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Preface

This thesis is the final submission to complete the Master in industrial economics at the Faculty of Science and Technology, Department of Safety, Economics, and Planning, at the University of Stavanger during the spring 2023.

I work at AkerBP within subsea projects and is in this thesis interested in learning more about the basis of alliance on the Norwegian continental shelf. This type of collaboration tried in AkerBP but the question of why is this model chosen and what could go wrong was the base idea for the thesis. I set out to find out why did AkerBP create alliances and icebergs might be in the water ahead. I will present my research related to opportunities and challenges of alliances to interested readers in the eyes of one part time student, working in an alliance.

I would like to thank my supervisor at the University of Stavanger, Frank Asche for great guidance and supervision during this semester. I would also like to thank my external supervisor Sveinung Rasmussen from Aker BP for their supervision and enabling the writing of this thesis. Without the guidance, help and support of these persons it would have been impossible to finish this thesis. I have been blessed with fantastic colleagues helping and pushing me.

As this all started during uncertain covid-19 times it has come a long way from my first day as a student in Stavanger. Now after juggling family, work, and studies for 3 years I am eternally grateful for all the support from everybody around me.

Abstract

This thesis will investigate how the Norwegian oil and gas industry changed their perception of what a client-supplier relationship is in recent years. As the industry has faced a number of challenges, increased cooperation between independent companies has been one attempt to address the uncertainty caused by the challenges. This has given the rise to a strategy that is well known in global manufacturing, the creation of alliances.

The thesis investigates how traditional strategic alliances works including key success factors, challenges, and opportunities of the new way of working. What is needed for an alliance to be successful? What makes an alliance sustainable? Is it mutually beneficial? Why try to make an alliance? To answer these questions information was gathered from AkerBP as well as the research literature on alliances. Presenting theory about alliances and alliance transaction costs in conjunction with examples from the subsea alliance a basis was formed.

Based on the collected material it is clear that an alliance can be beneficial for all parties involved, but that is no guarantee for success. An alliance requires hard work to form, hard work to sustain and hard work to be a success. The opportunities of an alliance are there but one needs to be aware of the pitfalls. It was shown by comparing theory that the subsea alliance had taken experience from other alliance research. Several of the same success factors of alliances is identical to the values and operation of the subsea alliance.

Through the work on the thesis there was two reoccurring factors that would give opportunities and suppress challenges. The first being that all parties embraced the same values and communicate them clearly. Secondly, to avoid big internal economical inequity and keep working in the same direction. If these two measures are controlled and understood by management within an alliance it increases the likelihood of success.

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1. Introduction

The Oil & Gas industry has faced several challenges in recent years with highly varying oil prices, higher cost of manufacturing and a challenging political landscape. The Brent has had remarkably high peaks and exceptional low points during a brief time span, shown in figure 1. This volatility creates a highly challenging environment to sanction new projects.

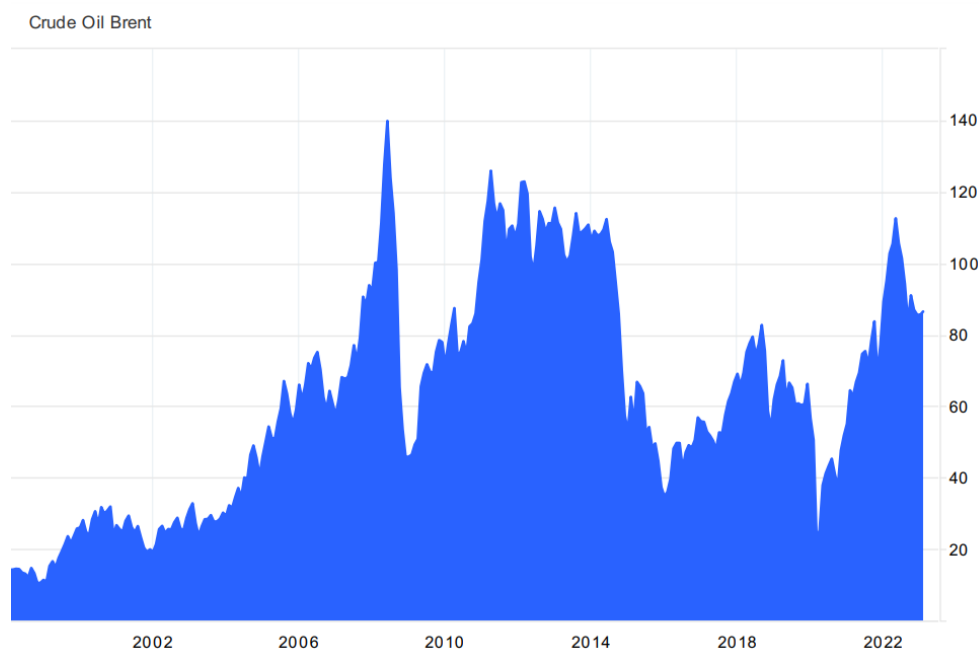


Figure 1: Brent Crude price last 23 years in US dollars (Brent crude oil, 2023)

The Norwegian continental shelf (NCS) is no exception to this volatility. With such high variations it imposes a highly cyclic demand for resources from contractors. An example of this can be shown from Aker Solutions AS backlog presented in the 2022 Q4 report. This stated a backlog of 97 billion NOK and noted as “All-time high order intake and secured backlog moving forward” (Akersolutions 4Q, 2022). Comparatively a backlog of 30 billion NOK was reported in 2016 (Annual report Aker Solutions, 2012) shown in figure 2.

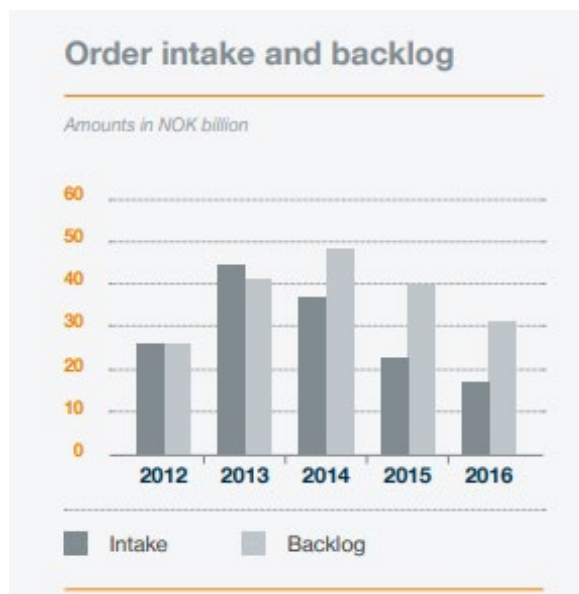


Figure 2: Order intake and backlog for AKSO in 2016

This shows a highly varying demand for resources and a challenge to retain a constant flow of projects.

To secure more reliable and open supplier-operator relations a proposed alliance model was presented from AkerBP. The Alliance that was formed the 13 of September 2016 and was between Aker Solutions, Subsea 7 and Det Norske (later AkerBP) (Subsea Alliance, 2016). This goal of the alliance was:

“It will enable the operator and suppliers to work as one integrated team to find the most cost-effective solutions for developing Det norske’s Norwegian subsea field portfolio” (Subsea Alliance, 2016).

This was the start of the subsea alliance (SSA), and this cooperation is continuing to this day.

In this thesis an evaluation of the challenges and the opportunities within an alliance on the NCS will be done. The thesis is built up by introducing theory on strategic alliances, the SSA and transaction costs. Following the theory chapters the material will be discussed, and a conclusion is drawn. The goal of the thesis is giving further insight into success factors of an alliance and challenges management needs to be cautious of. By referencing an implemented alliance on the NCS and theory about other strategic alliances, the thesis can show a relation between theory and implementation. Illustrating the learning from theory and making a successful alliance by being aware of the challenges.

1.1 Background

AkerBP has formed strategic partnerships with contractors and suppliers as part of their business strategy to improve competitiveness and reduce costs. These partnerships have enabled the company to enhance supply chain management and consistent supply of goods and services. Even in the face of challenging market conditions. AkerBP has established partnerships with leading service providers and suppliers in the energy sector, such as Subsea 7 and Aker Solutions, called the SSA (Alliances with AkerBP, 2023). This partnership has enabled the alliance to benefit from the expertise, technology, and resources of its partners, and to reduce costs by leveraging economies of scale.

This partnership has been instrumental in ensuring continued success in new projects and keeping the goal of delivering projects on time, at cost and at the right quality.

By establishing relationships between operator and suppliers to bridge the gap between the three companies in the SSA. This to ensure a long perspective strategy of a relationship that builds on openness and common goals, with common rewards.

Overall, the SSA partnership has been a success from 2016 and continues today. This partnership has enabled the companies to remain competitive on the NCS and develop a community within. Giving growth, profitability, and sustainability.

2. Strategic alliances

Within this chapter an introduction into general definitions of alliances, opportunities, challenges, key pitfalls, and success factors will be presented. Basis of the information is previously written articles on strategic alliances and theory from textbooks and presentations.

2.1 Alliances

A strategic alliance has been a concept that occurs in sectors all over the world. As put by Quinn in 1995,

Nike the largest producer of athletic footwear in the world, does not manufacture a single shoe. Gallo, the largest wine company on earth, does not grow a single grape. Boeing, the pre-eminent aircraft manufacturer makes little more than the cockpits and wing bits. (Quinn, 1995)

This is all made possible by strategic alliances, by cooperating between suppliers for production and using each expertise to gain a mutual advantage. Alliances does not exclusively have to be strategic as they can also be, partner agreements, collaboration models and integrated alliances. Alliances have several formats, ranging from informal simple deals to more complex and comprehensive agreements (Chan, Kensinger, Keown, & Martin, 1997). A strategic alliance as its defined by Wheelen and Hungar:

“A strategic alliance is an agreement between firms to do business together in ways that go beyond normal company-to-company dealings, but fall short of a merger or a full partnership” (Hungar & Wheelen, 2000)

The foundation of these alliances is to reduce complexity in the process and improve the margins by specializing in each aspect of production. This became even more prevalent with the growth of globalization and use of international markets. By having such a fast-paced economy with enormous growth in a brief time strategic alliances have gotten increased interest. By being able to collaborate between companies which already has solid experience within its domain, these alliances give expansion possibilities to the companies involved.

Alliances gives access to markets or sectors of markets that is unavailable to a single company but within an alliance it will be in fierce competition to other larger companies. However, cooperation alone is not enough to achieve positive results. An impactful alliance requires actions and capabilities that drive company success, such as pre-alliance and post-alliance activities (Meier, 2011) (Nielsen & Nielsen, 2009)

As a measure of this success there are two specific ways of rewarding wanted output of the alliance. This will be applicable if it is a project or strategic alliance which is reflected in production. A background of including incentives in such an alliance is to distribute the risks between the alliance.

Partnering and use of incentives:

To align the responsibility to the incentives there needs to be a distribution between the contractor and the operator. In figure 3 this is shown by an example without and with incentives within a contract. By inclusion of incentives a project can lead to common goals where all parties are incentivised to create better solutions.

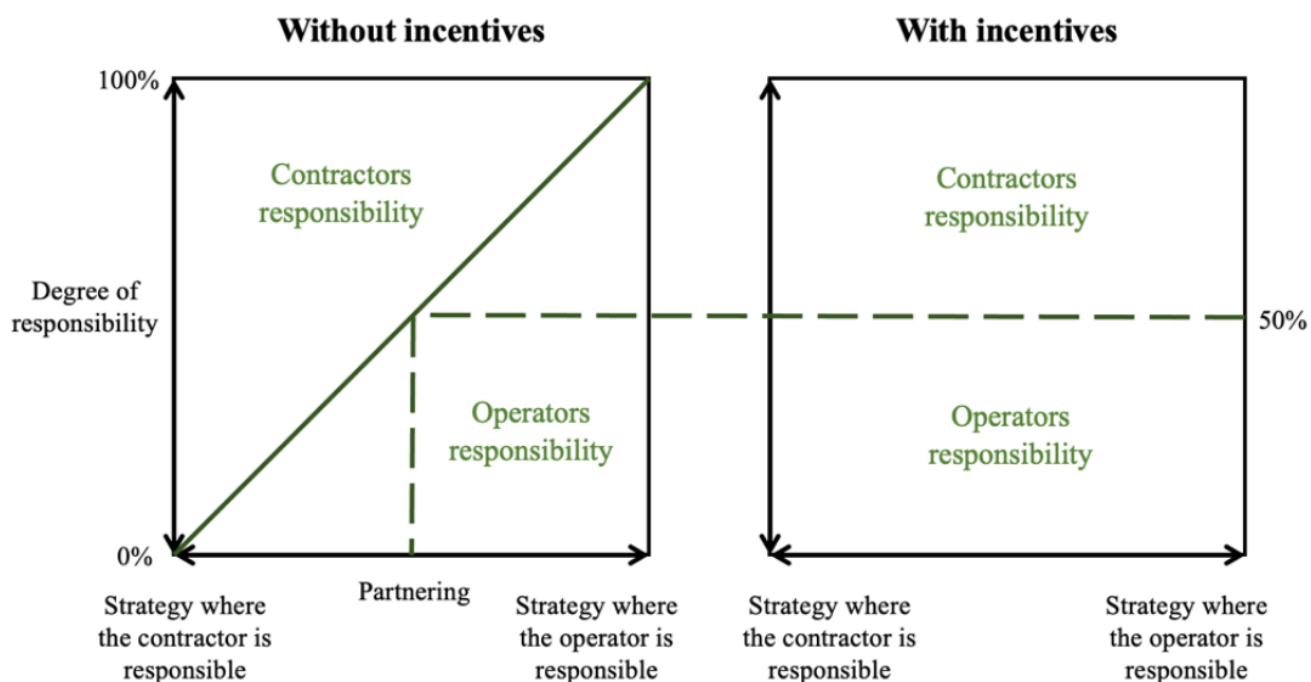


Figure 3: Alliance model with and without incentives (Lædre, 2006)

2.2 Challenges and opportunities of an alliance

An alliance can be greatly beneficial, but there are also several challenges that is important to be aware of and can make an alliance costly. These challenges will be focused towards the

NCS due to the wide range of alliances that exists within the alliance models (Spekman, Forbes, Isabella, & MacAvoy, 1998) (Lahdenperä, 2009.).

A list of the most important potential opportunities is:

- Gain competitive advantage due to bigger resource and expertise pool.
- Long lasting relationship with alliance partners reducing transaction costs.
- Risk, costs, and benefits is shared between the alliance partners.
- Lessons learned from previous projects can be shared between portfolio projects.
- Early involvement in study phase can expedite project timeline.
- Streamlined organization to increase efficiency.
- Improved project economics due to early startup.
- Alliance agreement will secure resources during a market upswing while serve as an insurance for work during downturns.
- More agile project organization with integrated organization.

While the most important challenges:

- Intricacy of management and cooperation in an alliance.
- Reduced earning potential for suppliers if locked in.
- Clear communication and support required from all levels of management.
- Benchmarking cost is substantially harder due to other suppliers' knowledge of the alliance.
- Simultaneous competition in some channels and collaboration in other can create friction within an alliance.
- Alliance values and goals is required to be aligned between all parties over time.
- Partner dependencies over a prolonged period.
- Use of an alliance may prevent use of best suited technology from other companies in the market.
- Information sharing and management between parties.
- An agile alliance may be more exposed to unforeseen cost of changes.
- Reduced incentive to develop innovative technology outside an alliance.
- Reduced decision authority due to joint decision and planning.

These points clearly illustrates that there are both opportunities and challenges associated with the creation and maintenance of an alliance. This shows that alliances require significant

commitment from the start, while all the time having a risk of collapsing if the alliance is not perceived to be beneficial for all parties.

2.3 Pitfalls and Success factors for alliances

Creating a successful alliance is a complicated challenge. One of them is the SSA on the NCS that has been operating since 2016. There are a multitude of pitfalls for alliances but there are clear rewards for companies that manage to make an alliance work.

Common pitfalls are related to operational and managerial parameters which all effect how companies and alliances operate. Success factors that are crucial for establishing a well working and lasting alliance are particularly important to be aware of. These will help generate a mutual understanding of scope, vision, and goal. According to Das & Teng (2003) crucial factors to align between companies in an alliance is strategies, goals, and resources. This means that its crucial for management to commit to the goals of an alliance with a clear communication of common values.

As seen in figure 4 it is a gradual process that needs to be evaluated at every step to ensure that the companies are aligned between themselves. If these values start to converge towards mutual understanding, goal, and values, then the building blocks for a successful alliance is laid.

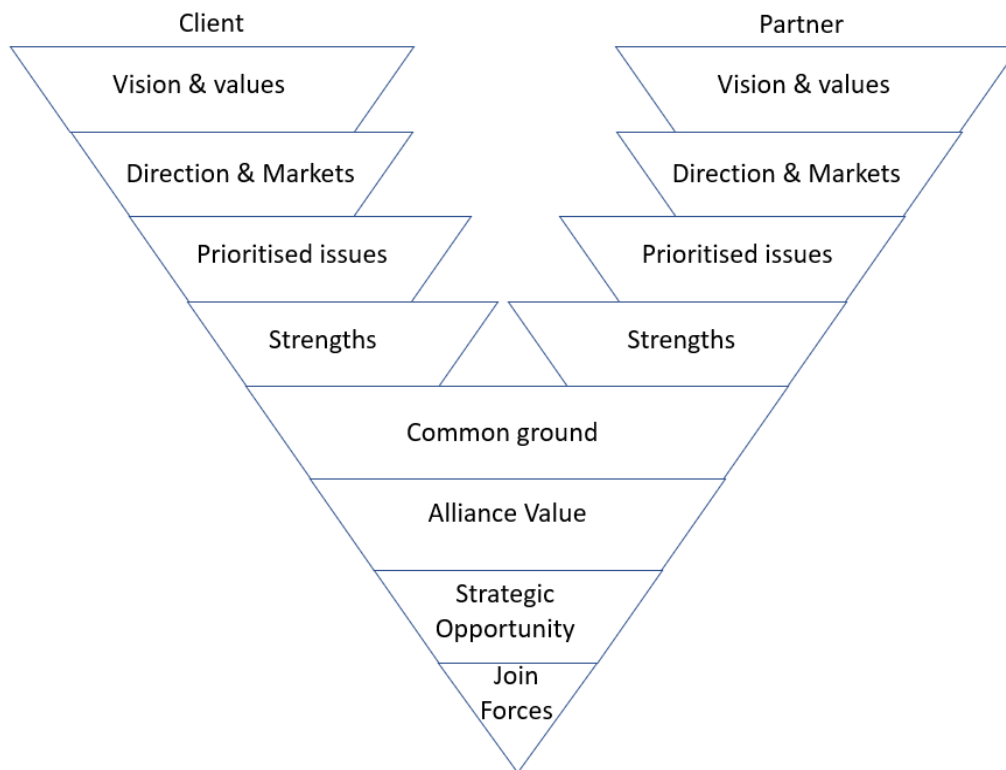


Figure 4: Way to a strategic alliance [adapted from (Kathawala, 2001)]

To measure success factors the alliance management international (Kathawala, 2001) had several statements related to a successful alliance. These were sent out to clients to see compatibility and eligibility for a successful alliance. These were:

- Our gains from the alliance are mutual.
- The value of the alliance is apparent to our customers.
- The alliance offers competitive advantage (best-in-class).
- The driving forces of the companies are complementary.
- The operations, risks and rewards are balanced.
- As alliance partners we always explore new opportunities together.
- The objectives are clearly defined.
- There is an excellent clarity of purpose.
- The roles of each partner are clearly understood.
- The alliance has a shared vision.
- We develop shared goals that are measurable.
- All companies have the mind share.
- Top executives from all companies have met and support the goal of the alliance.
- We have excellent channels of communication at all levels.
- Key issues are raised early and acted on promptly.
- We have a high degree of trust.

- There is continuity in the players.
- There is commitment and support in all levels.

These questions are related to figure 4 and will give an in-depth knowledge about the health of an alliance. Giving a clear indication between how the management of an alliance is perceived and how resources are perceiving the alliance.

2.4 Hierarchy of Alliances

Alliances differ from each other based on the interconnectivity of the companies involved. This is the basis of figure 4 which forms the basis of figure 5. The figure shows the hierarchy of alliances that describes the linkage and commitment between the companies involved.

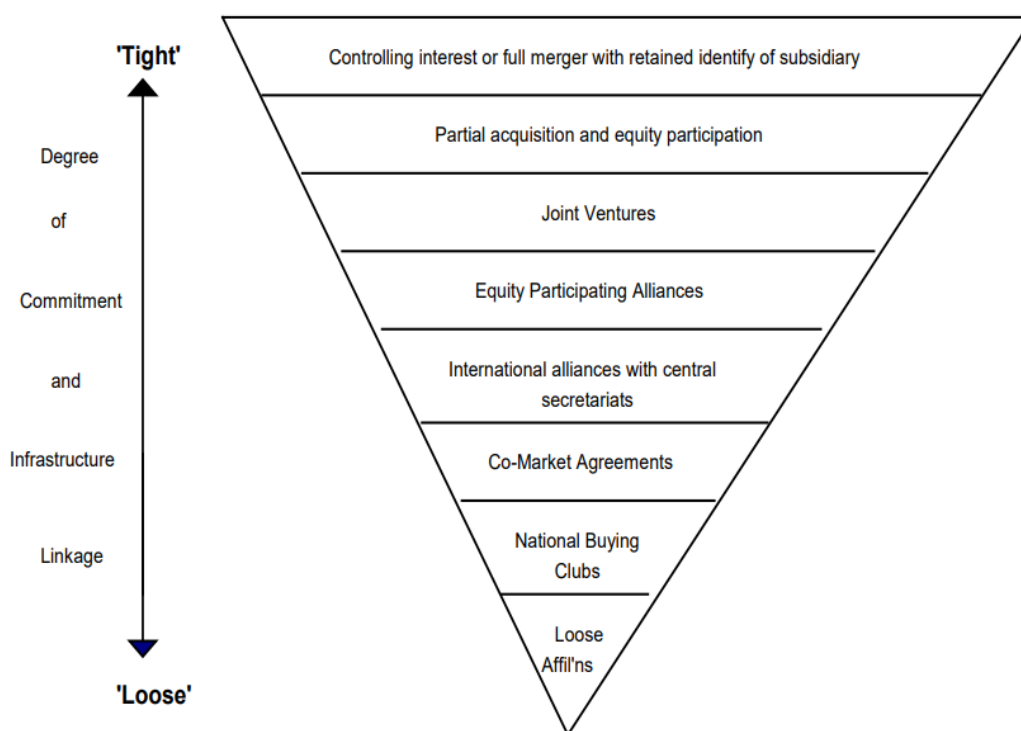


Figure 5: Controlling interest in an alliance (Robinson & Clarke-Hill, 1994).

Looser alliances are often based on creating a competitive advantage in the market, where the capital expenditure is limited (Jarratt, 1998). A tighter degree of commitment will result in a higher capital expenditure due to the need of capital to acquire a higher controlling interest. An example of a tight alliance with full merger with retained identity of subsidiary is the purchase of Cameron by Schlumberger, resulting in Cameron, a Schlumberger company. Onwards down the list joint ventures such as the subsea joint venture between Aker Solutions,

Subsea 7 and SLB (formerly Schlumberger) (AkerSolutions, 2022). Another example is the SSA which could be considered a Co-market Agreement.

3. Subsea Alliance

The SSA was an entity created in August of 2016 and was the first AkerBP formed alliance. The goal of this alliance was to create cost effective solutions, reduce risks and make interfaces easier to manage by creating a “one team” mindset. By reducing the challenges of communication between the companies and creating an entity with the core experience to drive the project from concept select to first oil/gas (Subsea Alliance, 2016).

To date the SSA has delivered fourteen projects to a total of 13 billion NOK, and all of them withing budget. The budget in the SSA is managed by a Most likely cost (MLC) which is the commercial agreement between the three companies for each project (SubseaAlliance, 2022).

3.1 AkerBP ASA

Aker BP ASA is a pure play oil and gas company, conducting exploration, development, and production activities on the NCS. Measured in production, Aker BP is one of the largest independent oil companies in Europe.

Aker BP is the operator of Alvheim, Ivar Aasen, Skarv, Valhall, Hod, Ula and Tambar, a partner in the Johan Sverdrup field and holds a total of 183 licences, including non-operated licences. Towards the end of 2021, Aker BP ASA made an agreement to acquire Lundin Energy’s oil and gas related activities on the NCS. The company’s assets and activities are mainly based in Norway and within the Norwegian offshore tax regime. (AkerBP, 2023)

In 2021 Aker BP purchased goods and services for about USD 3 billion, and engaged around 1,400 direct suppliers, mainly within the oil and gas service sector. Most Aker BP suppliers are based in Norway or in Europe and are generally contracted for high-technology services such as engineering, equipment, and drilling and well services, or leasing of rigs and marine services (AkerBP, 2022).

3.2 Aker Solutions ASA

Aker Solutions is a Norwegian engineering and technology company that provides products, systems and services to the oil and gas industry worldwide. The company has its headquarters in Oslo, Norway and employs over 15,000 people in more than twenty countries.

Aker Solutions offers a wide range of services to the oil and gas industry, including front-end engineering and design (FEED), subsea engineering and production systems, offshore field development, maintenance and modifications, and renewable energy solutions (Aker Solutions, 2023).

The company is particularly known for its expertise in subsea systems and equipment. Aker Solutions has designed and delivered subsea systems for some of the world's largest oil and gas projects, including the Johan Sverdrup and Snorre Expansion projects in the North Sea (Solutions, 2022).

3.3 Subsea 7

Subsea 7 is a global company that supplies engineering, construction, and installation services for the offshore energy industry, including oil and gas, renewable energy, and other related sectors. The company was formed in 2011 through the merger of two companies, Acergy and Subsea 7.

Subsea 7 has a range of services that include project management, engineering, procurement, construction, and installation of offshore facilities. With expertise in subsea umbilicals, risers, and flowlines (SURF) and renewable energy projects. The company also offers inspection, repair, and maintenance services for subsea infrastructure (Subsea 7, 2023).

Subsea 7 operates in several regions, including the Americas, Europe and Africa, the Middle East, and the Asia Pacific. The company has a fleet of specialized vessels and equipment that can manage a range of offshore projects.

In recent years, Subsea 7 has been working to develop modern technologies and processes to improve the efficiency and safety of offshore operations, while also reducing their environmental impact. The company is committed to sustainable practices and has set ambitious targets for reducing its carbon footprint. Overall, Subsea 7 is a major player in the offshore energy industry, with a strong record of delivering complex projects around the world (Subsea7, 2023).

3.4 Subsea Alliance values

The SSA is no different from other strategic alliances which means it faces all the same pitfalls, being dependent on correct management and values to succeed. To ensure the success of the alliance the SSA values are clearly communicated from the management. In figure 6 the three main values: One team, Three Wins and All safe are shown.

SUBSEA ALLIANCE VALUES



ONE TEAM

Trust, openness, respect and diversity

Our priorities are:
HSE - Quality - Schedule - Cost

Integrated collaboration

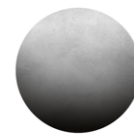


THREE WINS

Early involvement and total project perspective

We continuously improve and challenge the established

We celebrate our successes and learn from our mistakes



ALL SAFE

We work with a zero incidents mindset

We deliver right quality the first time

We care about our people and the environment

   |  SUBSEA ALLIANCE

Figure 6: Subsea Alliance values (SubseaAlliance, 2022)

These core values are made to construct an environment which is optimal for exchange of information and make good decisions and is mutually beneficial. By communicating these values to the organization you achieve the goal of giving clear instructions about values and goals of the alliance. An important success factor mentioned in Pitfalls and Success factors for alliances. With clear communications of organization, scope and incentives the subsea alliance hopes to achieve; respect, trust and transparency. This is shown in figure 7.



Figure 7: Subsea alliance goals (SubseaAlliance, 2022)

3.4.1 One team

The organization of the SSA is comprised of the previous mentioned companies of AkerBP, Aker Solutions and Subsea 7. This makes an organization with a clear goal of providing the best projects and that all win doing it. On an organizational level, one way of facilitating a successful alliance is a clear structure. This creates a best-in-class organization that communicates key issues quicker than a traditional organization. This is achieved by integration of resources and office seating together which makes handling challenges easier. In figure 8 and 9 the build-up of the alliance is presented.

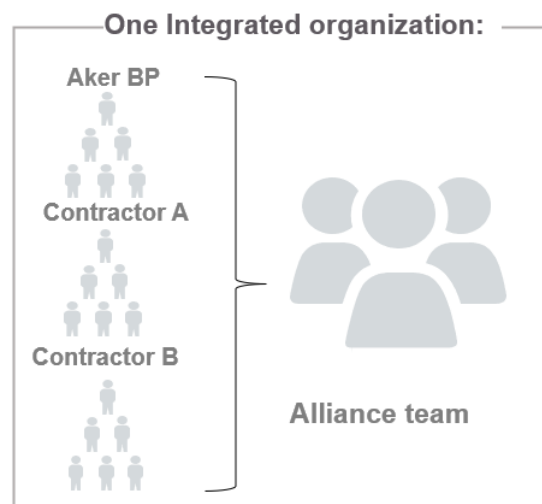


Figure 8: Alliance organization (SubseaAlliance, 2022)

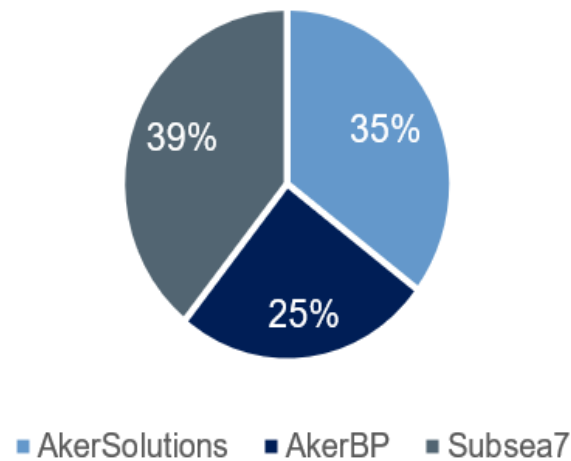


Figure 9: Subsea alliance resources divided between companies. (SubseaAlliance, 2022)

The basis of communication in an alliance can be summarized by the proverb “bad news travels fast.” With an integrated organization the correct people can manage these challenges and find a solution quicker when “the news” comes with full transparency.

3.4.2 Incentives

An important part of an alliance model is the incentives and rewards that makes being an alliance a benefit. Instead of one or two partners being the “winner,” the goal of the alliance is to have three wins for all companies. As mentioned in 2.2 and 2.3 this is a key aspect to making an alliance successful. Shared risks, rewards, goals, and gains. In the SSA the break down within a contract is that the MLC estimate and scope is agreed. Then the MLC agreement contract forms the basis for the project execution. In figure 10 a visualisation of cost model is shown.



Figure 10: Cost model within an alliance. (SubseaAlliance, 2022)

In figure 11 the incentives for savings and contract agreement of the SSA is shown.

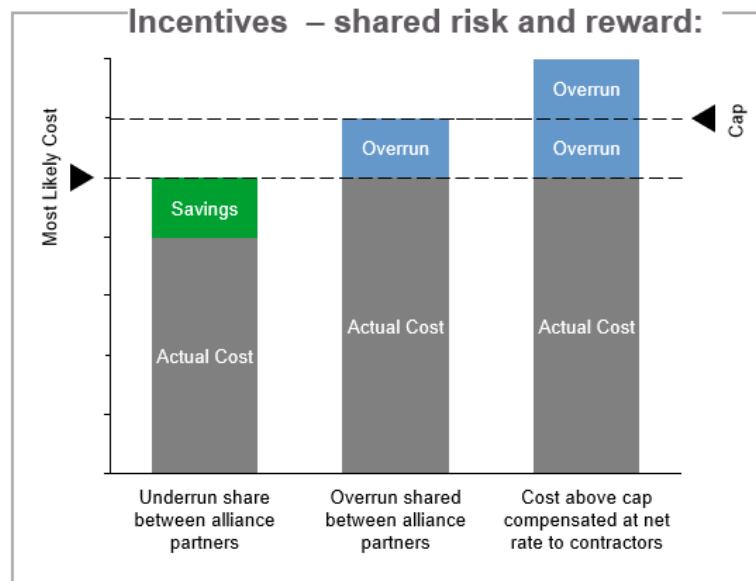


Figure 11: Incentives for the SSA (SubseaAlliance, 2022)

By including all costs under a base cost or MLC the administration of several contracts is reduced. This will relieve pressure of constant variation order requests from multiple parties. If the project is executed correctly the savings would be split equally based on amount of scope. To split the risks a cap is placed above a certain level of overrun to limit the amount of possible overrun for the suppliers. Creating an environment where solid work is rewarded and that each company can affect the outcome of the project.

3.4.3 Scope

Having common goals and being able to reach those goals, all partners in an alliance need to be able to influence the outcome. In a conventional supplier-operator model the contractor would start after decision gate two as shown in figure 12.

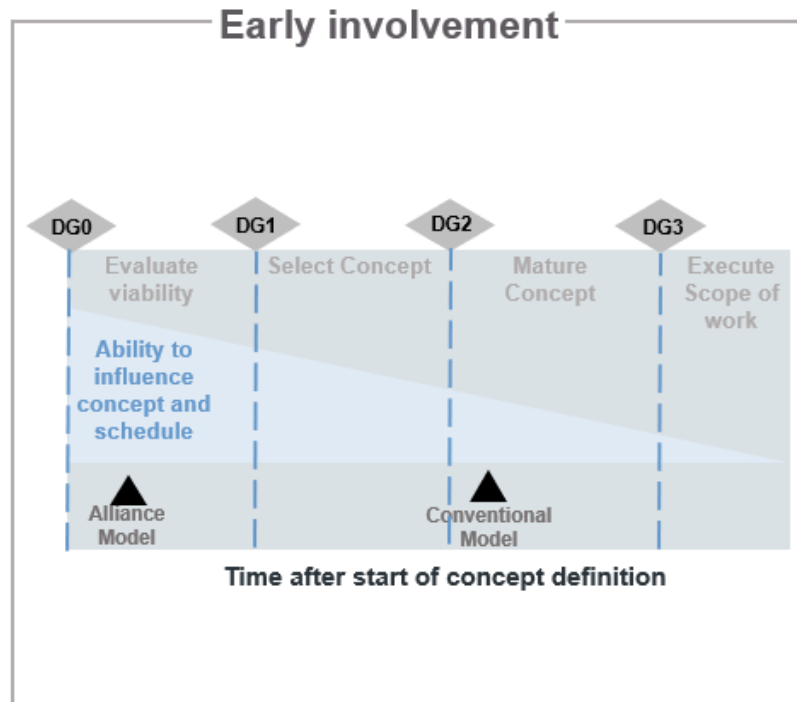


Figure 12: Scope model for SSA (SubseaAlliance, 2022)

This is where one of the big advantages of the alliance comes forth. Early involvement with continuity through the entire process from decision gate zero to decision gate three. SSA does less handover and continuity of personnel reduces the familiarisation period. This gives the companies a possibility to improve the outcome of the project by bring expert experience as a part of the scope definition. Creating the foundation for a solid project.

3.5 Subsea alliance performance

Based on the values of the SSA there was speculation that it would not be able to function well as a project execution model. With the values firm at hand and a commitment of the senior management has shown that this worry was unfounded. In figure 13 a performance diagram can be shown comparing typical market performance vs SSA schedule performance for Tie-ins. Showing that the gain is not on a singular contract but on a portfolio level.

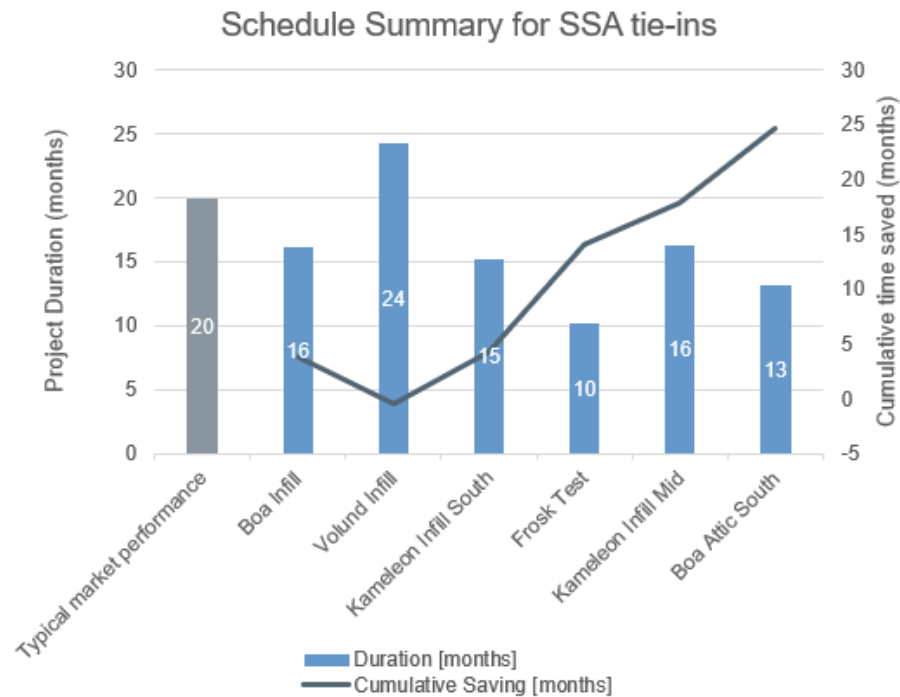


Figure 13: Schedule performance alliance vs typical market (SubseaAlliance, 2022)

Much of this can be attributed to a well-formed working environment with clear values and clear communication. This environment and early involvement give a possibility to remove any issues that might arise during execute. By containing the risk and cost of the full project execution within one budget the administration and costs are reduced. Then the amount of transactions costs of each company is reduced by doing wholesale portfolio purchases to subcontractors. This limits the transaction costs for the overall project and gives bigger margin in the project which give better pay-outs.

4. Theory

Transactions costs are a key factor to manage if an alliance is to be successful. To further elaborate on transactions costs, a basis of transaction costs is given. To support the framework of thesis and to give an understanding of the theory of transaction costs.

4.1 Transaction cost

In Roland Coase's paper "the nature of the firm" transaction cost is defined as, "*The cost of using the price mechanism*" (Coase, 1937). Transaction costs refer to the costs incurred by individuals or firms when they engage in economic transactions. Examples being buying or selling goods and services, exchanging information, or negotiating contracts. These costs can include search costs, bargaining costs, legal and regulatory costs, and monitoring and enforcement costs.

According to (Stavins, 1995) the definition of transaction costs are:

In general, transaction costs are ubiquitous in market economies and can arise from the transfer of any property right because parties to exchanges must find one another, communicate, and exchange information. There may be a necessity to inspect and measure goods to be transferred, draw up contracts, consult with lawyers or other experts and transfer title. Depending upon who provides these services, transaction costs can take one of two forms, inputs, or resources - including time - by a buyer and/or a seller or a margin between the buying and selling price of a commodity in a given market.

Both these definitions support the argument that transaction cost encompasses all costs that comes from of exchange of property, proprietary information, or commodity. These costs can be categorized as internal and external transaction costs. Internal costs are associated with transactions that occur within one company. Examples of internal transaction cost can be internal labour, search for information, planning, coordination, or use of resources from other departments. External transaction costs are cost that occur when a third party or another company is involved.

External transaction costs are when two separate companies that are planning to make an agreement or under an ongoing agreement. An example of this can be Aker Solutions agreement with a forging sub supplier and a third-party inspector. Here it would incur costs to

agree on the product specifications, the price, schedule, and follow-up terms. These external transactions costs are the costs to create and monitor this agreement (Salvatore, D & Srivastava, 2012).

As a simple visualisation figure 14 aims to show how internal and external transaction costs are captured within each company.

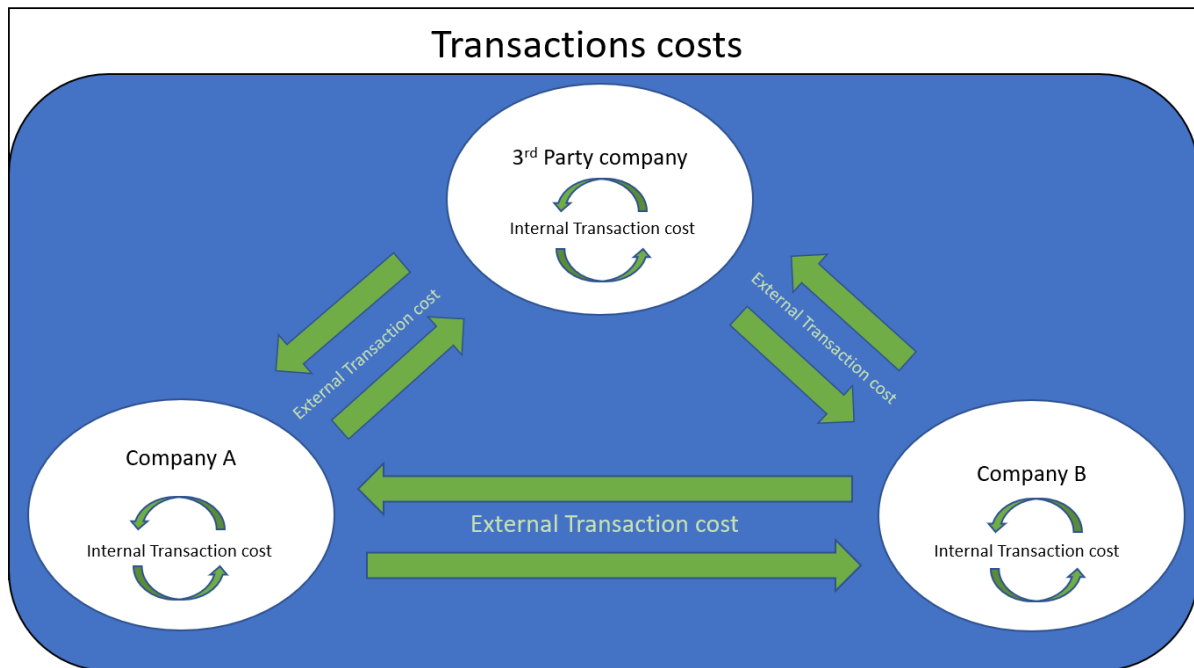


Figure 14: Internal vs external transaction costs

As a transaction between companies sometimes spans a long time these costs are not only reflected during the making of the deal both also as a part to administrating the transaction.

As defined by (Gray, Boehlje, & Preckel., 2006),

According to Coase, transaction costs are a critical factor that affects the way in which economic activity is organized. High transaction costs can lead to the formation of firms, as firms can internalize transactions within themselves and thereby reduce these costs. Conversely, low transaction costs can enable markets to function efficiently, as individuals and firms can more easily engage in economic transactions without the need for internal organization.

Understanding transaction costs is essential for understanding the efficiency of economic activity and the role of different economic institutions, such as markets and firms. Economists

continue to study transaction costs and their impact on economic activity, and the concept remains relevant in modern economic theory and practice.

As first mentioned in Ronald Coase's "nature of the firm" the foundation for the Coase hypothesis was formed. The concept was that firms could expand if internal transaction costs were lower than the external transaction cost for the same exchange (Coase, 1937). This concept is something that will be researched in this thesis as a foundation for use of transactions cost in an alliance. Internalizing transaction costs within a project is the basis that SSA uses to manage transaction costs between the companies.

4.2 Traditional supplier-operator transaction costs

Transaction costs in a traditional supplier-operator relationship is based on normal contract build up and transactions between the multiple parties. As an example, in a traditional contract and negotiation, the transactions costs would be similar to the ones described in table 1:

Table 1: Traditional supplier-operator transaction costs

Traditional supplier-operator transaction costs		
Search costs	Bargaining costs	Enforcement cost
Making product specifications	Time spent for both sides reaching an agreement	Cost control of contract
Finding qualified suppliers	Time spent in internal checks with departments on specifications	Legal fees to close the transactions
Identifying quality of product	Time used for bargaining over price	Quality follow-up for all items
Concept development	Cost of due full due diligence of supplier and sub-supplier	Time and money used on potential warranty claims
Benchmarking cost	Time used to approve design proposal and specifications	Time and money used on potential changes to scope using variation order requests

		Time processing interfaces between different suppliers
		Time and money used for documentation

These are transaction costs that is normal to encounter in any conventional project were there are two main parties that comes to an agreement. In a traditional supplier-operator contract both companies would have internal organizations that will monitor enforcement cost. Reason for the rigours follow up is to ensure that both parties follow the terms in the contract. This also might require a third party as seen in figure 14 which will increase the transactions costs for both parties. A typical third-party company on the NCS would be Det Norske Veritas (DNV) or WOOD Group. The scope of these companies would be to do verification or inspection on behalf of one of the companies.

4.3 Transaction costs inside an alliance

Transaction costs in an alliance differ from a supplier-operator relationship by internalizing the cost between the parties in the alliance. Some of the transaction costs are also removed as part of the alliance incentives, scope, and organization. As an example, in an alliance contract, the transactions costs would be similar to the ones described in table 2:

Table 2: Transaction costs in an alliance

Alliance transaction costs		
Search costs	Bargaining costs	Enforcement cost
Making product specifications	Time spent for both sides reaching an agreement	Cost control of contract from alliance organization
Finding qualified sub-suppliers	Time used for agreeing on total cost.	Internal contract fees to close the transactions
Concept development	Cost of due possible due diligence sub-supplier	Quality follow-up for main items
Benchmarking cost	Time used to approve design proposal and specifications	Time and money used on potential warranty claims

		Time and money used on potential changes to scope using contingency cost
		Time processing interfaces between different suppliers
		Time and money used for documentation

Table 2 presents normal transaction costs that could be encountered in an alliance and to visualise figure 15 is presented. The figure describes how the transaction costs within an integrated alliance would be distributed.

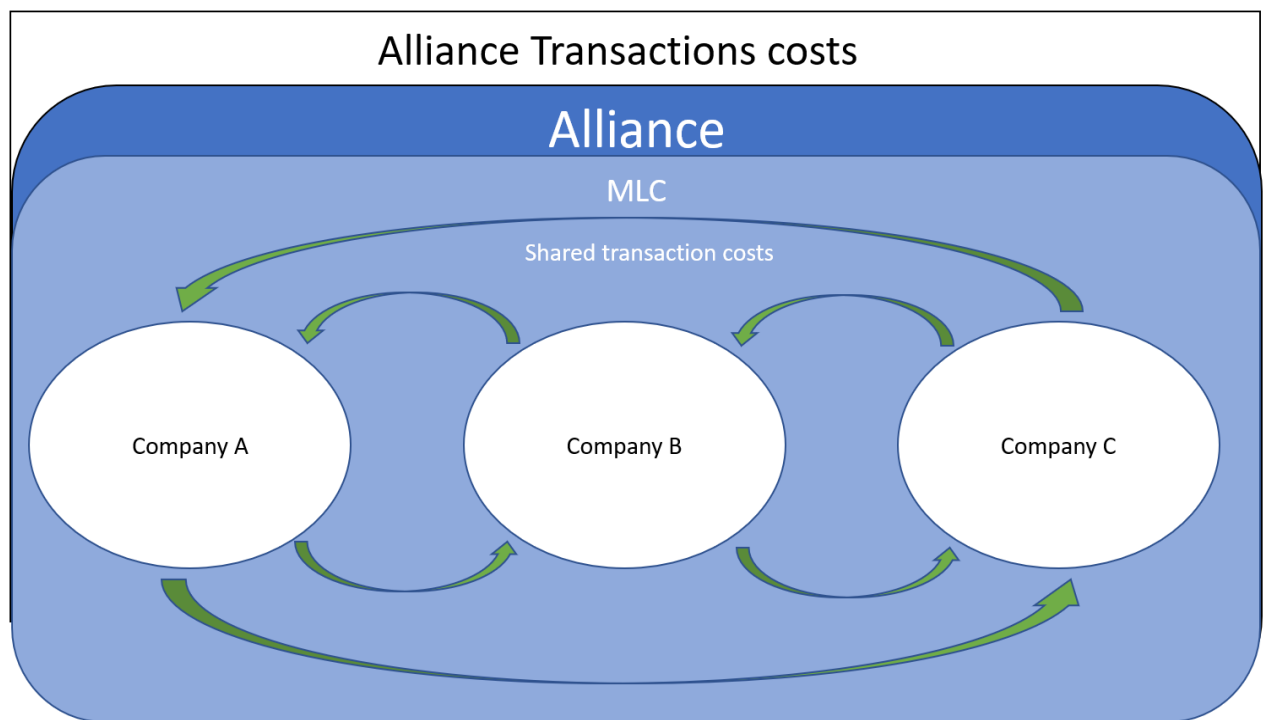


Figure 15: Alliance transaction costs

As seen in figure 15 a sharing of the costs within an integrated alliance is part of the strategy too share costs between all included parties. This can only be done if the transaction costs that occur is only related to scope inside the alliance. By having a common MLC which governs the overall transaction costs, they can be mapped more accurately in the alliance entity. This also means that transaction costs between and internally in the companies is included in the estimate for MLC. Incentivising optimisation of transaction costs between the alliance parties.

4.4 Supply chain transaction costs

Supply chain is a key process of any project and is a central part of why strategic alliances is formed. To use each company's expertise to grow the alliance and in turn making both companies more efficient and reducing cost. Transaction costs for supply chain can be broken down into risk type of producer and managerial capacity in the company. Figure 16 is showing a relationship between a risk adverse producer of goods while being in a relation to management capability.

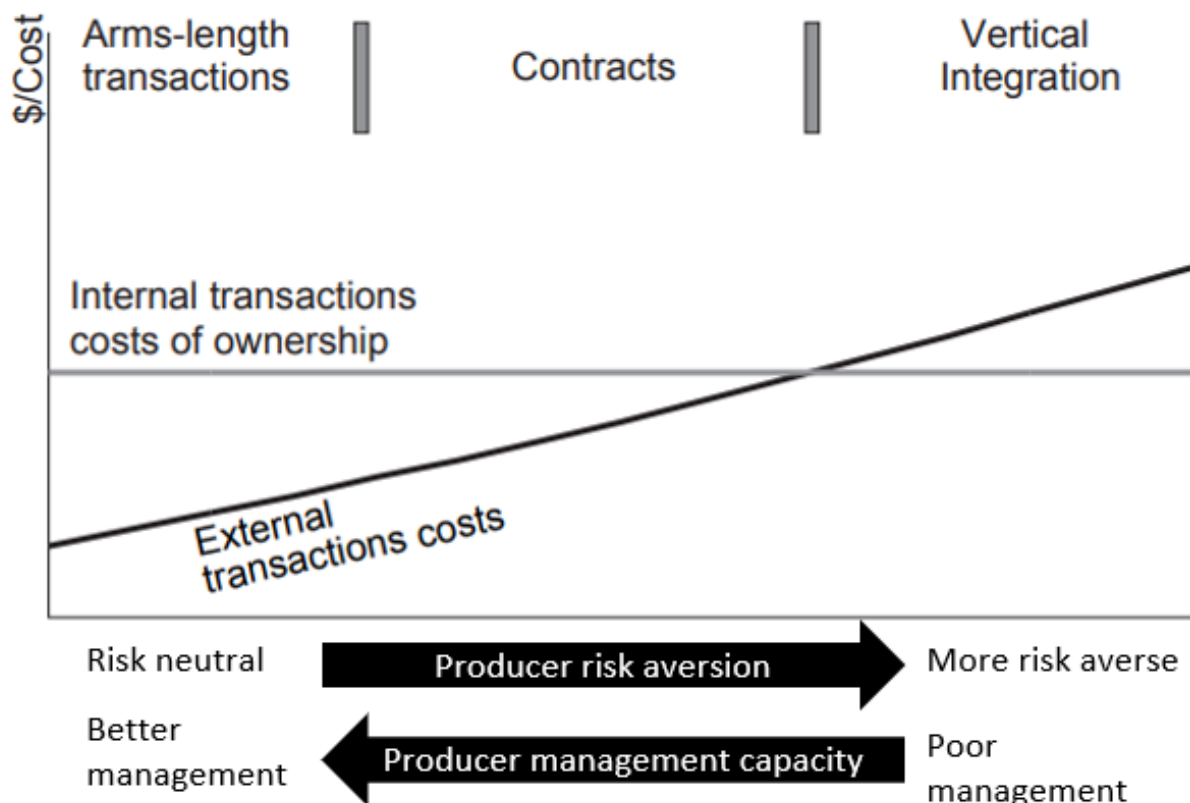


Figure 16: Risk sharing and managerial capability transaction costs (adapted from (Gray, Boehlje, & Preckel., 2006))

Based on the figure it is shown how there is a relation of transaction costs between a risk adverse producer and a poorly managed producer. There is not a direct relation between a poorly managed company and a risk adverse company, but the level of transaction costs they have are the same. This means that a poorly managed company which is risk adverse would have high external transaction costs. A well-managed risk neutral company would have lower external transaction costs but, possibly higher internalized transaction costs.

4.5 Cost challenges in an Alliance

Within an alliance there will be challenges related to cost that management needs to be aware of. In the chapter Challenges and benefits of an alliance there are some challenges that is key to be aware of. These are: benchmarking, financial goal alignment, monopsony.

4.5.1 Benchmarking

Benchmarking is an important part of ensuring the solutions are priced according to market cost. Benchmarking is defined as:

“The essence of benchmarking is the process of identifying the highest standards of excellence for products, services, or processes, and then making the improvements necessary to reach those standards - commonly called “best practices” (Bhutta. & Huq, 1999)

Traditional projects on the NCS would automatically be the best practise and cost benchmarked. Since it would follow a traditional procurement process, were all qualified suppliers would submit their bid and the best bid would be selected. This is an efficient way of benchmarking cost and performance of the suppliers. In figure 17 a version of the benchmarking wheel which depicts the process of benchmarking.



Figure 17: Benchmarking wheel (adapted from (Camp, 1989))

In an alliance context benchmarking cost and performance, would be meet with challenges from other suppliers due to commitment to suppliers in alliance. With the commitment to award within the alliance other suppliers are discouraged to commit time and resources for a bid on the scope. Other suppliers would have little incentive for creating a bid since it would only be used as cost benchmarking with little upside for a supplier. This can result in low quality cost benchmarking resulting in overpaying for equipment and services within a project.

4.5.2 Financial goal alignment

Another key success factor of an alliance is that the financial goals are aligned between the parties in the alliance. (Hatfield & Pearce, 1994) show a point that limited goal alignment is a key reason for dissatisfaction in an alliance and hinders alliance performance. It is important to note that when relationship starts to go sour it is challenging to maintain an alliance. This is possible to reverse but, a substantial challenge. Having clear and agreed financial goals from the start in an alliance is important for the alliance to be successful. As written by (Das & Teng,, 2003):

The basic argument is that if one starts off with shortcomings it would be difficult, although not impossible, to achieve the original goals. Thus, while managing the process is important, having an advantageous head start is at least equally critical. In addition, because our approach stresses initial goals in alliances, our framework will be particularly applicable to alliances with clear goals. (Das & Teng,, 2003)

It is seen that if goals are well communicated and aligned cooperation is easier. While if goals are misaligned for one or more partners it will cause interpartner conflict which may erode the benefits of an alliance. If the mindset changes from cooperative to individual it would cause conflicts due to one partner trying to gain as much as possible.

4.5.3 Monopsony

A disadvantage by having a singular buyer is the potential power this buyer obtains. This is known as buyer power or monopsony. Monopsony is defined as,

A market with a single buyer. (Robinson, , 1969).

A weaker version is known as oligopsony. In this case there are more than one buyer, but they are still so few that they can exert market power. While an alliance is not a full market it is a

singular buyer for a project and may have a power to affect the supplier. As Coase says in the nature of the firm.

If there is no market power among the sellers, the buyer is in a position to push the price down to the minimum amount needed to induce a seller to produce the last unit (Coase, 1937).

In practice, this can be a challenge when a seller makes significant relation specific investments, creating what is known as a lock-in situation. While the relationship specific investment reduces total transaction costs, it can give the buyer the opportunity to renegotiate. This can force the price down to the variable costs, and as such, the seller does not get any or obtain lower returns on the fixed costs associated with the relationship specific investment.

5. Discussion

In this chapter the thesis will compare the concepts presented in the previous chapters. As a guide to further reading, the five theory points that are represented in figure 18 will be discussed separately. The argumentation for each theory will be based on discussing central values for an alliance. When doing so, the discussion will be based on the information presented previously in this thesis and compared to each other. With this data, each point will be presented, and opportunities and challenges of each subject will be discussed. These are subjects identified as vital for an entity which is in the state of making an alliance. These are considered vital tools for enforcing the vision set for sustainable alliance relationships.

Discussion				
Management	Incentives	Transaction cost	Supply chain	Longevity
Opportunities	Opportunities	Opportunities	Opportunities	Opportunities
Challenges	Challenges	Challenges	Challenges	Challenges

Figure 18: Discussion basis of thesis

5.1 Management

Management within an alliance is substantially different from a traditional contract. As described in chapter three, an integrated alliance is a step to a successful alliance. For example, the SSA has a fully integrated team between the three companies which is dedicated to the specific project shown in figure 8 & 9. In the two next sub chapters the opportunities and challenges of management in an alliance will be discussed.

5.1.1 Opportunities

When it comes to opportunities in management inside an alliance there are two main arguments that is core to a successful alliance. These two arguments being:

- More efficient resource use on a project
- Common goal

More efficient resource use on a project

In an alliance the best-in-class team could be created to manage a project with a dedicated follow-up of supply chain. By creating an integrated team with personnel from each company a bigger flow of information will go in inside the alliance. This will eliminate the need for additional resources which tasks is to follow-up supplier's contractual obligations. Integration of an operator and supplier creates an entity that eliminate interfaces. Having operator giving direct input to the suppliers reducing the amount of follow-up and interface meetings. Giving the ability to have a singular follow up meeting with both parties at the same time limiting the amount of resource use. With more time being available to manage other challenges.

Common goal

The opportunity to create a common goal for three specialized companies which contribute in their own way towards a common goal. This is a very efficient managerial strategy and contributes to creating a community in the alliance which reinforces the common goal mentality. In figure 19 a description between a common supplier-operator relationship is portrayed and how an alliance is meant to work.

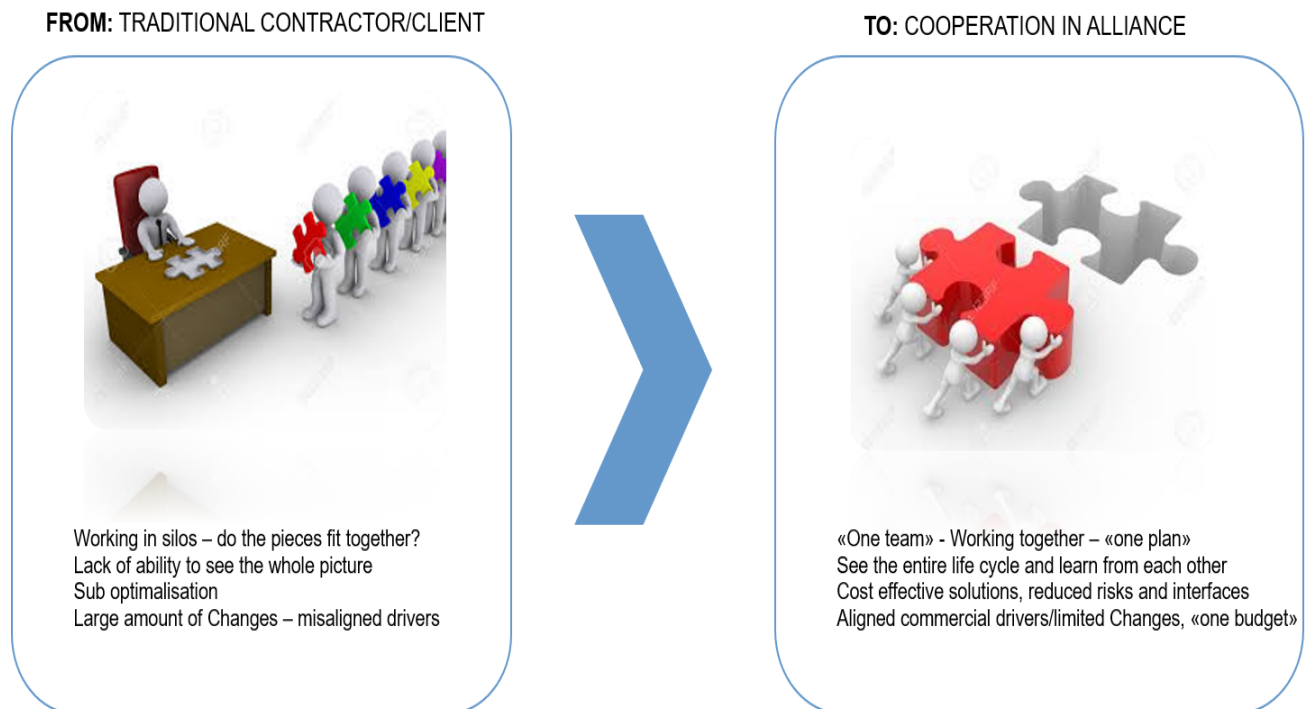


Figure 19: Traditional vs alliance goal (SubseaAlliance, 2022)

In the figure the goal of creating a mindset were “one team” and “one plan” is essential. This combined with a common budget and incentives for savings and risk reduction creates a drive for a common goal. The main benefit of having a common goal is that reduced number of obstacles in a managerial setting were resources end up going towards non-productive measures. A common goal incentivises working for each other and not against each other.

5.1.2 Challenges

As there are opportunities there will also be challenges within management when forming and maintaining an alliance. There are several pitfalls that an alliance would encounter managing an alliance, were three main challenges are brought forward:

- Shared vision
- Top executives from all companies support the alliance.
- Creating a community in the alliance

Shared vision

Shared vision for an alliance is essential if management and efficiency of the alliance is to be successful. Giving a clear shared vision from the management is the first step of giving the personnel involved in the alliance a reason to collaborate with each other. In a setting where personnel from different companies are require working together an unobstructed vision with

goal, benefits and mindset of the alliance must be communicated. The goal of shared vision is to align the culture of all involved companies to reduce conflicts in the future.

As an example of creating a shared vision is the change of mindset one must introduce from the “client perspective” as shown in figure 20.

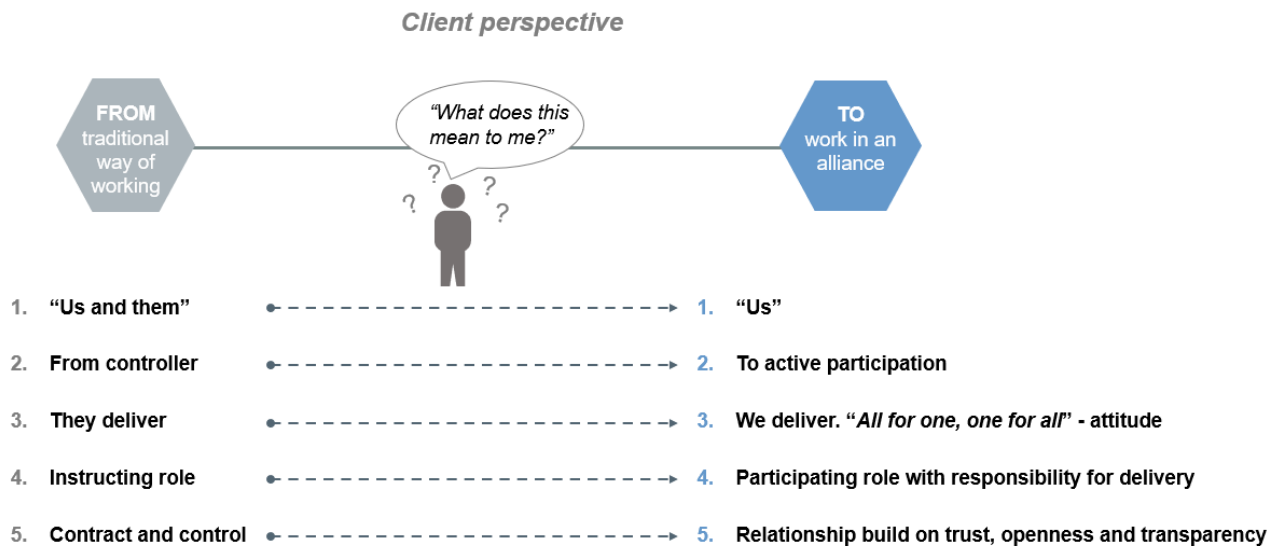


Figure 20: Change in vision from client to team member (SubseaAlliance, 2022)

Top executives from all companies support the alliance.

A challenge to have a proper functioning alliance is support from top management from all the involved companies. Since a core idea of an alliance is trust between the involved parties, backing from executives and outspoken support is essential for an alliance. If the alliance is meeting resistance from executives in one company, a divide would be created and hinder an open information environment. As mentioned in chapter 2.3, some key statements for a successful alliance are:

- We have a high degree of trust.
- Top executives from both companies have met and support the goal of the alliance.
- We have excellent channels of communication at all levels.
- All companies have the mind share.

These are measures that can be affected by the top executives and why they are key stakeholders to have supporting an alliance. If these measures are implemented the next challenge will be easier to solve.

Creating a community in the alliance

Since an alliance will involve companies that have diverse cultures a key aspect is to create a new community and culture within the alliance. This is to enforce the projection of a cooperation and togetherness which will help with teamwork and efficiency. The community needs to have a culture of openness and trust, which are a basis to create an alliance that have the intended result. To get the benefit of efficient communication and information sharing, a community that is open to those ideas is essential. There are several methods of doing this such as: joined seating, dedicated teambuilding's, socializing platforms, and communications about progress in the alliance.

5.2 Incentives

Incentives for an alliance is described by which type of opportunities does the companies in the alliance receive. Which incentives are given to make the effort of an alliance worth it? What are any opportunities in terms of de-risking potential of loses within an alliance? In the two next sub chapters the opportunities and the challenges of incentives in an alliance will be discussed.

5.2.1 Opportunities

Within an alliance there needs to be clear incentives to give enough of an upside to join in an alliance. When it comes to opportunities in incentives inside an alliance there are two main arguments that is core to a successful alliance. These two arguments being:

- Shared gain
- Reduced project execution time.

Shared gain:

As described earlier the alliance should have an economical incentive such has shared gain, where an example is shown in figure 21.

%	% of companies scope		% of savings received	
	Supplier B	Supplier A	Supplier B	Supplier A
100%				
	Supplier B		40 % of savings	
60 %		Supplier A		30 % of savings
30 %		Company		30 % of savings

Figure 21: Savings % distribution

By shared gain, all companies in the alliance have an incentive to make continuous improvement to the project. These improvements are measured if they reduce the risk or if they are a cost saving. At the end of the project a cost tabletop exercise is conducted with all companies. The potential savings acquired through the project is split based on the percentage of scope. This incentive will give a clear and aligned goal for the alliance which is also mentioned as a key measure in chapter 2.3.

Reduced project execution time.

A clear opportunity for an alliance model is the early involvement where all companies are responsible to develop the best concept for the project. When the alliance can contribute to the project the result is a common focus on the execution eliminating project familiarisation time. This is shown in figure 12 by marking when an alliance would be involved in comparison to a conventional model. Reduction of execution time is a benefit for all parties in the alliance. For an operator, faster first oil and cash flow. For a supplier, faster payment, and availability to take on new projects.

5.2.2 Challenges

As there are opportunities there will also be challenges within incentives when forming and maintaining an alliance. There are pitfalls that an alliance would encounter with incentives, but one main challenge is brought forward:

- Longer binding of resources within the company

Longer binding of resources within the alliance

Facilitating this longer inclusion process has an impact on the amount of engineering and management resources that must be committed. Each project will then require additional resources because of early involvement. Having an increased timeline of involvement means a longer period where resources will be dedicated to each project. As mentioned in 2.2 a key measure for a successful alliance is continuity in the players and a clear understanding of roles. This creates a challenge if there are multiple change outs of resources during the project in key roles. If the turnaround of personnel in an alliance is high the risk increases for inter partner conflicts.

5.3 Transaction Costs

Transaction costs for an alliance is described by which type of costs are captured inside and outside the alliance. As a big part of transaction costs in an alliance are internal there are opportunities to reduce, but risks of increasing. In the two next sub chapters the opportunities and the challenges of transaction costs in an alliance will be discussed.

5.3.1 Opportunities

Within an alliance there needs opportunities to reduce transaction costs with an upside in an alliance. When it comes to opportunities in transaction costs inside an alliance there are three main arguments that is core to a successful alliance. These three arguments being:

- Active role to reduce cost through the entire projects for all involved parties.
- Reduced cost for supplier companies related to tendering.
- Reduction of risk in projects

Active role to reduce cost through the entire projects for all involved parties.

To give all parties a possibility to influence the cost of the project, early involvement is key to make the most of an alliance. In a conventional improve the focus would be to understand how to make a “good enough” solution for the project. An alliance mindset would be to optimise the scope to secure the best basis for execution. After the scope is set, there is more common drivers to lower cost internally in the companies and in the project. This can be done by optimised follow-up, efficient use of third parties, and reduction in administration cost. This gives a common incentive where the hope is to reduce the amount of unexpected costs and variation order requests. As seen in figure 22 this is achieved by having aligned values during the entire projects for all involved parties.

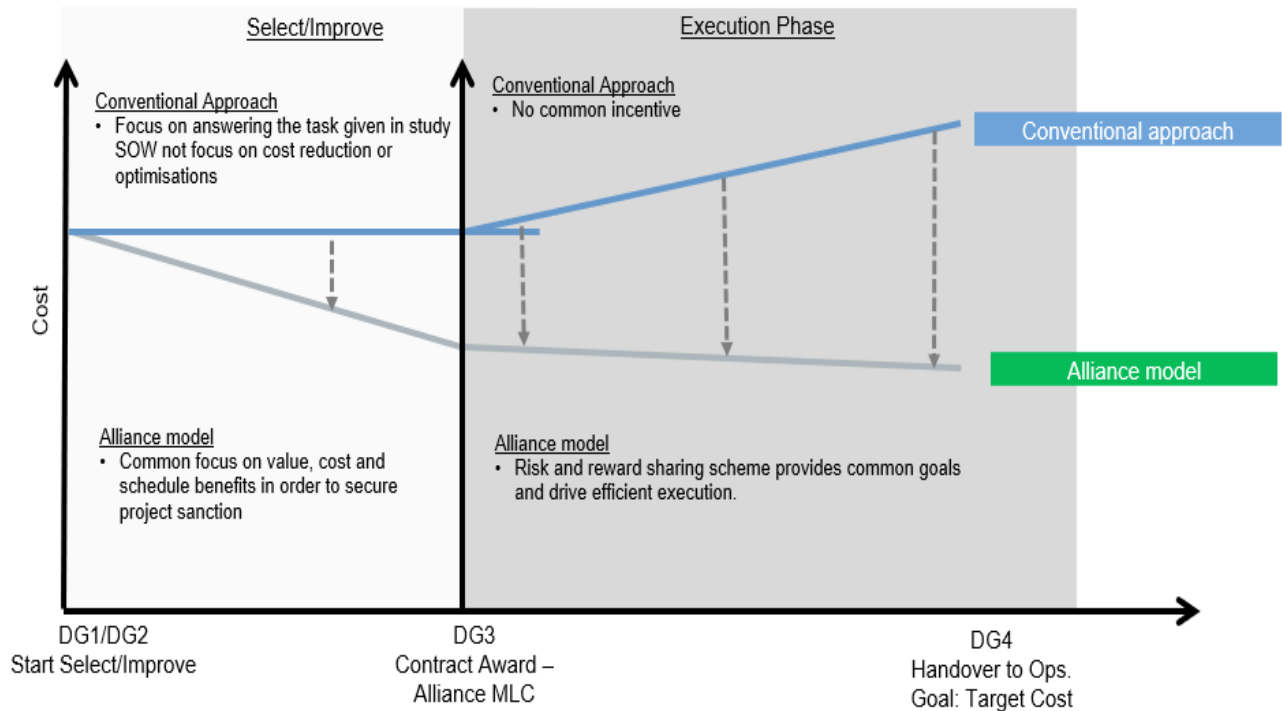


Figure 22: Alliance execution and cost model (SubseaAlliance, 2022)

This type of active role shows an example of an implementation of the figure 3 incentives within a business environment. Using such a model would decrease transaction costs within all three transaction cost categories. Search cost would be limited due to already approved suppliers. Bargaining costs would be reduced due to focus on value and cost for optimal scope. Enforcement cost would be reduced due to risk and reward sharing driving down expensive follow-up.

Reduced cost for supplier companies related to tendering.

Tendering is a big cost related to costing of a project and is the traditional approach to selecting suppliers. Tendering is also an internal transaction cost with no coverage since in the traditional sense there is no guarantee of contract award. In an alliance this is different. Based on that the alliance partners will with high confidence receive the contract award when the project is sanctioned. By having such a setup, the supplier can focus on making the most optimal solutions and having tendering cost partially covered by the project. For a supplier this would de-risk a high internal transaction cost.

Reduction of risk in projects

There will always be risks in projects and these might be known or unknown. It can occur black swan events that will increase cost way above estimated budgets, such as covid-19 did.

This increase in transaction costs might be internal or external. Examples of this can be delays in equipment supply, increase of material cost or offshore campaign breakdowns. Situations similar to these in a traditional setting create a high-cost increase for suppliers or company. Within an alliance setting cost are shared as per figure 11. Here its seen that the costs, after a certain point, is caped for suppliers and company will pay net cost to the suppliers. For the suppliers it means money cannot be lost a contract which is a safety net which reduces financial risks for the suppliers. The operator will pay less as part of the overrun and if it passes the cap will only pay net expenses. This reduces financial risk for all parties involved.

5.3.2 Challenges

There will be challenges regarding transaction costs within an alliance since there is both external and internal factors contributing. There are several pitfalls that an alliance would encounter with transaction costs, were two main challenges are brought forward:

- Reduction of earning potential for suppliers
- Transaction costs of establishing an alliance

Reduction of earning potential for suppliers

As mentioned earlier in the discussion both a shared gain and a risk reduction are incentives of an alliance, but there is a trade-off. The trade-off being the reduction of earning potential for a supplier. In figure 23 a possible scenario comparing a traditional contract and an alliance contract can be seen. For a traditional contract there will always be margins on the base cost of a supplier, giving an incentive to create variation order requests. This increases the cost for the company, but the suppliers get more revenue and higher profits. As there are no cap for VORs the earning potential is limitless. The challenge here is to have a commitment from suppliers to give up this potential for the other incentives brought by an alliance.

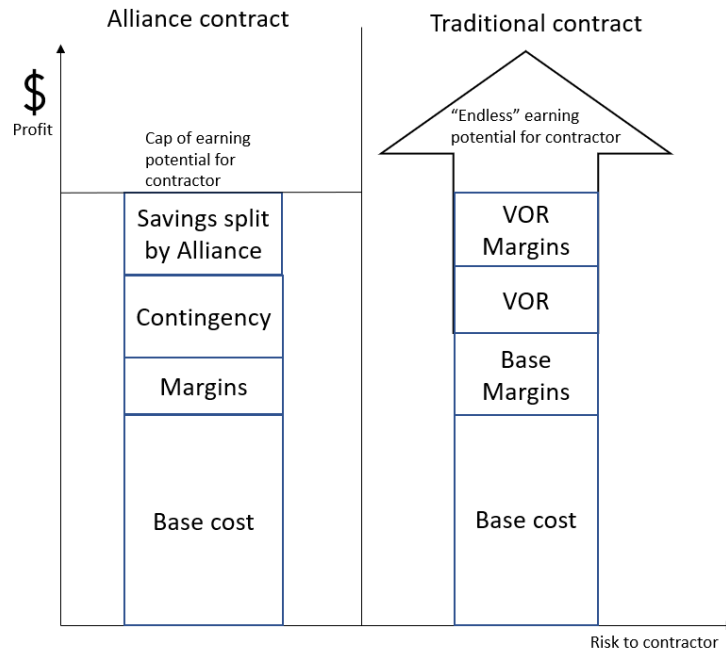


Figure 23: Alliance contract earning potential.

Transaction costs of establishing an alliance

To establish an alliance there are several internal transactions cost that will not be included within the budget of a project. These costs need to be captured by each individual company before an alliance is in place. Costs can range from:

- Establishing procedures for engineering for an alliance,
- Purchase of new management software,
- Training of personnel,
- Creation of alliance agreement
- Additional dedicated resources.

To get the most out of an alliance a common system for control and engineering should be in place. With the fact that there are several project management systems it often does not correspond. Challenges with upfront investment needs to be highlighted as a key challenge to overcome before an alliance can be established.

5.4 Supply chain

Supply chain is an ever-developing field in improvement when it comes to projects on the NCS and in general. Since supply chain is a subject that is a major contributor to cost & time in projects the goal is to present opportunities and challenge in an alliance setup.

Opportunities in supply chain is related to information and documentation flow. Challenges is related to exchange of intellectual property to other companies in the alliance. In the two next

sub chapters the opportunities and the challenges of supply chain in an alliance will be discussed.

5.4.1 Opportunities

When it comes to opportunities in supply chain inside an alliance there are three main arguments that is core to a successful alliance. These three arguments being:

- Closer access to information about delays or challenges
- Optimisation of quality resources
- One life cycle information & document control system

Closer access to information about delays or challenges

“Bad news should travel fast” was said by AkerBP’ chief executive officer Karl Johnny Hersvik and is a core part of what the desired effect of an alliance. In a conventional setting small delays that may seem insignificant are not shared openly due to risk of financial backlash in the terms of late delivery fees. In an alliance the management and company are integrated into the project team which gives direct access to information about progress. The access to this information is an advantage that can map risks in deliveries and dependencies which help in the overall project. When the focus is delivery on time and cost sharing, all parties involved contribute to prevent small delays escalating. When all parties are informed of the challenges early there is more time to reduce the risk of late delivery by adding resources towards the needed delivery.

Optimisation of quality resources

To have a successful project and create a steady and reliable supply chain key resources must be in place to follow up all deliveries. This requires a large number of resources and follow-up in a conventional contract format. As seen in figure 24 a conventional quality team is presented in comparison to an alliance quality team. Both teams perform the same tasks, but an alliance reduces the need for additional resources put towards reporting on the same items. By doing this, the amount of administration needed for unnecessary quality follow-up is reduced. Within an alliance setting, quality is also a high focus, but the roles are more dedicated and resources more specialized for the quality follow-up.

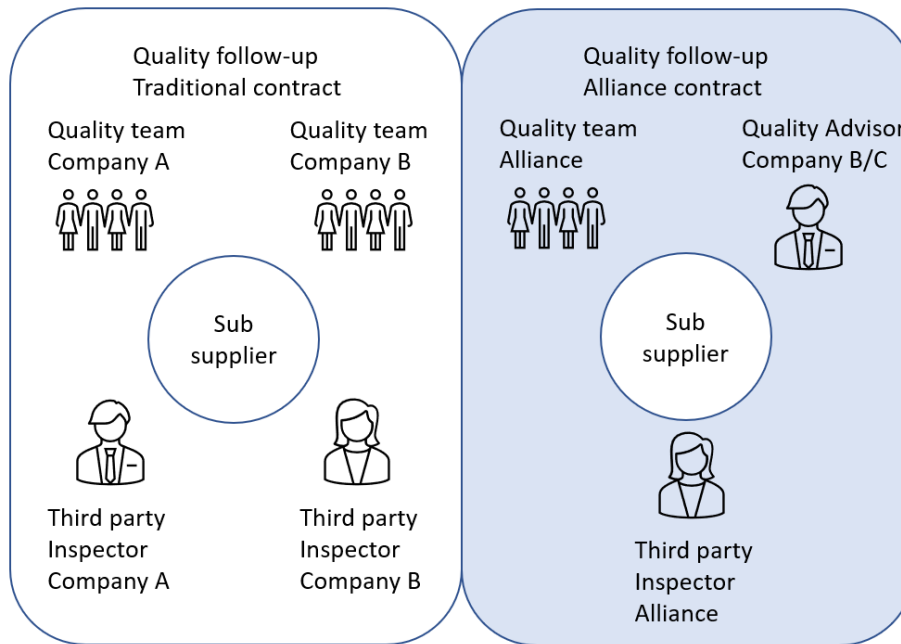


Figure 24: quality follow-up Traditional vs alliance

One life cycle information & document control system

A key opportunity of an alliance is information sharing and especially relating to review of documentation and storage of documentation. By having a singular shared system for documentation reviews and linking documentation to equipment information is liberated. Substantial amount of time is lost in interfaces only caused by not having access to information from another department or company. As seen in figure 25 an alliance life cycle information and document control system is shown. In comparison a conventional model is shown in figure 26.

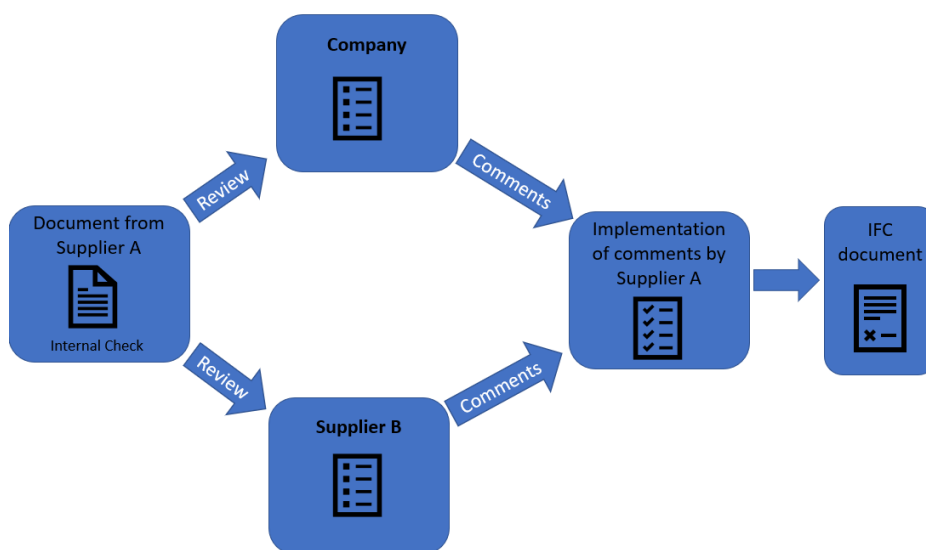


Figure 25: Alliance document review

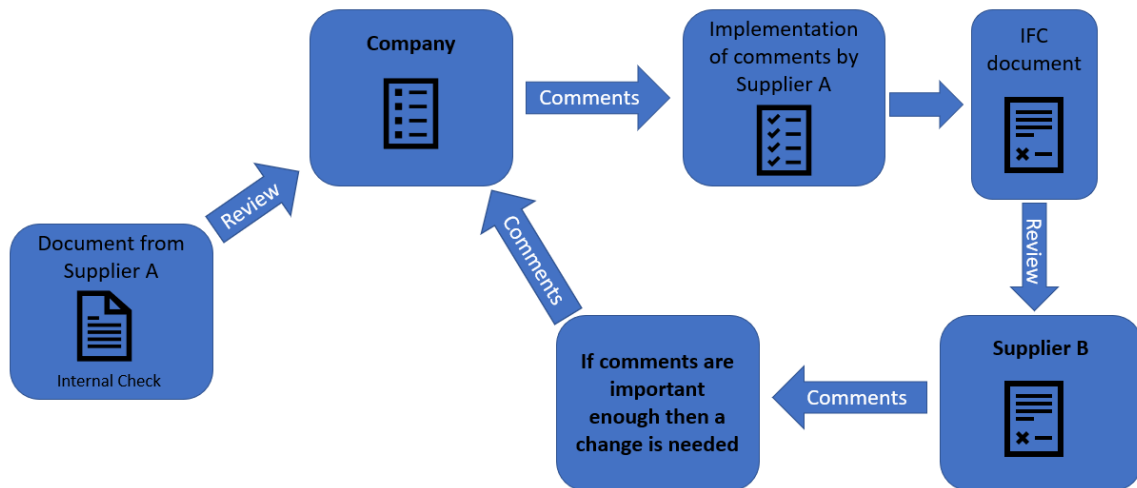


Figure 26: Conventional document review

5.4.2 Challenges

There will be challenges regarding supply chain within an alliance. There are several pitfalls that an alliance would encounter with supply chain, but one main challenge is brought forward:

- Exchanging documents between companies

Exchanging documents between companies

Sharing of information between companies that are competitors are impossible, but even if companies are not in the same field, it is still a challenge. As sharing and trusting other parties with information that often is considered intellectual property is a risk of exposing company secrets. Meeting between parties often happens where intellectual property is shared as an overview is common, but sharing of details such as documents are rare. This challenge is key to overcome as an alliance. Within supply chain there is the greatest number of documents that contain details about processes, specifications, and functions. To share these documents between several involved companies in a conventional contract is often a tedious process. A key measure of an alliance is to reduce resources needed for interfaces and hence reducing supply chain complexity. This sharing of documents is a challenge that needs to be cleared to create an alliance which will reduce the needed resources for interface management and legal clarifications.

5.5 Longevity

In the term longevity the intended interpretation is that if a formed alliance will endure not only over a single project but is a viable way of working for all the companies involved. Which opportunities is presented within a long-lasting alliance and which challenges will need to be overcome to make an alliance work overall. In the two next sub chapters the opportunities and the challenges of longevity in an alliance will be discussed.

5.5.1 Opportunities

When it comes to opportunities in longevity inside an alliance there are two main arguments that is core to a successful alliance. These two arguments being:

- Steady stream of projects and investments
- Digitalisation

Steady stream of projects and investments

A crucial part of why suppliers such as Aker Solutions and Subsea 7 agreed to form an alliance is the guarantee of contract award when project is sanctioned. This means less use of costs for uncertain value which frees up resources to focus on tasks that create value. In figure 27 a graph of sanctioned projects within the SSA is shown. On the X axis each project sanctioned is shown while the Y axis is the cumulative value of the projects.

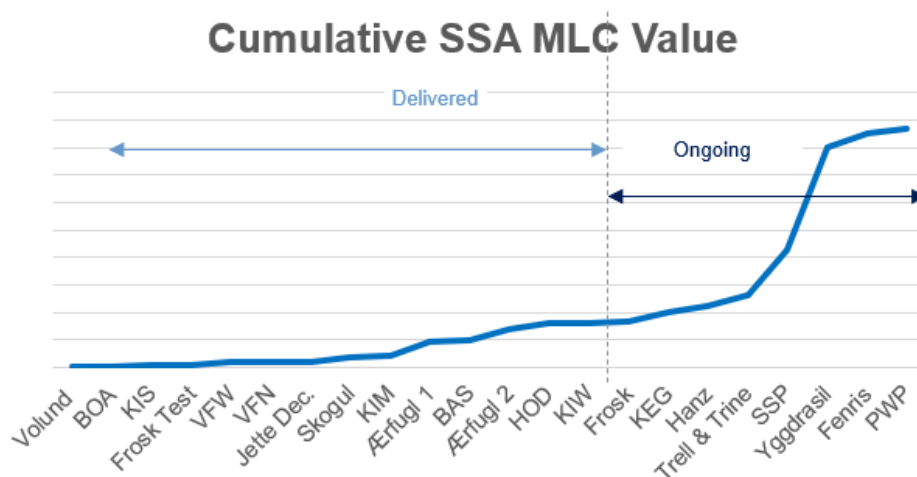


Figure 27: Planned future projects for the SSA.

The figure clearly shows the steady stream of projects that is coming into the SSA which is a success factor for the companies and the alliance. This creates value for all the alliance members and shows a plan for longevity of the concept.

Digitalisation

To further develop and drive improvements within the alliance digitalisation is seen as a clear opportunity to reduce overall cost over a longer period. Since digitalisation is often an upfront investment in software or a new process it takes time to pay the investment back. By having an alliance where the timeline for cooperation is longer, these upfront investments have a longer period to pay itself back. During a normal project, such digitalisation cost would only be captured by the suppliers, but in an alliance its different. When most transaction costs are internal in the projects the cost is split between multiple parties and the saving can be used for the whole portfolio. As seen in figure 28.

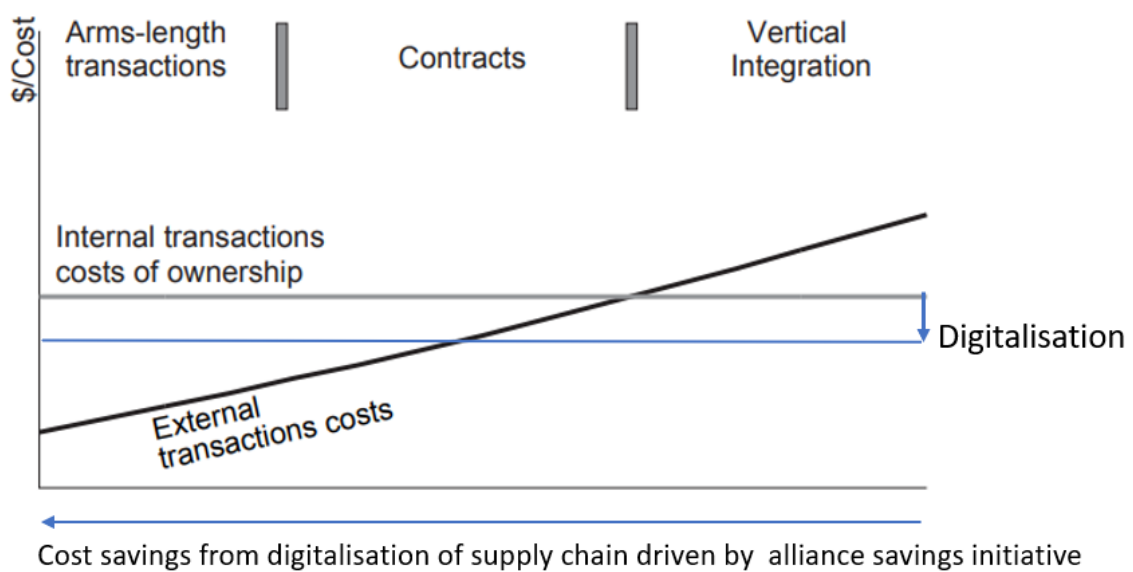


Figure 28: Digitalisation for lowering internal transaction costs (adapted from (Gray, Boehlje, & Preckel., 2006))

5.5.2 Challenges

There are several pitfalls that an alliance would encounter with longevity, were two main challenges are brought forward. These two arguments being:

- Establishing a portfolio of projects in an alliance
- Creating a financial healthy environment for involved parties.

Establishing a portfolio of projects in an alliance

To have a successful alliance it helps that each learning can be brought from on project to another. This is to optimise the sharing of information between alliance projects on a portfolio level. The challenge with this is establishing this portfolio in the first place. Creating such a portfolio requires big commitment from all involved parties for the alliance concept. Without a portfolio of projects, high internal transaction costs and reduced learning due to being in the

start phase, the internal transaction costs will be high. If this challenge is unresolved, it will hinder the development of the alliance concept and increase to risk of disbanding the alliance concept.

Creating a financial healthy environment for involved parties.

The reason to start an alliance is that its mutually beneficial for all parties. To continue the development of the alliance and keep the benefits of an alliance going a key measure is that its financially healthy. If scenarios occur where one company reap most of the benefits every time it lessens the incentives for the other involved parties. This hurts the common goal and will challenge the longevity of an alliance. Having one party receive most of the benefits will drive a wedge in the alliance and create inter partner conflicts. If these conflicts escalate it might hinder and eventually disband an alliance.

6. Conclusion

This thesis has presented theory about strategic alliances and examples from the SSA together with discussion around challenges and opportunities. A total of twelve opportunities and nine challenges was presented. Based on the presented key success factors correlation between the theory and practise were made.

To create a successful alliance a core subject that comes up repeatedly is values of an alliance. First step is to create values that all involved parties can support and promote, since to get an alliance to be successful everybody must pull in the same direction. Implementation and following the values is important to promote the community that needs to be within an alliance, giving personnel within an alliance an incentive to work together. This creates the basis of a culture that promotes teamwork, efficiency, and sustainability.

To maintain a successful alliance all parties must have a matched contribution in comparison to incentives and economically opportunity. If an alliance only would benefit one party and cause the remaining parties' risks and economic uncertainty it would fail after implementation. The information seen is that alliances that have common goals, mind share and aligned incentives will have a better probability to succeed.

Alliances has become a big part of international business, from mobile manufacturing to oil and gas projects on the NCS. This just shows that if done right alliances have big upsides but there are critical challenges to be aware of.

6.1 Further research

For further research more extensive research of other alliances on the NCS would be of value. By including a larger number of alliances that is currently on the NCS it might be possible to identify other challenges and success factors. This would reaffirm the basis and the implementation of such alliances and give better basis of evaluation for creating a successful alliance.

As a part of further research some actions with key performance indicators could be implemented into an alliance. These indicators could be used as basis to see if the

improvement would increase efficiency. This would be over a longer period which would not be within a master thesis timeframe. Examples of such actions could be:

1. Creation of a singular communication channel which broadcast both achievements and news from within an alliance.
2. Specific workshops and meetings that is aimed to have personnel new to an alliance adopt the mentality and culture.

After implementation of initiatives mentioned above, an organization would then be able to send out quarterly forms requesting feedback of the state of an Alliance. Getting direct feedback from personnel on the performance of the alliance.

To prove the success factors of an alliance concrete numbers and indicators would be beneficial to obtain to give a clear gain or loss of an alliance. If such numbers were provided a specific business case could be built that would be able to affect future concepts and developments. This would be an interesting business case to compare projected performance to actual performance with long term effects and opportunities.

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