



FACULTY OF SCIENCE AND TECHNOLOGY

MASTER'S THESIS

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Abstract

This master's thesis seeks to conduct a strategic analysis of the Headquarters Competency Center (HQCC), a department within SLB. The focus will be primarily on its situation and future propositions. The study will be carried out in collaboration with SLB in Tangerang, providing valuable insights for the growth of the recently established competency center.

The research methodology follows principles from Robert K. Yin's book on case study research, emphasizing the importance of a clear research question and a well-designed study. A qualitative interview and workshop were used to collect data, providing an understanding of the competency center's positive and negative aspects. The selection of participants is based on their roles in the organization and relevant experience, ensuring the data's relevance and reliability.

The study identifies internal prerequisites for HQCC to be a global competency center. Project acquisition is controlled by the greater SLB organization, which provides customers and support, but limits autonomy. Managing diversity, fostering continuous learning, effective communication, and developing proactive portfolios are key management priorities.

The VRIO analysis of HQCC reveals valuable insights regarding its employees' expertise, portfolio uniqueness, competitive advantage from the location within SLB's headquarters, and leverage of SLB's platforms. By expanding services across different industry segments, investing in employee development, providing excellent service, and aligning projects with long-term objectives, HQCC can enhance its portfolio, competitiveness, and reputation, positioning itself as a global competency center.

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1 Introduction

Recent years have been full of challenges for the world, including the energy sector and many companies operating in it. The lasting consequences of the Corona pandemic and the political instabilities worldwide are some of the reasons for this. Almost every company has been affected, and their strategies have changed. One of these companies is SLB, which decided to relocate one of its competency centers from Tyumen to Tananger, as it provides them with better business opportunities and prospects. Competency centers are internal hubs in SLB that have their own specializations and are built to solve software-related challenges internally and with external partners and customers.

Due to recent changes in SLB's structure and the relocation mentioned, it will be interesting to analyze today's situation further. Therefore, the objective of this thesis is to conduct a strategic analysis of the Headquarters Competency Center (HQCC). As it would be challenging to properly analyze the whole of SLB as part of this project, the focus will be primarily on the HQCC department and will be done in cooperation with SLB in Tananger. The focus will be on the department's situation today and coming up with propositions for the future based on the data and information collected through research.

As the competence center is new and in rapid development, insight from an outside perspective is highly useful in supporting further development. Knowledge and understanding acquired are mutually beneficial in building competence and an analytical mindset and enable the creation of a comprehensive strategic analysis.

The positive and negative sides of the competency center today and its daily operations will be mapped through at least one interview round with a selected group of people. Chapter 4 will describe more about the data and methodology.

The financial aspects of HQCC will not be analyzed. The reason for this is that while the department functions as a partially independent in-house consulting service and business unit, its success is not evaluated based on monthly or yearly profits. Instead, its success is measured by the effective distribution of funds and the achieved return. The HQCC's budget is allocated to different projects selected by management. Successful closings result in profitability for the company rather than HQCC itself. The funds are returned to a local SLB branch, demonstrating how the initial investment benefits SLB as a whole.

1.1 Problem statement and research questions

As written above, the consequences of different events have forced SLB to make organizational changes. One of those is the transfer of the Tyumen Competency Center. This provides SLB with new business prospects by spreading the specter of opportunities. Multiple factors can influence the growth of HQCC and its probability of success. The choices that had to be taken, factors that influenced those, and the risk involved are some topics that will be covered and analyzed, and used to answer the following problem statement:

What are the internal prerequisites for HQCC to succeed as a global competency center?

The following questions will help answer the statement above more thoroughly and will contribute to a more structured analysis:

1. *What are the most critical factors for the department's ability to develop its project portfolio?*
2. *What significance does the company's investment in diversity have for the opportunities for growth?*
3. *How does the department's current marketing communication affect the opportunities for strategic success?*

This thesis will emphasize the influence of the current situation, both internally and externally, HQCC as a part of the SLB brand and what they should focus on in the future. The analysis and discussion will be based on the research done and influenced by our knowledge of the topic and opinions. The final result will be in the form of strategy propositions focusing on improving the organizational, technology development, and marketing segments.

1.2 Limitations

SLB is an oilfield services company operating in multiple countries, including several offices in Norway. This thesis will limit its focus to the HQCC department, which is a

part of Norway's headquarters in Stavanger.

Further, in the thesis, the main focus will be to conduct a strategic analysis, examining the external environment that HQCC operates in and evaluating its competitive position. Therefore, an organizational analysis will not be carried out, even though it will look at the organization and its structure.

To answer the research question, the main focus will be on internal prerequisites. Therefore, an important limitation is that external prerequisites will have limited consideration.

In this thesis, a limited number of analyses will be carried out. This can also lead to several limitations of the thesis. Competitive analyses that focus on the competition from a wider perspective company will not be carried out. Furthermore, there is no access to the department's financial resources, nor their ability to retain employees. This thesis has chosen an approach that can therefore only explain a more restricted, but still important part of a compound analysis.

The results of this thesis will mainly be based on interviews and a workshop with employees at HQCC. Due to time constraints, it will not be possible to interview each employee in the department, leading to another limitation. Therefore, the interview objects are chosen to bring different perspectives and value to this thesis. Subsequently, data from the interviews will be used to conduct different strategic analyses: VRIO, portfolio-analysis, and SWOT.

The study will be publicly available so there is a limited amount of sensitive information in this thesis.



Figure 1.1: SLB Headquarters, Tangerang [4]

1.3 Thesis outline

This master thesis will have the following chapters:

Chapter 2 Background information about SLB and HQCC

Chapter 3 Theory behind the research; choice of analysis

Chapter 4 Methodology used to collect the information and data

Chapter 5 The collected information, its analysis, and the discussion including the results

Chapter 6 Conclusion and the proposal for the future strategy

2 Background

The following chapter will introduce the SLB journey and its organizational structure. Furthermore, HQCC will be introduced, and the work they do.

2.1 SLB journey

SLB, also known as Schlumberger before the rebranding, is a multinational oilfield services company operating in over 120 countries, with four principal executive offices in Paris, London, Houston, and The Hague. The company was founded in Paris as Société de prospection électrique (in English: the Electric Prospecting Company) in 1926 by two French brothers, Marcel and Conrad Schlumberger. They aimed to provide services and technology to the oil and gas industry. Their vision was to improve the efficiency of petroleum production and exploration [6].

In 1927, the newly established company offered electrical-measurement mapping services and made history by recording the first electrical resistivity well log in Merkwiller-Pechelbronn, France [6].

Today, the company provides services and technology such as seismic data processing, well testing, formation evaluation, directional drilling, well cementing, software, and information management globally. SLB is also involved in carbon capture, storage, and groundwater extraction, and new energy initiatives [7].

SLB is trying to achieve a sustainable energy future by balancing the need for energy by humans with the needs of the planet. Their sustainability focus has three main priorities: nature, climate action, and people. SLB aims to preserve the environment and to support their employees and the communities they operate in, advocate for equality, and uphold human rights [5].

The name Schlumberger is often associated with oil and emission; therefore, it was essential to rebrand the company to SLB. The new name SLB shows the new direction the company is moving towards; to achieve a greener and more sustainable globe and to influence the customers, suppliers, and peers to do the same [5]

2.2 HQCC

This section will introduce The Headquarters Competency Center as a department in the company.

2.2.1 The why and how

Due to operational business decisions, SLB decided to relocate its competency center business from Tyumen to Tananger. Their services were developing, maintaining, and quality testing software extensions, so-called plug-ins, for SLB platforms Petrel, Techlog, and Studio. The choice of location fell on Tananger due to its proximity to the technology center developing this core technology. In addition, the region has a long experience in the oil and gas industry and offers a highly skilled and educated workforce. Because of the already existing work, Norway is known for delivering quality solutions in software. The department was named HQCC and can be best described as an in-house consultant company in SLB.

2.2.2 Choices leading to today's situation

Building a new competency center requires time, effort, and multiple resources. In addition, there is a need for a series of strategic decisions to steer the department in the right direction. The first is the decision to transfer key people from the existing center. This included management and key technical personnel. Ultimately, this helped in managing the risk of migrating projects, managing stakeholders, hiring the right competencies, and securing business continuity.

Another decision that has been made is to partner with a consultancy company and hire contractors. This way HQCC can cover their immediate need for staff and have the flexibility to scale in the future. This is another way of managing staffing risk for the new center as it is being established.

They must find a healthy balance between risk and profit when choosing projects to work on, establish themselves with already existing projects, and communicate well with customers and stakeholders. Choosing Tananger as a new location for the center was also a strategic move leading to better business prospects from Norway and the ability to

develop the project portfolio further.

2.2.3 HQCC structure and work

To better understand what HQCC represents, getting an idea of the work and products they deliver is necessary. SLB develops software widely used in the oil and gas industry and distributes these solutions worldwide. An example is Petrel, a software used for, among other things, the calculation and simulation of processes in the Petroleum industry. Petrel is being regularly maintained and updated with new features, but it is only possible to add a finite amount of features customers want per release cycle, and that is where HQCC comes into the picture. If a customer wants a niche feature for Petrel, and there are no plans for it to be a part of the new release, or at all, then HQCC takes the assignment of developing the plug-in for the software to cover client needs.

In addition to the development of plug-ins, HQCC is responsible for different types of acceptance and quality certification for plug-ins developed in the department, other SLB branches, and by external partners. Quality assurance testing ensures that the products meet predefined quality standards and requirements. Furthermore, they are the contact point for other inquiries related to the development and testing of the plug-ins and legal concerns.

HQCC has 36 employees split into multiple smaller teams in the department. They work mainly as software developers and quality assurance engineers. The employees have different backgrounds and work experiences, ranging from students and recent graduates to experienced people in the oil and gas sector. Most of the software engineers in HQCC have IT-related education, while many QA Engineers and testers have domain knowledge and have taken studies related to the industry. Chapter 5 includes more information about the employees and their backgrounds.

HQCC has a flat management organizational structure with little overhead and is supported by various functions (legal, finance, HR, etc.) in a matrix organization structure. Placing HQCC in the larger organization would see them touch portfolio and technology business lines while being supported by the functions, as shown in figure 2.1. Organizationally, it is part of headquarters, where they support the various geography teams who are the primary contact of customers. Their role is to handle the request and describe and plan

actions to meet customer needs. Furthermore, HQCC delivers different services using the technology provided by the greater SLB.

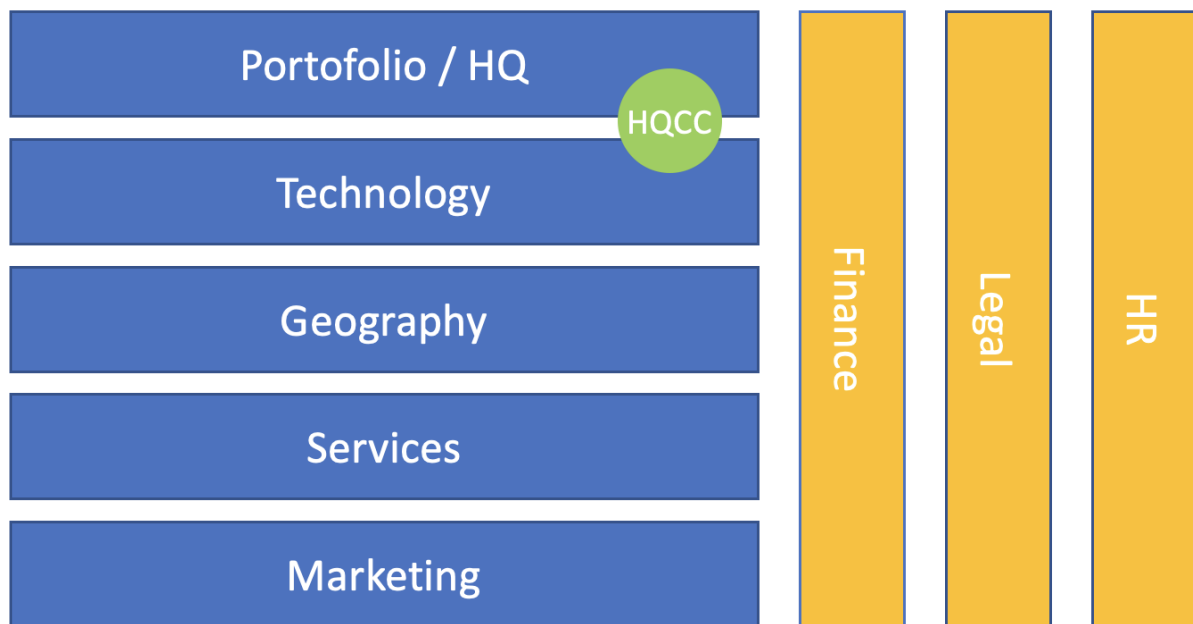


Figure 2.1: SLB Organization Structure

3 Theory

This chapter explores the key concepts and theoretical frameworks that support the thesis. It provides a solid foundation of understanding for the reader, outlining the theoretical perspectives and concepts that form the basis for the analysis and discussion.

The chapter starts with defining concepts from the research questions, and a brief description of relevant analyses for the thesis makes up the second part of this section. It covers only the theory about the chosen frameworks, and the chosen data collection and analysis method will be described later in Chapter 4: Methodology.

3.1 Project portfolio management

As stated in "Portfolio Management for New Products: Second Edition" by Cooper, Edgett, & Kleinschmidt, project portfolio management (PPM) [14] aims to enhance the success rates of projects by establishing a comprehensive and adaptable decision-making framework that maximizes investments' long-term value throughout the project portfolio. Catherine P. Killen and Robert A. Hunt underline that the objectives of PPM are to align the project with the company's strategy in "Dynamic capability: understanding the relationship between project portfolio management capability and competitive advantage." [29] Potential projects are assessed by their possible future successes and risks, ensuring that necessary means and resources are available to maximize organizational performance. This can secure maximum value from investments.

3.1.1 The Project Portfolio Lifecycle

The Project Management Institute (PMI) has defined three phases of the portfolio lifecycle: plan, authorize, and monitor & control. [26] See the figure 3.1 below.

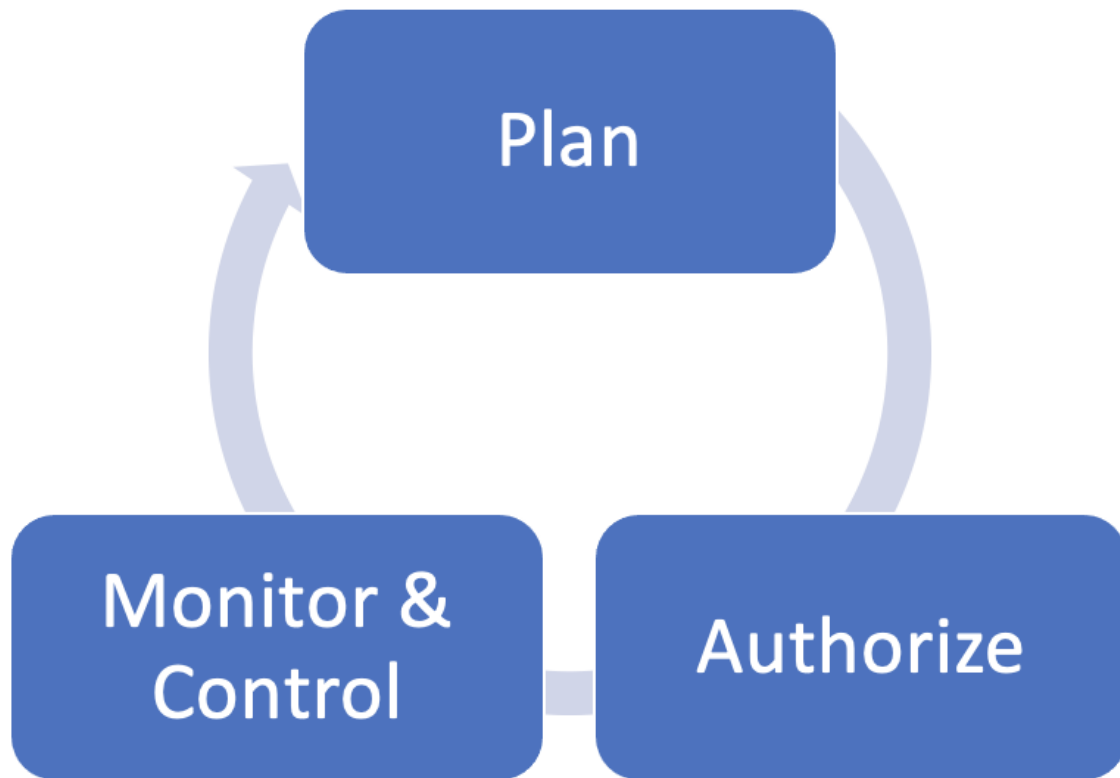


Figure 3.1: The Portfolio Lifecycle. Based on the theory from: [26]

The process can also be classified into two groups. The first is aligning the process group, which ensures that individual *projects* align with strategic goals and current operational rules while managing the portfolio as a whole. The second group is the monitoring and controlling process. In contrast to the first group, it ensures that the *portfolio* aligns with strategic objectives. This is done by reviewing performance indicators and predefined metrics, such as Return on Investment (ROI) and Net Present Value (NPV).

3.1.2 Five keys steps for successful Project Portfolio Management

To build and manage a successful portfolio, one must consider multiple factors. Based on "The Standard for Portfolio Management," [26] the five key steps for successful Project Portfolio management can be defined as follows:

1. Clarify business objectives

To ensure the selection of appropriate projects for the organization, it is essential to clearly define goals and effectively communicate the goals to the teams involved. A valuable approach to establishing this alignment is constructing a strategy map that

outlines the business objectives and guides team members' priorities. This process will help management identify the appropriate tools and methodologies to utilize and create project selection criteria.

2. Collect and research

The second step is to collect information about potential projects and to define critical resources. Possible projects can include ongoing projects or fresh ideas from team members, customers, research within the technological area, important strategic projects, etc. Collected data will then be used to rank the projects against the established criteria.

3. Select the best projects

The third step in the process is to use the ranking from the previous step. The aim is to create a combination of projects to maximize the total portfolio's value for internal and external customers. It is important to consider the balance between risk and future reward at this stage, commercially and technologically.

4. Validate and Initiate

The choice of the projects does not always take into account various constraints. Some examples include available resources such as management resources, workload, budget, and competence. This step aims to validate the portfolio's feasibility, commit resources, and initiate if it seems achievable.

5. Manage and monitor

While the project managers take care of daily operations, the portfolio manager must work closely with the team to track performance and make necessary changes. Sometimes reallocating resources, re-scoping, and adding new or canceling projects are needed.

Various project management software and data analytics tools can support a structured approach to organizing work to enhance effectiveness. Even though insight into the technology can contribute to a better understanding, the key to building a valuable portfolio is the ability to consider and assess the strategic objectives and ensure that the system is aligned with the chosen objectives. This requires good communication, collaboration between different organizational stakeholders, and adaptability to make continuous changes in the environment.

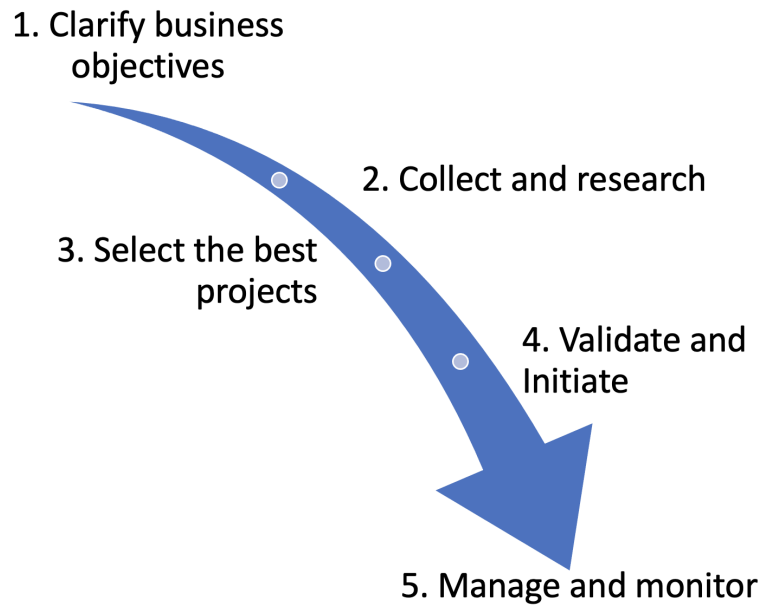


Figure 3.2: The Project Portfolio Management Key Steps

3.1.3 Success Metrics in Project Portfolio Management

The success of a portfolio is determined by how well it aligns with a company's overall strategy and objectives. This is highlighted by Clive N. Enoch's in "Project Portfolio Management, Second Edition: A Model for Improved Decision Making." Enoch has developed a model for better decision-making, and his focus is on the relationship between portfolio components (projects) and organizational objectives. [18]

Enoch also addresses that it is of great importance that the selected projects contribute to the overall goals of the company and that it has to be a reflection of its strategy and values. A close relationship between portfolio components and organizational objectives is a crucial factor for growth, and Enoch suggests in his book several key considerations in the portfolio selection process, some of them being:

Strategic Alignment

As previously mentioned, projects within the portfolio should be closely aligned with the strategic goals and objectives of the organization. In this way, the company ensures and communicates clearly that the projects contribute to the overall mission and vision.

Portfolio contribution

Each project within the portfolio should have clearly defined benefits that align with the

company's goals. It is stated that the evaluation and prioritization of projects should be based on their expected benefits and potential to deliver value to the customer or the organization.

Risk Management

It is important to assess and manage risks associated with the projects. The project selection must consider the company's risk strategy and willingness to undergo uncertainties.

Resource Allocation

The allocation of resources within the portfolio should be aligned with the organizational objectives. In Chapter 2, Enoch writes about balancing the portfolio, stating that the organization can stop or slow down components that make low contributions. A good resource allocation strategy ensures that the overall portfolio supports the objectives while optimizing the utilization of resources.

Assessment and Control

Continuous monitoring and controlling ongoing and incoming projects is crucial in developing a sustainable portfolio. Regular assessments and evaluations must be done to ensure that the projects in the portfolio remain aligned with targeted goals and that ongoing adjustments can be made if necessary.

A strong relationship between portfolio components and organizational objectives must be established to maximize the portfolio's value. This can be done by using a structured project portfolio management framework. This enables a company to make informed decisions aligning with strategic objectives and contributing to expected results.

Effective portfolio management is essential for a company's success for several reasons. Good portfolio management helps a company maximize its returns by allocating resources effectively across various projects. Furthermore, it helps a company minimize risk by diversifying its investments, reducing the impact of potentially harmful and unforeseen events. By following the steps above, a company aligns its portfolio with objectives and goals, uses resources more efficiently, and monitoring improves the decision-making process.

3.2 Diversity

In recent years the topic of diversity has gained more importance and attention in the workplace [16]. Diversity has to do with including and recognizing differences among people. It is important to clarify that diversity is not just about ethnicity, race, gender, and age but also differences in education, competence, and work experience. Including diversity in all its forms can positively impact the success rate of an organization [41]. But one should also be aware of the challenges diversity may bring.

Diversity can be conceptualized into three broad categories: Demographic (gender and race), psychological (values and beliefs), and organizational (occupation, competence, and seniority) categories [27]. To fully understand diversity, it is important to identify the attributes where differences may arise and understand the overall pattern within the organization. Several factors can be used to identify diversity patterns, including the composition, scope, history, and experiences of groups and their relative standing.

Three primary approaches have been taken to comprehend the impact of diversity in organizations [40]:

- The first is "The similarity attraction theory". This claims that people are more likely to form relationships with individuals who share similar beliefs, values, and attitudes [12]. Research has also shown that companies tend to select relatively similar employees and aim for homogeneity, and due to this, diversity may lead to decreased attraction [32].
- "Social identity and self-categorization theory" is a second theory. This theory points to the consequences of diversity through self-conceptualization. According to the social identity theory, our self-concept partially originates from memberships in different social groups [38]. The concept explains that individuals categorize themselves into social categories based on their self-perception of how well they fit into the relevant social categories. This leads people to separate the world into categories as "us" and "them". Examples of this can be "Us women" and "You men", "Us pilots" and "You cabin crew" or "Us lawyers" and "You associates". Such categorizing can result in an "intergroup bias", a systematic tendency to evaluate one's own group more positively and favor them over others [23] [16]. Self-

categorization elicits specific expectations and behaviors, including biases towards other groups and preferences for groups within your own group[38].

- The third theory, "Information processing or problem-solving approaches", suggests that diversity may introduce different perspectives resulting in greater information processing and better problem-solving abilities [32] [42].

The two first theories explain why there are negative aspects of diversity, while the third explains the positive aspects.

Further, in "Det gode arbeidsmiljøet," Traavik explains that using existing knowledge to achieve diversity with its good sides is necessary. Companies should actively study the types of diversity that exist in their organization, and which type they lack. She then summarizes the existing knowledge on how to achieve diversity and the positive sides of diversity in three main points: [16] :

1. Develop a plan to ensure diversity and how it is managed.
2. Assign responsible individuals to follow up on the plan.
3. Value and appreciate diversity through both words and action.

The next step is for the company to understand that there are different approaches to diversity that can have an impact on the results of such plans. Ely and Thomas identified three different areas where diversity could have an impact on individuals and groups [17]:

- **Integration and learning:** Attention to people's distinctive characteristics, backgrounds, and approaches to solving problems as valuable resources for the company. This represents opportunities to alter the organization and its routines in relation to diversity. This can be matters such as change is viewed favorably and embraced as a means to foster innovation and growth within the organization.
- **Access and legitimacy:** This argue for diversity to gain access to a more diverse customer base and larger markets. Meaning that diversity within the company may benefit the company by gaining access to more customers and larger markets.
- **Non-discrimination and fairness:** This perspective focuses on non-discrimination and fairness in the organization, which means that all types of diversity are appreciated in the company and that cultural diversity, to some extent, should be

assimilated into the dominating culture. This can help the employees perform more efficiently and comply with company goals [17].

3.2.1 Positive sides of diversity

Different educational backgrounds and competencies make up a diverse workforce. This will bring the company different perspectives, skills, and broad knowledge. An example is a company that employs salespeople and engineers with a diverse workforce that provides comprehensive approaches to problem-solving. The employees with an engineering background will provide technical solutions, while the salespeople will identify the preferences and needs of customers.

Further, there is work experience. Employees come from different backgrounds, industries, and companies. This all together brings the company different skills, knowledge, and experience. Having diverse educational backgrounds, competence, and work experience in a workplace can be beneficial and lead to fresh ideas, new problem-solving skills, and approaches.

The organization might also be seen as a more attractive workplace when implementing diversity on a broad scale. Small adjustments, such as allowing employees to take unpaid leave for religious reasons, will increase the company's attractiveness and can lead to a more inclusive environment [10]. This will improve the company's reputation leading to increased sales and customer loyalty. It will also help the company attract talented employees globally and reduce retention.

In many cases, diversity in a workplace will cause a more valued, inclusive, and appreciated environment for the workers. According to Forbes, workplaces with greater diversity have several benefits. It has been shown that diversity increases innovation and creativity. This is because employees with different backgrounds and mindsets bring a broad way of thinking to the workplace. Further, it is shown that this leads to better decision-making and creates greater opportunities for growth [37].

For several years, the consulting company McKinsey has examined diversity in the workplace [24]. Their report examined 366 public companies in Canada, the United Kingdom, the United States and Latin America, and their findings were:

- Companies in the top quartile for diversity within ethnicity and race are 35 % more likely to experience greater financial returns than the median return in their industry.
- Companies in the top quartile for diversity within gender are 15 % more likely to experience greater financial returns than the median return in their industry.
- Companies in the bottom quartile for ethnicity, race, and gender are, according to the statistic in the research, less likely to achieve financial returns above the average in their industry.
- A linear relationship between ethnic and racial diversity and financial performance was found in the United States. Earnings before interest and taxes (EBIT) rose by 0.8 % for every 10 % increase in ethnic and racial diversity.
- Earnings before interest and taxes (EBIT) in the United Kingdom rose by 3.5 % for every 10 % increase in gender diversity.
- The varying performance of companies in the same industry and country indicates that diversity shifts market share toward more diverse companies in the industry

A study by Lorenzo and Reeves, published by Harvard Business Review, found that the most diverse companies were the most innovative. The study measured diversity in six dimensions: migration, gender, career path, education, industry, and age. Companies with an above-average score in total diversity had 19 % higher innovation revenue and 9 % higher earnings before interest and taxes (EBIT) margins [31].

3.2.2 Negative sides of diversity

To clarify, diversity is important in a workplace, but it is also important to consider that a high degree of diversity can result in employee conflicts and disagreements [23]. The first essential thing is ensuring that the employees have the right education and training in their positions, especially in positions where diversity is implemented. Without this, too much diversity may lead to conflicts that could negatively affect the work. In the coming paragraphs, some of the possible negative effects of diversity, mentioned in the "Det Gode Arbeidsmiljø" by Ståle Einarsen and Anders Skogstad [16], will be addressed.

A challenge that diversity can bring is communication challenges. Communication

styles can differ between individuals from different backgrounds and cultures, making it challenging to communicate effectively. This may lead to misunderstandings and conflicts in the workplace.

Diversity also brings in scope of differences within values and beliefs. Having too big differences can make working towards common goals and common ground more difficult. And if this escalates, it can lead to tension and division within the organization. Therefore, it is important that the organization has implemented a culture of respect and trust.

Further, an imbalance in individuals from different backgrounds may lead to a power imbalance. Individuals with a specific background can have more influence and power than others, leading to exclusion. A way to prevent this is to be aware of the power dynamics and work on implementing an inclusive environment for the employees [19].

Previously, it was mentioned that diversity in competence and expertise leads to a better workforce. Nonetheless, there can occur negative effects due to this. Diversity within competence and expertise can lead to challenges related to trust and conflicts. When the organization has broad diversity, skepticism, and uncertainty can arise around others' solutions and perspectives on problem-solving. When this occurs in organizations, the consequences can be slower decision-making and potential conflicts. The management should therefore implement a culture of trust to avoid this [19].

Despite the implementation of diversity, discrimination and bias can still pose as a challenge. It is crucial for managers and the organization to recognize this issue and take necessary measures to prevent it from happening.

3.2.3 Summary

Diversity in organizations is a complex topic. The positive sides of it can enhance creativity and increase problem-solving competence. It can expand the company's knowledge base. The company can gain competitive advantages by promoting diversity and creating an inclusive environment. It can become more attractive to highly talented employees, increasing the company's likelihood of greater financial income and innovation. Altogether, this can result in better services, products, and performance.

Companies that are not aware of the challenges of diversity may experience conflicts,

communication problems, and power struggles. These challenges can arise due to differences in cultural and competence background in addition to differences in expertise, age, and other factors.

In conclusion, diversity can benefit a company, but the organization and its managers should be aware of possible challenges. The company should address arising issues and actively work to prevent these by providing training and resources to introduce a healthy working environment. By being aware of the challenges and actively preventing them, diversity can increase the company's success and competitiveness in the market.

3.3 Marketing communication

According to Pearson, an organization's marketing and communication consist of various tactics, using different tools and channels to reach a desired market, raise brand awareness, drive sales, and advertise their products or services [1]. Communication towards partners and stakeholders could also be added to this definition as internal and external marketing significantly impact a company's success. This section will cover important aspects of marketing communication for this thesis: types of marketing communication, the importance of a good strategy, and reputation, to name a few.

3.3.1 Types of marketing communication

There are various types of marketing communication. The most widely used is advertising. Advertising refers to methods and strategies of advertising designed to influence the target audience to react in a certain way towards a product, service, idea, or belief. It aims to reach the targeted audience through various channels, such as social media and TV. This builds awareness and drives sales.

Some other types of marketing communication are:

Public Relations or PR refers to the management of how individuals perceive and feel toward a person, brand, or company. It involves creating media messages, controlling the spread of information, and building a relationship with media.

Sales Promotion is a short-term marketing strategy where a company creates interest and demand for a product by offering discounts, coupons, and other incentives.

Direct marketing is a form of marketing where you communicate directly with consumers instead of using a third party, such as social media and TV, to reach the target audience. By doing this, the company providing services and/or products directly communicates with the consumer, eliminating the middleman. With this, companies can build relationships, encourage customers to act, and drive sales.

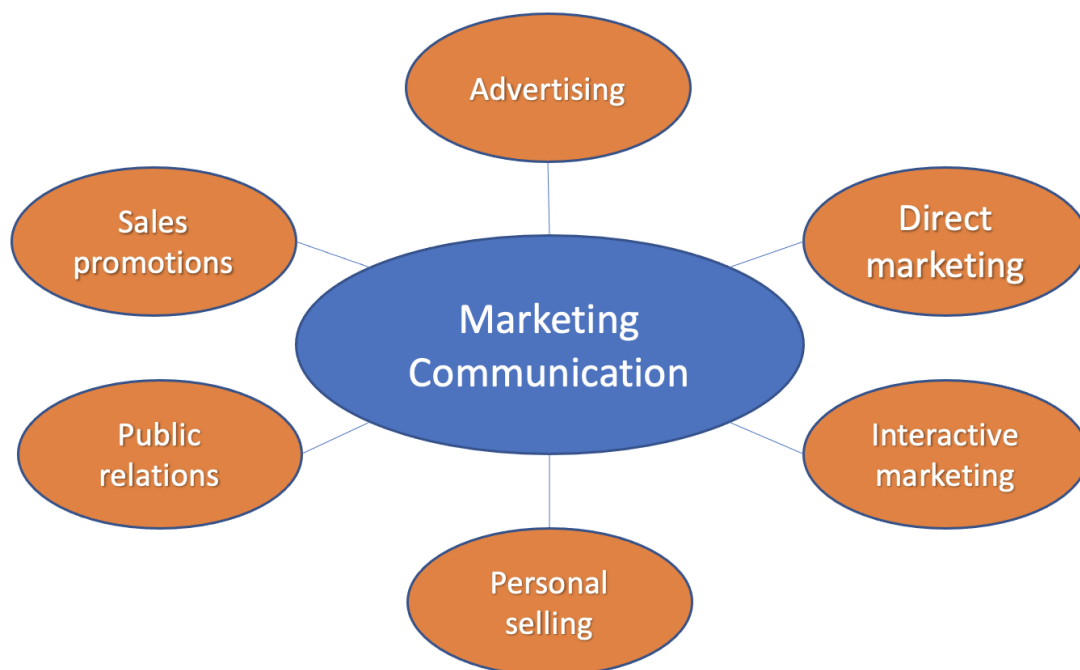


Figure 3.3: Marketing Communication types [3]

There are several other types of marketing communication in addition to the ones mentioned; see figure 3.3. For an organization, it is essential to use the right type, as different types of marketing fit different types of products and services. A company can combine multiple or utilize just one, but the decision must be made based on multiple factors, and its importance will be covered in the next section.

3.3.2 Importance of a good strategy

Marketing communication must align with a company's goals and objectives. By developing an effective marketing communication strategy, a company ensures that all marketing efforts are consistent and work together to achieve desired results. With a cohesive strategy, marketing efforts can be effective.

An excellent and cohesive marketing communication strategy consists of multiple elements.

Philip Kotler and Kevin Lance Keller define these steps in their book "Marketing Management" [30]. Based on the readings, these elements can be defined as follows:

Target Audience

Performing market research and determining the trends in the market contributes to identifying the target audience and understanding their needs and preferences. With this in place, the company can tailor its communication to resonate with the target audience.

Clearly defined goals and objectives

A marketing communication strategy includes clearly defined goals that align with the company's objectives. Furthermore, a critical factor is the ability to communicate these well to employees and other stakeholders, as it ensures that everybody is working towards common goals.

Messaging

Creating a messaging framework that resonates with the targeted audience and is aligned with the company's brand and value is another element in a successful marketing communication strategy. The message in all used channels must be clear and consistent and contribute to building the trust and credibility of the company.

Channel selection

Another step in the marketing communication strategy is identifying the appropriate media channels, ensuring that the communication is going through channels most likely to reach and resonate with the company's target audience.

Metrics and measurements

A marketing communication strategy should measure the effectiveness of marketing efforts. The data will help the company to track outcomes and identify areas for improvement to make more informed decisions in the future.

3.3.3 Reputation

Reputation is a critical aspect of any business, and it can significantly impact a company's success. A positive reputation comes with its perks, attracting new and retaining already

existing customers, partners, and employees, while a negative reputation can negatively influence business.

An important way of managing and improving reputation is communication. Here is a list of actions that can improve reputation [15]:

Deliver on promises

Delivering on promises is only sometimes straightforward, as project uncertainties can be considerable, and only some things can be considered. However, delivering on promises is an important way of building and maintaining a positive reputation. A commitment to a customer and following through on that helps build trust and credibility, two significant factors in a company's success.

Get customer feedback

Without customers, a business does not exist. Customer feedback should be utilized to address any potential issues or concerns and make changes if necessary. Taking actions based on the customers' opinions shows commitment towards improvement and care for customers.

Communicate effectively

Regular communication and transparency with customers, partners, and stakeholders are other critical elements for building and maintaining a good reputation. Some examples of what a company should communicate are concerns and essential changes.

Build relationships

Regular communication, helpful customer service, and a commitment to quality are examples of building stable and long-term relationships with stakeholders and customers. Loyalty and trust from customers come because of mutual benefits built upon mentioned factors.

Manage crisis

As previously mentioned in this chapter, a business cannot account for certain circumstances, which can lead to crises. During these times, it is critical to have good communication to minimize the impact of the crisis and restore trust in the company. A

business should prepare messaging frameworks and communication channels as a preventive measure.

3.3.4 Summary

A successful marketing communication plan needs to align with the company's goals and objectives, and as a crucial aspect of every business strategy, it can significantly impact a company's success. Marketing communication and reputation can be improved with clearly defined goals and objectives, reputation management, alone or in combination with other practices.

By involving all relevant stakeholders, businesses can ensure that their messaging and communication are aligned with the company's strategy and values and that everybody in the organization understands common goals. The ability to effectively communicate with its stakeholders and customers leads to customer loyalty, stronger relationships with stakeholders, and improved finances.

3.4 Brand

Elements such as logo, design, and mission statement are tools for building a positive perception of a company or its product and services. [34] This process, also known as branding, is an integral part of every organization and its culture. A good brand is vital for several reasons. One is getting a competitive advantage over other companies in the same business by creating a unique identity. By accomplishing a strong brand identity, customers will associate the brand with trust, familiarity, and reliability. An example is the car manufacturer Toyota, which is known to produce high-quality vehicles with long-term durability, qualities that are appreciated among customers.

Branding affects many people, such as customers, employees, and shareholders. For customers, a strong brand means a sense of trust and loyalty, and for employees, it represents the company's values and something to identify with. In the long run, this can attract more customers and investors, as well as an attractive workplace for employees.

There are two primary types of branding: external and internal. External branding is defined as one that creates a unique and easily recognizable identity for external audiences,

such as customers, and stakeholders. An appealing logo and effective advertising features are important aspects of external branding. As written in "Building Strong Brands" [9], building a lasting connection with customers and crafting an identity that resonates with them is the objective of external branding. A strong brand can attract customers, and drive long-term brand success.

Internal branding focuses on developing a strong brand identity within the company. To achieve this, the organization aligns its culture, values, and mission with its brand identity, promoting shared goals, and objectives. By clearly communicating this to all employees through internal newsletters and training, an organization can develop a strong internal brand identity. This culture results in a sense of pride among stakeholders such as employees, management, and customers, which leads to higher satisfaction in the company. [25]

3.5 Choice of analysis

Diverse strategic analysis will be done in this thesis to help map the position of HQCC today. The choices are based on what type of analysis will give the best overview and understanding of the department and the risk factors involved. The following analysis will be covered:

- VRIO
- Portfolio analysis

The analysis mentioned above will give helpful insight and understanding of the HQCC in SLB and the company itself. It will provide a good foundation stone for further discussion about the department and will serve primarily as a tool, not the answer itself. Furthermore, the conducted analysis and findings will be summarized in a SWOT diagram.

3.5.1 VRIO

A VRIO analysis is a strategic tool/framework developed by Jay Barney. The framework that Barney introduced in 1991 was initially called VRIN, which stands for Valuable, Rare, Imperfectly imitable, and non-substitutable. A few years later, after improving the framework, in 1995, he introduced the framework VRIO that we are familiar with

today. The framework is used to identify the competitive advantages of a company's internal capabilities and resources. The letters in VRIO stand for Value, Rare, Imitable, and Organized [33]. It can be helpful to formulate the following questions to support the execution of the analysis:

1. Value: Is the resource valuable? The resource should add value for the company by exploiting opportunities and overcoming threats.
2. Rare: Is the resource rare? The resource should be rare among competitors and hard to find in demand.
3. Inimitable: Is the resource imitable? The resource should be difficult or impossible to imitate such that it can compete in a competitive market.
4. Organized: The organization must be able to utilize its resources and capabilities effectively.

To secure the quality of the analysis, it is very important to identify and conduct a systematic examination of each resource. Then we need to ask the four questions listed above to determine the competitiveness of the resources and gather reliable data to support the assessment.

3.5.1.1 Value

The first letter, "V", raises important questions about the value organization's resources: Do the resources gain a competitive advantage? Do the resources mitigate a threat in the market? Do the resources address customer needs or solutions to problems? The answer to these questions will determine if the resource represents a strength or a weakness for the organization. The resource is considered to bring value and is regarded as a strength to the organization if it fulfills any of the criteria.

The company will try to exploit the value of the resource, and a way to check if it is valuable to the company is to compare the resource's net revenue against the net cost it generates. If this difference is positive, it can be an indication that it brings value to the company. It is important to note that a resource is only valuable to a company if it increases its competitive position somehow. By looking at a company's value chain, we can analyze each step of the value chain and identify where the weaknesses and strengths

of the company lie. [36]

3.5.1.2 Rare

The second letter "R", questions the rarity of the resource. The question of value looks at the internal weaknesses and strengths of the company, while the question of rarity looks at the external market. One can achieve a competitive advantage by having rare resources. This is because, by rarity, the company has access to a rare resource in the competitive market, that few or no competitors have access to, leading to an advantage over the competitors. The capability and resources must be short in supply to give the company a competitive advantage in the market. If the resource is available for the competitors, it is not rare and will be classified as a common resource. It is important to note that common resources can be very valuable and important for a company to survive, but they will not give the company a competitive advantage [13].

3.5.1.3 Inimitable

The third letter "I", questions the imitability of the resource. If the company's resource is valuable and rare, they need to identify the resource's imitability. A resource that is valuable, rare, and hard to imitate by other companies can give the company an advantage in the competitive market. By a non- or hard-imitable resource, the company can exploit its opportunities and/or neutralize threats. An imitation often appears in two ways: substitution or direct duplication. With today's technology, it is even harder to obtain something that is not imitable, and even better substitutions can be developed. The way today's technology is moving forward, the question of imitability is becoming more important than ever [13].

3.5.1.4 Organization

Companies can have many valuable, rare, and unique resources, but the important part is whether the resources are exploited to the fullest. And this is what the fourth, and last, letter "O" questions. In this final part, the company needs to analyze its own organization and how it is organized to exploit its resources. Here the focus is not on the company's capability and resources, but on the organization itself, such as how they run the business, the management control systems, and how reporting is structured. These elements of the

organization are referred to as complementary resources and complementary capabilities. Alone, they will not provide high value nor increase the competitive advantage, but the combination of these capabilities and resources can bring forth value and sustained competitive advantages [13].

3.5.1.5 Summary of VRIO

VRIO can be a helpful tool in analyzing a company's resources and capabilities, but it has certain limitations. As mentioned above, with today's technology the world is moving rapidly forward. A groundbreaking innovation today might be old news in a year or even less. With this rapidly forward-moving technology, it can be difficult to utilize resources to competitive advantage. The VRIO framework looks at a company's internal resources, and from the outside, it can be a problematic tool to use when analyzing a company. A reason for this to occur can be limited information that drops the quality of the research and/or confidential information that cannot be shared.

Even though a VRIO analysis is an internal analysis looking at the internal prerequisites, external conditions can influence the organization's success in the market. External conditions can influence access to competent employees or competition for labor, and external conditions such as political conditions can influence business opportunities across national borders.

An example of a resource that fulfills the VRIO criterion can be proprietary technology or software. Having such unique technology or software that offers features and functionalities that no competitors can offer will create a competitive advantage. Such technology can be difficult for competitors to provide or imitate.

Another example can be if the company has a patent on its technology, given that the technology is beneficial. This will give the benefit of protecting the technology from being used or imitated by others, leading to a competitive advantage.

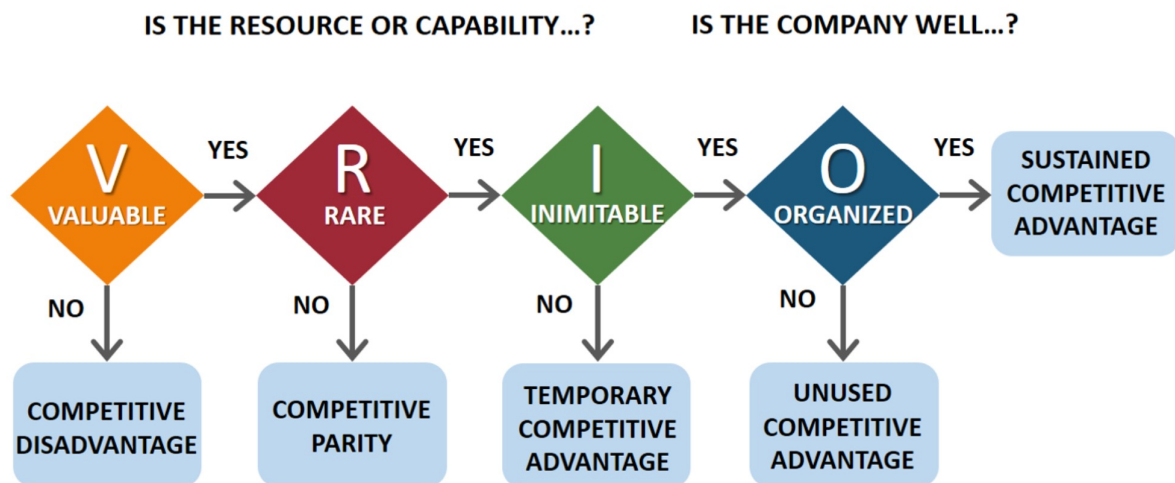


Figure 3.4: VRIO-framework [11]

3.5.2 Portfolio Analysis

There are several ways of conducting a portfolio analysis. An example is the BCG matrix method, which heavily relies on quantitative input, such as revenue or other commercial indicators. This thesis focuses primarily on the organizational and resource-based criteria. HQCC, as a department, is not measured by its financial result, thus making qualitative data more significant. As a result, conducting a specific portfolio analysis for HQCC is not the intended approach. The analysis will rather be based on the theory in Chapter 3.1 and further discussed around this.

3.5.3 SWOT

SWOT analysis is a framework that helps in the evaluation of a company's strategy and competitive position. [28] It works in a manner that identifies positive and negative components, both internally and externally, helping a company make fact-based decisions and knowing all the factors involved in the process. Through SWOT, one can evaluate performance, risk, and potential, among other things, for a whole business or an entity.

SWOT is an acronym for *strengths*, *weaknesses*, *opportunities*, and *threats*, the four elements it seeks to identify and is not complete without each one present in the final result.

Strengths are internal factors that give the business an advantage over its competitors. These characteristics can be qualitative and quantitative; some examples include financial resources and excellent company culture.

Weaknesses are the opposite of the strengths, namely areas where the business needs to improve to remain competitive. [28] For instance, inexperienced management or high levels of debt can be reasons for stagnation.

Opportunities are the external factors that can positively affect the business, but where the company has little to no influence on these factors. An example is market trends.

Threats are also external factors, but those that can unfavorably influence the future of the company. For instance, political decisions such as sanctions would stop exports, and the company itself cannot do anything about that decision. Threats do not necessarily have an immediate effect on the business, and with appropriate risk handling and analysis, those can be avoided. The sub-chapter ?? will cover more on this topic.

SWOT analysis is easy to present in a standardized table with four quadrants. It gives a simple overview of the findings. The points are based on questions such as what the company is doing well, what resources they have, and what can be improved, among others.

This analysis will benefit this thesis as it will provide a clearer picture of the HQCC, combined with other methods, by identifying external and internal factors and elements other analyses may not catch. It is an effective tool for summarizing other findings. [35] The downside of this particular framework is that it could be challenging for an analyst to find out about external factors because of limited access to information, and the data provided from internal sources may be biased without the knowledge about competitors.



Figure 3.5: SWOT analysis diagram [8]

4 Methodology

This chapter outlines the approach and methods used to collect and analyze data for the thesis. It provides a detailed description of the research design, data collection procedures, and how data analysis methods are used.

A wide range of different analyses can provide relevant information for this and similar studies. In this study, the analyses are carefully selected such that they will provide relevant information that is within the project's scope. This aims to establish a foundation of understanding for the reader and analysis that adds value to the project.

Similar to other studies, this thesis also encompasses certain methodological limitations. Since the HQCC is a unique department, it is difficult to generalize the results. The analysis is related to a specific department, so transferring the results to another department is challenging. This means that the results will be unique for the HQCC, but the structure and analyses themselves are transferable. Further, all participants will be anonymized to prevent them from being identified and to not violate the agreement with SLB.

4.1 Research strategy

Planning is an essential step when conducting a case study. The following principles from "Case Study Research and Applications: Design and Methods" by Robert K. Yin will help carry out the research project systematically and rigorously [43].

The first and most important step is to have a clear research question. To obtain this, reviewing the literature thoroughly and clearly understanding the research problem is important. Once the research question is defined, one can start planning the study's design. Further, Yin explains that the case study's design should be based on a series of decisions about the research questions, the scope, data collection methods, and data analysis. The decisions should be made logically to obtain the research question as a red thread throughout the project. This will help the researcher stay on the right topic and, in the end, be able to answer the research question.

Before starting, a detailed research design and strategy will contribute to a better structure. The detailed research design and structure may lead to knowing the research process,

theories that should be included, and critical success factors in advance. This will benefit the researcher and will make the research more predictable. [43]

4.2 Data

Data collection is the process of gathering and analyzing data to answer research questions and hypotheses and evaluate outcomes [2]. There are several methods of collecting data; examples are the observational method and simulation. A way of collecting data are through workshops and interviews, and the following subsections will cover these.

4.2.1 Qualitative research

Qualitative research analyzes and collects descriptive data to understand individuals' experiences of the social reality, motivation, and attitude of the workplace. Qualitative research focuses on the depth of an analysis, rather than the breadth, and the most common method to collect data is interviews, usually with a small selection of representative participants. [20]

4.2.2 Quantitative research

In contrast to qualitative research, quantitative research focuses on quantity. This means that one focuses on collecting as much data as possible, typically through a survey. This is to gather as much information as possible and analyze the answers to draw generalized conclusions.

Quantitative research is often used to investigate relationships between variables, identify patterns or trends, and test hypotheses in a large set of data. The advantage of this method is the ability to produce reliable and objective data that can be easily used and analyzed. But it has its limitations, such as lack of depth, details, and risk of oversimplification. [21]

4.2.3 Primary and secondary data

Primary data is data that is collected directly from the source. This means data that others have not previously collected. Primary data is typically collected through original research, such as interviews, surveys, or observation.

Secondary data is data that has previously been collected by others and is available to others. Secondary data can typically be found in publicly accessible or published sources, such as reports, articles, or online databases.

4.2.4 Choice of method

As previously mentioned, this study is a strategic analysis of a department part of SLB, HQCC. Strategic analysis will be carried out using different tools, including future recommendations and direction choices. This will provide information that will contribute to answering the research question.

The primary data used in this study will be collected through qualitative interviews, as described in the next section. As the questions from the interview are directly related to the research question, this will be the primary source of data collection in this study.

4.2.4.1 Interview

A research interview is a conversation between two persons to collect information. The objective of an interview is to get a better understanding of the research topic. [39]

Indeed's Editorial team has made up a step-by-step guide on how to conduct a research interview. [39]

The first step in the process is to define objectives. It is the foundation for preparing questions, navigating the process, and collecting information. One can study a company's marketing, brand exposure, and finances to identify ways to improve the organization.

The second and third steps are deciding which interview format to use and preparing the questions based on the choice. For the master's thesis, the open-ended interview format often suits best, as it allows the participants to answer the questions in the desired manner, and there are no fixed answers. Other choices can be informal and general formats, among others. With a chosen format in mind, it is easier to prepare the interview questions. Some of them could be about respondents' feelings, opinions, and knowledge about the research topic.

The fourth step is to choose participants. These can be selected based on various criteria, depending on the relevancy of the research. The selection can be established from age,

gender, education, position in an organization, values, or other suitable characteristics.

In the end, the interviewer has to prepare for the interview. Some things that must be done are finding a location, sending invitation emails and describing the process, and ensuring that respondents understand the terms of confidentiality. The last step is conducting the interview. It is important to remember to give the participant enough time to answer the question, not interrupt, and encourage answers by gesticulating that they are understood. Depending on the participant's permission, the facilitator can record the interview in addition to notes [39].

A big part of the data collection of this thesis is based on a workshop and individual interviews with SLB employees. This was carried out physically in SLB's offices. First, individual interviews were conducted with each participant. This was followed by a workshop, with a group of employees in the same meeting room, asking questions, discussing, and going through a VRIO analysis together. This approach has its strengths and weaknesses and is best suited under the following conditions:

- When there is a limited selection
- When it is of interest in how each participant interprets and acts
- When each participant has a knowledgeable position/role in the organization
- When each interview adds value to the analysis

4.2.4.2 Workshop

The intention of a workshop is to create an arena for a group of people to discuss questions, share ideas, and solve problems, to name a few. It is essential to have clear outcomes and, as a facilitator, to state what is expected from the participants. The outcome can be in a physical form, for instance, a document, or simply knowledge sharing and learning from each other. The choice of participants will vary significantly with the challenge of the workshop. An example is strategic planning, where the logical choice is for leaders in each area.

As mentioned above, it is vital to have clear outcomes. One can achieve this by stating not only the objective but also what value it has. Achievable and specific goals will keep the discussion on track. Furthermore, there has to be a facilitator who takes charge of the

process and will guide the group through the workshop. Similar to the team meetings, it is crucial to be well prepared.

In preparation for the workshop, the facilitators should prepare answers to the following questions.

What is the objective and the challenge? Who should participate? How should it be done?

These questions help in planning and defining the process and the scope, making it more effective and leading to a better flow of the workshop. And having a discussion at the end of the workshop summarizing the information will help organize and highlight the workshop's key points.

4.2.4.3 Selection of participants

To obtain the best analysis, it would be necessary to interview each employee. But due to time constraints, this is not possible. Therefore, the first step is to get an overview of the employees and then select people of interest. The selection of people was based on the following:

- Their role in the organization
 - Leaders, project managers, the competency center manager, office managers, and/or HR
- Employees with relevant experience from projects in the organization
- Has time to participate

With assistance from one of the center's managers, relevant participants were identified, and an invitation was sent by email to participate in the data collection. Every participant got information that participation was voluntary and that the information they presented would be confidential.

4.2.4.4 Planning the interview questions

The planning process is an important step in conducting effective research interviews. Therefore, it is essential to plan the questions such that they are designed to elicit the information required to answer the research question. Well-designed questions should

be specific and relevant to the topic. By carefully considering the research question, the interviewer can ensure that the question asked during the interview will provide relevant data and insights to help answer the research question.

Another factor to remember is the question of reliability and validity. The participants and the interviewer will form the interview, and the results are affected by how the interviewer asks the questions and how the participants answer. Furthermore, it is important to remember that participants can exclude some information while answering to maintain the company's reputation. Therefore, it's essential to maintain reliability in the interview process and be critical of the answers.

4.2.4.5 Planning the workshop and interviews

The interviews and workshop aimed to collect qualitative data and were conducted as separate activities on the same day in the SLB office in Tangerang. The face-to-face interviews allowed the interviewer to collect more in-depth data and comprehensively understand it. In contrast to the individual interviews, the plan for the workshop was a group discussion. The subject of the dialog was to help the interviewer analyze the value of the resources in the HQCC, as well as talk about the competitive advantages and disadvantages.

4.2.4.6 Conducting the workshop and interviews

The day started with an introduction to the process, first a round with individual interviews with each participant and then a group workshop. The agenda was sent out and agreed upon before the interviews. Still, it was essential to ensure participants about their rights again, for instance, how the information provided would be used and to what degree will the data be anonymized.

The reason for conducting the individual interview was to set a tone for the rest of the process and give a chance to participate to get comfortable with the facilitators. In this way, it was easier to get a better picture of the department before having the group discussion.

As previously mentioned, the process started with individual interviews. In this part, the interviewee got the chance to answer the questions and build upon the answers from

the workshop without any interruptions. Naturally, as there were two facilitators, one took notes, and the other led the interview. Ensuring the participant felt understood and listened to with gestures and small comments was essential. This way, the participants get more relaxed, might open up more about the topic, and are more willing to share their knowledge. After the interviews ended, the facilitators took the time to reflect on the gained knowledge and make a summary before proceeding to the workshop. The workshop focused on the dialogue between participants, but the interviewers came with insights and were involved in the process.

To respect the participants' time and the planned schedule, the facilitators finished the workshop and the interviews within the set time limit. Furthermore, to ensure that the interviewee covered the necessary information, the interviewer asked each participant if there was anything they wanted to add before the end of the session. Additionally, interviewed participants agreed to be contacted if there were any follow-up questions. Combining the workshop and interviews with a small selection of relevant participants on the same day helped collect enough data to build the rest of the thesis.

4.2.4.7 Processing and analyzing of the outcome

After collecting all the data, sorting out all the relevant data needed to answer the research question is necessary. The data can be included and used in the study by understanding and analyzing all the details and information gathered.

4.3 Quality assessment

The CARS checklist is designed to help researchers evaluate the collected information and increase its quality. CARS is an acronym for *credibility, accuracy, reasonableness, and support* [22].

- **Credibility:** Is a measure of reliability. To determine if a source is credible or not, it can be helpful to ask yourself questions such as: *Why should I believe this source?, Is this source relevant to the research?, How does the source know this information?*

There are several indicators of credibility. For example, if the author has relevant education within the research subject or/and a position in a company relevant to the

information, these are good indicators that the information can be credible. Other good indicators can be if the information is based on research. To strengthen the credibility even more, one can look for evidence of whether the research was peer-reviewed. Writings that have this are typically academic and scholarly publications. It is important to be critical of sources and check that they are quality controlled to gain high-quality information.

There can also be a lack of credibility. Indicators for this can be when there is no listed author. If the provided information is correct, there should not be a reason to hide the author. Many misspelled words and a lack of good grammar can also indicate a lack of credibility. Other indicators of a lack of credibility are when there is no quality control evidence, or the information is from an unknown source.

- **Accuracy:** This is a way to ensure that the information is up-to-date, detailed, and comprehensive. The time the articles were published is important in many disciplines. Medicine and science are examples of disciplines that need to be up to date. Articles and studies from ten years ago may not be relevant today, and therefore it is necessary to use sources that are up to date. It is also important to gather as much information as possible to be able to judge the accuracy because sources may give you information that is up to date, but only some parts of it. A way to get/achieve a more complete analysis and provide accuracy is to use multiple sources for the research. A single source does not provide enough data, so one should use several sources and formats if possible.
- **Reasonableness:** This is a measure of reasonableness. One should check objectivity, fairness, and consistency to ensure that information is reasonable. Finding a purely objective author is almost impossible. Therefore, checking that the writer is as neutral as possible is essential. Regarding fairness, one should look for well-reasoned arguments, and the writer should be factual. The text's tone should be calm, even when arguing essential topics. It is also important to observe that the facts stated in the article do not contradict themselves. If they do, it is poorly written and a sign of a lack of reasonableness.
- **Support:** When searching for information, looking for other sources supporting the same information is essential. Usually, articles use information, such as data,

from other sources. Therefore, it is important to check out these sources and their credibility. Indicators of support can be when the author has referred to reliable sources supporting his/her statements, proper documentation, claims are supported by facts, and clearly cited sources. Indicators that show that the article lacks support are also possible to find. This is typically when the article states data without sources, if there are no other sources providing the same information or claims that lack evidence.

Few sources will meet all the listed criteria, but the checklist will help collect high-quality information and detect poor-quality information.

4.4 Analysis approach

The choice of analysis tools is based on the ability to contribute to answering the research questions. Multiple elements of interest in focus can ensure this thesis's comprehensive and relevant outcome. It was a difficult decision to make, and different frameworks were considered. The theoretical foundation of utilized ones is present in the chapter 3. The following section covers the why and how of the chosen analyses.

4.4.1 VRIO

VRIO analysis is a framework used to evaluate a company's resources and determine its competitive advantages. The focus of this thesis will be the former mentioned.

The VRIO analysis helps to identify the strengths and weaknesses of the company's resources. The aim is to determine which internal capabilities are considered most valuable, rare, imitable, and organized. These capabilities do, to some degree, predict competitive advantage or growth [33]. Performing a VRIO analysis will help to make informed conclusions and have cohesive results as an outcome of this report.

Input to the analysis comes from the interviews and the workshop. In the workshop, the topic was VRIO, as written previously in this chapter. It provided insight into how employees in the HQCC think and their perspectives on the department's resources. The observations from data collection methods are the foundation for the analysis, and the objective is to strengthen it with our opinions and insights.

4.4.2 Portfolio analysis

To better understand the department, getting an insight into various aspects of the business is essential. The department's basis is the portfolio and the products HQCC develops and tests. An analysis of portfolio building and management will provide the necessary insight to describe the level of diversity and risk awareness. Also, this helps develop more structured and relevant suggestions in the conclusion of the thesis. As written in the theory chapter, other frameworks and analyses will be utilized to form a foundation for further discussion of the portfolio.

4.4.3 SWOT

The SWOT analysis will help identify the company's strengths, weaknesses, opportunities, and threats. In this thesis, it will be used as a summary of all the results and analyses carried out. This will be done by reviewing all the findings from the study, and based on these, the strengths, weaknesses, opportunities, and threats will be organized into the SWOT matrix. With this, HQCC will receive a comprehensive overview of the key factors that could impact the company.

5 Discussion and Analysis

This chapter is divided into two parts and includes both results and discussion. The first section addresses the three research questions defined in the introduction section 1.1 and explores the data obtained from the interviews. The second part focuses on the VRIO framework, which is conducted as a workshop aimed at analyzing resources and capabilities. Finally, SWOT analysis helps in summarizing the findings. Together, these sections provide comprehensive insight into the research subject, facilitating recommendations for future research.

5.1 Research Questions

5.1.1 What are the most critical factors for the department's ability to increase its project portfolio?

In addition to the scheduled interviews, there was a session with the management to explore HQCC's portfolio strategy. To some extent, HQCC relies on the larger SLB organization for project acquisition. Multiple individuals in the department are actively involved in creating the portfolio, which begins with a customer's request and their contact with SLB headquarters. From our perspective, this structure restricts HQCC's mandate to develop its project portfolio. On the other hand, without a well-known reputation and recognition, it might be the best way for the center to grow its portfolio and customer base. Furthermore, there is a reason to think that one of the strengths of relying on the greater organization is the access to an established customer base, providing a steady stream of project opportunities to HQCC and thereby representing a platform for growth. HQCC can also benefit from knowledge sharing, access to different types of technologies, and support from experienced professionals at the SLB Headquarters. In this way, they can enhance the quality and efficiency of HQCC's projects. Conversely, there are also downsides to this dependency. Limited autonomy for project acquisition can constrain the center's ability to explore new and upcoming opportunities. Additionally, as HQCC's reputation and recognition are not fully developed and recognized outside of SLB, this can decrease HQCC's ability to expand into new markets and ultimately attract customers

outside of SLB's scope.

Refer to Figure 5.1 for an illustration of the process.

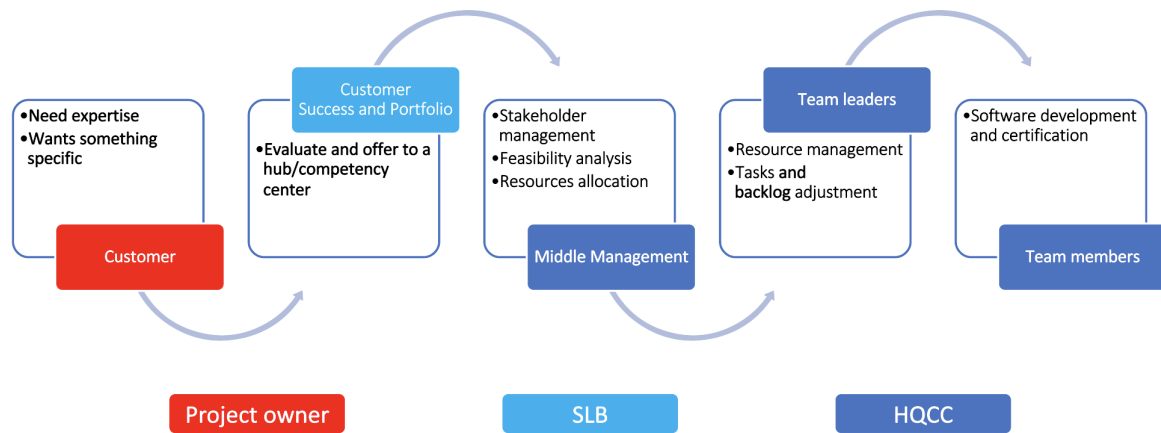


Figure 5.1: The Project Selection Process in HQCC

Chapter 3.1.2 outlines five steps for successful portfolio project management. The first step, "Clarify Business Objectives," is effectively implemented in HQCC. This is confirmed by every participant in the interviews, one saying *"The management knows what are the objectives and what is necessary to accomplish them."* The employees building and managing portfolios seem to have a clear understanding of the goals and how to work toward them. An interviewee said: *"The management makes sure that everybody involved understands targets and has insight into what is going on in HQCC."* It is vital to have this clarification as it brings clarity, motivation, and personal growth to employees, to name a few elements.

According to management in the department, new projects usually come from headquarters. This can lead to limited portfolio diversification and potential competence gaps as projects may not perfectly align with the center's core competence, which can further lead to challenges in delivering optimal results. On the positive side, this can provide HQCC with enhanced resource allocation, such as funding, or new technologies, to support the center's projects. This enables the center to deliver higher-quality products and services and to increase their competency. As they stated in the interviews, research on the client and project specifications is conducted to assess feasibility prior to involving team leaders and allocating resources. This indicates a clear structure in the decision-making process and the realization of the second step in Portfolio project management as written in chapter

3.1.2. This assists the management to make informed decisions and improve feasibility assessment and thereby contribute to a better overall evaluation of the project's viability and the center's ability to deliver the desired results. However, there is a reason to believe that excessive time spent on research can also negatively influence the project. It can lead to delays in project initiation or decision-making processes, unless it is managed effectively. Furthermore, it is vital for HQCC to communicate its capabilities, provide input in project selection processes, and proactively seek opportunities to develop its own portfolio in order to mitigate potential negative consequences.

Nonetheless, based on the interviews, the third step (selecting the best projects) has its limitations in the context of HQCC, as a manager disclosed the following: *"Different projects belong to various portfolios owned by other departments."* This is due to the center being limited to the projects backlog coming from the field and portfolio organizations. There is no active business development outside of this scope, which ultimately limits choices. However, since there are more projects than HQCC can take on at any time, they are still experiencing growth for now. In the future, they can benefit from having such business-centered resources that can look at the bigger picture of what projects are potentially out there. As a result, this can have a negative impact on the composition of the HQCC portfolio. In this situation, the center's objectives may not align with the selection of projects, deviating from Enoch's portfolio contribution recommendation and presenting a challenge for the management. To succeed as a global competency center, it will be necessary for HQCC to build a strong internal reputation within SLB. A way of achieving this is to gain recognition by establishing themselves as a valuable and trusted center, by demonstrating their capabilities, and expertise. HQCC should prioritize continuous learning and improvement and effectively communicate the value and benefits of their competency center to the broader organization. The above-mentioned suggestions can provide HQCC with more autonomy, giving them the ability to shape their own portfolio strategy based on the center's unique expertise, market insights, and long-term objectives.

Additionally, the final step in the Portfolio management process, based on "The Standard for Portfolio Management" [26], requires careful consideration within HQCC, as it is significant for the department's financing. Like other SLB units, HQCC must present its

results and plans to executive officers, demonstrating the department's value commercially- and competence-wise. To successfully present their case, HQCC must measure and evaluate performance continuously. Underperforming can lead to a budget reduction. This makes it more difficult for HQCC to take upon more significant and resource-demanding projects, leading to stagnation of the center or, even worse, contraction. This can negatively influence the reputation of the center, leading to further challenges in achieving the center's objectives and long-term goals.

In addition to the previously mentioned factors, portfolio selection criteria play a crucial role in expanding a project portfolio, as the theory suggests. Although HQCC is part of SLB, making it easier to identify opportunities, the final project decision rests with HQCC management. This will allow HQCC to increase on building their own portfolio, aligning projects and objectives.

The ability to achieve defined goals can contribute to the center's overall growth. It will make it more likely that they can play a more prominent role in SLB, and also more likely that they will become a global actor and by gaining international recognition. By doing so, HQCC can ultimately gain better control over its portfolio development and competence needs. Financial considerations, legal aspects, and different commercial models are areas that need careful assessment before project approval is granted. From our point of view, the mentioned aspects have both positive and negative consequences for the management. On one hand, it ensures compliance and reduces financial and legal risks, increased credibility, and enhances decision-making. On the other hand, an in-depth assessment can be time-consuming, delaying project initiation and potentially increasing costs. Additional expertise and resources can be necessary to handle more complex financial and legal aspects.

Overall, an assessment of the above-mentioned factors is essential for responsible project management. While it adds complexity and may limit immediate action, it ultimately safeguards the organization's interests, reputation, and long-term success. Striking the right balance between safety and efficiency is crucial, and effective management practices ensure that these assessments are conducted diligently while avoiding unnecessary bureaucracy that could hinder progress.

According to one manager, market and competitive analysis is a task that must be

performed in an early phase of a project, *"We must make sure that the service does not already exist in the market, to not waste resources on already existing solution."* Furthermore, a manager states that hubs like HQCC typically do not engage in long-term projects and that other internal centers compete for the same projects. From our understanding, HQCC often serves as a unit that closes gaps, when necessary. This way, they can prove their efficiency and competence. However, a lack of long-term projects can often lead to changes in the portfolio, leading to greater difficulties in portfolio management. On the other hand, taking upon long-term projects can prove that HQCC is up to the challenges, making them more competitive internally and externally. Considering this situation, the management needs to be critical when selecting projects, aiming to establish a stable and resourceful center that SLB can rely on. By doing so and providing unique services, HQCC can become more competitive both internally, within the organization, and externally, in the international market.

Right competence and advanced project management capabilities are critical for HQCC to increase its portfolio. It is also correct to state that other factors, such as access to capital and effective marketing strategy, will be crucial. As previously stated, HQCC operates in a niche that can represent a competitive advantage if the opportunities are appropriately utilized and built upon. However, to increase their portfolio into other segments, there is a reason to believe that it is crucial for them to focus on several areas that can represent a future competitive edge. The ability to build competence, deliver quality work, and be market aware of being more competitive internally and externally are areas of importance.

There is a reason to believe that HQCC has the necessary resources to expand its services to serve different segments within the oil and gas industry. This enables the department to have a wider client base and a more diversified portfolio. Furthermore, our opinion is that they should encourage continuous learning and invest in the development of employees. By doing so, HQCC can deliver quality work, maintain a competitive advantage, and attract both new talents and customers. Excellent service and addressing client concerns are other factors that can influence portfolio building. Satisfied customers are more likely to come back and refer HQCC to others, thus contributing to the center's project portfolio. On the other hand, they have to take upon projects carefully, measuring against the center's objectives and availability of resources. A careful balance between new prospects and the

maintenance of already existing projects should create enough value for the department to keep expanding.

5.1.2 What significance does the company's investment in diversity have for the opportunities for growth?

In the interviews, participants highlighted the value of people as a crucial factor for the center's growth. All participants called attention to the competitiveness that arises due to the fact that the department acts like an independent business unit in SLB. Therefore, it was highlighted that differentiation in competence among employees in the department is of high importance. One participant stated: *"The people in HQCC are the main resource of the department. As a hub of a big company, we must choose employees carefully and ensure that we bring out the best in them and give them the necessary training."*

Other participants agree with this statement. To succeed strategically it is important to achieve differentiation among the employees in several areas. This will broaden the competence within the department and provide expertise to keep up with competition in the industry. This way, the fourth step for successful Project Portfolio management, mentioned in Section 3.1 will be even more fulfilled.

These factors highlight the significance of diversity in HQCC in order to expand its services. This also demonstrates that the management is aware of the value that a diverse workforce represents for the company's ability to succeed internationally. As a result, HQCC is cautious in the recruitment process by carefully selecting individuals who can bring value to the department while also considering diversity. Data collected displays 16 nationalities among 36 employees. 33 % of the employees are female, which is significantly high among technology companies. This demonstrates that HQCC's recruitment process is in alignment with Traavik's [16] and Ely and Thomas' [17] main points in building an optimal workforce.

Additionally, all participants reached a consensus that information processing and problem-solving skills were improved when having employees with broad competence and diverse education. These findings support the validity of the theory about information processing and problem-solving presented in Chapter 3.2. No one mentioned the negative effects of diversity. This might be due to management's attention to building and developing a

business culture based on values such as respect and tolerance for multiple differences. It is also possible that people are highly experienced with problem-solving in a diverse environment, and that conflicts are handled well. Still, there is reason to believe that diversity does come with some communication and cooperation challenges. Research in the field indicates that broad competence can lead to different problem-solving processes among employees, leading to skepticism toward other's perspectives and solutions, indicating that diversity can unintentionally result in negative outcomes, as Gardenswartz and Rowe's findings show [19]

On the other hand, some of the participants brought attention to the one of negative sides of having a diverse workforce; the communication barrier. English is the working language, which is not the first language of the majority of employees. Having most of the workforce communicate in their second language can lead to communication barriers and misunderstandings. This shows that the department is aware of this issue. Comparing the findings with a third theory on diversity, the results indicate that this theory is not always valid regarding information processing.

Another theory discussed in Chapter 3.2 is the "Similarity attraction theory". One mentioned sub-group that was formed was among "new" employees. These groups were often disbanded as the new employees got to know the rest of the department. Besides this, there were no clear signs of the "Similarity attraction theory" in this department. Therefore, it is difficult to say whether the "Similarity attraction theory" is valid or not for this population. The consequences of such sub-groups can be negative for workplaces making it difficult to adapt and feel welcome in a new environment. A reduction in the quality of services and products can also occur, decreasing the success rate of projects and leading to a negative reputation for the department, which contradicts the theory of good project portfolio management. The management should actively work to prevent sub-groups from developing by striving to develop an inclusive work culture. As mentioned, these groups were often split. A reason for this can be that the management arranges social events creating an area where employees get to know each other professionally, socially, and personally. During the interview, one manager also mentioned that they intentionally place employees, in the same office, on different projects, forcing them to leave the office to discuss their projects with other team members. This action encourages

them to leave their offices to interact with other employees, avoiding the formation of exclusive sub-groups.

The final theory in this thesis related to diversity is the “Social identity and self-categorization theory”. Like the previously mentioned theory, it is challenging to determine its validity within HQCC. However, there are indications of the theory being present, like self-categorization as "us leaders" and "you employees". But these can be viewed as natural formations due to the employees’ position and organization hierarchy. Further, there are no indications that the individuals systematically favor their group and have biases towards other groups, going against the theory. One answer to this can also be the traditions and experience within HQCC for having a diverse workforce, and that the management addresses these challenges as an integral part of their management role.

A factor to remember about similarity attraction theory and social identity and self-categorization theory is that they represent negative aspects of diversity. Therefore, it is negative if you observe signs of this in the workplace. A reason for almost no signs of these theories can be that the participants do not want to admit that there is an indication of a negative culture in the department, making it difficult to conclude whether the theories are valid due to a lack of data. Another reason is that it can be difficult for an individual to realize and be aware that they are part of a negative culture that has arisen. There are also contradictions within the data, where one of the participants states, "I do not see any negative sides from high diversity" while another participant says, "Sometimes it can be miscommunications among us". A better overview of whether the theories are valid may be possible by further investigating the department and interviewing more individuals. An anonymous survey could possibly provide more extensive answers to this question.

Investigating the theory of "Information processing and problem-solving approaches” brings value to the company and to the management of HQCC. Data shows a high degree of achievement in problem-solving and information processing, and there is reason to believe that the reason for this is different competence and education among the employees, as the data also confirms.

Further, the fact that HQCC is a newly established entity that entails specific challenges, the general communication in the department seems to be good, while some participants noted difficulties with management communication regarding the company’s

objectives. Other participants gave vague answers regarding this topic, indicating possible misunderstandings or unclarities in the department's goals and ambitions. Difficulties in communicating objectives can lead to consequences such as reduced productivity, stress, and missed business opportunities. This can also make the company less attractive to people with high competence and ambitions, and thereby reduce the center's reputation both internally and within different professional groups. Traavik's theory in "Det Gode Arbeidsmiljø" suggests that diverse environments can contribute to these misunderstandings and communication challenges [16]. Although there is no evidence that diversity is the cause of miscommunication in this case, the presence of diversity within the management, including their various backgrounds, can explain the challenges in effective communication leading to misunderstanding, referring to Traavik.

During the interviews, one of the participants said: *"There are sixteen nationalities in the department, and 33% are female. Apart from the geographical diversity, employees have different backgrounds, educations, hobbies, and interests. There is also a diversity in experience, with a healthy balance of juniors and seniors."* providing us with exact numbers on nationality, gender, and additional information. This data indicates that HQCC has successfully recruited people with a high degree of diversity among its 36 employees. And according to the report conducted by McKinsey [24], HQCC is in the top quartile for diversity and will have a higher probability of achieving greater financial returns. This leads to the belief that HQCC is aware of the benefits of diversity and is maintaining diversity in the department. By developing a culture that embraces diverse perspectives, the department can achieve a higher innovative potential, leading to a greater competitive advantage. This will only be implemented if the positive aspects of diversity outweigh the negative. If not, having a diverse workforce in the department may work against its intended purpose. Therefore, the management should ensure that the work environment is inclusive and proactive in preventing potential conflicts and communication barriers.

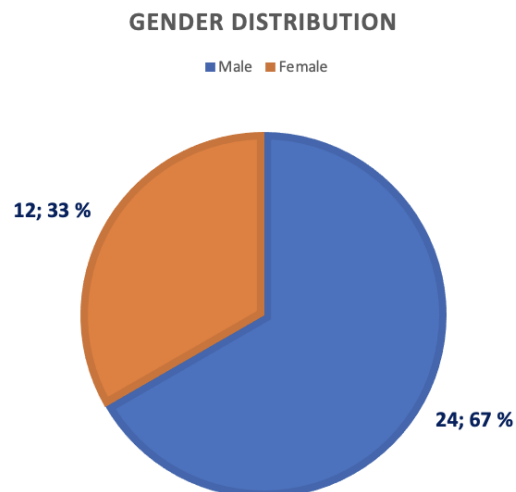
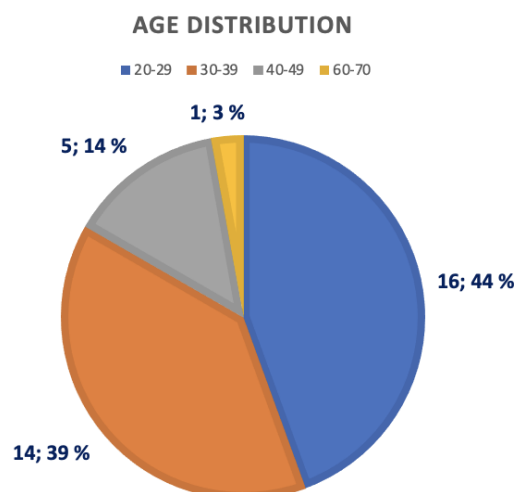


Figure 5.2: Age Distribution in HQCC **Figure 5.3:** Gender Distribution in HQCC

5.1.3 How does the department's current marketing communication affect the opportunities for strategic success?

One participant in the interview highlighted that the long-term strategy is crucial for future success. He said: *"Our strategy involves offering services at low prices to capture a larger market share, demonstrate value, and subsequently adjust prices to increase profit."* From our understanding, marketing communication is crucial in achieving this. Based on the data from interviews, one can conclude that relatively few individuals are directly involved in the marketing process at HQCC. SLB is responsible for full-scale marketing with HQCC's deliveries as an integrated part of SLB's marketing communication.

According to a manager at the center: *"The sales point is the value and uniqueness of services created in HQCC."* This clearly defined objective and goal align with one of the steps described by Kotler and Kehler's theory about Marketing Management (see Chapter 3.3.2 for more details). Clear objectives and goals provide a direction and focus for marketing communication efforts. Furthermore, clear goals make it easier to allocate resources, measure performance, and track progress toward the desired outcomes. The manager's statement suggests that marketing such efforts will likely revolve around communicating and promoting the value and uniqueness of services to existing and potentially new clients. It is likely that branding and advertising strategies that

effectively convey company values are important in building a unique brand. Furthermore, it demonstrates that the management recognizes the importance of highlighting the differentiating qualities of their services as a contribution to a competitive advantage. A clear vision enables the center to align its marketing strategies toward achieving defined objectives and increasing sales and profits.

Although some steps are more obvious than others, the interview and data indicate that the "messaging" element of a marketing communication strategy 3.3.2 can be another aspect the management has fulfilled. It plays a crucial role in showing the importance of services to potential clients. In the interviews, participants did not explain in-depth how the messaging is in the center, but they were sure that there are people working on it. Effective messaging in marketing communication brings a competitive advantage, a positive brand reputation, enhanced customer engagement, and improved brand recognition for the HQCC. Based on the theory from Chapter 3.3.2, there is a reason that these consequences contribute to the long-term success of HQCC and the accomplishment of its objectives.

While the messaging aspect of marketing communication offers several positive consequences, it also carries some potential downsides for HQCC. There can be a risk of exaggerating or making misleading claims in HQCC's desire to highlight the value and uniqueness of its services. Misrepresenting the center's capabilities can damage the reputation of the brand. Another issue that can arise is the lack of differentiation, which can make it challenging to capture a larger market share. Potential clients may not perceive any significant differences between the HQCC and its competitors, impacting the center's profitability and reducing the value of its brand. Negative or failed perceptions by customers can make it difficult to establish strong relationships with clients, further impacting the HQCC's objectives, goals, and brand.

However, data from the interviews imply that HQCC is known for its effectiveness, reliability, and quality. While the target audience was not explicitly discussed, management comprehensively understands customers and has a planned approach to reach them. In addition to leveraging SLB's reputation for developing the center's own reputation and promoting its services, management should continue their focus on metrics and measurements to learn and further build marketing communication.

One of the responses to the opening question, *"What are the crucial factors for a*

company to grow successfully?" (Appendix A1), was reputation. In Chapter 3 five factors contributing to a company's reputation were listed. According to employees, partners and customers express satisfaction with HQCC's services. During the interviews, employees expressed varying opinions regarding resource utilization. However, there is an agreement among them that the products and services, after an initial adjustment period, receive only positive customer feedback. Receiving positive feedback from clients can be attributed to the quality of the products delivered and to effective communication. We were assured that customer expectations are always transparent. This transparency helps establish stable relationships with customers. This is also supported by a participant's comment: "The feedback is positive, and our relationships with customers are strengthened each day."

The last suggestion from Kotler and Keller (year)[30] was the effect of crisis management on building and maintaining a good reputation. Because of a lack of insight into relevant crises HQCC has encountered and how they have dealt with them, there is not enough data that can provide a deeper insight into this topic. Still, there is a reason to believe that the management has the knowledge and experience to handle such situations and mitigate risks. It is important to recognize that crisis management is not just about reducing the negative impact, but also exhibiting resilience, transparency, and commitment to stakeholders. The management performance also reflects also on the larger SLB organization, making it more important to implement robust crisis management practices. With this approach, HQCC can further enhance its reputation and increase stakeholder trust.

5.2 VRIO

A VRIO analysis was conducted in parallel with a workshop, allowing the participants to come up with resources and capabilities that were considered important for the department's growth. Additionally, a few entries based on collected data in the interviews that seemed necessary for the overall result to achieve a comprehensive analysis were added. The analysis will focus on the following elements: personnel, products, quality of service, platform strategy, and brand.

The first element that participants discussed was personnel; their experience, and competency. Based on the discussion in the workshop they concluded that people in the

department and their competency represent the most valuable resources. One challenging part of the VRIO is to decide whether or not the resource is rare or inimitable. One of the participants stated: *"From one point of view, software and other engineers are not challenging to find, and the knowledge they provide is not rare in any way, but the people with the necessary knowledge to develop products in HQCC are rare."* The fact that some projects demand a deeper understanding of technology and domain knowledge makes some engineers particularly rare and difficult to replace, especially those with significant experience. This is achieved by proper training and follow-up of the employees, but it demands a lot of management attention. Based on the input from management, it seems that HQCC invests significant resources in training to provide employees with the necessary skills and competencies. This includes different types of courses and hands-on training with customer requests and products. Therefore, the employees are viewed as both valuable and rare, and to some degree, also imitable.

Furthermore, having personnel with broad competence and expertise within different fields indicates that HQCC has great diversity in their department, leading to a range of potential challenges and benefits. Therefore they should be aware of the negative aspects which are presented by Traavik, Gardenswartz, and Rowe [16] [19]. Diversity may result in lengthier problem-solving, power imbalance, and conflicts. This demands proper management attention and seniority among the employees and supporting business culture.

Regarding the question related to organization, the participants claimed that HQCC is ready to utilize personnel and their competence in the right way and has everything planned and very structured. SLB, including HQCC, is known to have a structured organization. Still, there is a reason to believe that this represents a challenge for HQCC, like any other organization. It might be that the management is highly skilled to handle such challenges, and that they have, but the participants not pointing out any challenges, decreases the credibility. Every organization has its challenges, and the absence of participants pointing out any challenges within the organization can decrease the credibility of their statements. It is unrealistic to expect that the organization is not facing any difficulties, especially since HQCC is a new department. Starting up new departments almost always presents challenges that are impossible to predict. Without further information, it is therefore

difficult to state whether the personnel is organized or not. Furthermore, it is crucial for the management to focus on identifying potential challenges within the HQCC. The management can build a stronger organization by implementing measures to prevent these challenges.

Another discussed topic was products and portfolio, or projects HQCC is involved in, to be exact. A participant stated that several thousand users use products developed and maintained by HQCC. External clients demand very specific project requirements, which involve a wide range of competencies. They further explained that every project has a solid business case. As it has to fit in on short- and long-term portfolio plans, stakeholders have to understand it well.

The above-mentioned facts make these projects valuable and rare. In addition, projects are often specially tailored for distinctive customers, which increases the complexity utterly. An interviewee said: *"For many functionalities and projects, customers have to work with HQCC. But in other cases, they can go to another supplier."* From this, it is reasonable to conclude that the products are only partially inimitable. Customizing projects for individual customers can require more resources and expertise. This fact allows HQCC, with its variety of competencies, to argue that competition poses less risk to them. A manager stated that HQCC rather partners with other companies than agree for a customer to leave for them. Another participant noted: *"The project process is very structured, from choosing what projects to take to delivery and follow-up. Everybody in the project team knows what is happening, and the customers highly appreciate this."* This illustrates again that the first step to a successful project portfolio, "Clarify business objectives" as described in Chapter 3.1.2, is fulfilled.

These findings indicate that HQCC has a strong portfolio of projects, products, and services. A significant user base and ability to match specific requirements from external clients support these findings. Without further evidence, the claim that every project has a solid business case can appear optimistic. Understanding how the organization ensures the viability and success of each project would be helpful for the discussion, especially considering that they describe projects as rare and tailored to different customers.

As previously mentioned, a participant stated that customers sometimes have the option to choose other suppliers for certain projects. Still, it is not clear which factors that

influence choice of supplier, or how significant other options actually are. The participant's statement indicates that HQCC's products and services are unique and give an advantage to some degree, but it is hard to conclude whether the competence that is involved can be imitated. The competitiveness and differentiation of HQCC's market offerings are difficult to assess without additional information. For the management, it will be of high significance to explore this in further detail to be able to meet customer needs.

Additionally, these projects and general performance in HQCC are of high quality. This creates value and adds a competitive advantage to HQCC. As several participants explained, it is partially because of the center's location in the midst of the SLB's headquarters. Here developers get a chance to sit with other employees, such as quality assurance testers, giving them quicker access to the necessary information and resources. This can strengthen collaboration and communication, which are essential for project success. However, there is a reason to believe that this advantage depends on how effective the internal communication is within SLB. Inefficiency and bottlenecks in SLB's communication channels could potentially hinder HQCC's ability to access the necessary information on time. To prevent this, HQCC should promote a culture of transparency and open communication and aim to eliminate unnecessary steps and delays. Implementing project management tools and collaboration platforms is a way of contributing to effective communication, ultimately enhancing project success.

Service quality is an important sales point for the management. Other companies seek to compete with HQCC. Since SLB owns the main software platforms, the quality assurance process goes through SLB's platform. The consequence is that it takes a shorter time for HQCC to finalize a project than other companies. One of the participants said *"From experience, internal communication in SLB gives a huge advantage for HQCC and the employees here, as our employees receive help faster and can focus on the actual work instead of waiting for feedback or similar."* This creates value for HQCC, and it is important for management to utilize it. Nonetheless, it is important to consider potential downsides. Being excessively reliant on SLB's systems could hinder the center's ability to explore new solutions independently and adapt to changing industry trends or technologies.

All facts considered, HQCC may offer a higher quality of service and higher margins for the work, and based on responses, customers are ready to pay a premium for the added

value. However, the claim that they are willing to pay a premium for added value was not backed up by specific examples or data to support this statement. Market dynamics and customer preferences, however, can change over time. It is therefore important that HQCC should continuously evaluate whether its pricing aligns with the value they offer, and thus remains competitive in the industry.

SLB owns its own software platforms, such as Petrel and Techlog, which are standard tools in the industry. *"HQCC is using this dependency to create value for the department."* The platform strategy that HQCC uses is familiar, but it is not easy to imitate such a big platform. This creates value. As a part of SLB, HQCC can guarantee the maintenance of products and functionalities and make customers dependent on the products. A participant exemplified this by the following analogy: *"Experienced iPhone users rarely change their cellphones to Android devices, as they use iOS."* and further explained that even though another phone is better than an iPhone, has better functionalities, and costs less, the user will still prefer the common technology. People seem to be loyal to their previous choices even though other products provide added value. They experience that clients of SLB and HQCC prefer to work on their platforms and with their products and that other solutions do not create sufficient additional value for them to change.

The strategy of leveraging customer dependency on SLB's software platforms can have both positive implications and downsides. For instance, a sense of familiarity and dependence can lead to increased customer retention rates. This strategy provides a base for long-term business relationships and steady revenue for the larger organization. The data indicates that this platform strategy provides HQCC with a significant competitive advantage, as it can be a barrier for competitors to persuade both new and already existing customers. In this way, the HQCC has an opportunity to become a market leader.

On the other hand, if HQCC relies heavily on customer dependency within the oil industry, the management can be discouraged to explore new approaches and utilize new or other technologies. This can make them vulnerable to other competitors, both internally and externally. This can further lead to a negative perception of the department, erode trust in technology and services and consequently weaken HQCC's reputation in the market.

HQCC's reputation in the market comes primarily from the greater organization, namely SLB. A participant said: *"HQCC is just one hub out of dozens of others in the greater*

organization. The SLB brand is strong and produces value in reliability and success stories across the board." Another participant added that even though it is not rare for SLB to have hubs, the rarity comes from each one having a specialization or a niche they operate in. For HQCC, the niche is "plug-ins." In order to grow and achieve success, they should stick to their domain. This will make HQCC experts within their domain and differentiate themselves from competitors. By doing so, HQCC can position itself as the go-to hub for customers seeking plug-ins. Additionally, HQCC should internally compete for new technologies and projects, as they possess enough competence and are constantly proving the center's value. This can lead to a potential expansion.

The following figure summarizes the results of the VRIO analysis:

| | V Valuable | R Rare | I Inimitable | O Organization | Result |
|--------------------|---------------|-----------|-----------------|-------------------|-----------------------------------|
| Personnel | ✓ | ✓ | ✗ | ✓ | Temporary competitive advantage |
| Products | ✓ | ✓ | ✗ | ✓ | Temporary competitive advantage |
| Quality of service | ✓ | ✓ | ✓ | ✓ | Sustainable competitive advantage |
| Platform strategy | ✓ | ✗ | ✓ | ✓ | Temporary competitive advantage |
| Brand | ✓ | ✗ | ✗ | ✓ | Competitive parity |

Figure 5.4: Summary of the VRIO results

5.3 Summary using SWOT

In the last part of this chapter, the SWOT analysis is presented, which is used to summarize the conducted analysis and results throughout this chapter. While the thesis primarily focuses on the internal prerequisites for HQCC, it is important to acknowledge that external prerequisites also impact the department internally. The SWOT analysis is used to assess HQCC's internal capabilities, growth possibilities, and risks. Utilizing the SWOT analysis can effectively summarize the key findings in this thesis.

| | HELPFUL | HARMFUL |
|----------|---|--|
| INTERNAL | <p>Strengths:</p> <ul style="list-style-type: none"> - Clear understanding of business objectives and goals - Competent employees with diverse backgrounds and expertise - Effective communication and reputation for reliability and quality - Leveraging SLB's reputation to further promote HQCC's services - Strong portfolio of projects tailored for specific customers - Structured decision-making process for project selection | <p>Weaknesses:</p> <ul style="list-style-type: none"> - Limited influence in decision-making for project portfolios owned by the other departments - Communication challenges and potential misunderstanding due to diversity - Lack of long-term projects leading to difficulties in portfolio management - Uncertainty regarding the validity of similarity attraction theory and social identity theory - Lack of recognition and reputation outside of SLB |
| EXTERNAL | <p>Opportunities:</p> <ul style="list-style-type: none"> - Expanding portfolio in other segments by building competence and delivering quality work - Utilizing diversity as a competitive advantage to attract new clients and gain international recognition - Strategic marketing communication to capture a larger market share - Gaining recognition as a valuable and trusted center - Prioritizing continuous learning and improvement - Expanding services to serve different segments within the oil and gas industry | <p>Threats:</p> <ul style="list-style-type: none"> - Competition from other internal centers for the same projects - Potential miscommunications and negative cultural aspect related to diversity - Resource constraints and budget reductions for underperforming projects - Inability to handle long-term projects leading to portfolio changes and stagnation |

Figure 5.5: SWOT; Summary of the chapter

6 Conclusion

For HQCC to succeed as a global competency center, there are several internal prerequisites that need to be considered. HQCC's current structure relies on SLB's project acquisition, which has both advantages and disadvantages. This provides the department access to an established customer base and resources, but on the negative side, it limits the center's autonomy and ability to explore new opportunities. To overcome these limitations, HQCC needs to focus on building a strong internal reputation both within SLB, and as an independent competency center. This can be done by demonstrating its expertise, capabilities, and value to the organization and to the external market. In addition, for HQCC to develop its own portfolio and expand into new markets through effective communication, continuous learning, and project selection processes seems to be crucial.

In today's situation, it seems strategic for HQCC to continue to function as an internal department within SLB. This allows HQCC to continuous improvement through SLB's resources, expertise, and industry network. By being an internal department in SLB, HQCC can align its goals with SLB's business strategy, ensuring long-term success in the oil and gas industry.

The five steps of successful project portfolio management, as defined in Chapter 3.1.2, provide a recommended framework for HQCC. Based on the collected data, the center has well implemented the first step, clarifying business objectives. However, there are obstacles to fully accomplishing the second and third steps, which involve selecting the best projects and aligning them with HQCC's objectives. Currently, the center is limited to the projects backlog coming from the portfolio organizations, which limits their ability to shape their own portfolio strategy. To address this challenge, HQCC should strive for more autonomy in the project selection and acquisition process, while still aligning choices with the center's competence and objectives.

Another aspect to consider for the center's success is continuous performance evaluation. In the interviews, participants emphasized that the center must present its results and plans to the upper management, demonstrating its commercial value and competence. Underperformance can lead to budget constraints that can limit the center's ability to take on more significant projects. Therefore, HQCC needs to measure and evaluate

performance continuously, while also taking into consideration other aspects of the project approval.

Diversity within HQCC is also essential for the department's growth and competitiveness. Therefore, their recruitment process should continue selecting individuals that can bring expertise and value while considering diversity. In addition to improving information processing and problem-solving skills, a diverse workforce poses communication and cooperation challenges. The department must promote an inclusive work culture to prevent the formation of sub-groups. By promoting diversity and inclusion, HQCC can achieve a workforce that delivers quality projects, and attract new talents and clients. This further help in expanding its services to different segments within the oil and gas industry.

Conducting further research on HQCC's position and reputation within the greater SLB organization can provide valuable insights into this study. Interviewing individuals from various departments can be beneficial and gain a comprehensive overview of HQCC. This will give the study a better understanding of HQCC's position within the organization and identify areas for improvement.

To summarize, with a focus on internal prerequisites such as reputation building, financial management, and diversity, HQCC has a potential to succeed as a global competency center. HQCC has an opportunity to position itself as a leading international actor by leveraging its unique expertise, delivering high-quality services, and being market aware. Furthermore, continuous learning, effective marketing communication, and project portfolio management strategy can contribute to HQCC's objectives and goals.

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Appendix

A1 Interview Questions

1. What are the crucial factors for a company to grow successfully?
2. Which three factors are most important concerning local and international growth?
3. How has the transfer from Tyumen to Tananger affected the possibilities to grow and achieve success?
4. How is HQCC's marketing strategy adapted to the growth ambition?
5. What are the advantages and disadvantages of HQCC's recruitment model?
6. How is the diversity among employees in HQCC?
7. How would you describe the utilization of resources in the organization?
8. How significant is the fact that HQCC is operating under SLB brand?
9. How is HQCC perceived internally in SLB?
10. How would you describe HQCC's position towards external partners/customers?
11. Who are your competitors, and what have they done to succeed?