the given market. In addition, it can ease the decision-making process for companies and understand how their competition makes their decisions. (Quickonomics 2024.)

2.7.1 Perfect competition

Perfect competition is a market structure where a large number of companies compete with each other. In this structure, there is not a particular company that holds the majority of the market share. This again leads to the industry producing an optimal amount of output, as none of the companies can affect the prices.

The key characteristics of perfect competition are:

1. Every company aims to maximize their profits.
2. There are no barriers to enter or exit the market.
3. Every company sells identical, homogeneous products. (Quickonomics 2024.)

2.7.2 Monopolistic competition

Monopolistic competition is a form of market structure, where a number of companies offer products, that are similar, but not quite identical. In this type of a market companies try to stand out through different marketing strategies and pricing strategies. Also, when a certain company does not monopolize the market, as in monopolistic competition, there are not many barriers to entry.

This means, that a large amount of companies can enter the market and try to compete for market share. (Boyle 2023.)

2.7.3 Oligopoly

Oligopoly is a market structure where a small amount of companies dominate the market. In this type of a market structure none of the dominant companies can prevent the other firms from having significant impact in the market. There does not exist an upper limit of companies in oligopoly, but the amount must be so low, that the actions of one company can have a leverage on the others. (Anderson 2023.)

2.7.4 Monopoly

Monopoly is a form of market structure where only one company dominates the market. In a regulatory sense, a monopoly occurs when one company has control of 25% or more of the market shares in a given industry. A monopoly can occur for several reasons, such as no competition in a given market or if there are no substitute products on the market. The monopolist also controls the prices in a market, which is why it can be difficult for other companies to try competing. (Agarwal 2022.)

2.8 SWOT analysis on JLab Oy

This chapter will examine and further provide insights into JLab Oy's strengths, weaknesses, opportunities, and threats. JLab Oy has a solid reputation and is well known in the Finnish market, at least in southern Finland.

The company's strengths include its reputation for top-notch quality control services, which is a great starting point for branching out. The company uses

cutting-edge technologies in its work, diminishing the number of mistakes. Also, the company has a skilled workforce that has worked in infrastructure construction for tens of years.

For weaknesses, the situation is quite different. The company needs to consider the regulatory environment regarding quality control, as it can somewhat differ from those in Finland. However, the regulatory field in Sweden is not a whole new world for JLab, as Sweden follows the pan-European building standards (SFS 2024). However, the competitive landscape can be challenging for the company. A minor language barrier also lies, although it will not be that hard to overcome. Two of the most significant weaknesses are the fact that JLab is known in Finland, but that does not mean they are known in Sweden, so they need a lot of marketing to make themselves known. Also, expanding to another market requires large capital, which might strain the company's finances.

For opportunities, Sweden has a booming infrastructure sector with lots of projects in transportation and construction, which means that quality control services are needed. Another opportunity for JLab would be to team up with a local Swedish company, perhaps leading to them gaining ground more quickly. JLab is also quite an innovative company, and as they work with the latest technologies, it would be a huge opportunity to demonstrate innovations to the Swedish market. Such technologies are not already used there. However, the amount of such technologies can be quite scarce given the nature of the area of infrastructure construction.

For threats, the Swedish market for infrastructure construction is already quite packed with companies competing in the same field, as was evident from the interviews. In addition to that, many of the largest companies in Sweden have their own quality control branches, which sometimes decreases the need for JLab's services. It could also be hard for the company if Sweden were to hit a rough economic path. There are also some cultural differences in how business is conducted and how communication works between two cultures. Still, as we are talking about Sweden, another Nordic country, the cultural differences do not pose that big of a threat.

3 Methodological choices

3.1 Research methods

With the main focus of this thesis being on market research, this paper uses only qualitative research methods. The sections that discuss interviews with industry professionals only use qualitative approaches. The use of qualitative research methods leads to the paper being theoretical in nature. Theoretical research involves examining different theories and hypotheses to deepen understanding and knowledge of a specific subject (Question pro).

3.2 Research question

The author of this thesis will conduct interviews with professionals in the field of infrastructure construction. The main question of this research is the following: How is infrastructure construction conducted in Sweden in comparison to Finland? Due to the nature of this study, it is crucial to examine the differences between the Swedish and Finnish markets.

3.3 Data collection methods

This paper relies on interviews with professionals in infrastructure construction as its primary data source. The initial idea was for the author to deliberately select interviewees based on their involvement in infrastructure construction and the Swedish market. The interviewee pool would then have included individuals employed by Sweden's largest and most relevant infrastructure construction companies. Furthermore, the idea was also to gather insights from a Finnish company that has expanded its operations to Sweden and a specific

customer with whom the case company collaborates and who also operates in the Swedish market. While it would have been feasible to interview individuals from the most extensive infrastructure companies in Sweden exclusively, the author chose a more inclusive approach.

However, the initial plan was not met by the author due to the difficulties of finding candidates for the interviews. The author decided to make a few changes to his plans and was able to find a few interviewees, that have previously worked in the area of infrastructure construction in the Swedish market. Although the interviewee pool might not be as comprehensive as it could have been, if the initial plan was met, the interviews will still offer good data for further examination.

This paper employs the secondary data collection method, involving research conducted by the author through various written publications and studies related to the topic. The author has collected data from reliable and verified internet and literature sources. The nature of the secondary data in this context is qualitative, as the paper relies on literature from scientific and authenticated sources rather than many unverified references. The purpose of gathering secondary data in this thesis is to robustly complement and reinforce the primary qualitative data, creating a comprehensive and mutually supportive research framework.

3.4 Research integrity

This thesis strictly follows the guidelines of the Finnish code of conduct for research integrity. This guideline offers researchers a description of good research practices and how to handle possible alleged violations of misuse of the good practices. (Tenk 2023.) The author has used artificial intelligence in this thesis. The applications used in this paper is ChatGPT and Grammarly and they has been used only for the purpose of brainstorming some ideas regarding this paper and to translate and modify the text provided by the author.

As stated earlier, the data collected for this paper has been collected reliably. The sources used have been verified and authentic. The interviewees for this paper have been promised an anonymity, as one of the interviewees did not want their name to be seen anywhere on this paper. The interviewees were also able to stop the interview if they so decided. Also, the author of this paper will dispose of any possible transcripts and notes regarding the interview after having finished this thesis.

3.5 Analyzing methods

Qualitative data analysis is a process of condensing and refining the data into conceptual and theoretical forms. There is no single right way to do this. Moreover, the method relies on the analytical skills of the researcher, where the objective is to understand the data better and enrich its informational value. (Kallinen & Kinnunen 2021.)

In qualitative research, one common way of analysis is themed analysis, which can be used in the early stages of data analysis prior to, for example, narrative analysis. The main idea of themed analysis is to find any possible entities and themes that could arise from the research questions. (Kallinen & Kinnunen 2021.)

The data analyzing methods used in this thesis are the transcripts from the interviews, so the analysis roughly follows the narrative analysis concept, which is typical for qualitative analysis (Hassan 2024). Narrative analysis aims to find common themes, motives, and other patterns. Then, analyze the themes and motives found. Finally, conclusions can be drawn from the collected and thoroughly analyzed data, and the findings can be utilized to generate theories, offer suggestions, or provide insights for future research. (Hassan 2024.)

4 Results

4.1 Interviews

The next step was to form a questionnaire for the interviews. The idea was that the questions would be comprehensive enough to support this thesis, but they would also offer data from the Swedish market. The author was able to find two professionals from the area of infrastructure construction. The initial idea was to interview professionals from couple of the largest infrastructure companies in Sweden. It was not met, due to difficulties of communication with them. Both interviewees in this paper, have previously worked in the area of infrastructure construction in Sweden. One of them has worked in the Stockholm area mainly among various bridge construction projects for the better amount of 20 years as a construction foreman. The other interviewee has worked in the northern parts of Sweden, mainly in Umeå as a construction engineer in highway and other road projects for give or take 17 years. The questionnaire was made so that the questions could be divided into a few different themes, which could be characterized as market dynamics, industry outlook, and market structure. Given that this was conducted as a themed interview, it is possible that each theme can have a slight variation, as the idea was to ask questions from each theme openly. The themed interview was selected as it can be pretty easy to analyze the answers, and the nature of themed interviews can loosen up the situation, as the interviewee can have a bit more liberty in their answers (Kallinen & Kinnunen 2021).

4.2 Findings from the interviews

Listed below are the summarized responses from the three themes in chronological order. The themes for the interviews are the following:

1. Market dynamics
2. Industry outlook

3. Market structure

Following each theme is a brief overview of the overall responses. These answers will then be investigated to see which possible themes arose from them. Due to the nature of themed interviews, it must be stated that some of the answers came from open discussions rather than from the questions.

4.2.1 Market dynamics

The first six questions revolved around the market dynamics in Sweden regarding the infrastructure construction market and handled every force in Porter's five forces. This set of questions was chosen in order to gain insights about the competitiveness of the market and to understand the market entry and possible difficulties regarding that matter, which can come in quite handy for a newcomer in a new market.

Some common themes stood out from the interviews. The main theme concerns competitiveness and both interviewees emphasized that the market is stacked with companies of all sizes. There are more prominent companies that have the most market share, but also many smaller local companies that keep the larger players on their heels. Also, it was made clear that many larger companies have their own branches or in-house operations for quality control, which decreases the demand for quality control services. However, the situation is quite similar in Finland.

The main points that arose from barriers to entry were the regulatory side and the fact that there are minor differences regarding those in the Finnish market. Sweden, however, uses the pan-European building practices, as does Finland, so the regulatory network is not that big of a problem. Also, the financial side was discussed, as it can require hefty investments in technology and new technology, which leads to innovation, which is big in Sweden—especially innovations toward sustainability, greenness, and eco-friendliness.

For the buyer behavior part, it was stressed that the main buyers for quality control services are different government agencies and construction companies, and what they expect in quality control is reliability, cost-effectiveness, and timeliness. The contract negotiation part was obvious, as the buyers quickly haggle to get the best terms for them.

4.2.2 Industry outlook

The second section of the interview regarded the common outlook of the quality control of infrastructure construction in Sweden. The questions wanted to have an answer to questions surrounding the current state of the field and to see what the main opportunities, challenges, and trends in the market are.

The interviewees characterized the field as stable and moderately growing. It is driven by governmental investment in infrastructure, especially in transportation, which significantly impacts the field. A few of the same themes that rose in the market dynamics section also played a big part in this, as innovation and tough competition were again emphasized. There is room for companies to go deep into innovation and sustainability in the Swedish market. Sweden's focus on environmental regulations was also mentioned, and they can be seen as a goal for most companies, both in the construction and quality control field. This is also seen as a sizeable emerging trend in Sweden. The timeliness was once again seen as a challenge, as it is something that buyers hold in high value, and project delays are not something the customers are looking for.

4.2.3 Market structure

The last section of the questionnaire took a dig into the market structure in Sweden. This section can be seen as an extra section, but the author decided to go with it as it was difficult to find data about the competition regarding the quality control field. So, the main question the author wanted an answer for,

was to find out, if there lies a perfect competition, monopolistic competition, oligopoly, or a monopoly in the Swedish market.

From the interview, it was clear that the market can be seen as a mix of dominant players and smaller companies, where the more prominent companies shape the competitiveness by influencing prices and setting standards. The dominant players in this scenario can be seen as the larger construction companies, as most have their own in-house quality control branches and a few private companies that have been in the game for quite some time.

The smaller companies in this field are usually just small to medium-sized businesses, and although they can't influence the market that much, they still play a significant role, as they can offer some alternative solutions to their customers.

4.3 Analysis of the market

Based on the answers from the interviews, the author of this thesis has concluded that the field of quality control of infrastructure construction in Sweden could be characterized as follows:

1. Tough competition.
2. Market open to innovation and sustainability.
3. Expectations of the buyers.
4. Moderately growing field.
5. A mix of dominant players and smaller companies.

The interviews were quite successful as the questions the author decided to go with were quite comprehensively answered. In addition to that, some other themes and ideas also emerged from the interviews. Overall, the dynamics of the Swedish market could be characterized as a field of tough competition, with innovations and regulations shaping it. From the existing sources and interviews, the industry as a whole can be seen as a stable and moderately

growing environment where companies keen on sustainability and eco-friendliness could prosper. The fact that the competition is quite fierce, but smaller companies still do well in the market is good, as it means they can keep the more prominent players on their toes.

The mix of smaller and larger companies in the market suggests, that the market structure in Sweden could be characterized as an oligopoly, as there are few larger companies, who can affect the market in a way of setting standards and pricing. Also, as most of the larger companies have their in-house quality control branches means, that they also have more control of the market. As the smaller companies don't have that much impact on the market, they still offer alternative solutions showing some levels of competition.

One more minor theme that also arose from the discussions with the interviewees was that both of them suggested using collaboration, at least to some extent. Reputation and relationships play a significant role in this field in Sweden, and as a newcomer, you don't have any reputation yet. One quick way of gaining it could be to strike up a partnership with an already existing company so that it would, of course, be beneficial for both companies. Establishing solid relationships in the early game would be a huge benefit and a boost for newcomers, as it can decrease the amount of networking needed.

5 Discussion

When taking into consideration the current state of the Swedish market regarding infrastructure construction, it can be easily noted that the growing nature of the market and especially the fact that Sweden has such a large budget for road building and other infrastructure construction projects as well can make Sweden an appealing target market for quality control companies, because whenever there is infrastructure construction, there is a need for quality control services. The ever-ongoing development of new innovations means that companies who are looking into expanding their operations to

Sweden should also take innovations, sustainability, and eco-friendliness as a part of their operations if they have not done so yet.

However, the large amount of competition could pose a threat to new companies, as it means it will be much harder for them to gain ground in a foreign market. The collaboration side with another quality control company should be really considered to tackle this problem better. This, again, can lead to a slower start in terms of revenue.

The regulatory side of infrastructure construction and the quality control aspects may pose a slight risk or threat for newcomers. However, in this context, as we are talking about a Finnish company expanding its operations to Sweden, the differences in regulations are not that big. Besides that, Sweden also follows the pan-European building practices, as does Finland.

The objective of this thesis was to look into the Swedish market regarding quality control and infrastructure construction and to find out if and how they differ. The goal was not to directly make a plan for JLab Oy to expand their operations to Sweden but to offer them insights about the market to see how different the whole field is in Sweden compared to Finland. These objectives were met. The author conducted interviews with professionals from the industry and obtained valuable information that could not be found beforehand. However, when looking into expanding one's operations to Sweden, it is not enough to rely only on this paper, as the whole process of expansion is much broader than this; for example, this paper did not take into consideration any of the financial aspects, as it was requested by the company.

There were also similarities when comparing the information gained from the interviews to the existing research on the topic. For example, both the interviewees and existing data emphasized the stability and the growing nature of the infrastructure construction field in Sweden, as well as the minor differences in regulations between the two countries. The author finds the study to be quite comprehensive, although if the interviewee pool had been broader, the study would have been more profound.

Producing this thesis was a learning experience for the author, as it provided him with an understanding of the topic and the industry. The author was also given the opportunity to discuss matters regarding the industry with professionals, which gave him access to data that could not have been found elsewhere. The author also hopes that providing this information will give those interested in this topic access to new information.

6 Conclusion

The outcome of this paper offers the commissioning company, JLab Oy, insights on the topic of quality control of infrastructure construction in the Swedish market and to people who are interested in these topics.

Based on the interviews with the professionals in the given field and on already existing knowledge it can be concluded, that Swedish market offers good opportunities for JLab Oy to expand their operations. In order for that type of an expansion to be as successful as possible more in-detail data would be required. The possibility of collaboration is especially something Jlab Oy should look into as a market entry strategy.

Even though it can be quite hard to predict the future of a given industry, the field of infrastructure construction and the quality control aspect of it can be seen as a promising industry with room to grow, because whenever there is construction, there also needs to be quality control.

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Questionnaire for the interviews.

1. Market Dynamics:

- What are the main barriers to entry for new quality control companies entering the market of infrastructure construction in Sweden?
- Are there any specific challenges or opportunities for newcomers in accessing resources or establishing credibility in the Swedish market?
- Who are the primary buyers of quality control of infrastructure construction services in Sweden, and what factors influence their purchasing decisions?
- How do buyers negotiate contracts and prices with quality control companies?
- Are there any alternative solutions or technologies, that could potentially be a threat to traditional infrastructure construction methods in Sweden? And if they exist, how does the Swedish market respond to those?
- What is the nature of the competitive landscape of the quality control of infrastructure construction in Sweden?

2. Industry Outlook:

- How would you describe the current state of the infrastructure construction industry in Sweden in terms of growth and stability?
- What are the most significant opportunities for companies operating in the quality control of infrastructure construction sector in Sweden?
- What are the major challenges that companies face when operating in this market, and how do they mitigate or overcome them?
- Are there any emerging trends or market shifts that companies should be aware of when considering expansion or investment in Sweden?

3. Market structure

- How would you characterize the market structure of quality control of infrastructure construction industry in Sweden? Are there a few dominant players or is the competition more fragmented? How does the possible presence of a few large firms impact the competition?