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Author: Julie Tafjord	..... Julie Tafjord ..... (sign. of author)
Programme coordinator: Supervisor: Finn Harald Sandberg External Supervisor: Ida Hassan	
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Summary

The oil and gas industry on the NCS is on the rise again after a bad period due to the fall in the oil price. This has made the E&P companies realize a need for less costly solutions and a focus on reduced costs on the project lifespan value. With procurements being the most considerable expense to these companies, it is also the greatest source of potential cost reductions. A resurging measure in the attempt to reduce costs on the NCS is alliance contracts.

This thesis will investigate whether alliance contracts are a recommended contract format for operators on the NCS, using Wintershall Norge as an example. Vital success factors and company and project characteristics will also be studied. The thesis consists of an evaluation of the advantages and disadvantages with the contract format, an observation of it in regard to the current market situation and a comparison of it in relation to competition law.

It is concluded that alliance contracts could be a favourable tool in the development of an economically healthier industry with regards to the high emphasis on collaboration. However, without the right mindset, motivation and support from upper management, it might not be suited for everybody. It is a contract format demanding active involvement from all participating parties. The long-term effects are not yet mapped, and this makes it harder to understand the impact this contract format could have on the industry. The current interest for it, however, is very present.

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Table of terms and symbols

APA – Awards in Predefined Areas

BOE – Barrels of Oil Equivalent

NCS – Norwegian Continental Shelf

EPC – Engineering, Procurement and Construction

EPCI –Engineering, Procurement, Construction and Installation

EPCM – Engineering, Procurement and Construction Management

EPMA – Engineering, Procurement and Management Assistance

E&P – Exploration and production

HSE – Health, Safety and Environment

NF – Norwegian Fabrication Contract

NPD – Norwegian Petroleum Directorate

NTK – Norwegian Total Contract

PDO – Plan for Development and Operation of a petroleum deposit

SPS – Subsea Production Systems

SURF – Subsea, Umbilicals, Risers and Flowlines

VOR – Variation Order Request

Preface

Five years at the University of Stavanger has been concluded into this Master thesis in Industrial Economics. I hope this thesis will provide a valuable outlook on the alliance contract format and give an understanding of its position in the present market situation on the NCS. The work has been as expected, nerve-racking and nail-biting, but mostly exciting, educational, and enjoyable at the same time. It gave me knowledge and insight into the petroleum industry in general and the contract formats used here for procurement.

Big thanks to Vidar, Jens, Christian, Espen, Arne Magnus, Trond, Johan and Arne for taking your time to enlighten me on the exiting field of alliance contracts.

Even bigger thanks to Ida Hassan and Finn Harald Sandberg, my supervisors, for providing me with great advice and aid on my master thesis. For using their competency and experience to help improve my thesis. To the rest of the Wintershall procurement team, I would like to give my thanks for your generous hospitality and inclusion in my time there.

Special thanks are required for my family, friends and colleges for great encouragement and support. Among them, my mother and father for giving me endless confidence and support, my brother for teaching me that it's going to be all right regardless and to Henrik, for pretty much everything.

I hope you will find this thesis engaging and applicable.

Julie Tafjord

1. Introduction

1.1 Background for the thesis

The ten-year primary energy consumption growth is averaged at 1.7% (BP, 2018) and the production of oil and gas is still essential to satisfy this increasing need for energy. As seen from Figure 1, oil and gas resources stood for approximately 57% of the world's energy consumption in 2017, which gives a valuable indication of the importance of oil and gas production in the future distribution of energy sources.

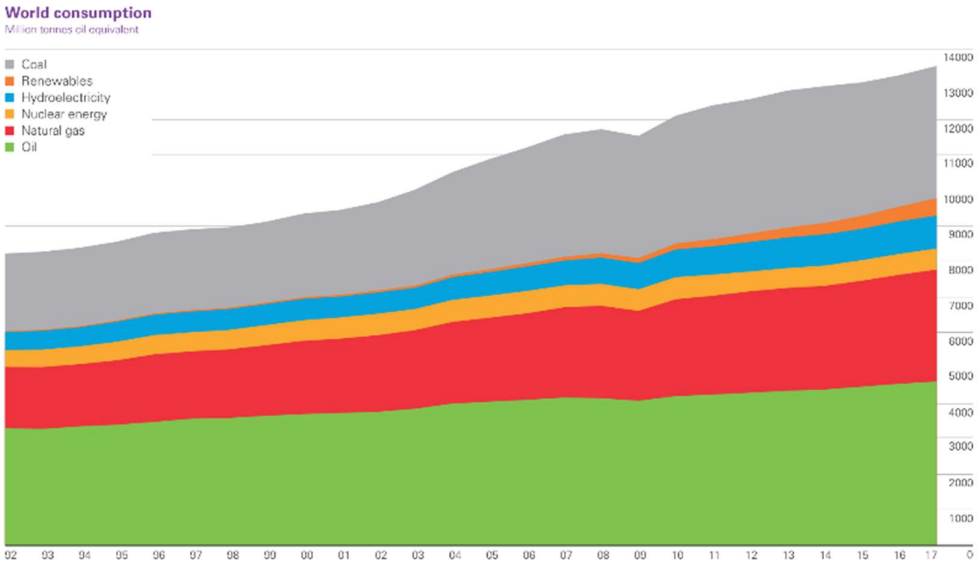

Figure 1 - Worlds energy consumption each year from 1992 until 2017 in million tons oil equivalent. Source (BP, 2018).

The oil and gas discoveries have decreased, and the deposits are harder to find (Oljedirektoratet, 2018a). Due to the increased level of complexity concerning the production of oil and gas, there will be an increased level of associated risk and cost.

Another factor that could affect the expenditures is the elevated focus on the environment and HSE. To reach the goal of increased production to cover the increasing energy demand and for the E&P companies to grow business, one needs to satisfy the environmental and safety aspects as well. This factor contributes to an increase in costs. New technology and methods could be a necessity contributing to the development of new, competitive and more future-minded exploration and production concepts. Increased effectivity and decreased costs must be the focus in all areas of the industry itself and through the company's life cycle. It is this enlarged

focus on costs that has led to increased interest in other possible approaches to reduce costs. After the collapse in the oil price around 2015/2016, there was a significant number of developments that became commercially unviable. When the oil price rose again, the operators on the NCS found a need to develop new ways to increase efficiency and advance these developments by cooperating with the contractors (Landa, 2017).

An important department for the E&P companies is the procurement department. Choosing the right suppliers and developing the best deals and contracts is essential as the suppliers represent approximately 95% of their offshore deliveries, using the numbers from Wintershall Norge as an example (Wintershall). By improving procurement and contracts, one could stand to lower the expenditures. There has emerged an awareness for reduced lifespan costs for projects to sustain a satisfying economic position in times with a low oil price.

The alliance contract format is one initiative initiated by some E&P companies, and there has been a recent increase in the use of vertical alliance contracts in the petroleum industry on the NCS (Besche, 2018). This is an attempt on doing things differently, cheaper and improved. Moving the industry towards a direction more focused on collaboration.

With the world's continuing high demand for oil and gas, it is necessary for the E&P companies to improve costs to meet the needs of the world and at the same time sustain an economically beneficial industry. This makes it interesting for operators on the NSC such as Wintershall Norge to consider this contract format. It is important to have knowledge about current trends in the market and keep updated on the opportunities they may carry for the company. It is also interesting to see if it carries a real possibility for improvement or if it is just a passing trend.

1.2 Wintershall DEA Norge

This section will give a brief presentation of the E&P company Wintershall Norge, of which this thesis is written in collaboration with. This segment is based on the information found on the company's web site (GmbH, 2019) and information provided by the external supervisor. Wintershall´s headquarter is located in Kassel, Germany, and is a subsidiary of BASF. Wintershall Norge is specialized in exploration, development, drilling and wells and production of oil and gas. Their activity in Norway has been in progress for twelve years, and they are currently employing approximately five hundred people. Wintershall Norge is one of the thirty-

nine E&P companies active on the NCS in 2018, and one of twenty-five operating companies. Using the size scale from Attachment 1, Wintershall Norge is categorized as a medium-sized company when comparing the number of licenses on the NCS. Currently holding forty-eight licenses and operating on over half of them (Directorate, 2019). They operate on the producing fields Brage, Maria and Vega, as well as partnering on several other fields in production and under development such as Gjøa, Knarr and Edvard Grieg. The next project in focus on the NCS is the Nova project which is planned to start production in 2021. Their present producing rate is approximately 100.000 BOE per day. Like every other company they must keep up with the market and current trends, this makes the recent reblooming of alliance contracts an interesting subject to examine. Late in the writing process of this thesis, Wintershall and DEA merged into Wintershall DEA and became Europe's leading independent gas and oil company (Dea).

1.3 Goal and research questions

This thesis will concentrate on the subject of alliance contracts on the NCS. Both the formal/contractual and the informal/relational parts will be discussed. The goal of this thesis will be discussed in regard to three themes. First, by evaluating the advantages and disadvantages with the contract format, secondly by viewing it in regard to the current market situation and lastly by comparing it in relation to the competition law. The research question to be challenged in this thesis is:

Is alliance contracts a recommended contract format for operators on the Norwegian Continental Shelf?

The thesis will also target the following three sub-research questions:

- What factors are essential to succeed with alliance contracts?
- What company characteristics could affect the decision to use alliance contracts?
- What type of procurement could the alliance contract be most beneficial for?

1.4 Structure of the thesis

The thesis consists of four parts, the introduction, a theoretical part, a discussion part and a part summarizing the result/conclusion. This is graphically presented in Figure 2.

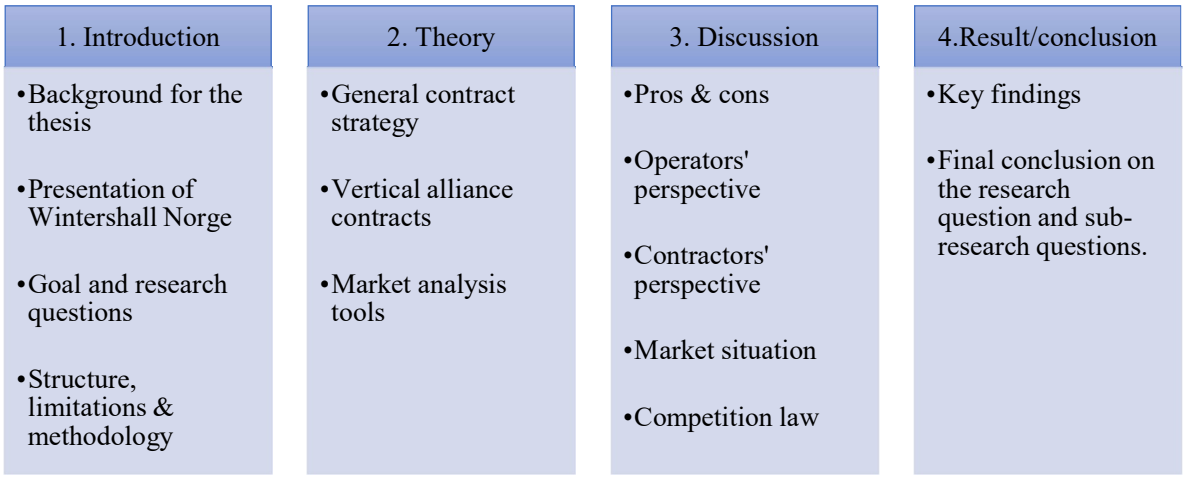

Figure 2 – The structure of the thesis

The first part introduced the background for the thesis, provided a presentation of Wintershall Norge and the goal and research questions. Limitations of the thesis and the methodology used is also presented in the first part. The second part gives the theoretical background that the thesis is based upon and a description of the marked analysis tools used. The third part is the central part of the thesis. The alliance contract format will be discussed in relation to available literature, current views from the industry, the market situation and the competition law. The final part will present the key findings and give a conclusion to the presented research questions.

1.5 Methodology

This thesis is mainly a literature/document study. The theoretical part is based on collected information from textbooks, articles, reports, websites, etc. The same goes for some of the discussion parts. A qualitative method is used for the sections on the operators' and contractors' perspectives, as it is based upon interviews of relevant people in the oil and gas industry. This is done to give further insight into the discussion part and to complement and strengthen the previously existing data with relevant feedback from the present situation.

Using a semi-structured interview, one obtains the same structure and basis for everyone, but there is still room to investigate further if the interview object had more knowledge on a subject. Several of the interview objects requested anonymity while others did not, for this thesis, it was decided to anonymize all of them. A total of eight interviews were conducted, whereas five were relevant people from the contractor market, and three were from the operator market. To see what kind of role the interview object has in relation to this thesis, as well as how the interviews were conducted, an overview over the interview objects' position and industry can be found in Attachment 1. The interview guidelines used can be found in Attachment 2 and Attachment 3.

1.6 Limitations of the thesis

Some limitations to the thesis have been necessary due to time and capacity to keep the focus on the subjects that Wintershall Norge requested to be studied and to avoid that the thesis becomes too extensive. The following limitations have been taken into consideration:

- The focus is on vertical alliances between operator and contractor only. Horizontal alliances are not taken into consideration.
- It is challenging to draw solid conclusions based on a small sample of interview objects. There have been five interviews conducted in the contractor industry and three interviews in the operator industry, and the thesis is limited to their answers.
- A weakness in this thesis is the risk of subjective interpretations of the information given by the interview object. However, the information will be discussed with both the faculty supervisor and the executive supervisor to get support on eliminating the subjective nature of the qualitative approach. The fact that all interview objects from the E&P companies currently are a part of an alliance contract could affect the general perspective.
- Lack of data on long-term effects of the use of alliance contracts on the NCS could limit the ability to generate a definite conclusion.

2. Theory

2.1 Contract strategy

Using the definition from the Legal Information Institute provided by Cornell Law School a contract is an agreement between private parties creating mutual obligations enforceable by law. Mutual consent expressed by a valid offer and acceptance, adequate consideration, capacity and legality are the basic elements required for the agreement to be a legally enforceable contract (Kim, 2017). In this thesis the supplier which has been rewarded a supply contract will be called the *contractor* and the focus will be on the relationship between the contractor and the E&P company, henceforth referred to as the *operator*, that issued the contract.

The contract must be adapted to the situation as best as possible, and the right contract strategy must be used for the given situation. The transaction itself and the parties entering the contract are the main aspects that need to be considered. What is being done, what complexity it possesses, the grade of standardization and experience, the knowledge distribution between the parties and the need for change are some factors that influence the type of contract. In addition to this, the risk aversion and financial capacity of the contractor and operator and the distribution of these in the agreement are also factors to be considered. Relational issues such as trust and credibility also affect the choice of contract strategy and contract format.

The next section is based on the material from Petter Osmundsen's lecture on contract strategy from the subject *kontraktstrategi* at the University in Stavanger from the spring of 2018 (Osmundsen, 2018). Figure 3 shows two dimensions the contract strategy can be defined from, namely the level of integration between the parties and the goal congruence in the incentives.

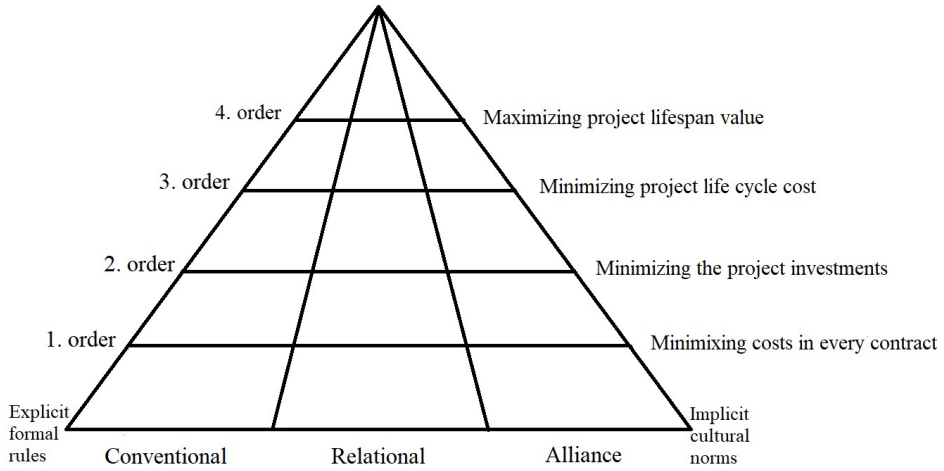

Figure 3 – Two definitions defining contract strategy (translated to English) (Osmundsen, 2018)

The level of integration between the parties is split into three categories:

- Conventional contracts: Classic and legally detailed with a formal procedure of renegotiations. High use of incentives and lump sum.
- Relational contracts: Recognized by constant mutual adaptations and implicit elements to the contract. Missing details in the contracts are solved through joint objectives, values and norms. Trust is a tool supplementing the legal aspect. The reward is often associated with repurchases and long-term relationships.
- Alliances: The level of integration is significant, it is a collaboration model without creating a joint venture or a single entity (Landa, 2017). A joint goal and management link the parties closely together throughout the contractual period.

The level of integration between the goal congruence in the incentives:

- 1.order: Minimizing costs in every contract individually. This falls naturally for the suppliers and sub-suppliers as they will primarily aim to reduce their own costs. Securing coordination across part-deliveries in a project and vertically in the value chain is challenging for the procurer.
- 2.order: Minimizing projects investments. The different part deliveries are put into context and considered as a whole, working towards solutions that best suit the entire project financially.
- 3.order: Minimizing project life cycle costs. Costs concerning the production costs, the maintenance costs and removal costs are considered in addition to the costs of the investments.

- 4.order: Maximizing project lifespan value. Considering the revenue aspect, the user flexibilities and modern technology.

The focus that has emerged in the industry today is fixed towards collaboration and a high level of integration between the involved parties. The level between the goal congruence in the incentives are also up in the higher orders, focusing on minimizing the project life cycle costs and maximizing the project lifespan value. The development of alliance contracts has appeared in the light of this as these qualities are present in this contract format.

2.1.1 Compensation formats

Three, often used, compensation formats in contracts at the present time are the fixed price format, the cost reimbursable format and the target price format. Each one has its advantages and disadvantages and are suited for different situations, often in combination with each other. These formats are based on the descriptions given in the book Handbook of Procurement (Dimitri, Piga, & Spagnolo, 2006).

- Fixed price: The contractor is paid a fixed price for performing a specific assignment in a project, typically determined through a bidding process. The contractor usually does not get extra pay for good quality, but financial penalties are common to avoid opportunistic behaviour. For projects where quality is not easy to monitor, this compensation format would be a bad fit as there is a risk of the contractors reducing the quality to reduce costs. Changes issued by the operator can lead to conflicts between the contractor and operator as it could lead to increased costs for the contractor and a prolonged timeframe for the project. This indicates that lump sum is better suited for projects that lack complexity, are standardized and has a fairly steady market for raw materials and required goods.
- Cost reimbursable: The operator pays for all documented production costs, giving the project an uncertain total price consisting of unit prices and day rates. Monitoring the execution could lead to extra payments. This decreases the contractor's financial risk considering events that they are not responsible for, such as desired changes from the operator. The lack of cost incentives could, on the other, hand pose a risk for the operator in situations where the overall project costs depend to a large extent on the contractor's ability to keep the costs to a minimum. The risk of losing quality

in favour of costs is not present, which could stimulate increased quality, but the risk of losing quality in favour of time and effort is present. The conflict level regarding changes is minimized in this type of compensation format, which could decrease the risk of having to expand the timeframe.

- Target price: This compensation format usually consists of a set target cost and a pre-defined agreement on how the loss or gain in relation to the actual costs will be distributed among the involved parties. This emphasizes the aspects of risk sharing against the incentives and can be considered as a mix between the lump sum and the reimbursable format. An issue with this format is determining the target cost in projects that do not yet have a well-defined scope.

2.1.2 Contracts used today

The Federation of Norwegian Industry, a part of the Confederation of Norwegian Enterprise (NHO), is working towards a goal of having all operators on the NCS using the standardized contracts prepared from The Federation of Norwegian Industry and Norwegian Oil and Gas Association. This is due to the benefits such as decreased time spending and costs that come from the unnecessity of a development process, clarifications and follow-up on self-developed contracts. The standardized Norwegian fabrication contract (NF) and the Norwegian total contract (NTK) are highly used on the NCS at the present time, essentially by Norwegian operators, as some international operators have developed their own standardized contracts (O. B. N. I. O. Gass, 2018).

KonKraft expressed in 2018 a wish for a standard contract based on a partnership approach, such as the alliance contract. The Standard Contract Board (SKS) that has this area as part of their mandate has however stated that there is no common basis on the supplier and operator side to initiate the development of a standard alliance contract at the present time. As the existing standard contracts are considered by the operators to be sufficiently flexible and able to cover several different models, both in terms of compensation format and project implementation and management models (KonKraft, 2018).

The increased use of EPC, EPCI and EPCM contracts has resulted in greater responsibility for the contractors with regards to the planning and the execution of a project (Anders Toft, 2005).

This is an aspect further developed in the alliance contracts. In an article from Bob Scott from 1995 it was argued that the contractual approaches such as EPC and EPCI were, at best, a means to constrain costs rather than reducing them (Scott, 1995).

2.2 Vertical alliance contracts on the NCS

The focus of this thesis will be on alliance contracts on the NCS. There are many names used to describe the same term, such as alliances, partnering, collaboration models, etc., this thesis will use the term alliance. Recently, the interest around the alliance contract format has increased in the oil and gas industry on the NCS. It is after the oil and gas industry recession in 2014 that it got a resurgence on the NCS, and it expanded to also incorporate portfolio contracts (Besche, 2018). Even as the alliance contract format has been in use for many decades, under different names and with varying degrees of cooperation, the concept is relatively *new*. Alliance contracts have been used in the oil and gas industry as project contracts in the nineties as a supplement to already signed NF/EPC contracts. At that time, the NORSOK project requested the making of a standard project alliance agreement for future projects on the NCS (NORSOK, 1996). However, this attempt on a standard alliance contract is not in use today in other ways than as a source for inspiration. This contract format has been used frequently in the construction industry since the nineties with positive results (Trine Marie Stene, 2016). Such alliances can be confined to one geographic area or business unit, while others may cover activities worldwide (C.Brent Austin, 1995).

This type of interaction contract is described in short as agreements where the operator and contractor develop and execute the projects together to benefit both parties. This is done with great emphasis on collaboration and trust and with the support of a written contract agreement (Entrepriserettsadvokater.no, 2017). The alliance contract is often an additional agreement to a framework contract already won by the supplier trough competition, but it can also be tendered as a single alliance contract to be won in trough competition (Besche, 2018). What sets the alliance contract format apart from the others is the high occurrence of collaboration and openness. It is not just about what prices the operator can get from the contractor, but what "we can achieve together". As mentioned earlier, a standardized contract format for alliance contracts does not, currently, exist. This leads to the parties often having to deal with tailor-made contracts, often with a standardized contract as a foundation. Not having a standardized

alliance contract format gives the operators the benefit of structuring it however they seem fit, but this also carries an element of risk as one could encounter contract limitations, and it could lead to added costs and time expenditures due to the developing process.

This could contribute to the making alliance contracts somewhat harder to define. There are several different views and interpretations of the format. Contractor and Lorange defined alliances as:

"*Any interfirm cooperation that falls between the extremes of discrete, short-term contracts and the complete merger of two or more organizations*" (Contractor & Lorange, 2002).

Another used definition is:

"*A long-term relationship between two companies that furthers their common interests over a specific range of activities."* (C.Brent Austin, 1995).

Both definitions give a wide range of interpretation to the term alliance and are not very specific.

A vertical alliance is an agreement between two or more companies in which each of them under the terms of the agreement conducts its activities in various stages of the production or distribution chain, which is the opposite of horizontal alliances. Some contractual relationships may have elements of both explicit, legally binding contracts, and implicit, relational contracts that include conditions that cannot be legally regulated but relies on trust. The alliance contract is most commonly an addition to already existing framework contracts such as the alliance concerning delivery of modification projects between Aker BP and Aker Solutions (Petro.no, 2018) and the terms can often fit on a single page (C.Brent Austin, 1995). The different contractors could have separate frame contracts as a foundation and be a part of the same alliance.

One could recognize an alliance by characteristics such as the compensation format, the level of collaboration and the emphasized focus on the business outcome and benefits for all parties involved. The parties jointly establish an estimated targeted cost, and they share the pain or gain resulting from the actual cost at a specified and reasonable percentage and with a maximum percentage difference of the final target cost. I.e. the target price compensation format is used. The target price is not particularly suitable for incomplete design/scope, which is often the case with petroleum-related projects, where the operator wants to get started quickly due to the present value. The close collaboration with the contractor gives the operator insight that could help to determine the target price with the contractors that sit with hands-on knowledge about

the deliveries. It is a model where the operator and contractor share the risk and reward, responsibilities and accountabilities, motivating both parties to minimize actual costs and to work towards a common goal. Desired goals with this contract format are reduced costs, reduced time and reduced risks (Besche, 2018). According to Cowan and Warne, it is based on having an understanding for the partner´s point of view, trust and respect, and it is an approach that in addition reduces litigations and stress (Cowan & Warne, 1992).

The increase in alliance contracts reflects a move from the more traditional procurement method focusing on risk allocations, to a more collaborative approach. This is evident from the annual report provided by The Federation of Norwegian Industry for 2018 as it underlines that an apparent increase in early project-involvement of contractors has occurred (O. B. N. I. O. Gass, 2018). In such implicit contract formats, there is a need for mutual respect and trustworthy reliability on the other parties. To make this collaboration model work there is a need for common objectives and confidence between the parties. There is no room for short-term opportunism in this long-term relationship development.

Figure 4 gives an outlook on the alliance organization structure. It is evident that it is designed to enhance the benefits gained from integrated collaboration, such as openness, tolerance, acceptance and knowledge and data sharing; more so than the EPC and EPMA contract formats consisting of one or two main contracts and several subcontractors. The organization consists of a combination of people from the alliancing companies integrated into one project committee, making decisions and leading the project together instead of partly and individually.

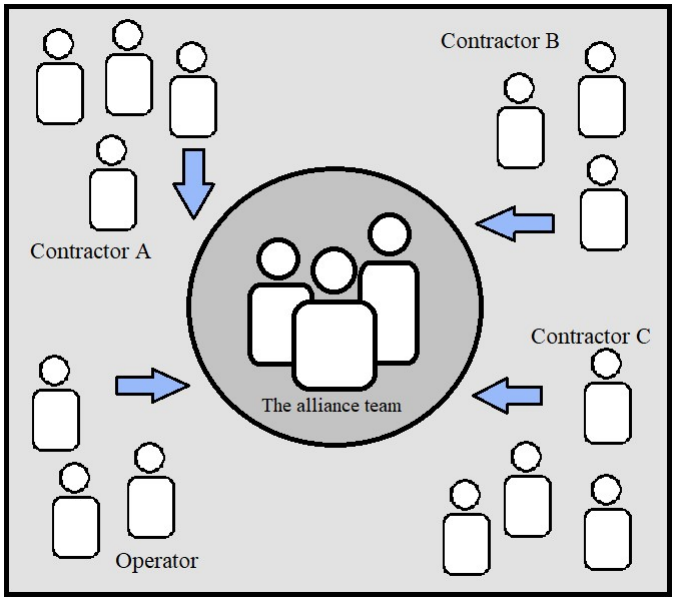

Figure 4 - Organization structure of the alliance team

This design is created to reduce costs, improve coordination and aid the exchange of information (Landa, 2017). The alliance can last for a specific duration, and it can be used as a project alliance for one selected project, or as a portfolio alliance for multiple potential projects within different branches in the exploration and production range.

The alliance contract format has been in use in the petroleum industry in the late nineties with BP Exploration Europe in the lead, after recognizing a need for reduced costs on both existing operating fields and new developments. The results attained at that time gave strong indications of an achieved reduction in the cost of developments and simultaneously enhancing both profitability and the competitive position of the involved contractors (Scott, 1995). Examples of portfolio alliances on the NCS at the present time are the Asset Integrity Alliance between operator Aker BP and contractors KAEFER Energy, Prezioso Linjebygg and Force Technology which is based on individual framework contracts (A. BP, 2018). A subsea alliance between the operator Lundin and the contractor TechnipFMC and a jack-up alliance between operator Aker BP and contractors Halliburton and Maersk, among others (Besche, 2018).

2.3 Market analysis tools

2.3.1 Kraljic's Matrix

Kraljic's matrix is a useful tool for developing the right supply strategy. It classifies an item using two key dimensions, namely, supply risk and financial impact (Kraljic, 1983). The theory is displayed in figure 5.

Leverage items	Strategic items
Large financial impact and low supply risk. A minor change in price or the quality will have a substantial effect on the cost. Contract/spot purchasing mix. Contract durations typically from 12 to 24 months and high availability of the items and supplies. Decisions should be made at a medium level in the company, decentralized. The quality responsibility is shared with the supplier. The company is the dominant factor. Apply buying power, press to reduce the price. Focus on price and competitiveness. Strengthen competition. Outsource if possible, monitor and observe substitutes. Multiple contractors, mainly local.	Large financial impact and supply risk. Strategic components with natural scarcity and/or high values in the market. Items of which one would want highly detailed market data and an accurate demand forecasting on. Development of a long-term supply relationship/contracts with selected suppliers to ensure long term availability. Create an advantaged total cost structure. Decisions should be made at the top level in the company, centralized. Rely on the supplier for quality. Pursue opportunities with substitutes and negotiate the price opportunistically. Mainly well-established global contractors.
Non-critical items	**Bottleneck items**
Low financial impact and low supply risk. Non-critical items, product standardization is a focus factor. There is a large availability in the market. Annual contracts or shorter to reduce coordination costs. Short-term demand forecasts. Inspect deliveries to ensure quality. Reduce complexity and redundancy, order volume and inventory monitoring/optimizing. Decisions could be made at a high level in the company, decentralized.	Low financial impact and significant supply risk, a valuable factor in the entire supply chain, but difficult to obtain. Secure supply, volume insurance (at cost premium if necessary). Strategic intent to manage risk. Search actively for new suppliers or substitute products. Important to have backup plans and control of vendors. The supplier is the dominant factor. Rely on the supplier for quality, make in-house if possible. The service is as important as the price. Decisions should be made at a high level in the company. Decentralized but coordinated centralized.

Financial impact

Supply risk

Figure 5 –Kraljic's Matrix, Inspired by Kraljic's article "Purchasing Must Become Supply Management" (Kraljic, 1983).

2.3.2 Porters five forces

There are many factors affecting a company's rivalry for market shares. According to Michael Porter, the state of competition in a particular industry depends on five fundamental forces. In addition to competing with already existing companies, one also has to consider the customers, the suppliers, potential new entries and substitute products. These forces combined determines the potential of the industry and provides a foundation for a strategic plan of action (Porter, 1979). The five forces and their main characteristics are explained in figure 6 below.

Probability of New Entrants

New entrants in the industry are relevant as they are competing for the same quantity of market shares. This threat is determined by the entry barriers and the incumbents' defence of the market shares.

Barriers to entry are economies of scale, product differentiation, capital requirements, switching cost to buyers, access to distribution channels, other cost advantages and government policies.

Bargaining Power of Suppliers

The supplier´s power is important as they support the companies with goods and services necessary for their operations. Of which has a high influence on the company`s profitability. With too much supplier power, they can increase the prices and hence lower the profitability for the customers.

Factors affecting the bargaining power of supplies are:

- The supplier concentration
- The availability of substitute inputs
- The importance of suppliers input to buyer
- The supplier's product differentiation
- The importance of the industry for the supplies
- The buyers switching cost to other input
- The supplier's threat of forward integration
- The buyer's threat of backward integration

Intensity of Industry Rivalry

The already existing rivals in the industry can affect the market situation as they are mutually dependent on and in competition with each other.

Factors increasing the intensity of rivalry are:

- The number, diversity and relative size of the competitors
- The industry growth rate
- Fixed costs vs variable costs
- Product differentiation
- The exit barriers
- Strategic stakes

Bargaining Power of Customers

The customers bargaining power is important as they are the ones buying the products or services.

Factors affecting the bargaining power of customers are:

- The number of buyers relative to the number of sellers
- The product differentiation
- Switching costs to use other products
- Buyers profit margins
- Buyers use of multiple sources
- Buyers threat of backwards integration
- Sellers threat of forward integration
- Importance of product to the buyer
- Buyers volume
- Use of internet

Probability of Substitutes

Substitutes pose a risk for the company as it is a product with the same or similar functions as the product in question but does so in a different way or by using different tools or methods.

Factors affecting the probability of substitutes:

- The relative price of substitute
- The relative quality of substitute
- Switching cost to buyers

Figure 6 – Porters five forces

3. Discussion

3.1 Pros and cons with the alliance contract format

It is important to consider the positive and negative sides and evaluate the total gain from a specific contract and setting. This section will give an outlook on the general pros and cons with the alliance contract format to give an idea of the areas this contract format could be a helpful tool for improving the procurement process, and the areas it could degrade the procurement process. It is not given that all of these pros and cons will occur in every situation; it depends on the individual circumstances and the operator/contractor characteristics and relationships. How the alliance contract is pursued, the parties' mentality, and how they are suited to handle the contract. These scenarios are general and explain what one could stand to gain from this contract format and what risks that could occur.

3.1.1 Pros

An advantage with the alliance contract format is the possibility for a long-term relationship with the contractors. One gets the opportunity of close collaboration over a long period of time, and one can develop a long-term association and a joint discussion arena, which is essential in an alliance contract. It is important to secure a long-lasting resource supplier to ensure long term availability, and this could be obtained with an alliance contract. The contractor could get security to invest more, which could benefit the operator and, at the same time, the operator could get economies of scale (Efta, 2012). One gets to know the contractor and their ways of working, then both parties can benefit from the collaboration. The constant sharing of knowledge could benefit both parties, as one gets first-hand access to information in the contractors' representative industries. It could get more manageable for the operator to get an overview of the subcontractor chain with a close collaboration model. The contractor gains a better understanding of what the operators desire and could use this knowledge to develop inventive solutions and equipment specialized for given projects or jobs.

The early involvement of the contractors is also beneficial and could lead to faster project implementation (Lahdenpeä, 2009). As shown in figure 7, the flexibility to make changes

decreases along the timeline of the project simultaneously as the cost of making changes is increasing. With early involvement of the contractor, disputes and changes to the scope could be minimized due to collaboration in the early-phase.

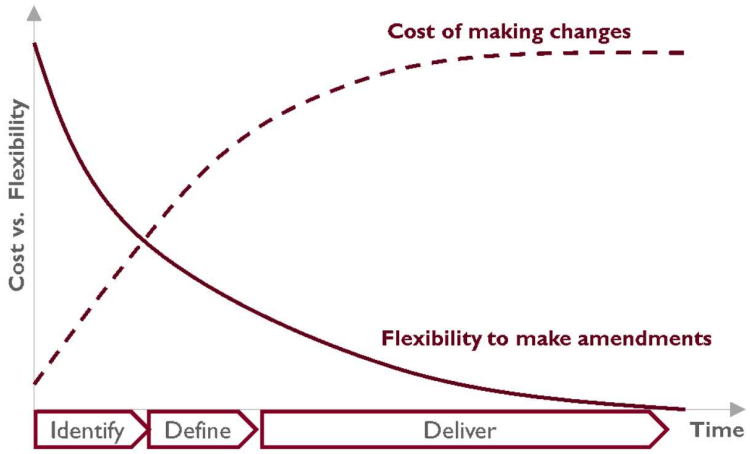

Figure 7 – Flexibility and costs of changes in a project in the perspective time (Evans, 2015)

Instead of operating from a price list, one could develop commercial models with some flexibility, so one gets a proper compensation and risk model for the given project. This could benefit all parties by giving them a common understanding of the work and scope of the project. With loyalty and cooperation in focus, one could stand to gain a healthier industry. The incentive model stands to reduce opportunistic behaviour (Laan, Dewulf, & Voordijk, 2011). It contributes to a better basis for cooperation. The shared risk distribution is an incentive for the contractors to approach the task differently and work harder as there is an opportunity to gain more the better the outcome of the job is. One could get more efficient contractors working towards a common qualitative goal (Lahdenpeä, 2009). The operator's risks are somewhat lowered as some of it is shared with the contractor. The productivity is positively affected both in regards of time and costs, and it is also argued that the alliances could better financial results as a result of the knowledge sharing, innovation and improved decision making (Trine Marie Stene, 2016).

3.1.2 Cons

A shared understanding of crucial partnering concepts, great effort to establish shared ground rules, a common target congruence in the incentives, good communication among the inter-organizational relationships and clear roles and responsibilities are important characteristics to have in an alliance partnership. However, in the absence of these, the alliance contract will most likely not live up to the desired pros (Aarseth, Andersen, Jergeas, & Ahola, 2012). It requires considerable effort to create a collaborative culture and establish and uphold the alliance (Lahdenpeä, 2009). It may cause a need for change in both the operator´s and contractor´s mindsets and ways of working to obtain the tools (such as loyalty, trust, communication and commitment) needed to handle it and to be able to gain from an alliance contract. These big rearrangements also lead to high establishing costs. The collaboration could decrease the level of operator authority in the project (Lahdenpeä, 2009) and an increased dependence on the alliance partners and the people involved. In this type of long-term relationship there is a risk for key personnel replacements that could affect the future alliance relationship as it consists of such close interactions.

Another downside with this contract format is the possible exclusion of new entrants in the market and the relation to the competition law. This could contribute to the operator missing opportunities such as new technology developments and solutions from smaller contractors that are not enabled any market shares. This is further discussed in section 3.5.

The risk sharing incentive is not something all contractors are equipped to handle, and this could also lead to a form of exclusion from the contractor market, which again could affect the operator’s selection and opportunities. It also limits the possibility to seek compensation for other’s mistakes (Lahdenpeä, 2009) and it raises some legal issues concerning change management, delays and warranty issues (Besche, 2018).

3.2 Operators´ perspective

The spread of alliance contracts is varying, and it is, as mentioned, relatively "new" in today's oil and gas industry. Some companies are using this contract format with great confidence, while others are more hesitant towards it, but there is generally not much experience with the contract format. A total of three E&P companies operating on the NCS have been interviewed. This section consists of the general thoughts and opinions gained from these interviews to get an overview of the present views in the industry.

3.2.1 General perspective on alliance contracts

The interest around alliance contracts is high among the E&P companies even though the use of the contract format varies. The renewed focus on collaboration with the contractors has emerged, among other reasons, because of a desire to better the relationship with the contractors to create added value. This will make the industry less dependent on the fluctuating market and oil price, changing the cycle of desperate improvements and cost reductions in periods of falling oil prices only to slack off when the oil price rises again.

"The current procurement processes are highly focused on winning the competition and the tendering processes. The effect of this, as we experience as an industry, is that we have not really managed to make a continuous improvement." – Operator C

The operator is highly dependent on the contractors as the majority of their costs go to the contractors. Creating a dependency between the efforts put into the project and the profitability for the contractors makes a good incentive and carries benefits for both parties. It is an attempt at creating a good interaction between the contractors, uniting the interests for the operator and the contractor, working towards a joint objective and creating long-term improvements, as is much needed in the industry.

"If we are unable to improve the collaboration and connecting both the needs and our ambitions to create common interest with our suppliers, then I do not think we will succeed." – Operator C

It is an attempt to decrease undermining and desperation in the contractor market that are not viable in the long term, that are currently present in the market.

"We believe that the alliance contract format is positive in regard to the current market situation, meaning that it must be seen in relation to the times that apply. We must find a new form of cooperation as it is no longer sustainable to run hard bidding competitions and pushing the prices." – Operator B

3.2.2 Possible advantages

- Cost efficiency. One chooses a contractor from the start that is jointly defining the concept and developing the details. Having one or a few contractors to relate to in every phase of the project, all the way from scope development, will lead to decreased costs and need for changes.

  "You get many "get acquainted" costs, each contractor and every new step comes with expenditures. This is eliminated when only having one contractor through the project." – Operator B

- The same goes for time efficiency, not having to run a tendering process for every project will cause a decrease in time expenditure and also due to the increased absence of a need for redesign and renegotiations as this is determined jointly in the early phases of a project.

  "Our field has started production five months before scheduled and 15% under budgeted costs. I do not want to say that the alliance contracts have full responsibility for this, but that it has enabled us to work faster and that it has contributed to the cost is quite obvious." – Operator A

- The close collaboration could lead to a competence utilization that could benefit all parties in the agreement.

  "*We have the operational knowledge, while many contractors have better knowledge of technological development. Connecting these could lead to creation of value."* - Operator C

If the contractor gets to contribute making decisions early in the project they can be a part of selecting equipment, methods and more, that could be of value to the project in total.

- The collaboration could improve the relationship between the partnering contractors, even as they originally are competing companies. As if one contractor does a good job, the other contractors will be able to harvest the benefits.

- Having the contractors join at an early phase in the project makes it possible for them to influence the installation methods and designs, which could lead to more installation friendly solutions.

- Continuity in staff is increased through long-term alliance contracts. The extent of this depends on the contract clause.

  "For us it is a benefit to have the same people that know each other and that has gained experience on that job. There is an increased probability that they will get better and contribute to a bigger gain for both parts." - Operator A

- The early involvement, collaboration and joint risks could lead to an increased focus on the project and not on protecting oneself from potential losses for your company.

- *"We see from all parties in the alliance that the workers have fun with this way of working, this leads to a better execution of the work tasks. It is very difficult to measure, but I am convinced that this is the case."* – Operator A

- At times with scarce resources one gets priority from the alliancing contractor. Incentives could be used to get priority.

  "If there is scarcity we will have a priority on the resources. They are our preferred supplier, but not necessarily the only supplier. It is not an exclusive agreement, but

there is a great incentive and expectation that they are the ones to be used." – Operator B

3.2.3 Possible disadvantages

- There is a risk of losing track of the market price when collaborating very closely to only one or a few contractors. One could get consumed by their prices and lose sight of the alternative market prices.

  "The thought of getting the product at a lower cost will always be present." - Operator A

- There is also a risk of losing track of alternative technological solutions, as one must relate to the partnering contractor's technology portfolio. This risk is particularly high in procurement of non-standardized products and on projects with undefined scopes.

  "This is not totally essential, but that is why we think alliance contracts are better for products in a standardized and transparent marked." – Operator B

- It is not easy to predict the workload and how many projects the operator is going to have, say for the next 10 years. This brings an element of uncertainty and unpredictability to a long-term agreement.

- Some aspects could be interfering with the competition law. These factors are further discussed in section 3.5 in this thesis.

3.3 Contractors´ perspective

As there are at least two parts involved in a vertical agreement and the level of interdependence is so high, it is interesting to get the contractors opinion (even though it is the operators that have the power to choose the contract format). The contractor's willingness and dedication serve as a significant factor as the desired goal is to form a partnership. Having the knowledge of what the contractors desire to obtain certain characteristics from a contract and their perspective of the alliance contract format, could and should influence the decision for the operator to choose this contract format. Therefore, as collaboration is a key characteristic in alliance contracts it is necessary to get an understanding of the contractor's opinion.

A total of five contractors have been interviewed within multiple disciplines in the oil & gas industry on the NCS. This section will consist of the general thoughts and opinions gained from these interviews.

3.3.1 General perspective on alliance contracts

The recent downturn in the industry has forced both the operators and contractors in the industry to change mindsets. Lately there has been an increase in risk and harder conditions for the contractors (O. B. N. I. O. Gass, 2018). Focusing on development of new methods of lowering costs and finding a balance where both parties earn money and at the same time be better equipped to handle the market fluctuations. The word alliance contracts are not commonly used in the contractor industry, the word "collaboration agreement" is more frequently used, but it consists of the same desire to tie a company to oneself. There is a recognition of the increased use of the contract format.

"It is a new way of thinking; a new way of compensating and it gives a new perspective on the start phase of a project." – Contractor C

Alliance contracts are viewed as a long-term agreement, not lasting for only a couple of years, but a longer period of time creating an integrated and open collaboration. The purpose is that the operators will get closely connected to a partner that will work with united interests towards obtaining the same goals in the hopes of developing smarter and/or easier ways of doing things, simultaneously achieving a decrease in costs and an increase in quality. Opportunistic

behaviour, making cheap equipment and selling at an expensive price, and strategic pricing, making cheap equipment with expensive maintenance and operational costs are issues that cannot be present. It is important to see the full picture. The alliance contract should be formed so that all parties stand to gain something in a holistic manner. The goal is to make the most optimal solutions and to obtain this, the target price compensation model is present as an incentive. Having a shared reward in the end gives the contractor the opportunity to earn money, but in a different way than before.

One opinion stated from Contractor B is that alliance contracts are a temporary band-aid on a wound the industry incurred in 2014 that can solve many issues, but in a few years, one would experience a larger part of the downsides and move towards another direction different from the alliance contract. Still, they have a positive attitude to it emphasising the importance of doing it with the right intentions. The focus is shifted towards new commercial models, moving away from the traditional ways such as rates on equipment, day rates and entering more bundled services compensated by using for example a lump sum. The target price compensation format is in use, but it is referred to as a gain share contract, which also is a collaborative contract format with a shared risk distribution.

Some companies have less experience and knowledge about alliance contracts and seem to have a more critical attitude and concerns. One concern expressed by Contractor D is, in light of where the market has gone, when some of the operators go out and ask for alternative contract formats and forms of collaboration, it could be a way for them to benefit from a persistently bad market.

General contract characteristics that seem to interest the contractors in the different disciplines are mainly the duration of the contract and the contract value. The risk distribution was also mentioned, but even though the contractor must be prepared to take responsibility of a potential downside, according to Contractor E, they never considered declining the opportunity when it came.

"We have, of course, worked together with the operator to try and minimize the risk as much as possible. It is a driver, but there are many risk elements we are able to manage and handle ourselves. Therefore, we emphasise the importance of including all possible changes and having a good system for handling these changes. All in all, the alliance contract concept is very exciting." – Contractor E

The benefits may not be visible right away and there will be a learning and a restructuring process in order to adjust to this new way of working. It will most likely take time to see the effect that is desired to achieve, as it usually does in a change process.

"I think alliance contracts will contribute to companies doing twice as good as the companies only pressing down prices. 'It is cheaper to play cards than going offshore and doing a job'." – Contractor A

This comment reflects the fear of what will happen if the prices are so significantly lowered, the contractors will become desperate and start cheating on quality. In an alliance, one is dependent on having good relationships, being open and having a good dialog with each other, and this, together with the compensation incentive, could decrease flawed and non-optimal quality.

From this selection of contractors there seems to be a general curiosity and hopefulness towards the alliance contract format even as it is still hard to determine the outcome/results of the alliance contract format as the concept is in its starting phase of re-blooming in the current market situation. The contractors seem to see the potential in the contract format but is very aware of the uncertainty and the possible negative aspects that can occur.

"*It has a potential to renew the industry.*" – Contractor D

3.3.2 Possible advantages

- "*When I went to the university, I was taught no matter how excellent one is individually, it is always the output of a team that provide the best results. This is what one could gain from this contract format, also as a contractor."* – Contractor B

Working in the same landscape in incorporated teams could lead to:

- Shortened communication path.
- Saved expenses regarding time cutbacks on negotiations and tender documents.
- One gets a closer relationship with the operator and develop a stronger bond between each other. It represents a balanced delivery model with a symbiotic partnership where the contractor gets the opportunity to contribute instead of just obeying the operator.

- The contract model gives the operator a different discussion arena. Instead of a pricelist one works from commercial models that are somewhat flexible so one can obtain a fitting and balanced compensation and risk model towards the project's deliveries.
- It could potentially lead to innovation, a development of new concepts and solutions.
- One could get a long-term partner to rely on even as the market fluctuates. This could lead to security and predictability.

- One gets a long-term predictability from the contract and work security. The long-term relationship developed will benefit all parties involved. The contractors get a work security and predictability. They could hire more full-time employees, avoiding a continuous replacement of staff and it gives a security for investing in new equipment which the operator also benefits from.

- The shared distribution of risk gives a possibility of taking part in an upside, sharing the possible benefits. There is a joint concern of having the project stay on its path and have as efficient spending as possible.

  "*With the target price compensation model, one could avoid having companies waiting for someone to make a mistake, so they can charge more because of unforeseen factors*." – Contractor A

- The contractor could obtain great power in the market, as they get on the inside of the operator, their ways of thinking, what is important to them and how they work. It is this marked information that can be turned into market power. Alliances gives an opportunity for the contractors to tie the operators so close that the threshold of them choosing a new partner when the contract expires are highly minimized.

3.3.3 Possible disadvantages

- The shared risk in the incentive model also gives a possibility of taking part of a downside.

  "*A 10% downside does not seem like much, but in our line of business, it is a lot*." – Contractor E

- If there are several companies in the alliance there is an uncertainty of how the structure between the contractors will be.

  "*For us in logistics, we can create new concepts for our customers together with other contractors. But the issue is, who will be in the driver's seat? Who has the core competencies? Who will it benefit? This is still uncertain to us, what will be our role and what do we stand to gain from it?*" – Contractor D

  Not having a fully equipped VOR handling system could be a disadvantage. For companies performing "*less important"* jobs that are not directly tied to the exploration and production parts there is a risk of having the jobs down-prioritized and put on hold in favour of jobs with a higher level of prioritization. It is a big risk factor if a good system of handling VORs is not developed, it could lead to discussions and delays for the down-prioritized contractor, and thereby also affecting the operator.

  "*If we are not compensated for such interruptions in our jobs, it will go wrong, even as there are people in the alliance who will safeguard our interests I am eager to see how it really is going to be*." – Contractor E

  This is a common down side with having a set target price, and it is a part of the risk picture regarding how the contractors are steered in order to become more efficient and to be able to contribute to affecting the desired shared gain.

- There is a dependence on the other contributors in the alliance as well as oneself, which could carry risk.

- The inexperience in the industry surrounding alliance contracts gives a risk of unpredictable risks.

  "*One has not acquired enough experience yet to see what the down sides with this contract format are.*" – Contractor B

- Reduced competition in the market could be positive for the contractors, but at the same time it reduces the incentive to evolve and develop. It could also limit the operators value chain, by binding oneself to one contractor with one solution.

- The downside could rely on how good the parties are to organize themselves and create processes and routines so that it is actually possible to deliver what has been agreed upon.

  "*If we change the commercial models and mindsets regarding contracts but remain organized as we always have been and keep doing what we have always done, it will pose a risk. Then we could end up signing a very good contract, that we are not necessarily optimally organized to deliver on.*" – Contractor B

  This could lead to administration costs that has not previously existed.

- A challenge with the openness and information sharing could be the difficulty of maintaining the intellectual property rights and proprietary rights of the information. This generally gets harder as competence sits within the people and is obtained by the people one is cooperating with. For example, work methodologies and other unpatentable information will not be easy to keep internally. It is a competency one has and brings along to others. The same for several designs, if one is openly sharing the designs of for example equipment, the operator gains this knowledge. The partnership could drain the competence, design and methods from the contractors, this could make

the contractor dispensable. The question remains as to how much the contractor could open up without damaging their own business. The traditional operator/customer relationship could fade, and the contractor ends up doing voluntary work, only providing knowledge to the operator and not gaining anything in return.

- There is also a concern regarding the market fluctuations in relation to long-term agreements. If one enters a contract in a period with low rates and margins to obtain a security of work, it would be difficult to take part in the upturn in the market. There is not much surplus to use on developing the company or make investments if one is still bound to bad rates. If the hunger for long-term contracts gets too large, the contractor could stand to gain nothing on the contract, which is not optimal for the desired development of a partnership.

3.4 Alliance contracts in light of the market situation

3.4.1 Kraljic's Matrix

This section will use Kraljic's product purchasing classification matrix as a tool to categorize what kind of purchases the alliance contract is best suited for and what kind of project characteristics suitable for alliancing. Here displayed in Figure 8.

Leverage items	Strategic items
As the buyer/operator has dominance, the supplier's dependency is expected to be high (Caniëls & Gelderman, 2007). This buying power is actively used to press to reduce prices, obtain better deals and strengthen the competition with suppliers and it would not be beneficial to bind oneself to one supplier long-term. Products under this category can be obtained from various suppliers and poses no significant supply risk. The large financial impact due to potential changes could be decreased by close collaboration with the supplier. The financial risk-sharing could also be beneficial as the responsibility for the quality is shared. For leverage items the alliance contract does not seem to give a big enough benefit to surpass the already established buyer power.	In this category the alliance contracts' long-term development of a partnership is beneficial to ensure availability of products with a high level of supply risk. It could provide leverage over other operators during times of scarcity. To get control of the quality, the collaboration factor in alliance contracts could be valuable, regarding lowering the financial risk and getting a better insight and data on the product. The risk-sharing could also be beneficial as the responsibility for the quality is shared. The mutual dependency is anticipated to be high and an alliance contract could make this factor less of a risk for the operator working more like a mutual collaboration. For strategic items, there seems to be reasons to claim that the alliance contract could be beneficial on multiple areas.
Non-critical items	**Bottleneck items**
Products in this section are easy to get access to as they usually have a small value per unit and many alternative suppliers. There is no need to secure availability with long-term contracts such as the alliance contract. The products are standardized and there is no pressing need to develop tailor-made solutions on these kinds of products. It could be easier to determine the target price on standardized purchases due to transparency in the market. There is a balanced power situation between the operator and contractor and low interdependency (Caniëls & Gelderman, 2007) and close to no risks so the benefit of shared risk of gain/loss falls away. There is little to no benefit with alliance contracts in the non-critical items.	As these products does not have a significant financial impact the concern is to obtain volume insurance. With a long-term contract the suppliers could take the risk of having more of the products in stock and this will give the partnering operator access to volume insurance. With a collaboration, one could secure supply and decrease the supplier power in the market. The financial risk-sharing does not have a big effect as the financial impact is minimal. For bottleneck items there could be some benefits with the alliance contracts format, but there are also other formats that could be a better fit.

Financial impact

Supply risk

Figure 8 – Kraljic's Matrix

From Kraljic's matrix, it seems to be most beneficial to use alliance contracts for strategic and bottleneck items. The supply risk seems to be a determining factor for this contract format and with a high financial impact one can see possible desire for an alliance contract. Still, some might also argue that the standardized purchasing category is a better fit, due to the transparency factor.

For the alliance contract to be beneficial, there must be a certain duration on the agreement to establish the desired partnership. This could be beneficial on for example maintenance contracts on some equipment. The contractor does the maintenance on their delivered equipment. If one changes contractor, one could risk having to replace the equipment with the new contractor's equipment. The maintenance on some equipment require a shutdown of production for a given amount of time, and this is desired to be as short as possible. Having an alliance contract on this service gives the contractor's team the opportunity to get closer to the operator's team that handles the day to day operation on the equipment. There are several advantages in working together closely and developing the routines together, constantly aiming to get better. The maintenance sector has a need for long-term and collaborative contracts. Projects tightly constrained by time can benefit from using alliances (Chen, Zhang, Xie, & Jin, 2012). Due to for example the early involvement of contractors. It is suggested by Turner and Simister that high uncertainty in the project is a characteristic making it suitable for the collaborative approach that is enabled through alliance contracts (Turner & Simister, 2001). Solving the uncertainties by communication and knowledge sharing. The National Guide to Alliance Contracting in the infrastructure industry in Australia says that smaller projects are not appropriate for alliance contracts due to the high initial start-up management costs. Increased uncertainty often comes with increased risks that would have been carried by all the parties in the agreement. According to the same report, alliance contracts are best suited for projects with big risks that cannot be defined or dimensioned (Development, 2015). There are several benefits with the alliance contract in regard to the different characteristics and procurement categories, one could choose to pursue with this contract format based on several of these types of project characteristics. However, it is important to have in mind the other options that might be even better suited for the project.

3.4.2 Porters five forces

This section will use Porters five forces to look generally on E&P companies in the oil & gas industry on the NCS. Aiming to gain information that could contribute to discovering the demand/outlook for alliance contracts at present time. Discussing in which direction different elements from these forces influence the position of alliance contracts and the alliance contracts in reference to the current market situation. The results of this is displayed in Figure 9.

Probability of New Entrants
The licensing system in the fields of production opens up for the possibility for new entrants in the market. Several companies can take part in a license which being led by an experienced operating company. This enables less experienced companies and new entrants to become a part of the industry and learn from the more accomplished companies (Directorate, 2019). Oil and gas exploration is a highly expensive business and may not be profitable for many years. The exploration reimbursement arrangement established in 2004 is an arrangement targeting to gain increased exploration activity by lowering the economical threshold for new entrants, giving them the opportunity to compete on equal terms with the already established companies (N. O. Gass, 2019). The oil and gas resources on the NCS is owned by the Norwegian government. Their desire is to increase the number of companies, diversity and have increased competition on the NCS In a press release from APA 2018 it is evident that the Norwegian Oil and Gas Department is offering a record high of 83 licenses on the NCS. This means that the market shares are expanded, which gives good opportunity for new entrants in the market (energidepartementet, 2019). Factors that limit the probability of new entrants are the large risks such as economical risks, the fluctuating oil price and HSE risks. High knowledge on the exploration and production field is necessary for any new entry in this industry which limits the number of new entrants.

Bargaining Power of Suppliers	Intensity of Industry Rivalry	Bargaining Power of Customers
The contractors supply labour, raw materials, equipment, transportation and financial services that has a high influence on the company's profitability, which initially should increase the supplier power. However, it is also extremely dependent on the market drivers and is in constant change.	As mentioned earlier, there was a total of thirty-nine E&P companies operating on the NCS in at the end of 2018. There is a variety of sizes and the range of different companies ensures a diverse interest in these kinds of projects. As the oil price is playing a highly significant role in the market activity the pricing is market-driven instead of cost-driven. The industry rivals compete on getting the best suppliers and the best deals and terms making sure that they avoid scarcity on equipment or personnel. On the NCS, there has been an increase in the number of new companies, acquisitions and mergers the past ten years. In addition, there is an increase in new medium sized E&P companies (Oljedirektoratet, 2019c) with Equinor still being the largest market share holder. Product differentiation is difficult to obtain in this industry. Factors that differentiate the companies and increase their market share is having the best approaches, solutions and methods within exploration and production. By getting better methods and approaches the goal is to spend less time and money and finding and producing more oil and gas focusing on the quantity instead of as much on the quality.	The customers in this buyer/supplier relationship are the operators. Generally, the E&P companies have great impact on the supplier industry, and lower activity and demand from the operators have big consequences, such as downsizing and/or bankruptcy (Petroleum, 2018). It is extremely dependent on the market drivers and in constant change. The general opinion obtained from the contractor interviews conducted for section 3.3 in this thesis, is that the operators have the bargaining power when it comes to the choice of the contract format. Having the advantage of being relatively *free* in choosing the contract format, the operators should consider all options and go with the best fit for the given scenario.

Probability of Substitutes
Oil and gas are used for heating, transportation, electricity, asphalt, plastics and much more; most of which there is an increasing number of environmental-friendly substitutes for in today's market, such as wind power, solar power, water power, electric cars etc. The price differentiation is not present between the E&P companies as the oil price is a set variable for the whole world. The quality of the products is not easy to anticipate and is not a very strong argument for the probability of substitutes.

Figure 9 – Porters five forces

Considering the current market and the low barriers to enter the market, the desire to secure resource availability increases. With an alliance contract one could assure this availability for a long period of time, and in periods of very low availability, one would be first in line. To be handed out licenses, innovation and willingness could be favourable to the government as it shows the company's motivation to try new methods and evolving the E&P industry. Trying this "new" contract format could have a positive effect on this issue. The risk sharing factor between the operator and contractor could help lowering the risks for new entries and thereby lowering the barriers of entry.

The supplier market on the other hand will get increased entry barriers. As the operators bind themselves to a number of suppliers on different areas and the threshold for new entrants replacing a company in an already established partnership are high. This can contribute to an exclusion of new technologies, solutions and methods provided by the "left-out" companies. This will be discussed further in section 3.5 on the competition law section.

For the operators it could be beneficial to enter a long-term contract when the market is not thriving, as you can enter agreements with contractors *desperate* for work. As the market currently is on its way up again, this could be a beneficial time to enter such long-term agreements as alliance contracts are.

The general concept of *the supplier* is an extremely wide term in this industry and it is not possible to put them in one category. The bargaining relationship between the operator and contractor is highly affected by the drivers in the market. In the E&P industry, these relationships are in constant fluctuation, see section 3.4.4. Once the alliance contract has been

established, the bargaining power of both sides becomes less important as the parties are working towards the same goal and not towards the individual interests of the companies.

The increased focus on the environment is affecting the oil and gas industry and it is becoming more important to develop sustainable and environmentally focused contracts. The alliance contract models are bringing companies and/or project teams together into one workspace. This could contribute to the development of solutions/methods/tools that is tailored to the explicit situation, creating a "one-of-a-kind" product and differentiating themselves from others. Co-locating the team could, perchance, also contribute to lower travelling expenses and other administrative work necessary in a standard operator-contractor relationship; this could reduce the time and money spent, money that could be allocated to environmental reinforcements. This factor may be used in attempting to differentiate themselves from their competitors although there are other and/or better ways of differentiating oneself.

3.4.3 Current market situation on the NCS

According to the Norwegian Petroleum Directorate there are approximately 53% petroleum resources left on the NCS and the production prognoses the upcoming years are promising (Oljedirektoratet, 2019b). Today's market is recognized by a willingness to get the industry up again, focusing on developing a more efficient work attitude with a goal of being better equipped to handle the fluctuating market.

"*If one assumes that the market fell ten steps when the downturn came, we have probably gone between two to four steps up again*" – Contractor C

At present time there are 84 fields in production and 13 fields approved for production on the NCS according to the fact-pages from the Norwegian Petroleum Directorate (Oljedirektoratet, 2019a). Investments are expected to reach over 140 billion NOK in 2019, not including exploration investments and a decline in investments is expected as we approach 2022 (Oljedirektoratet, 2019c). Wintershall is represented with the Nova project of which there are planned investments of approximately 9.6 billion NOK (Petroleum). Figure 10 shows the historical and forecasted production of oil equivalents from 2010 until 2030 on the NCS. From this forecast presented by the NPD, one can see that the number of oil equivalents will be

slightly increasing from 2019 towards 2023. After 2023 it seems to decrease, and there will be a significant increase of production of undiscovered resources.

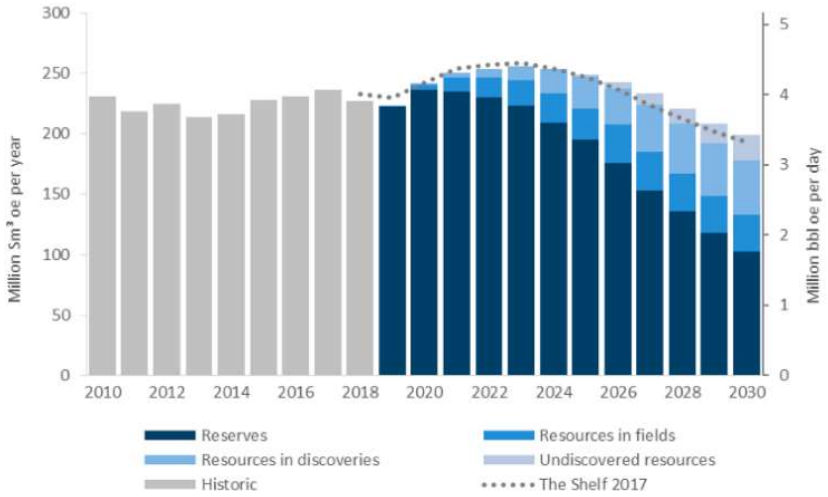

Figure 10 – Historical and forecasted oil production from 2010 until 2030 on the NCS (Oljedirektoratet, 2019c)

Reservoirs are getting more advanced as the easiest discoveries has already been made. This development requires more advanced technology and innovation. Collaboration could be a key factor to the development of new solutions and methods, as it widens the knowledge basis for both the operator and the contractor. Not only in relation to exploration and production, but also on areas such as HSE. This is a factor that could increase the interest in the alliance contract format.

The last two decades there has been an increase in E&P companies, differing in size, and the contractor companies have become larger and more capable (Besche, 2018). The contractor (service and supply) industry consists of more than 1100 companies and it is the second-largest industry in in Norway in terms of turnover. Only beaten by the oil and gas production industry (Petroleum, 2019b). It is the operators that generally have the upper hand in the operator/contractor power-relationship. It is important not to misuse this power as it could lead to discontented contractors. An example of this is a recent article in the local new paper Stavanger Aftenblad in February 2019 that showcases that shipowners would rather have the boats docked than entering contracts with the operator Equinor (Skarsaune, 2019). Another example from the same local paper is where the director of Malm Orstad, Lauritz Løvø, emphasize that contractors are being pushed too hard on prices in the oil and gas industry, and the sub-contractors do not get its rightful share of the value chain (Heimsvik, 2019). This is not the kind of relationship one wishes to have between two players of the largest industry in

Norway that also have such a high interdependence. The renewed focus on collaboration could perhaps have a neutralizing effect on this power-balance.

In an article published on the Norwegian Oil and Gas Association from August 2018, it shows from a survey done by Kantar-TNS that there is a majority (74%) of the Norwegian population having the opinion that Norway should maintain the Norwegian oil and gas industry (Johnsen, 2018). Still, a discussion has emerged about the future of the Norwegian oil and gas industry, especially considering the environmental factor. The environmental factor has grown to be a crucial part of the E&P industry, this has a legal influence and also a great commercial influence.

"*Oil is now associated with climate change, and the heroes have become villains – to summarize the picture often painted in the public debate, at least*" – Kristin Færøvik chair of the Norwegian Oil and Gas Association (Oljedirektoratet, 2018b).

Færøvik emphasizes the importance of establishing good dialogue with the younger generations. Nature and Youth, the largest environmentalist youth organization in Norway, arranged a strike for climate and with 40.000 youths participating on March 22nd, 2019 (Ungdom, 2019). This shows the enthusiasm and strong focus on climate among the younger generation. The future of oil and gas production on the NCS needs to take the desire for a *cleaner* energy source in the current market development.

The media is also contributing to the need for an ethical and efficient industry. NPD highlight Færøviks view on the media coverage in the industry:

"*She finds it hard to penetrate the sound barrier with the positive stories. Things going wrong get the biggest coverage. Creating an understanding of the technologically advanced nature of NCS operations is difficult*." – (Oljedirektoratet, 2018b)

To get a good reputation one must act deserving of it, and if one doesn't, the world will know. Alliance contracts demand openness and willingness to share information between the parties and could contribute to a more ethical way of working. Eventually benefiting both the operator and contractor in the public view.

3.4.4 Drivers in the market

This section provides an overview on the main drives in the market that affects the decision on which contract format operators choose.

Oil price

The oil price is difficult to influence and at the same time it poses a big impact on the operators' activities and ways of thinking. It leads to great uncertainty in the market and the oil price pattern is constantly under discussion and the high degree of uncertainty is evident from an article (from for example (Fattouh, 2016)). According to this article, different views have been developed about the latest oil price cycle after the recent sharp fall in the oil price. One view is that the oil market has been subject to structural impact that will lead into a world of low oil prices for a longer period of time. Another view is that the current price fall in the oil price is similar to previous cycles and it will rise again, sooner than expected.

The oil price is influenced by so many factors that otherwise do not directly have an impact on the E&P industry. It is influenced by macro-economic factors such as the supply of crude oil resources recovered from onshore or offshore production and oil reserves that consist of a given amount of oil barrels that can be produced at a financially beneficial price. It is henceforth sub-influenced by geological discoveries, cost, development and availability of technology and cost of exploration and production, among others, as these factors affect the supply. Other factors affecting the oil price are the global economy's demand for oil supplies and by-products, tax frameworks, legal aspects and regulations concerning the adoption of alternative renewable energy sources and international climate and environment agreements such as the Paris Agreement. Various relationships have an effect on the oil price, from the relationships between operators and their production agreements, to political and economic sanctions both nationally and internationally that are imposed on countries highly invested in the oil and gas industry, instabilities in oil producing countries and countries in conflict (Plus500).

The operators on the NCS have the responsibility to sell their own produced oil- and gas (Petroleum, 2019a). To still be able to run a sustainable business it is important to improve the efficiency to keep up with the market at bad times, that is, when the oil price is low. It is evident

from the Norwegian oil history (Ryggvik, 2018) that low oil prices can affect the production of oil and gas as it is not sustainable to produce when one cannot achieve break-even on projects. Alliance contracts could be a trend that has resurfaced in the market to avoid another harsh downfall in the oil and gas industry. After the recent downfall with multiple layoffs and bankruptcies, one has seen the need for an efficiency boost and a desire to innovate the industry's expenditures. Alliance contracts could be a *new* way of thinking and a measure to be better equipped to handle the effects of the fluctuating oil price. A question remaining is whether this is a contract format that will endure or if it is just a passing trend.

Scarce resources

The availability of qualified and competent manpower affects the price of labour. Availability of raw material and equipment also has a big effect on the operators as important equipment may be a necessity for the production and the unavailability may result in big costs for the company. If we have scarcity the price of the highly demanded items will most likely increase and/or there will be a long waiting list due to the lack of availability.

The uncertain and volatile market is also having a negative effect on the number of students taking petroleum related subjects (Aftenposten, 2017). This could lead to a loss of qualified people that the industry requires. Periods of bad times and layoffs in the oil and gas industry are bound to be followed with scarcity of manpower when the market is getting busier and more profitable again (E24, 2018) (nyheter, 2018). Currently, the operators are reluctant to hire new employees as the times are not yet where it once was.

Alliance contracts could be beneficial for the operators, as the collaboration with the contractor could reduce the need for a big staff of fulltime employees overseeing the project. This issue could be resolved by collaborative sharing of resources, manpower and knowledge.

In 2019, it is expected that six plans for development and operations (PDOs) of petroleum deposits will be submitted. All of these are satellite fields in connection with existing fields and platforms that most likely will be built as subsea connections (Stangeland, 2018). The planned project developments will increase the demand for manpower, equipment such as SURF and SPS systems and raw materials such as steel. Having a long-term alliance contract does not necessarily mean that an operator has secured the access to the item(s) as the contractors also rely on scarcity affecting their sub-contractors, but they are first in line.

3.5 Alliance contracts relative to competition law

When operating on the NCS the E&P companies are bound to follow the Norwegian laws. In Norway there are two sets of laws regarding the competition in the market. That is the EEA Agreements competition regulations and the Norwegian Competition Law. In cases where both the laws are used, it is the EEA Agreements that limits the use of the national competition law (fiskeridepartementet, 2014). One main concern in the competition laws are competition-restricting collaborations between one or several companies, which can be found in §10 in the Norwegian competition law and in articles 53 and 54 in the EEA Agreement. Agreements/contracts that are prohibited according to §10 in the Norwegian Competition Law shall not have any legal effect (Lovdata, 2004).

The purpose of the Norwegian competition law is to promote competition and trough this, contribute to an efficient use of society's resources. Having the consumers interests particularly in mind is stipulated in §1 in the Norwegian competition law (Lovdata, 2004).The law was commenced in 2004 and applies to terms, agreements and actions that are made, have effect or are suitable to have effect in Norway. This means that the companies operating in Norway, including the NCS, is subject to this law. It is the Norwegian Competition Authority that is enforcing the EEA law and the Norwegian Competition Law, ensuring transparency in the market.

§10 in the Norwegian Competition Law deals with competition-restrictive agreements between corporations. It states that any agreement between companies with the purpose or effect of preventing, restricting or twisting the competition is prohibited. The competition law is prohibiting any type of collaboration that limits the competition (fiskedepartementet, 2019). As this could contribute to reduced or removed risks and uncertainty associated with competition in the market. Both horizontal and vertical collaborations are covered by this law, as vertical collaboration does not involve cooperation between actual or potential competitors it is considered less likely to damage competition in the market (Konkurransetilsynet, 2007). According to the EEA supplement nr.65, vertical constrictions could provide room for efficiency improvements. From the same source one finds that most vertical constraints only cause competition related problems if there is insufficient competition at one or more levels of the transaction, such as for example the operator or contracts both have a certain degree of market power (Efta, 2012). Another example of vertical cooperation with inhibitory effects on

competition is determining fixed binding minimum prices for retailers (Konkurransetilsynet, 2007).

Sections 3.5.1 through 3.5.5 describe the issues with the alliance contract format discussed in light of the competition law. Inspired by the section of positive and negative effects on the market that may result from vertical restraints and which the EEA Agreement aim to prevent, §10 in the Norwegian Competition Law, interviews were conducted of operators and contractors in the market (Efta, 2012; Lovdata, 2004). A combination of these could enhance the total effect of the vertical alliance contract on the market.

3.5.1 The creation of entry or expansion barriers in the contractor industry

Having an alliance contract on a project portfolio with one or several contractors could exclude other contractors from the market. As it is a long-term agreement that could last for five to ten years (or possibly more) and the accompanying effects could also be long-term. The alliance contracts can be awarded through tenders or they can be added to an already existing framework contract. This means that the alliance contracts are awarded through competition. Smaller/niche contractors would not get picked by small operators as they are dependent on the technology from the contractor to compensate for their lack of it. If a large operator with a big market share were to have an alliance, it could exclude many contractors from the industry.

3.5.2 Limitation of the technological development

The operators could lose contact with alternative technical solutions as they are bound to rely on what the partnering contractor has in its portfolio. This could lead to a loss of niche products and improved and more efficient solutions and technology. If competition is absent, the contractors do not have a direct incentive to develop new technology. In order to develop new technology, one must invest money; if the contactors are excluded from good long-term contracts, it would not be possible to invest and evolve and the development of new technology could be hindered.

On the other hand, the collaboration could drive the parties to develop new technology tailor-made for the given project portfolio they will be working on together for a long period of time.

Having alliance contracts on products in a transparent and relatively standardized market such as SPS and SURF could lower the risk of limiting the technological development. On the other hand, having alliance contracts on a top-side project where the technology is more spread and unknown, one could miss out on development opportunities when limiting oneself to only one or a few technology portfolios.

3.5.3. Different award criteria for the contractors

Using different conditions for the same performance would thereby make one or some contractors less favourable in the competition. When the alliance contract is ended, and it is being tendered again, the former alliance partner will have gained a relational benefit. They have gotten to know the operator's way of working and their demands. The threshold of choosing a new contractor has grown larger due to the close collaboration. By showcasing this value, the prices could become less important. If only some selected companies are invited to discuss the projects early phase prior to competitive tendering, it could give them an unfair advantage.

3.5.4 Exclusive agreements

By having one contractor covering an operator's total demand of a product, either through expressed wording in the contract or by its effect in practice the competition factor is lowered. There should be a clause or quantity agreement to ensure that the operator can still use other contractors if necessary, but still having the partnering contractor as a preferred source of the product as this lowers the degree of exclusion and enhance the competition.

3.5.5 Contracts depending on the contractors accepting additional performances

Contracts depending on the contractors accepting additional performances that by nature or according to normal business practices do not have any connection with the contract object. It must be specified that the contractor is to take part in for example project planning and scope development, not only delivering a product or service.

4. Result/conclusion

4.1 What factors are essential to succeed with alliance contracts?

The following factors are important for the alliance to work. However, for the alliance to be the best option, there are other factors that the decision depends on such as the company characteristics and the type of project and its characteristics. If the project/procurement and company is not suited for alliances, it could be better to use a different type of contractual agreement.

4.1.1 Common communication strategy

In order to gain from such a collaboration model, it is necessary to develop a common communication strategy. Co-location of the parties, such as an integrated alliance office, is significant to quick and active communication, knowledge sharing and problem resolution.

4.1.2 Mutual respect and trust

The balance between control and confidence is important. Having a common responsibility for the project and having an attitude for not blaming others. This is important to be able to develop a long-term commitment based on transparency, knowledge sharing and have open communication.

4.1.3 Clearly defined common goal and objectives

It is difficult to have a collaborative agreement when the parties are not working towards the same goal. To achieve the desired effects, all parties must be aware of what it is they are working towards and be aligned with each other, this could lead to a win-win philosophy. Being “on the same side” will lead to less bickering and disagreements and could contribute to a “best for project” attitude.

4.1.4 Fair incentive structure

The risks and rewards are shared in a way that benefits and motivates the parties and are easy to use. An uneven risk distribution could be harmful to some or several parties of the agreement.

4.1.5 Early contractor involvement

Early contractor involvement could help avoiding disagreements later in the projects, as the decisions were jointly made in the early phase of the projects. However, there is also a risk of locking in contractors without known value/costs.

4.1.6 Well designed formal contract

The contract should be formed to fit the operator's goals, enabling the achievement of desired benefits and handling the risks. It should stipulate clearly what the relationship is and what is expected from both parties. It should also include the opportunity to exit the contract at any point and making it non-exclusive.

4.1.7 Attitude and motivation

There is no point in initiating the use of alliance contracts unless everyone involved is determined and motivated, and this restructuring could take some time. If the people involved do not support the teamwork related features, the collaboration could be difficult and challenging. The workers should be self-thinking and not follow a hierarchy structure, waiting on command from higher management, but be involved and contribute with ideas and suggestions. This could be beneficial with the Norwegian work philosophies, attitudes and community spirit. Cultural clashes are a risk if the involved parties do not understand or know how to embrace each other's cultures and ways of working.

4.1.8 Facilitation

In order to shift to from the traditional mindset to this relational mindset requires an adaptation in the work culture, the company organization and the attitudes and relationships between people as it requires a different competence with particular skills and knowledge, for example knowledge concerning competition law. It will be more difficult for companies new to the alliance concept as a bigger restructuring may be necessary.

4.1.9 Collaboration

The ability to collaborate is highly important as it forms the basis of the alliance contract format.

4.1.10 High level management involvement

Support and involvement from the management is needed to get the alliance started and to keep it working (Scott, 1995). It requires clear leaders that are not only just involved, but also committed to the collaborative way of working. It is important that this way of working is understood and implemented throughout the whole company.

4.2 What company characteristics could affect the decision to use alliance contracts?

The company characteristics matter in the decision to pursue alliance contracts including the design and specifications of the contract. Sections 4.2.1 to 4.2.4 display some of these characteristics.

4.2.1 Size of the company

Huge companies that cover large portions of the market cannot form alliances on entire procurement categories as it would hinder the competition and violate competition law. They can however split alliance contracts into smaller categories, so project alliances are still an alternative here. This will not be a risk to the same extent as with smaller companies. However, small companies are better equipped to implement changes, but this would even out as the time passes.

Companies with a big project portfolio, may find it beneficial to relate to the same person/contractor to benefit from the relationship, the collaboration and the trust created. One gets to develop a long-term relationship with the contactor. Companies with a smaller project portfolio do not establish the long-term relationship as quickly as the big companies.

Relying on an alliance partner carries some risks and these risks can be better handled by big operators as they have a bigger security net.

4.2.2 Technology assets

A company with a strong technology department has the opportunity to run certain operations inhouse and could stand to benefit more by doing so. On the other hand, a company with a weaker technology department must outsource and has a bigger need to secure this type of procurement. For companies lacking technology assets, it could be beneficial to have an alliance with contractors to assure coverage of this *weakness*. However, the power distribution could be skewed when an operator company with a small technology department becomes too dependent on the contractor.

4.2.3 Experience with alliance contracts

Since there is no standardized alliance contract, it could be necessary to obtain some knowledge about it. Companies with experience and knowledge about this contract format will have a better basis to succeed with alliances at a faster pace.

4.2.4 Company organization

For companies new to the format, it demands a restructuring of the organization and a new way of working. This carries some new costs that must be weighed against the benefits and expected usage of the alliance contracts to ensure that it is worth it.

4.3 What type of procurement could the alliance contract be most beneficial for?

As deduced in the section concerning Kraljic's Matrix, one can argue that there are many project characteristics that on their own is a good fit for the alliance contract format. It is important to consider the combination of characteristics on each project to determine if it could be suited for alliance contracts. One must also reflect on which procurement categories one can create the most value. The main characteristics where most value can be created are:

- High significance impact
- Long duration
- Time constraint
- Large supply risk
- High uncertainty
- Large projects
- High risk

4.4 Is alliance contract a recommended contract format for operators on the Norwegian Continental Shelf?

To answer the research question, whether the alliance contract is a recommended contract format for operators on the NCS, a summary of the thesis is presented in a SWOT-analysis in Figure 11.

	Benefit	Harm
Internal	**Strengths:** - Priority in times of resource scarcity. - Could reduce time and costs in a marked constantly getting harder and efficiency demanding. - Beneficial incentive model for all parties with the risk model. - Fewer changes and disputes due to early involvement.	**Weakness:** - Risk of poor target price calculations. - High start-up costs - Demand for organization restructuring. - Need for knowledge and experience due to the lack of a standardized alliance contract format. - Not knowing the long-term results from the usage of this contract format for the company.
External	**Opportunities:** - Less secrecy and opportunism leading to more transparency and trust in the industry. - A joint understanding of projects and goals that could lead to a joint prioritizing and beneficial synchronization with the contractors. - High focus on the development of a standardized alliance contract. - Stimulating the development of long-term collaborations and facilitation of common management principles and close interactions.	**Threats:** - Potential complications with respect to competition law. - Formulation of inadequate risk distribution could affect all parties of the alliance. - Not knowing the long-term results from the use of this contract format for the industry as a whole.

Figure 11 – SWOT-analysis

The assessment made from the SWOT-analysis is that there are both positive and negative aspects for the company and the industry in general. Many of the negative elements are tied to the start-up phase which, eventually, could even out with the possible benefits. The risk-sharing ratio and target price calculations stand to endanger the project and all parties involved at a greater level if they do not reflect on the real situation. Competition law will always be a factor

to consider when one wishes to have alliance contracts, and it is of high importance. However, it is possible to work with this factor by taking it into consideration when designing the contractual relationship. The benefits stand to be great for all parties if one holds the success factors and is willing to put in the effort. The success factors, project and company characteristics are not independent. One could have a project *perfectly* fitted for alliance contracts, but if the company is not fit for it, it will be a poor decision to pursue this model.

As for the case of a medium-sized operator on the NCS as Wintershall Norge, with a medium sized project portfolio, it could be possible to obtain a long-term relationship on the larger procurement areas. Even as they are a medium sized company on the NCS, they are a relatively large company on a worldwide basis and this increases their security net and could make them better equipped to handle financial risk. Wintershall Norge does have experience with incentive contracts and frame agreements, but not with the high level of integrated collaboration that the alliance contract is recognized by. This means that there could be need to increase the amount of restructuring and reorganization needed to implement it successfully. This may also lead to a longer and less profitable start-up phase.

The chances of limiting the competition are decreased compared to larger companies, but one must be aware of this on larger projects or portfolios. Petroleum projects are often recognized with high risk and uncertainty and often has a high financial impact, which makes it favourable for projects in this industry. Though the contract format can benefit the company, the effects on the industry as a whole are uncertain and presently, we are lacking data. Wintershall Norge has a strong R&D department and a wide range of applied technologies, and they are considered to have a strong technology department which makes it easier to work independently and not to rely on an alliance partner. However, with regards to resource scarcity, it could be favourable to consider alliance contract model for significant areas for the company's future endeavours such as, for example, SPS equipment similar to that used in the development of the Nova field. It is not recommended unless one is prepared and motivated to enter an alliance contract. Considering the recent merger between Wintershall and DEA, this would possibly not be the optimal timing to enter alliances as they are currently occupied with the reorganization regarding the merger. The internal collaboration and organization should be prioritized. After the merger and as the merged company matures, the alliance contract format should be

reconsidered at a later time. At that point in time, the long-term effects of alliance contracts could also be more defined.

4.4.1 Future of alliances

It is evident that interest in collaboration and collaboration models are increasing in the market, both from the desire to develop a standardized contract format and also from the ONS theme for 2020, «together» (ONS, 2019). On the ONS webpage, they emphasize the need for a united industry and the importance of collaboration in the energy industry. Other collaboration forms should also be considered, forms that might collide with the vertical alliance format as for example, horizontal alliances between operators. Perhaps having a vertical alliance with a chartering company could interfere with a thought of horizontal alliance on chartering.

As it does not seem to be favourable for Wintershall Norge at the time to pursue the alliance contract format, it could open the possibility for further research on the subject. An interesting example could be to have a SPS alliance in Norway that applies for many similar jobs for Wintershall on a global level, thus having Wintershall Norge as the centre for this type of services.

The long-term effects are yet to be discovered, and as time passes, it will be interesting to see how this contract format holds over time. A question also remains regarding what effects the alliance contracts could have in the future if Equinor, with such a large portion of the market share, started with this contract format. If several of the E&P companies on the NCS is benefiting from this contract format, others might follow. This could affect the contractor industry and could potentially exclude some contractors from the market.

There are many opportunities out there and alliance contracts could play a part in this collaboration focused direction in the industry as it gives an opportunity for collaboration while maintaining competition, if properly designed. It remains to be seen if it is a reaction to a recent downturn or whether it will lead to an enduring solution and an increase in efficiency.

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Attachments

Attachment 1 – Interview objects

OPERATORS	Operator A	Operator B	Operator C
Position of interview object	Asset Manager for Development Projects in Norway	Contracts Manager	VP Strategic Partnerships
Currently part of an alliance?	Yes	Yes	Yes
Size category	Medium	Medium	Large

Size categories for the E&P companies used in this thesis, according to the number of licenses (Directorate, 2019):

Small	Medium	Large
Licenses < 50	50 < Licences < 100	Licences > 100

Contractors:	Contractor A	Contractor B	Contractor C	Contractor D	Contractor E
Position of interview object	CEO	Vice President Global Business Development - Asset Integrity	Vice President	Chartering	Vice President ISS Offshore
Currently part of an alliance?	No	No	No	No	Yes
Industry	Supplier of mechanical services.	Provider of engineered products and services to offshore oilfields among others.	Providing services within topside, Subsea, drilling and rental of equipment.	Supplier of offshore support vessels	Development projects, maintenance and modification on- and offshore.

The interviews were conducted in the timespan from 24th of January until the 21st of March and lasted from 25 minutes at a minimum to 45 minutes at maximum. All interviews were recorded to obtain accurate material at a later time. The interviewees got the questionnaire sent beforehand in order to give an opportunity for preparation. The interview objects were chosen by the company as to who seemed to be best suited for the topic. Five interviews were conducted face to face while three was conducted over the phone.

Attachment 2 – Interview guide operator

Interview guide

- **Operators perspective**

1. **Your perspective and experience as an operator with alliance contracts**

- What is our company's view on alliance contracts with contractors?
- Does your company use this contract format? Why/why not?
  - If yes: What kind of procurement do you use it for? (For example, is it more suitable for strategic items, bottleneck items or non-critical items. Does the size of the procurement matter, etc.).
- From your perspective, what positive aspects can this contract format offer?
- From your perspective, what downsides can this contract format offer?

2. **Competition law**

- How would you view this contract format in relation to the competition law? (Regarding the collaboration factor, and difficulty for new entries etc.)

Anonymity will, of course, be given if it is desired.

Attachment 3 – Interview guide contractor

Interview guide

- **Contractors perspective**

1. **Your perspective and experience as a contractor with alliance contracts**

- Are you currently a part of an alliance contract?
- What is our company's view on alliance contracts with operators?
- What characteristics do you seek in a contract format, what is of the highest importance? (For example, prices/costs, risk distribution, the collaboration, location, etc.).
- From your perspective, what positive aspects can this contract format offer?
- From your perspective, what downsides can this contract format offer?

2. **Competition law**

- How would you view this contract format in relation to the competition law? (Regarding the collaboration factor, and difficulty for new entries etc.)

Anonymity will, of course, be given if it is desired.