

# Backshoring – The new competitive advantage for Norwegian companies?

A qualitative look into the realities of Norwegian backshoring ventures.

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#### Abstract

**Purpose**: This master thesis aims to find key drivers and a competitive advantage for Backshoring to Norway, where the focus is the key drivers: *quality and control related*, and *firms' competitiveness*.

**Theory:** The theories we employ revolve around our research topic and uncover topics such as Backshoring, Outsourcing, Transaction theory, Resource-based theory, and OLI-paradigm. **Design/methodology/approach:** The paper is an exploratory method to investigate wherever companies achieve a competitive advantage by backshoring. The qualitative method will help in understanding this concept. The data was conducted through semi-structured interviews and questionnaires with five different Norwegian informants, from different industries.

**Findings:** Our main findings were based on two research questions. The key drivers for Backshoring to Norway were quality and control-related drivers. This was a key determinant factor for deciding the location and influences the decision-making of backshoring. Additionally, Industry 4.0 may have an effect on technology development and reduce costs through automation and digitalization. The second research question was about wherever backshoring can provide a competitive advantage. Based on our findings, backshoring has the potential to give companies a competitive advantage. Easier communication across the entire supply chain and better supervision of operational activities. are some of the benefits a company achieves through backshoring. These activities will require resources to manage and hopefully easier to perform, to potentially save companies time and resources.

**Future Research:** Future research should investigate to the evolution of backshoring and **Key Words:** Backsource, Backshoring, Outsourcing, Resource-based view, O-L-I Paradigm, competitive advantage, innovation

## Sammendrag

**Hensikt:** Denne masteroppgaven tar sikte på å finne nøkkeldrivere og et konkurransefortrinn for Backshoring til Norge, hvor fokus er nøkkeldriverne: kvalitet og kontroll relatert, og bedrifters konkurranseevne.

**Teori:** Teoriene vi har brukt basert rundt vår tema for research. og diskuterer emner som Backshoring, Outsourcing, Transaksjonsteori, Ressursbasert teori og OLI-paradigme. **Design/metodikk/tilnærming**: Oppgaven er en utforskende metode for å undersøke hvor bedrifter oppnår et konkurransefortrinn ved backshoring. Den kvalitative metoden vil bidra til å forstå dette konseptet. Dataene er utført gjennom semistrukturerte intervjuer og spørreskjemaer med fem ulike norske informanter, fra ulike bransjer.

**Funn**: Hovedfunnene våre var basert på to forskningsspørsmål. Våre nøkkeldrivere for Backshoring til Norge var kvalitets- og kontroll relaterte drivere. Dette var en avgjørende faktor for å bestemme plasseringen og påvirker beslutningstakingen av backshoring. I tillegg kan Industri 4.0 ha en effekt på teknologiutvikling og redusere kostnader gjennom automatisering og digitalisering. Det andre forskningsspørsmålet var uansett hvor backshoring kan gi et konkurransefortrinn. Basert på våre funn har backshoring potensial til å gi bedrifter et konkurransefortrinn. Enklere kommunikasjon på tvers av hele forsyningskjeden og bedre tilsyn med operasjonelle aktiviteter. er noen av fordelene et selskap oppnår gjennom backshoring. Disse aktivitetene vil kreve ressurser å administrere og forhåpentligvis enklere å utføre, for potensielt å spare tid og ressurser for bedrifter.

**Fremtidig forskning**: Fremtidig forskning bør undersøke utviklingen av backshoring og **Stikkord**: Backsource, Backshoring, Outsourcing, Ressursbasert syn, O-L-I Paradigme, konkurransefortrinn, innovasjon

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#### Relevance

The rise of shipping costs and major delays companies have suffered due to the Covid-19 pandemic, in addition to advances in robotization and automation driving down costs. Has contributed many companies to contemplate the possibility and benefits of backshoring their operations, as to achieve better control and management of the supply chain. The primary goal of this thesis will be to investigate the potential benefits for companies backshoring to Norway specifically.

#### 1 Introduction

The overarching trend for the past decades has been an increase in the international trade of goods and services, with markets becoming more and more interdependent. More commonly known as globalization, denationalization, or transnationalism, referring to the increased connectivity of economies and cultures across national borders. The origins of globalization are disputed amongst scholars, history scholar Andre Gunder Frank argues it started in 1492 with Columbus arriving in America (Willamson et.al., 2000). While in scholars like Kevin H. O'Rourke and Jeffrey G. Willamson argues that the real starting point of globalization was in the 1820s (O'rourke et.al., 2002). With or without an established inception for globalization as a phenomenon, it is easy to gage the major impact it has played on the world economic landscape. A hallmark of globalization has been the offshoring of production from developed countries to developing countries (Levy, 2005). These foreign direct investments (FDI) have been crucial to the growth of emerging markets and economies (Gutola, B. R., & Milos, M. 2022). Resulting in a substantial increase to both the standard of living and wage-level in many of these emerging regions (Guschanski, A., & Onaran, Ö. 2021). It has provided increased profits for international companies due to the cheap labor afforded by these countries. The increase in wages is however starting to close the wage disparity-gap compared to western countries, increasing operational-costs for companies operating in emerging

markets (van Hassel et.al., 2021). Subsequently, this development has started to diminish the benefits "enjoyed" by companies operating in these growing economies (Piatanesi, B., & Arauzo-Carod, J. M. 2019).

As mentioned above the modus operandi of common western business practice has for the past decades regarded offshoring as a natural progressive step to grow the business. Offshoring, outsourcing, international outsourcing are all terms used in tangent describing the relocation of business endeavors to a foreign country, such as moving production to another country. Outsourcing is when a company hires an external partner to manage a part of the supply chain, to meet a goal for either short-term or long-term. This is usually done if the company itself either, don't have the resources to do the certain task or not as efficient or cheap in comparison. This is also referred to as vertical disintegration (Chen, Y., 2005), the separation of a vertically integrated part of a firm's business, into a separate independent firm. Offshoring distinguishes itself from outsourcing, by offshoring the ownership and control remains with the parent company. Offshoring is therefore exclusively referring to location of operations, not control and ownership. Captive-offshoring is when ownership and control remains with the parent company (inhouse), while offshore outsourcing involves a foreign third-party actor/supplier (Kinkel, S., & Maloca, S. 2009).

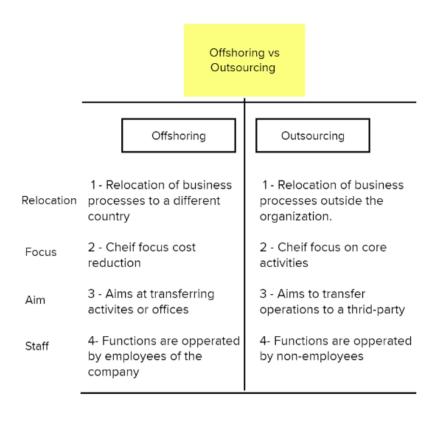


Figure 1: Offshoring vs outsourcing differences

Backshoring and reshoring terms that are often used synonymously and often perceived to refer to the same action, there are however some slight distinctions. Barbieri et al. (2020) defined Reshoring as "*the decision to relocate a manufacturing activity either back to the home country (back-reshoring) or to a nearby country that belongs to the same macro-region (near-shoring)*." Backshoring as a term if referring to the reversal of an offshoring, bringing production back to the domestic country of origin. As this is the opposite term of offshoring, backshoring only concerns the physical relocation (Gray, J et.al, 2013). Backshoring can therefore also apply to previously outsourced activities to third parties abroad, returning to domestic third-party suppliers. The terms outsourcing and insourcing in contrast refers to the ownership and control aspects of such a venture (Förstl, K., Kirchoff, J., & Bals, L. (2015). In essence, backshoring is one subcategory of reshoring.

Backshoring as a concept, can be traced back to the 80s and is therefore not an entirely new phenomenon (Mouhoud, 2007). However, over the past decade there have been an increase of

companies seeking repatriation according to the special report of outsourcing and offshoring by the economist (the Economist, 2013). The report also states several economic and political factors that are attributed to have influenced this trend. Amongst them, the political instability that followed the 2008 financial crisis, left many people without jobs. It reshaped much of the political scene in both Europe and America, and job-creation was in dire demand. This in-turn affected people's opinion of companies offshoring manufacturing and other jobs to emerging regions. The political pressure resulted in politicians drafting policies around keeping jobs from being moved to foreign countries, and likewise condemning companies that offshored activities. Even though economic markets have long since recovered from the 2008 financial crisis, the anti-globalization sentiment keeps itself relevant in many parts of the western economy (Ozawa, T. 2018). Exhibited through events like the "trade war" between the US and China, in large part spearheaded by the former president Donald Trump, who's major campaign selling point was "Make America great again" (Li C. et al., 2018). Encouraging American companies too bring back jobs to America, especially manufacturing jobs. Combining the anti-globalization sentiment, with a global supply-chain in disarray due to a global pandemic, provides fertile grounds for backshoring going forwards (Al-Mansour, 2020).

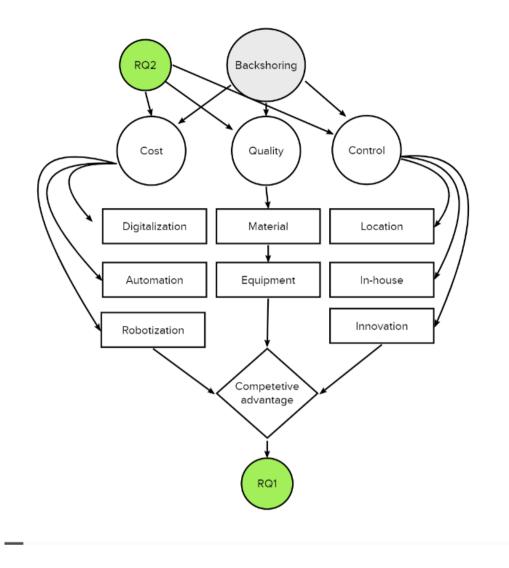
The historical reasons for offshoring were as mentioned the substantially lower operating costs that could be found abroad, due to significant lower wages. This continues to be true especially for countries like Norway where the average wage is among the highest in the world (OECD, 2022). This entails that the fundamental reasoning for offshoring production to so-called "low-cost" countries are still relevant, as the wage-disparity gap is still relevant for businesses. However, over the past decade advances within automation/robotization and digitalization have opened new opportunities for business by providing significant lower costs and higher efficiency (Slaby, J. R., 2012). This integration of new technology is often referred to as the 4th industrial revolution, or industry 4.0, which will be further explored in this paper (Lasi et.al., 2014). Seeing as such machinery and robotics have similar initial costs and operating costs regardless of location, the opportunity for companies to return production to the domestic market is becoming a very real option. A Norwegian news-article from 2017 interviewed 10 different companies who has returned production back to Norway, with the headline "Cheaper and better than China" (B. Haugan, 2017). The article explores the fact that companies utilizing new technology within automation and robotization, can compete with low-cost labor abroad. Further explained in the article, the increased control and management

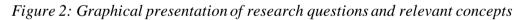
of the supply chain is also a major perceived benefit of the companies backshoring to Norway. The lack of direct supervision and quality control when outsourcing production, can have consequences for overall quality, delivery times and extra costs. In other words, companies expose themselves to greater risks in operations where they lack direct managerial supervision and control (Lockamy, 2010). Risk-assessment is therefore an important part of outsourcing decisions, as you concede control and management of operations to a third-party. And if these third parties operate half a world away, you also limit the ease of supervision and ability to interfere on short notice. By employing domestic third-party suppliers instead, you can reduce risk that occur due to the physical distance and cultural distance, retaining a certain amount of control and supervision despite outsourcing (Pearce, 2014). A step further would be to vertically integrating the operations towards in-house production, providing complete control in operations. The trade-off being, high initial costs due to acquisition of new equipment and facilities, in return of complete control of operations. Some studies indicate that the domestic advantages of improved productivity, better functional integration and government incentives can outweigh the labor-cost advantages offered internationally (Pearce, 2014).

The information discussed above serves as an initial indication that backshoring may be preferable for Norwegian companies, or indeed prove a competitive advantage for companies in the future. In turn this paper attempts to answer the following questions:

RQ: 1 "What are the key drivers for Backshoring to Norway?"

RQ: 2 "Can backshoring net a competitive advantage?"





## 1.1 Structure of the study

In the first chapter of this thesis, we introduce background and key concepts pertaining to the research topic. Second chapter includes the existing relevant literature and theoretical framework that form the theoretical foundations for the analysis. Third chapter describes the methodology applied in the research, consisting of the research-plan, design, and framework. Fourth chapter consist of the empirical findings of the data collected in the interviews. Last chapter includes the analysis and final remarks regarding the key findings of the thesis, critical discussion, and potential ideas for future research.

#### 2 Theory & literature

#### 2.1 Transaction-Cost Theory

A transaction cost refers to the cost of a transaction, excluding the cost of the product or service itself, this can be cost related to searching (the cost of time and resources in finding a supplier), bargaining/negotiations or policies (Williamson, 1989). These are the costs that management needs to consider in all facets of the organization, in deciding location for activities such as production, transportation and raw materials (Williamson, 1989). Transaction-costs plays a guiding role in decision-making pertaining to outsourcing vs inhouse production, concerning total costs (Walker, 1984). Location polices and regional/local infrastructure can heavily dictate where companies decide to operate (Martin P., 1995). Historically companies have offshored production to emerging countries due to lower transactional costs related to lower wages and less regulations (Farrell, 2006). This has traditionally either been done through vertical integration with companies setting up their own factories abroad or through external suppliers/manufacturers (Langlois, 1992) Transaction cost theory (TCT) and literature was first described and operationalized by Oliver E. Williamson, 1979). TCT's approach to economics separates itself from others by its more

microanalytical perspective and introduces the importance of asset specificity. Asset specificity is an estimate/valuation of an asset and its potential uses and investigates to what degree resources such as employees or machines can be adapted to other purposes (Riordan, 1985). If an asset has high specificity, its uses are narrower and does not have high flexibility in terms of being applicable to only certain parts of the organization/production. The economic perspective of TCT, lends itself very well to the increased focus on automation and digitalization, in their common goals of seeking to best utilize resources in terms of cost and effectiveness (Manyika et al., 2017).

In Transaction cost economics (TCE) Williamson defined and separated 3 different levels of authority, market, hierarchal and hybrid (Williamson, 1991). Relevant for this thesis are hierarchical and hybrid transactions within organizations (internal) or with its contractors (external). Hybrid transactions are the exchange of resources between two parties, this is the case with outsourcing where individual partners/contractors will have responsibilities of certain part of the supply chain in exchange for resources (Williamson, 2008). In-house production in contrast has a hierarchical structure, where all operations are vertically

integrated providing full operational control of the supply chain, from the raw materials to the finished product (Guan, 2012). Where all the exchange of resources happens and are managed within the company itself, this will in general have lower transaction cost due easier management (Guan, 2012). In hybrid transactions there are often more costs due to negotiations and the different economic incentives between buyer and seller, the supplier wants highest possible selling price and buyer wants the cheapest possible price (Langlois, 1992).

According to TCT the hierarchical approach with an internal organizational structure is preferable to a hybrid external structure if three conditions are met (Whyte, 1994). First, the asset in question needs to be specific (high specificity) i.e., it has no significant value outside the firm, such as highly specific manufacturing machinery. Second, uncertainty around the transaction must be high, related to quantity or quality for example. Third, high frequency of transactions, such as material for production output. Willamson (1981) argues that most influential component for preferring a hierarchical structure is asset specificity, with uncertainty and frequency only playing moderating roles (Alaghehband et. al, 2011). Transactional costs incur between two or more parties and the relation between the two determines cost, in this relationship there are 3 important factors to consider (Tadelis, 2002). The first is rational uncertainty and the limited/bounded rationality of the individual. At any given time, it can be hard to collect and discern information correctly to make the best and informed decisions as individuals, due to restrictions to time and the availability of information (Simon, 1990). Secondly, opportunism and the "hold-up" problem from external partners, that build upon the dependency between partners (Tadelis, 2002). This was exemplified with the French automotive industry that abandoned management of logistics to third party logistics companies (3PL). One such 3PL company managed to get a contract with a French automotive company by lying about their experience and operational capacity (Fulconis. et.al, 2011). Opportunistic behavior such as this can leave companies with higher costs, longer delivery times and other unforeseen costs (Willamson, O. 1985). This has increased the importance of relationship management and interpersonal relations towards external partners to reduce such opportunistic behavior. Lastly is the factor of asset specificity, high specificity can limit the number of possible suppliers for that particular asset, that again can influence the transaction cost.

Furthermore, asset specificity is divided into physical/tangible assets and dedicated assets. Physical assets are tangible in nature such as machinery or structures such as buildings and office spaces. Dedicated assets are the general investments of currency needed to meet the requirements of the buyer, and to increase the value of a relationship (Delbufalo, E. 2021). Asset specificity can increase the changeover costs for the outsourcing partner, this will in turn increase the overall transaction costs. If the external partner needs to acquire/manufacture specialized equipment to produce the product, the asset specificity is high. Factoring in volume and location, in-house production can possibly net the company lower marginal costs in comparison. Outsourcing on the contrary can be a better option for products or components with lower specificity that are more adaptable to the economies of scale principles (High volume/ lower costs) with very low marginal costs. Asset specificity in short, adds additional complexity to the calculus and balance of marginal costs and overall transaction costs.

#### 2.2 Resourced-Based Theory

Companies will look to develop and differentiate themselves to net a competitive advantage to create both short-term and long-term value. One way is through innovation. The question that many companies struggle with is how to be able to differentiate, as well as compete with other companies and hopefully gain a competitive advantage. In a firm, resources are an essential part of the competitive advantage, and with the help of resource-based theory, we can explain this in more detail. Resource-based theory (RBT) has been one of the influential and critical theories in strategic management (Barney & Arikan, 2001).

Resource-based theory contributes to supplying a critical theory to describe and analyze a broader scope of the firm's competitive advantage and performance (Barney et al., 2011). The competitive advantage helps understand why some firms are more profitable and achieve more success than their competitors in the same industry with the same resources (Petts, 1997). Compared to other theories, RBV tends to understand from an internal perspective the company's success or failure (Wernerfelt, 1984).

The theory has a descriptive and a normative perspective (Rugman & Verbeke, 2002). From a descriptive perspective, emphasis is placed on the resources of each firm and the actual procedures at both the industry and company level. This led to new and innovative resources combinations, then led to heterogeneity (between the companies in the same industry) One of the critical terms used in RBT is isolating mechanisms and describes how to achieve a competitive position in the market (Rumelt, 1984/1997). Rumelt (1994/1997) refers to causality, specialized assets, cost of restructuring & research, and regulations as examples that prevent other firms from accessing the same resources. The barriers clarify the importance of economic profit (at a stable level) and why some differences within the firms persist over time (Mahoney & Padine, 1992).

Resources in use are only the core components of the firm's competitive advantage. Additionally, the resources need to be unique for the firm, so the other competitors find it hard to imitate and obtain a competitive asset in the long term (Barney, 1991, p.102). From a normative perspective, resource - and strategic management separates into four characteristics using the VRIO framework (Rugman & Verbeke, 2002).

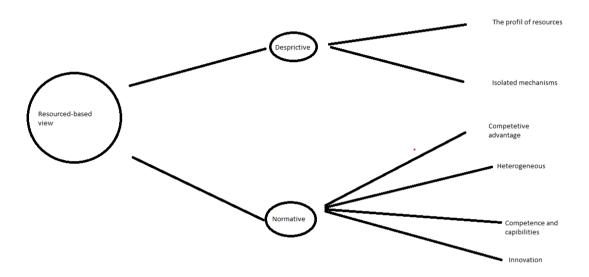


Figure 3 Illustration of the essential components of resourced-based view

## 2.3 VRIO Framework

The VRIO-framework is a strategic planning tool to help firms evaluate their resources and show which resources potentially will give a competitive advantage. The framework focuses on four areas: Valuable, Rare, Imitable Resources, and Organizations (Cardael & Antonio, 2012). The resource must be valuable and comprehensive in outcompeting the firm's competitors and all threats. The resource must be hard to imitate for the competitors, and it must be non-substitutional (Barney, 1991). On top of that, the resources need to be rare and compared to both current threats and potential threats in the future. Wikklund & Shepherd

(2003) concludes that the link between resources (VRI) and the organization itself (O) predict the best practice. With the external and internal analysis of both the outside and inside of the firm, combined with the internal and external perspectives, the RBT will outperform other traditional analyses, such as SWOT.

According to Romanelli (1987), the link between a firm's resources and its strategy can be defined as the company's approach to most effectively use their resources to achieve their strategic goals. The most crucial detail pertaining to resources is how the company management takes advantage of the resources and not necessarily the resources themselves. One of the reasons why firms choose to use outsourcing is that the company does not have enough resources to implement it for themselves. The alternative will be using external suppliers from either the domestic or a foreign market, who possess all the necessary resources to do the job. These necessary resources can be intangible such as knowledge, competence, abilities or processes, or tangible ones such as infrastructure or equipment. If external suppliers are employed, it is essential to allocate enough resources towards relationship management and supervision. This is vital to properly manage the resource throughout the supply-chain, even though the production may be outsourced to external actors (Gottschalk, 2013, p.28).

#### 2.3.1 Firms Resources

As mentioned above, any firm can conceivably obtain the same raw materials and resources, although the resources themselves can be used in various diverse ways. The definition of resources can be defined as "stocks of available factors that are owned or controlled by a firm" (Amit & Schoemaker, 1935, p.35).

Resources can also be explained by the firm's *tangible* and *intangible* assets to formulate and implement in all its strategies (Barner & Arikan, 2001, p.138).

The tangible resources involve the firm's financial aspects like equity capital, earnings, return on investments, and physical assets such as machines or buildings (Barner & Arikan, 2001,

p.138). Furthermore, we can also notice it in the technological and organizational aspects for instance, the firm's production and control systems.

The intangible resources form every firm's routine, knowledge, and competence. These resources are sometimes hard to find and often challenging for competitors to imitate, resulting in the firms insisting on having both unique people. On the other hand, the organizational culture has a massive impact on the firm's resources, resulting in a competitive advantage. Another example of intangible resources is human resources, which hire people with an elevated level of skill and innovation.

#### 2.4 O-L-I Framework

When a company runs abroad, it is necessary to examine different approaches to relationships and interactions. The eclectic paradigm, or the OLI- framework, is developed by John Dunning, and the framework has three drivers: ownership, leadership, and international advantages (Think Insights, 2020). The framework is essential for business internationally and related to multinational enterprise (MNE) OLI- framework contributes to understanding the extent and signs of external activities, which leads to the three drivers. Moreover, the framework will help us understand why organizations want to outsource their production. Outsourcing aims to gain advantages such as cheaper materials, labor costs, and other factors that lead to an economic advantage.

When deciding whether to backshore or not, the competitiveness of the domestic market is a significant factor. By utilizing the specific locational advantages related to outsourcing, we can compare Norway with other countries and see which drivers might be the deciding factor in the decision whether to backshore activities or not. Dunning (1980) states that each country may have different variables that can be an advantage for backsourcing, including production cost, transport cost, and lower corporate taxes, data regarding these variables can help companies' asses different markets. However, it is essential to analyze over time how the market changes, it can fluctuate, and this might impact the company's profitability. China is an excellent example of a country where the market has changed rapidly over time. Especially from 2003 to 2010, the wage cost doubled (Zhang, 2012, p.31).

Dunning (2016) explains that the eclectic paradigm can explain outsourcing production to developing countries. The theory also addresses the firm's competitive advantage by four variables: Economic development, the structure of the country's performance, political and economic systems, and market failures within the cross-border transactions (Dunning, 2016). These variables can explain how technological development and labor cost reductions are two of the main factors for backshoring activities.

#### 2.5 Industry 4.0

Industry 4.0 refers to the 4<sup>th</sup> industrial revolution that we are currently experiencing with increased automation, digitalization and robotization. The term was first used in Germanys industry-reform, back in 2011 (Culot et al., 2020). The idea of the reform was to combine industrial, academic and government strategies to increase competitiveness and innovation for German industry going forwards (Culot et al., 2020). Industry 4.0 has become a description of the joining and integration of technologies pertaining to automation, robotization and Artificial intelligence into industries (Marcon et al., 2018).

New and innovative technology have already started to replace human labor with robots and artificial intelligence, which in many cases decreases cost and increases effectiveness (Lasi, H. et al. 2014). It will have major implications to the production of goods and services in the future, and reform the daily life and activities for us as Individuals (Ghobakhloo, M. 2020). Entire supply-chains might be automated and require only human supervision to operate (Rus, D. (2015). The integration of technological advances has historically been critical to stay competitive, both on a micro- and macro-level (Eggers et al., 2018). The implications for not adapting new technology and business-models can be catastrophic, exemplified by companies such as Kodak (Day, G. S., & Schoemaker, P. J. 2016) and Blockbuster (Gershon, R. A. 2013). Both companies that were market leading in their own industry, who failed to innovate and adapt to new technologies, and subsequently lost their market share to competitors and new entrants. The ability to adapt continuously is thus an integral part of strategic decision making historically, and going forward, in an ever-evolving technological environment.

Relevant to this thesis is the aspect of cost-reductions and effectiveness related to industry 4.0, driven by automation and robotization. This technology can alleviate simple production procedures in classical manufacturing, thus freeing up large amounts of human capital. How

this can impact society at large has been widely discussed in the past few years, with substantial concerns regarding high levels of unemployment (Au-Yong-Oliveira, 2019).

These are reasonable concerns, given that some estimates predict that half of all jobs in the western industrialized world risk be automated in the next 10-20 years (Arntz, 2017). Other are more skeptical to such estimates and emphasizes the creation of new jobs that digitalization and automation will help generate (David H., 2015). And further argues that the automation and digitalization can complement existing structures, and not decrease the labor need, rather augment it (David H., 2015). Further on, that automation and robotization can free-up human capital from performing mundane activities and repurpose this capital to other more creative uses (Chui M. et al., 2017). John Danaher a senior scholar, lecturer, and author, argues in his book "Automation and Utopia", that automation may indeed produce a quote "Utopia" (Danaher J., 2019). He describes this Utopia in his book, as a world where traditional labor is made redundant, and people can live free of the troubles of work, and rather focus on their own creativity and desires (Danaher J., 2019).

The concept of Universal basic income (UBI) has also been widely discussed amongst politicians and scholars as a future solution to remedy the future unemployment caused by automation (Dermont, C., & Weisstanner, D., 2020). Some even argue that UBI may indeed provide are more stable and democratic society that provides people with stability and existential security, and foster genuinely motivated activities (Haagh, 2019).

## 2.6 Anti-globalization

The term Globalization refers to the expansion of culture, business, and technology across national borders, making the global community more connected then ever before (Petras & Veltmeyer, 2011). Globalization has had a huge impact over the past few decades, and increasingly made countries, cultures, and economic markets blend, and become increasingly interdependent on each other. The term Globalization also encompass the changes in culture and society that has come about as a results of globalization.

The challenges of globalization were addressed in the United Nations Development Program (UNDP,1999) it highlighted the fact that the gap between rich and poor countries have further

increased in the globalized modern economic landscape. Mazur (2000) addresses this "antiglobalization movement" pointing out the rapid rise in inequality and marginalization of under-privileged people in emerging regions, and argues globalization have favored rich countries disproportionally. Some companies may move all of their resources to another market to increase their profits through lower wages and higher labor. Norway as a market is a small market where they are very dependent on the import and export of goods. The country will have difficulties dealing with higher tariffs and to compete with other competitors in the domestic market. We will discuss and go even deeper into backshoring in x.

## 2.7 External factors impact on Supply-chain-management (SCM)

External factors are, by definition, factors that are not within the organizational structure of a company. External factors can, however, have major implications for organizational structures such as supply-chains. External factors can have natural, environmental, social, or political origins, examples being natural disasters, civil unrest, political legislation etc. Such external factors may disrupt supply chains, which can limit operations, and therefore directly impact the company revenue. Having international suppliers inherently makes the supply-chain more prone to such external factors.

The COVID-19 pandemic has had a destructive impact on global supply-chains worldwide. It is essential to underline that the pandemic is a relatively recent and ongoing occurrence and therefore the total extent of the ramifications have yet to be fully investigate in existing research. There are however some clear examples of the pandemic's impact, closed borders and strict restrictions, have stunned and halted global supply-chains (Pujawan et al., 2021).. The pandemic made especially international companies struggle with shipping and delivering their products and receiving products from the international suppliers abroad, which led to further delays in down the supply-chains.

Another external factor that can affects supply chain management is natural disasters. Mother Nature can be a nightmare for companies and disrupt supply chains globally. Recent natural disasters like earthquakes and tsunamis have according to Carey (2019), resulted in more than 210 billion dollars in costs globally. Some examples were the disruption of the supply chains of companies such as Toyota and Nissan that had to shut down their facilities in the U.S and Japan (Carey, 2019). Natural disasters are unfortunately unpredictable, and Carey (2019) mentions assessing a response-plan that can assist and provide companies with

procedures and guidelines for when unexpected disaster occur, to help in rebuilding and recovery.

An example is to engage with the suppliers and analyze all the different risk levels and potential problems that could impair or disrupt business operations in the future (Carey, 2019). Therefore, it is important to discover and identify possible problems, and prepared responses for different situations and scenarios, hope for the best and prepare for the worst in these scenarios.

The last external factor that affects supply chain management is war. Various multinational companies have been forced to shut down operations in their factories due to the disruptions of war. The current situation in Europe, the Ukraine-Russia War, is impacting the global supply chains. Coinciding with a global pandemic, the cumulative strain this puts on global supply chains can not be under-stated. As mentioned, such events can be hard to predict in advance, but having established guidelines and procedures may help to remain operational in times of disruption.

## 3 Methodology

This is a qualitative study into whether companies can achieve a competitive advantage by backshoring production activities back to Norway. In-depth structured email interviews will be conducted, relevant academic literature pertaining to backshoring will also be reviewed.

#### 3.1 Research plan

This thesis utilizes a qualitative approach to investigate whether companies backshoring activities to Norway can obtain a competitive advantage. The data collection in this paper will be conducted with in-depth interviews via mail, with correspondents being representatives from companies that are in the process or have undertaken a backshoring venture to Norway. The key data we are investigating are what are the different companies' incentives for backshoring, and in turn what possible competitive advantages this might have resulted in.

#### 3.2 Design

Data collection during the pandemic, especially qualitative, have been forced to utilize other means then by the traditional face-to-face interviews (Lobe, B., Morgan, D., & Hoffman, K. A., 2020). In turn, our decision for using email-interviews was predicated and influenced by the ramifications of Covid-19, in accordance with social distancing practices.

Research methodology and practices have adapted to this new environment, utilizing internet-based data collection channels primarily. The asynchronous nature of email interviews extends the timeframe of the interaction with the respondents (Dahlin, E. 2021), this enabled us to make follow up questions or ask for elaboration when needed. Data collected through literature and interviews will be cross-examined through relevant economical and strategic theories and previous research into the topic of backshoring to Norway. The nature of the thesis is exploratory, as we seek to investigate the different perceived benefits companies have for backshoring to Norway, a topic that has very little existing exploratory studies. The thesis will also attempt to be descriptive of the different competitive advantages available in Norway, specifically related the location specific advantages i.e., Porter`s location theory. We will investigate advances and innovations within robotization, automation and digitalization that are not location-specific to Norway but has major implications for companies globally. New possibilities within production and

automation offering increased effectiveness and reduced costs, may enable companies to reevaluate outsourcing production as the optimal decision.

## 3.3 Framework

The analysis will revolve around the *advantages* the companies gain by backshoring to Norway, and the key drivers. The advantages will be categorized within 3 different categories: (i) Quality, (ii) control and (iii) costs. The questions will primarily focus on the different companies on a micro-level, but macro level factors pertaining to locational advantages will also be analyzed.

## 3.4 Selection & data-collection

We chose to collect all the data using a qualitative method, through semi-structed email interviews. The interviews allowed us to dive deeper into their opinions, beliefs, and understanding of our research problem. The qualitative method can be done in different ways but we chose and perceived this to be the best solutions for us. The qualitative method can be done in several structured ways where the questions are already set in advance with little room to elaborate but can in turn provide more precisive answers (Johannessen, 2011, p.145). Another method is if the interviews are unstructured, meaning the questions were quite open and adaptable to the informant's answer (Johannessen, 2011, p.145). The last form of interviews is a combination of structured and unstructured interviews, called semi-structured interviews (Johannessen, 2011, p.145).

In our data collection, we got five companies to answer the questions we sent them via email, and one of the companies also engaged in a follow-up phone call.

## 3.4.1 Interview-guide

#### Company A

Respondent 1 belongs to a major international company, specializing in maritime equipment. The company have over 100 years of experience in the Norwegian market and distributes to countries all over the world. The respondent was not personally involved in the backshoring decision but is cognizant of the factors that played into it at the time.

## Company B

Respondent 2 belongs to an international company, specializing in energy platforms. The company used their own network to investigate whether to backshore or not. The respondent was involved in the process and had extensive experience in establishing companies both IN Norway and outside of Norway.

## Company C

Respondent 3 belongs to a new start-up company, where the respondent is co-founder and project-manager. The respondent as well as the other company employees are relatively young employees, but already have substantial experience in international business from previous work-experience and educational background. The Company conducts interior design for both private and business clients, and already have international customers.

## Company D

Respondent 4 belongs to an international company which operates in the logistics industry. The company has experience with shipping to many countries and has many employers from various countries. The respondent is head of logistics and responsible for delivery and the logistic process.

## Company E

Respondent 5 belongs to an international company in the textile industry. The company has over 50 years of experience in Norway and is responsible for the cycle of the products and the development. The respondent has experience both internationally and in the Norwegian market. Respondent is established and have previously worked directly with backshoring activities in their previous job.

#### 3.4.1 Selection-criteria of respondents

In our study, we required data pertaining to backshoring activities to Norway and our selection criteria was therefore requiring the respondents to have relevant experience in relation to backshoring. Our target was therefore Norwegian companies who have flagged their production back to the domestic market and based on this we could start selecting Norwegian companies to contact regarding taking part in our interview.

#### 3.4.2 The Recruitment Process

Under the processes of finding Norwegian companies that have engaged in backsourcing, our main goal was to search for companies in our local environment here in Kristiansand. Hence, we wanted to have the opportunity for physical interviews since we both were very curious and wanted to learn more about this backsourcing trend. Also because of easy access to contact the companies. Thus, we contacted Mechatronics Innovation Lab, which is a center for innovation technology in Grimstad and sent them mail to find Norwegian companies that have used backsourcing. We received some companies and contact information of leaders, and we were ready to do research of each company to investigate whether they were relevant to answer our thesis. After sending dozens of emails, the responses were very little and other companies could not give us good enough information to answer our questions. Due to the restrictions from the COVID-19 pandemic, there were several companies who could not take part physically.

We decided to do some research online and found relevant Norwegian companies and they could answer some of the questions. Based on time and little response to email, we chose to send a questionnaire with all interview questions. If there were any questions which were misleading or did not understand, they had the opportunity to send us an email.

To sum up, this process was really time consuming and hard since few Norwegian companies had utilized backshoring.

After all our research, we managed to use five companies that took part in our interview and all the companies utilized backsourcing from a low-cost country. The Norwegian companies were of varied sizes and slightly different industries since we wanted to acquire several varied factors on the rationale for returning to the domestic market. Therefore, we decided it was to investigate various industries.

## 3.4.3 Quality of the data

To ensure the quality of all the qualitative data we have collected, we needed to ensure that the data were both valid and reliable, and asses it with the two parameters being *validity* and *reliability*.

## 3.4.4 Validity

Validity describes in short whether the method (concrete data and findings) has the opportunity to examine what it is needed to examine (Kvale & Brinkmann, 2015, p.276). Which then results in the interviews itself happening to be more coherent and valid. We sent a report to the companies who used digital interviews with the aim of approving or possibly adding more forgotten information. In some cases, some of the questions could be open and the information may speak in general and not specific enough.

During validity we must emphasize to whom the research questions have little data which is due to the fact that we cannot interview too many companies due to time. At the same time, there has been a small amount of research done on backsourcing due to the fact that it is a new trend ongoing now. However, backshoring is becoming an increasingly relevant topic and may help other companies to reconsider this new trend. We concluded to have five respondents from different industries instead of researching one single industry. The reason for this was to discover other different variables which type of impact and the reasoning behind why Norwegian companies choose to flag their company back home. Lastly, the few obtained data results in the generalization being weakened.

#### 3.4.5. Reliability

The concept of reliability discusses how exact and concrete the entire process is for the collection of data (Johannesen, et al., 2011, p.44). Based on our interviews, we decided to test whether the data is reliable or not, by asking the same questions to each informant. The result of this was the informants answered many of the questions equally and this shows high reliability. After finishing the interviews, the informants chose to be available on e-email whether there were any misunderstandings during the findings, so we could correct this. We were determined to ask more understanding and detailed questions due to avoiding spending an insanely long time answering all the questions and avoiding receiving emails back and forth with the informants. The result of this is a weak level of reliability and it decides what the informant supplies data to us. Our interviews, we chose to set a slightly higher timeframe than expected due to extra questions and advice to our thesis.

## **4** Empirical Findings

#### 4.1 Interview preface

In this chapter the data from our respondents will be presented, in accordance with GDPR and data collection polices, the data will be presented anonymously. As previously mentioned, the information was gathered through semi-structured email interviews. The respondent's viewpoints will be presented in relation to the theoretical framework and the different concepts pertaining to both backshoring drivers and possible advantages. The Respondents where asked questions pertaining to backshoring activities to Norway, what potential key drivers were, and whether it can be a competitive advantage in the future.

## 4.2 The Outsourcing decision (Questions – appendix 1)

There was a clear consensus among the respondents regarding the importance of cost in the initial outsourcing decision, where international suppliers reigned supreme in terms of costs. Respondents also pointed out the low numbers or complete lack of domestic suppliers in some cases, helped instigate the search for international suppliers. The chief activity outsourced were predominantly pertaining to production, either in-part or in-full according to the respondents. When asked why the companies outsourced production specifically, it was mainly due to infrastructure and costs. The high initial costs of equipment, labor and facilities needed to set up in-house production in Norway, given the lack of existing domestic suppliers, was not economically justifiable.

The respondents reported utilizing suppliers in China, India, and X. Further explaining that these countries had the largest offering of different suppliers and offered the most cost-effective alternatives. The respondents named various difficulties when asked about challenges surrounding having international suppliers. Difficulties surrounding the physical distance were present in all the feedback from our respondents, the physical distance had implications for communication, supervision, shipping-costs. Different time-zones and subsequently different working-hours made direct communication with the suppliers restricted to only certain hours.

Other communication issues caused by differences in culture and language were also difficult at times, due to disparity in business culture and English capabilities. According to the respondents the language barrier made negotiating and managing the relationship harder, as misunderstandings due to translation-issues would occur. This would in some instances lead to incorrect orders or delays in the supply chain, that took time and resources to correct. The difference in business culture and structure could at times also be challenging, as countries such as China have more hierarchical business approach, in comparison to Norway. Having more clearly defined roles within organizations and a more rigid vertical power-structure, where seniority plays a huge factor. This added additional complexity to the communication issues, where employees seemingly had little leeway to make statements or interact outside their designated area of responsibility. This would cause simple questions to be relayed to the "correct" and most senior employee, adding extra time and effort to communication overall.

When asked what the major benefit of outsourcing, reduced costs and focus on primary activities is the recurring answer among the respondents.

## 4.2.1 What led the company to reconsider international outsourcing?

The common denominator between the respondents' replies was the lack of control and quality from international suppliers. The Respondents also had trouble in communicating and coordinating across the supply-chain, with multiple different suppliers in different countries. Often due to time, language, and cultural barriers that had direct impact on efficiency and communication. Respondent 1 from company A also stated that the equipment and facilities was in such a deterioration state abroad, that it would require substantial repairs to be operational. The cost for new equipment would be the same or comparable back in Norway, this was fundamental in the decision-making process for moving production back to Norway.

Unfavorable contracts and contractual uncertainty were also a problem for the respondents, including short-term contracts, exclusivity, and product-specificity. Many of these contractual problems were not apparent in the beginning and were difficult to correct after-the-fact. And respondents sometimes found it difficult to renegotiate, with suppliers not being flexible. This was not made easier by the existing communication issues mentioned previously, and in some instances ended in termination of contract. Repsondent 3 experienced contract termination due to such contractual issues, in a case where the supplier delivered the wrong product and proceeded to cut communications after the mistake was exposed. Leaving company C to incur all the costs and instigated a new search-effort expending large amount of time and resources to find a new supplier. As a new company this were a substantial setback and came at a great cost, highlighting the importance of proper supplier-evaluation. The search for new supplier coincided with the supply-chain "collapse" related to the Covid-19 global pandemic, respondent 3 explains that this became a turning-point for the company (C). Revaluating international suppliers and global supply chains, and rather looking for a domestic supplier offering more reliability in turbulent times and great uncertainty.

When asked if the companies considered other international suppliers, all respondents replied that other international suppliers where considered. Ultimately deciding the benefits of

backshoring activities outweighed the potential cost-benefits provided by international suppliers, or indeed perceived the costs to be comparable.

With costs being comparable, at least not drastically higher, the key drivers for backshoring activities perceived by our respondents were quality and control. The combination of increased reliability, easier communication, quality-assurances, and operational insights were perceived as a greater competitive advantage then costs alone.

## 4.2.2 Questions pertaining to the theoretical framework

Regarding our theory, resource-based view, all the respondents prioritized taking advantage of the tangible resources by buying either machines, robots or to expand their logistics. The respondents became unanimous when discussing the cost reductions. Company C had difficulties searching for a supplier. The whole process of designing in the interior is having a component inventory based on forecasts from the customers, which then assigns to assemble final products based on specific customer's requests. The manager's purpose was to gain customer satisfaction as a result of generating more customers. However, the picture of interior design had to match the expectations and therefore the quality was a major factor here. The manager recruited a manager who would be responsible for all of the adjustments and approval of all samples and products.

Company E describes the process of searching for a supplier, a time-consuming process. The main reason for outsourcing was to receive benefits from the cost savings. Another driver was to focus on sustainability both regarding the products and the textile industry and having a superior quality in their products. As a result of this it led to high travel costs and time consuming to find a skilled supplier. The entire process of taking advantage of cost savings did not go exactly as planned. Fortunately, company E found a skilled enough supplier where the supplier had a strong focus on quality and customer satisfaction which results in obtaining the economics of scale. Another challenge Company E faced was communication problems via e-mail which led to frequent follow-up mails, and they had to use their own resources to avoid misunderstandings.

Company A intended to go beyond the border to reach all unique expertise and to focus on research in maritime. At the same time, they had a hope of investing in mechanization and

robotics. Their goal was to expand and work purposefully by implementing further improvements for productivity. In contrast to company E, company A had easy access to both tangible and intangible resources and improved productivity and efficiency. Company A did not have any problems following up production and had positive experiences outsourcing their production

Company B had a manager who knew everything and the possibility of mistakes during both outsourcing processes. The manager handled the process and had knowledge of outsourcing previously. Same as in company A, company B had the intention to achieve further competence and did not have enough resources to implement the process. The manager mentioned that the positive aspect of outsourcing was to hire specialized people from diverse backgrounds. Furthermore, this allowed him to produce resources that were difficult to imitate and unique, to differentiate themselves from other threats and competitors (gaining competitive advantage). The manager experienced communication problems due to language barriers, however they were extremely independent and the importance of recruiting knowledgeable people.

Company D aimed to expand its business to become a larger multinational company. The company had to operate with high training costs for all the departments and it took a lot of time to execute this. Therefore, recruiting good managers and finding good suppliers was even harder to detect. The respondent further explained that superior quality and control were the main keys. Company D had high expectations for delivering in quality and for independent employees which unfortunately the supplier had trouble delivering. Short-term benefits for company D were the high training costs and extra resources that would ensure stability and competitiveness. Lastly, their goal was to reap the benefits of long-term cost savings.

COMPANY	OUTSOURCING	BACKSHORING	KEY DRIVERS
A	<ul> <li>Acquisition of company with existing international suppliers</li> </ul>	<ul> <li>Similar costs for new equipment and machinery</li> <li>Quality and control management</li> </ul>	*Quality
В	<ul> <li>Lower</li> <li>operational</li> <li>costs</li> <li>Competence</li> </ul>	<ul> <li>Quality and control management</li> </ul>	*Control
С	<ul> <li>Lower</li> <li>operational</li> <li>costs</li> <li>Lack of</li> <li>domestic</li> <li>options</li> </ul>	<ul> <li>Lead-time</li> <li>Communication</li> <li>Quality and control management</li> </ul>	*Control
D	<ul> <li>Lower</li> <li>operational</li> <li>Costs</li> <li>competence</li> <li>Expand</li> <li>internationally</li> </ul>	<ul> <li>Quality and control management</li> </ul>	*Quality
E	- Lower operational Costs	<ul> <li>High costs related to travel</li> <li>search costs</li> </ul>	*Costs

Figure 4: Reasons for outsourcing and backshoring, and key-driver for backshoring

## 5 Discussion

In this chapter we will analyze the empirical findings from chapter 4, against the theoretical framework and literature, as well as existing bodies of research. The purpose of the analysis is attempting to answer what the main drivers of backshoring is, and whether it can provide a competitive advantage. Starting with discussing the different drivers of backshoring and what theoretical reasons might help explain it. Then discussing whether the benefits of backshoring activities to Norway provide the companies with a competitive advantage.

## 5.1 Key drivers of backshoring

The respondent's decision to offshore activities were all predicated on reducing costs, due to substantially lower labor-related costs in emerging regions. This is as previously mentioned not a new phenomenon and have been the golden standard and recurring trend for western companies looking to reduce costs (Levy, 2005). And have historically been an effective way of widening profit margins and gain a competitive edge. This is however changing, as emerging markets experience growth in standards of living and subsequently achieve higher wages (Akamatsu, 1962). This is narrowing the wage disparity between western economies and emerging markets, thus trimming down profit-margins for companies outsourcing activities to these regions (Bogliacino et al., 2018)

The impact and progression of industry 4.0 pushing technological innovation and integration of new technology within automation, digitalization and robotization are already starting to impact businesses and society at large (Lasi et al. 2014). Companies are at an increasing rate integrating technology, replacing human labor with more efficient machines and robotics. As a direct consequence of this, there are less staff needed to operate the various activities, drastically reducing the number of staff required for specific tasks (Badet, 2021). The remaining or new staffing also requires more expertise and know-how to operate and supervise different machinery i.e., mechanical- and computer engineers (Jipp, 2016). People with this level of expertise and education often demands high wages regardless of location, machinery and equipment also have similar or comparable costs independent of location (Bunyaratavej et al., 2007). These compounding factors further narrows the cost-related advantage of emerging regions and inherently increases the value of other factors in comparison such as quality, control, lead-time etc. This coincides well in the responses obtained from our respondents, reflecting the fact that quality and control are two of the main drivers for backshoring. This implicates and seems to suggest that when costs are comparable, control and quality become the primary concerns for backshoring. Quality and control are factors that the developed countries can be substantially more competitive on, and even edge out international competitors. This serves as a reasonable explanation for why some Norwegian companies are indeed moving back production activities, supported by the information obtained by our respondents.

The concerns around control, pertains to issues surrounding supply-chain management, leadtime, operational supervision, and communication. The risk and impact of exposure to external factors like the Covid-19 on global supply-chains have already been elaborated by existing bodies of research (Fernandes, 2020). Backshoring activities does inherently reduce the reliance on global supply-chains, and subsequently increase the resilience of the supplychain overall. Research into backshoring-sentiments following the supply-chain collapse amongst manufacturers have also shown companies to a greater extent considering backshoring as a real option (Van Hoek, 2021). Additionally, backshoring benefits supplychains management by reducing lead-time due to: (i) shorter travel, (ii) reducing freight- and logistical costs due to shorter distances, and (iii) increased customer satisfaction due to shorter delivery-time and better responsiveness (Fratocchi et al.,2016).

Arguments against backshoring activities to Norway is the comparatively low number of possible suppliers compared to internationally. The trend of continuous offshoring of production away from Norway in the last decades, have reduced the number of existing suppliers available domestically. In existing theoretical framework this is referred to as the network-effect, explaining the consequences for the level of embeddedness suppliers have to the economic performance of other organizations (Uzzi, 1996). High levels of embeddedness to organized networks have shown to increase the survivability of firms, in comparison to companies with low levels of embeddedness. However, the benefits of high embeddedness are reversed when the economic performance of the given network becomes poor (Uzzi, 1996). By being too embedded, the company is overly reliant on the economic performance of the network, and negative economic performance of the network will affect the company to an equal degree. This can explain the low level of domestic suppliers in Norway, given that much of production have been offshored, and the corresponding networks of suppliers were affected accordingly.

This in turn limits options for companies looking for a domestic supplier and may require extensive search/efforts to find a suitable supplier. However, given the fact that the machinery and equipment have similar or comparable costs independent of location, companies can consider vertically integrating activities. As mentioned, this was the case with Company A who backshored activities from China and set up in-house production in Norway instead. Vertical integration of production activities is however a considerable financial undertaking, as it requires large initial investments into equipment and facilities (Usher, 2014). It also

requires the know-how to construct and operate an automated production facility, which not all companies naturally have much experience in. This limits the number of companies who reasonably can consider vertically integrating business activities and have in-house production.

Communication is also an important part of everyday business activities and can directly impact the level of control the company has internally and externally (Cooren et al., 2011). Bad communication can result in misunderstandings, disagreements, and dissatisfaction, both externally and internally (Men et al., 2014). This can lead to higher cost and increased lead-time due to misunderstandings and may result in suppliers delivering the wrong product. As was the case with Company C, who ended up receiving incorrect deliveries, and the suppliers in turn ceased communication when notified of the mistake. Leaving the company with all the costs and the incorrect product, given that the supplier was Chinese it naturally restricted the ability to respond due to geographical distance and language barriers. After Backshoring to Norway respondent 3 reported that the removal of the language-barrier made communications way easier and more efficient and made travel difficulties a non-issue. This serves as a great example of another benefit domestic suppliers can bring to the equation.

In relation to quality concerns, the data from our respondents indicate that insufficiency in the quality of materials, equipment and processes can be lacking amongst many international suppliers. This can be caused by suppliers cutting corners in production to save time and be more profitable. Seeing as international suppliers often have many customers, they are not necessarily incentivized to favor quality over quantity. Hence the importance of operational supervision, quality controls and proper relationship management. In academics this is referred to as the "buyer-seller" relationship, there exists a plethora of theoretical works and bodies of research regarding the management and development of such relationships (Dwyer et al., 1987). The byer-seller relationship is a classical example of mixed motives, where the byer wants lowest possible buying-price and the seller wanting highest possible selling-price (Lyons et al., 1990)

Common perception of this relationship is that the buyer has considerably more power in the relationship, due to the number of available suppliers buyers can choose from. Scholar's have however highlighted the fact that this is not always the case in buyer-seller relationships, and situationally suppliers can exert great power of the buyer (Lyons et al, 1990). This can happen if there are few suppliers of a desired product, increasing the suppliers bargaining power as

the buyer has less options to choose from. If the supplier is in high demand, with customers lining up, the roles are reversed from the common perception of buyer-seller relationship and may therefore thus pick and choose among buyers and setting the terms. Having suppliers on the other side of the globe makes it difficult to manage this relationship properly, due the previously mentioned language barriers and physical distance. Again, reiterating the potential upsides of having domestic suppliers, enabling easier relationship management and access to operational supervision to help ensure quality output.

#### 5.2 Backshoring as a competitive advantage

Obtaining a competitive advantage may be difficult for most companies. The technology is constantly changing, and fewer people decide to outsource their production, which is being replaced by contemporary robots and systems. The companies stated that the technology development was a subject to investigate constantly and that all companies should be more creative and find innovative solutions to their future challenges. The main reasons why most of the companies chose to backsource their production were the expectations of taking advantage of the low costs. The result of this was the cost being even higher than expected. Automation and implementing robots in your supply chain was not worth it, to obtain the location benefits. According to IFORR (2021), the robots cost approximately the same as in China, India and Spain, which results in an increased degree of automation in traditional low cost increasing.

The question "Do you perceive the benefits of backshoring to become a competitive advantage?" Most of the companies stated that they would have not done it if they did not believe in that, and there are practicable and positive outcomes of backsourcing.

Some of the benefits of backsourcing was knowledge such as new knowledge. Access to more knowledge was a result of learning new systems that can lead to more information and improvements you can utilize in your domestic market. *"Knowledge is key"* - said Company 2. *"More knowledge equals more competence"* - said Company 5. If the demands are low for a long period of time and by not having your production at home, the company is forced to let go of employers thus possibly losing valuable and unique knowledge. Based on VRIO-framework, it will have a negative effect on the competitive advantage of the companies. Although the companies were agreeing on that, it was important to conduct good research of the potential market. The companies did not regret outsourcing their production, on the contrary, they obtained even more knowledge and some of them underestimated the conduct

of research. Company C stated "by failure, there will be even more eager to succeed.". The statement explains itself, however obtaining knowledge has downfalles in practice. Through backshoring their resources such as new knowledge and improvements of systems can lead to passes on the loads of information and contemporary systems that current employees must adapt. These systems may take time and obtaining knowledge as well as having your required tasks to, might be a problem. To substitute the contemporary systems takes time as well as training and obtaining knowledge is required for employers to adapt to. The challenge can overhang existing and future information in the company and to benefit the innovation. The intangible resources were key for the competence transfer within the companies for most of the respondents. Innovation helps us to provide new jobs and possibly new positions that may benefit the organization in the future. Another factor some of respondents mentioned was that innovation was the key for backsourcing and vital for the development of future products. According to the Global Innovation Index (2020) Norway is ranked 20th place among 131 economies according to their capabilities. Wiesmann et al (2017) explains innovation, research and development weakend of giving the entire control of production to the supplier. That may be one of the reasons for backsourcing to control every supply chain process and management.

Backshoring can lead to extremely expensive to transfer all production and unfortunately pay extra costs whether they are still in a contract because of higher attrition rate. Company D stated that the reasoning for outsourcing was to access a newer technology and select to backshore due to innovation. The following statement will lead to employees being worried regarding losing their job and confused about their vision and long-term goals.

The labor costs were relatively below in the low-cost countries as expected, however several of the companies experienced the time and resources for finding a relatively good and stable adequate supplier were extremely challenging. The time spent doing research to outsource can be a waste of time. From another person's perspective, the company may seem risky and not trustworthy to work in.

Disagreement on contracts might be a factor for backsourcing and many productions want to cooperate and have a secured job in several years due a potential backshore. According to Kern et al (2002), cogitate for that reason a potential driver for the contract problems and called it "winner's curse", where the suppliers negotiates a proper amount of money, to subsequently gain extra fees and hopefully a unique supplier. Another example is if the supplier has focused on recovering costs and can lead to possible tradeoffs, and subsequently affect the performance and quality.

#### 6.0 Summary

Utilizing existing theoretical frameworks and bodies of research, combined with the data collected through interviews, we have been working towards the goal of this thesis, attempting to answer the following two questions:

RQ: 1 "What are the key drivers for Backshoring to Norway?"

RQ: 2 "Can backshoring net a competitive advantage?"

Regarding RQ (1), our findings suggests that the key drivers for backshoring activities are quality- and control-related primarily. It is however prudent to mention that quality- and control-related drivers, becomes the primary drivers of backshoring, predicated on the costs involved are comparable to international suppliers. This implies, that costs remain a key determinant factor for deciding location, and therefore by proxy also influencing backshoring decision-making. But given the integration of technology introduced by Industry 4.0, increasing effectiveness, and reducing costs through automation and digitalization, may provide fertile grounds for backshoring activities to Norway. Exemplified by Company A who did indeed backshore production from China, due to costs of equipment and machinery beings similar or at least comparable in Norway. This goes a long way in supporting quality and control as main drivers for backshoring when costs are indeed comparable.

Concerning RQ (2) whether backshoring can provide a competitive advantage, our findings indicate that backshoring has the potential to give companies a competitive advantage. To elaborate, backshoring activities to Norway with the same cost-predication as in RQ (1), can indeed provide operational and managerial benefits to companies. Easier communication across the supply-chain, better supervision of operational activities, shorter supply-lines and faster lead-time are some of the benefits companies can achieve through backshoring. These are all activities that require resources to manage, making them easier to perform will potentially save companies valuable time and resources. This does not inherently result in a competitive advantage, but we argue through the cumulative positive improvements in management, quality and control, companies can produce a competitive advantage.

#### 7.0 Critical remarks and future research

We perceive the main weakness of our study to be the narrow scope of primarily economic incentives regarding backshoring. Though, the economic perspective is undoubtably critical in decision-making regarding backshoring, we recognize that other factors that might affect present and future backshoring decisions. Factors such as sustainability, ESG related concerns and political motivations are all potential influential factors in that could influence backshoring decision-making. Seeing as sustainability- and ESG issues are increasingly becoming more and more important, it can be highly relevant for future research to investigate.

Another weakness is the relatively low sample-size of interview respondents, our findings may not properly reflect the primary concerns regarding backshoring, due the small sample-size. Even though we had considerable diversity among the different companies involved, in terms of different size and across various industries, the findings will not be able to reflect backshoring from the perspective of every industry. Using semi-structured e-mail interviews may also have made us miss some important non-verbal ques, as we did not get to interact with the respondents directly and gage their initial reactions and body language.

The rapid development of technology within automation, digitalization and artificial intelligence may also introduce technology that could alter the factors involved in backshoring decision-making. This could make our findings less applicable in the future, given that the direction of this development is impossible for us to predict, and would be mere speculation, little can be done to remedy this possibility. It can rather act as an incentive for future research to investigate the evolution of backshoring as time passes, and thus we recommend future research to investigate this further.

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#### 9. Discussion Paper

## 9.1 Ali, Abdimajib Abdirisak (Responsible)

## 8.1.1 Introduksjon

Min masteroppgave tar for seg temaet backshoring og fokuserer på fordelene ved backshoring som følge av å operere i Norge. Vår studie fokuserer seg hovedsakelig fra beslutning om å outsource, til beslutningen om å flagge produksjonen tilbake til Norge ved hjelp av blant annet ressursbasert teori og transaksjonskostnadsteori for å svare på teori spørsmålet:

"Er backshoring det nye konkurransefortrinnet?

Vi besvarer denne teori-spørsmålet så godt som mulig ved hjelp av to forskningsspørsmål. Det første forskningspørsmålet er "hva er nøkkeldriverne for backshoring til Norge?". Den andre forskningsspørsmål er "Kan backshoring være en konkurransefordel?". Disse forskingspørsmålene blir deretter besvart opp mot valg av teorier; backshoring, Outsourcing, VRIO rammeverket, transaksjonskostnad teori, ressursbasert tilnærming og OLI-paradigm. Sammen med disse teoriene valgte vi å ta med Industry 4.0, antiglobalisering og eksterne faktorer som påvirker supply chain.

Valg av metode valgte vi å gå få en "utforskende forskningsmodell" og bruk av en kvalitativ metode. Begrunnelsen for valg av kvalitativ data er å få et større bilde for å få svar på vår problemstilling. Vi gjennomførte semistrukturerte digitale intervjuer og spørreskjema som kvalitativ data. Vi fulgte en intervjuguide der vi hadde skrevet ferdig spørsmål for å intervju fem respondenter fra forskjellige industrier. Alle bedriftene vi intervjuet, hadde drevet med backshoring og hadde mulighet til å dele sin erfaringer med dette.

Deretter brukte vi intervjuene til å finne ut hvilke faktorer som avgjorde for å backshore sin produksjon. De fleste nevnte at de hadde høyere forventninger til kostnadsbesparelser, og det viste seg at det ble lite utbytte av dette. Vi så også at det var mange av informantene som brukte lang tid på research på å finne gode leverandører for å satse på kvalitet. Kvaliteten ble svekket i enkelte bedrifter, noe som førte til mye venting og leting etter nye leverandører. Til slutt så vi at konkurransefortrinn var noe informantene fokuserte mye på. Det var noen respondenter som måtte ha tilgang til ressurser, noe som var begrunnelsen for outsourcing, og tok med seg kunnskapen tilbake til Norge. Fordeler som enklere kommunikasjon og et bedre tilsyn med operasjonelle aktiviteter er noen av fordelene gjennom backshoring.

Basert på min masteroppgave er temaet "responsible" et essensiell faktor når det kommer til backshoring prosessen. Derfor velger jeg å knytte opp responsible mot CSR (Corporate Social Responsibility) og svarer på utfordringene i forhold til backshoring. For å gjøre det litt enklere for leser, velger jeg å bruke tekstilindustrien som et eksempel på en bransje.

## 9.1.2 Backsourcing

For å forklare nærmere hva backsourcing går ut på, må vi først forklare begrepet "outsourcing". Vi ser blant at globalisering, denasjonalisering og transnasjonalisme er med på å påvirke trenden i internasjonal handel i utlandet. Spesielt globalisering som har blitt brukt i betegnelsen outsourcing, som dreier seg å flytte sin produksjon fra utviklingsland til utviklingsland (Levy, 2005). Begrunnelsen for å flytte sin produksjon, er å utnytte disse lokasjon fordelene, blant annet lavere kostnader i et lavkostland på kort og lang sikt.

Et annet begrep som også må nevnes, er offshoring som dreier seg om at selve kontrollen og eierskap er "hjemme" eller styrt av en leverandør (Barbieri et al,2020) Mange vestlige selskaper har benyttet seg av denne prosessen og er med på å ekspandere deres selskap ut til verden. Gray, et al (2013) definerer backshoring som en reversibel av en offshoring der produksjonen flyttes tilbake til hjemmemarkedet.

#### 9.1.3. Bedriftens samfunnsansvar

Over flere tiår har konseptet med bedriftens samfunnsansvar vært ekstremt viktig og avgjørende. I følge Buchholtz & Caroll (1999:40) forklarer de bedriftens samfunnsansvar et konsept der hvert enkelt bedrift frivillig engasjerer seg i sosiale og miljømessige forhold uavhengig i hva man operer med, så har de et bevisst ansvar for samfunnet. Videre bygger de på ansvaret ved å hjelpe samfunnet med f.eks bekjempe FNs klimamål, eller så enkelt som å plukke søppel for å redde planet. Caroll (1979, 1991) har fire definisjoner av CSR og har baseres seg over fire ansvarsområder: 1) økonomiske 2) juridiske, 3) etiske og 4) filantropisk. Disse ansvarsområdene er forventninger som bedrifter er kapabel til å stå i for interessentene og samfunnet. Mcguire (1963, p.144) forklarer videre at det å ha sosial ansvar ikke bare har økonomiske og juridiske forpliktelser, men spesifikk ansvarsområder som kan bidra til å identifisere og segregere det etiske og filantropisk. En av respondentene vi intervju, fordelen med å komme tilbake til Norge, var å være med på å motivere andre norske barn og unge, til å drive med idrett. Hen mente at alle bedrifter i Norge har et bevisst ansvar for samfunnet, og om du kan bidra litt, så er det nok.

## 9.1.4. Responsible Backshoring

Som nevnt i introduksjon, så er hovedgrunnene til at de fleste velger å benytte seg av backshoring, er å redusere lønnskostnader og forbedre sine systemer i et konkurransedyktig miljøer, og er med å øke sine profitt. Bærekraft er et felt som stadig blir viktigere og viktigere og bedrifter har mulighet til å omgjøre og etablere en mer bærekraftig forretningsmodell, som for eksempel, om en t-skjorte blir produserte i høye etiske standarder (NHO, 2020).

Sammen med Porter & Kramer (2019) forklarer at organisasjoner som benytter av en forretningsmodell som er bærekraft, være med på å oppnå et konkurransefortrinn, noe som er essensielt for backsourcing. Sammen med påvirkninger fra media og andre organisasjoner i deres blir man nødt til å hoppe i den trenden. Mange selskaper blir veldig rike og har et bevisst ansvar for å bruke sine ressurser for å hjelpe samfunnet. En av respondentene i våres masteroppgave som vi har intervjuet, hadde ansvar for interiørdesign, mente selv at hen var ekstremt opptatt i at produktene blir etisk produsert. Samtidig måtte man også være kreativ på å bruke materialene til gjenbruk, så slipper man overforbruk. Becker (2019) definerer at en bedrift kan hjelpe både på det økonomiske og samfunnet for å oppnå maksimale profitt. Fordeler med backshoring i Norge er at arbeiderne får dekket de underliggende behovene ved å få en god nok lønn og en arbeidsplass, enn f.eks i andre land der lønns og arbeidsvilkårene ikke er helt på topp.

Et annet ulempe som enkelte backshored selskaper må redusere,er all den tid til å fly fra Norge til det landet du skal produsere i. Noen av respondentene som vi intervjuet, fortalte at de var hyppig til lav-kost landene for å finne leverandører og observere at alt gikk bra i fabrikkene.Hele prosessen fra å operere i et lavkostland til Norge kan ta langt tid og er ikke miljøvennlig.

Det er også noen ulemper i noen bransjer, derav tekstilbransjen fast fashion brand som H&M har så mye kapital der de kunne flytte sin distribusjon (også kalt sweatshops) hvor som helst i verden. Mange av de som jobber i såkalte sweatshops må jobbe effektiv og hardt som mulig, og tjener ca 2,63 dollar om dagen (Chaev, 2020). Et mulig resultat av backshoring kan føre til at fabrikkene har masse ferdigprodukter og materiale igjen, som de må kaste ut. Dessuten kan selskaper unngå dette ved å donere klærne sine til blant annet Fretex og Røde Kors , for da slipper vi kaste masse klær. Bedrifter som Fretex og Røde Kors får en fordel for at de får inntekter fra varene de selger, dermed er med på å ansvar for samfunnet.

#### 9.1.5. Konklusjon

I vår studie baserte vi over hvilke nøkkeldrivere som er med på backshoring til Norge og om backshoring kan være en konkurransefortrinn for enkelte bedrifter. I følge våre funn så var ikke nøkkeldriveren verken bærekraft eller det å ta bedriftsansvar. Men heller en fordel siden man er i nærhet av kjente og lake. En av respondentene valgte heller å se den som en fordel for å hjelpe barn og unge med å satse på idrett. Det var enside ved valg av nøkkeldrivere, som var kvalitet og kontroll som backsourcing til Norge.

For å se på backshoring som en konkurransefortrinn, er det flere punkter på. Bedrift samfunnsansvar er med på å styrke en konkurransefortrinn for selskaper som utfører bærekraftig valg. Som nevnt i teksten, nevner Becker at bedrift kan hjelpe både på det økonomiske og samfunnet for å oppnå maksimale profitt.

Kritikken mot dette er om selskapene gjør det på grunn av det økonomiske perspektiv eller at de faktisk bryr seg om samfunnet, og faktisk vil utgjøre en forskjell. Dette er nok veldig vanskelig å svare på, ettersom at man ikke kan bevise det dessverre. Det å være ansvar for sin egen produksjon, ansatte og samfunnet kan være med på å skape konkurransefortrinn.

Eksempler på dette, er å gi ansatte god nok lønn for å klare seg og god nok leverandører som vil produsere varene dine basert på dine prognoser, noe en av mine respondenten satsa på.

For å konkludere så har vår forskning noe med responsible å gjøre, spesielt på research question 2 om CSR og bærekraft kan være med å skape konkurransefortrinn, der av at forbedringer i fabrikkene og dekke underliggende behovene. Siste jeg vil nevne er bedre research i forhold til å finne nye leverandører.

## 9.1.6. References

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# 9 Discussion paper

#### 9.2 Sveinar Frøyland (Responsible)

#### 9.2.2 Introduction

This master thesis aims to investigate the phenomenon of backshoring, more precisely the key factors for backshoring to Norway, and whether backshoring can net companies a competitive advantage.

Backshoring is the reverse of offshoring, in other words, it's about bringing production back to the domestic home market. Backshoring as a term only refers to the physical relocation of activities, and does not cover ownership (Gray, J et.al, 2013). Backshoring does therefore also cover backshoring activities from foreign international suppliers, returning to domestic third-party suppliers. The terms outsourcing and insourcing however refers to the ownership and control aspect in relation to backshoring activities (Förstl, et al., 2015).

To connect "responsible" to our master thesis, we first need to establish the different definitions for the term. Responsible is defined in the Oxford English dictionary as "Capable of fulfilling an obligation or duty" keywords being:

- 1. Reliable
- 2. Trustworthy
- 3. Sensible

Starting with "Capable of fulfilling an obligation or duty", this infers the sense of obligation or inherent duty. Relating obligations and inherent duties to companies, can on micro-level, relate to its shareholders and to its employees. Companies have several different obligations and duties to their employees, concerning paying them wages, and providing them with the supplies needed to perform their craft. On a macro-level this can also refer to the duties and obligations in relation to suppliers, partners, local community, or society at large. It therefore feels prudent to separate into micro- and macro-levels as units of analysis when further elaborating "responsible".

## 9.2.3 Responsible on a Micro-Level

On a micro-level being responsible as a company, could entail that you act reliably towards your employees. This can be simple things like always ensuring that your employees get paid, the amount they are due at the time it is due. Reliable towards shareholders, can be providing company shareholders with regular dividends, providing reliable financial growth. Acting trustworthy towards your customers and shareholders, providing them with honest information, without disclosing potentially embarrassing or negative truths. Acting sensible could imply that in most situations you are able to discern what is the most beneficial course of action for the company and its stakeholders.

#### 9.2.4 Responsible on a Macro-level

On a macro-level being responsible as a company includes the duties and obligations a company has in relation to suppliers, partners, local community, or society. Towards the suppliers a company is responsible for paying a fair price at a reasonable time for the goods and services a supplier has provided. A company is also responsible to tell the supplier about changes, e.g., demand of commodities, in the market. Furthermore, a company has a responsibility towards the local community, both where the production is located and where the products are sold. Where the production is located the company is responsible for keeping the environment damages to a minimum and threat the local workers ethically, that includes paying a fair wage, have needed safety equipment and reasonable working hours. The place the products are being sold the company is responsible of, for instance, being truthful about the product and have ethical marketing campaigns.

For a company to be able to implement these responsibilities, they can use the ESG and CSR. ESG, Environment, Social and Corporate Governance, is concept that evaluates to what extent a company works on behalf of social goals that goes beyond the goal of the company to maximize profit. Environmental, social and government (ESG) investments can be defined as: *"consideration of environmental, social and governance factors alongside financial factors in the investment decision-making process"* (MSCI., 2021b). ESGs social goals typically includes a set of environmental goals, supporting social movements and the corporate governance goals of the diversity, equity, and inclusion movement (The Investopedia Team, 2022). Corporate Social Responsibility, CSR, is another framework companies can use to be responsible on the macro-level. CSR is a self-regulating business model that helps a corporation enhance society and the environment instead of contributing in a negative way. With CSR a company has a social, environmental, and economical responsibility, where the enhance all three factors (Fernando, 2022).

Both ESG and CSR can be used actively by companies. By using these frameworks, a company will be reminded and have processes towards fulfilling their macro-level responsibilities

## 9.2.5 Responsible in relation to Backshoring

Our thesis revolves around research into concepts such as Backshoring and outsourcing, both domestically and internationally. It sadly exists many examples of companies not acting responsible when outsourcing activities, to low-cost countries, to increase company profit margins. Such as major companies like Apple employing third parties into production, who utilize child labor (Myers, 2013). As on of the biggest companies in the world, engaging in child labor to save on costs, is not even remotely considered as acting responsibly. When backshoring or outsourcing activities, there are often substantial search costs incurred before you find a suitable supplier. In this supplier evaluation process the company is responsible to find a suitable supplier that meet the financial and economic requirements and a provide products to similar high standards in terms of quality. For most companies the traditional concerns have been, how much will it cost and what do I get in return, a simple calculus. However, this is no longer the case as companies are starting to recognize that their responsibilities extend beyond mere profitability. This is also the case within outsourcing and backshoring seeing as CSR-efforts extends to the selection of suppliers, and responsible

## 9.2.6 Final thoughts on responsible

My personal opinions surrounding "responsible" and corporate responsibility have changed during my five years at university. Originally not seeing the inherent responsibilities that companies indeed have to their surroundings and the environment. This has since become apparent after having attended several classes pertaining to the studies during my tenure as a business student. I do believe, this will reflect my thoughts around corporate responsibility going forward stepping in the worklife.

## 8.3 Refrences

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# Appendix:

## 1 Interview guide

#### Part 1: General questions around the company

- 1. Can you guys tell me about your company?
- What are your main tasks?
- The size of the firm
- How many employees?

#### **Part 2: Outsourcing**

- 1. What was the reasoning behind your decision to outsource?
- 2. What activity did you outsource?
- 3. How important were costs in this decision?
- 4. What country did you choose and why? Were there any other countries you guys considered? If yes, which country?

- 5. Why did you choose to outsource this activity? (basert på våre parametrene våre)
- 6. Did you have any challenges with outsourcing far from your domestic market? (language, communication, quality, expectations, control, etc.)
- 7. Were there any incurred costs that arose before and after outsourcing? If so, what?
- 8. Were there any benefits that arose when you outsourced?

#### Part 3. Questions pertaining to the theoretical framework

Resource-based theory

- 1. Could you give us which resources you prioritized when considering outsourcing???
- 2. How was the access of the tangible resources (machines, robot, logistic etc) in your domestic market?
- 3. How was the access of the intangible resources? (other competence, human resources, etc)
- 4. When competing with other companies, how important was it to identify your resources according to VRIO?

#### Electic Paradigm

- 1. What kind of location specific benefits was the reasoning behind outsourcing? Which of them were decisive?
- 2. What did the company envision as a result of gaining those benefits? (short-term or long-term?)
- 3. Did you receive any tax benefits for outsourcing?

#### Transaction Theory

#### **Part 4: Backsourcing**

- 1. Why did you choose to backsource your activities?
- 2. What led the company to reconsider international outsourcing?
- 3. Were there other factors to consider when returning home?

- 4. Did you consider switching to an external supplier rather than going home?
- 5. Was the whole backshoring process worth it? (have the expectations met?)
- 6. Do you perceive the benefits of backshoring to become a competitive advantage?
- 7. What, if any, was the key driver(s) in backshoring to Norway?
- 8. What did you learn about the whole process?
- 9. What would you do differently if you could go back in time?

#### Part 5: Further research for considering backshoring in the future

- 1. What factors do you think are decisive when choosing to backshore now, verses when you did it?
- 2. What are your thoughts about how technology is rapidly changing, and what potential effects this can have on the markets in the future?
- 3. From your point of view, can backshoring be the new competitive advantage in the future? If so, why?

#### Interview requests for x companies

Hei. Vi er to masterstudenter ved Universitet i Agder. Akkurat nå sitter vi med vår masteroppgave og trenger derfor intervjuobjekter for å ferdigstille vår oppgave. I den anledning tar vi for oss bedrifter. Det vi ønsker med masteroppgaven er å undersøke nærmere ulike årsaker til hvorfor bedrifter velger å backsource deres bedrift. Vi har derfor laget en intervjuguide og dette bestemmer helt selv om dere ønsker å ha en intervju digitalt eller om vi heller skal sende inn spørsmålene til dere. Spørsmålene tar i utgangspunkt av hvilke deler av bedriften som har blitt outsourcet og hvorfor dere valgte å flagge hjem igjen til Norge. Det vi også lurer på, er om deres forventninger og hva dere sitter igjen med av å backsource.

Vi vil også legge til at det er mulighet for å være anonym i oppgaven. Derfor lurer vi på om dere ville kunne være med på dette? Dere har selv mulighet til å avbryte intervjuet. Når vi er ferdig med vår oppgave, vil kun data fra intervjuet bli brukt i oppgaven, resten vil bli slettet.