



# **Sustainability in Procurement and the Link to Profitability**

*An Exploratory Study*

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## Abstract

This thesis explores how sustainability focus in the procurement function affects a firm's profitability. Sustainability has become increasingly relevant for firms to address, as the adverse impacts of a business on society and the environment has become increasingly clear in later years. We argue that the procurement function is exceptionally well situated to address sustainability within a firm and in conjunction with its greater supply chain. At the same time, we recognize that profitability concerns are pivotal for the ability to implement sustainability initiatives, as firms depend on profitability over time. Thus, we explore the link between sustainability in procurement and profitability by deriving generalizable characteristics of the relationship between these topics. The relationship can be bi-directional; however, in this thesis, we focus on how sustainability in procurement affects profitability.

The research was conducted using an exploratory case design, where qualitative data was collected through six semi-structured interviews. Then, thematic analysis was used to analyze the data. From 85 unique codes, we identified nine themes regarding the relationship. Finally, we structured the findings by identifying three dimensions of themes, or characteristics, affecting profitability when implementing sustainability initiatives in the procurement function. Firstly, we find that the procurement function's *possibility* to implement initiatives through trade-offs and limitations may influence the revenue and cost effects. Secondly, the procurement function's *basis*, that is the employees' perceived need to address sustainability, affects profitability through maturity and perceived relevance. Lastly, the dimension *means*, the degree to which a firm will succeed in implementing sustainability initiatives, is identified to affect profitability through a firm's prerequisites and supplier relationships. The findings are formalized in a framework that a firm can utilize to optimize the implementation of sustainability initiatives in their procurement function, enabling the firm to positively affect the profitability outcome of a given sustainability initiative.

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## Preface

This thesis is written as a part of our MSc in Economics and Business Administration degree at the Norwegian School of Economics (NHH). Our work on this thesis was conducted over a semester (August 21<sup>st</sup> to December 18<sup>th</sup> 2023), and contributes 30 ECTS towards our degrees.

Through a course in Procurement Management, we were introduced to the potential within a firm's procurement function. At the same time, we were exposed to the challenge and importance of addressing sustainability through firms in the courses Corporate Social Responsibility and Sustainable Business Models, instigating an interest in exploring the intersection between procurement and sustainability. Furthermore, we had an ambition to create tangible and real contributions through our thesis. To do so, we included an aspect of practical importance to businesses as our lens: profitability. The course Strategic Profitability Analysis provided us with the necessary tools for addressing profitability. Thus, the chosen topic of procurement, sustainability, and profitability allows us to explore the potential of procurement, the importance of sustainability, and the practical implications of profitability.

We would like to thank our supervisor, Professor Malin Arve, for her guidance. We deliberately asked her to be our supervisor, as we had experienced her knowledge and dedication to the field firsthand. Her devotion to making us successful must be mentioned, as she provided invaluable feedback and perspectives throughout this project. She supported us well, also when we experienced difficulties and challenges in our work.

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Bergen, Norway

December 18<sup>th</sup>, 2023

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# 1. Introduction

*"Our biggest challenge in this new century is to take an idea that seems abstract – sustainable development – and turn it into a reality for all the world's people."*

– Kofi Annan (2001)

This first chapter will start by presenting the topic of this thesis and elaborate on the importance of this emerging field. We will then present the research questions, specifying the focus of this research project, before clearly defining the scope. In addition we will briefly present how we answered the research questions, and our subsequent main findings.

## 1.1 Background

Over the last three decades, the sustainability of a business has become a predominant concern for most firms as sustainability has steadily increased in importance in broader society. As the limitations of resources have become more apparent and negative externalities have become more tangible, sustainability can only be described as a business megatrend (Esty & Lubin, 2010). For most businesses today, an understanding of and a focus on the sustainability of a company is imperative, as it can affect a firm's competitiveness and long-term survival (Chladek, 2019; UNEP, 2021).

Another significant trend in the global business environment that has emerged over the last decades is the use of complex and global value chains. Firms optimize their production processes by locating various parts of their business across borders and continents (OECD, n.d.-a). Economic globalization is a key driver behind this trend, and can be described as the increased integration of economies worldwide (IMF, 2008). However, as the focus on sustainability grows more vital in society, the demand for knowledge and responsibility throughout the value chain has become more apparent for firms. For instance, The World Business Council for Sustainable Development estimates that emissions created by supply chain partners average 11 times the direct emissions from a firm (Dassu et al., 2023). GHG Protocol (n.d.-a) defines direct emissions as: "emissions from sources that are owned or controlled by the reporting entity". Subsequently, strict emission mandates for scope three emissions are on the horizon (Dassu et al., 2023). Scope three are all indirect emissions in a firm's value chain, except energy usage which is defined as scope two emissions (Bakken, 2023; GHG Protocol, n.d.-b). Since the magnitude of the sustainability challenges is global,

firms need to address sustainability in a holistic value chain approach, unless the purpose of the sustainability measures is to "window dress", or greenwash, the firm.

As outsourcing has been increasingly utilized in a globalized world, firms have seen a need to address the increasingly strategic relevance of procurement, since suppliers gradually have become more influential on a firm's competitive position (Van Weele, 2018, p. 162). Thus, firms have evolved from primarily using transactional relationships with their suppliers, towards closer collaboration by, for instance, recognizing suppliers as partners (Hansen, 2009). This evolution also indirectly translates to a better understanding of how supply chain partners function, as the relationships have become more collaborative. At the same time, the procurement function is typically well-connected internally, as they procure on behalf of internal stakeholders. Thus, the procurement function can be imperative to a firm's ability to deliver on its sustainability obligations by understanding internal and external opportunities and possibilities. The procurement function may consequently have the knowledge, understanding and ability to implement sustainability measures that create real change within a company and throughout the broader value chain.

However, addressing sustainability, specifically through the procurement function, may not be costless. Firms need to stay alive, regardless of their sustainability ambitions. Staying alive implies that the firm is profitable over time (Delmar et al., 2013; Maverick, 2022). Thus, whether the potential costs of tackling sustainability are offset by increased revenue following such initiatives must be addressed.

## **1.2 Research Questions**

Our thesis aims to establish whether there are any generalizable characteristics in the relationship between sustainability focus in the procurement function and a firm's profitability. We acknowledge that this relationship can be bi-directional. A firm's profitability can influence its ability to pursue sustainability, while sustainability focus in the procurement function can alter the firm's profitability. We will focus on the latter, as we are interested in the fundamental mechanisms that affect all firms' ability to pursue sustainability through procurement. By developing our understanding of this field, firms can further optimize their future sustainability efforts to have the most significant impact while accounting for profitability effects. Thus, our main research question is:



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*How does sustainability focus in the procurement function affect the firm's profitability?*

We specified the main research question through two sub-questions to further highlight the focus on profitability effects. The first sub-question focuses on the cost dimension of profitability:

*Is it always costly to source more sustainable products?*

This question is aimed at developing a baseline through our data collection. To understand profitability effects, we first want to understand if there is an increase in costs, in general, if companies choose to pursue sustainability initiatives. In other words, we develop our understanding of the cost implications of pursuing sustainability in procurement.

Having developed a baseline to understand the cost effect of profitability, we continue by exploring the potential revenue effects and compare these to the cost effects. Thus, our second sub-question is:

*If there are costs related to sourcing sustainably, will the positive effects of sustainable procurement allow for maintaining or increasing the firm's profitability?*

The second question addresses the revenue dimension of profitability. We acknowledge that sustainability initiatives in procurement may have opposing effects. On the one hand, a firm may experience an increase in costs. On the other hand, the firm may experience that the sustainability initiatives lead to greater revenue, for instance through greater sales or increased willingness to pay (WTP) for the firm's products. By analyzing this question, we aim to understand the magnitude of the cost and revenue effects to proclaim if sustainability initiatives in procurement can allow for maintenance or an increase in a firm's profitability.

### **1.3 Scope**

Following the research question and the subsequently chosen area of focus for this research project, there are some limitations on what this thesis will address and the relevance of the results we derive. Firstly, it will be necessary to emphasize that our research question limits the scope of the thesis to the procurement function of a company, by excluding sustainability initiatives that are firm-wide or directly related to other departments than procurement.

In addition, this research project will focus on procurement in non-governmental entities. Therefore, this thesis will not directly address the public procurement domain or the subsequent Green Public Procurement (GPP) domain (OECD, n.d.-b). As public procurement represents a significant size of the overall procurement volume in a sector (European Commission, n.d.-b), it could be beneficial to include public procurement to increase the transferability of our findings. This research project is conducted over a short time period of four months. Thus, due to resource limitations in terms of time, we choose to specify our scope, in this case, by focusing on private procurement. Specifying the scope in such a manner allows for deeper analysis and more robust results. Nonetheless, the findings might still be relevant in a public procurement perspective.

## 1.4 Main Findings

To research the link between sustainability in procurement and profitability, we used an exploratory critical case design with semi-structured interviews as data collection method. While the broader relationship between sustainability and profitability has been extensively researched (Friede et al., 2015; Jørgensen & Pedersen, 2018, p. 137), the link between sustainability in procurement and profitability appears to be under-explored. To establish a fundamental understanding of the mechanisms affecting this link, using specific cases was assumed to include the most insightful data. In addition, the use of qualitative data resulted from the phenomenon we strived to research; procurement-specific quantitative data is often considered sensitive and thus not broadly available.

We found that sustainable sourcing is not necessarily more costly and has benefits that can mitigate or be of a greater magnitude than the cost effects directly related to sustainable sourcing. However, we stress that a qualitative approach to data collection has been utilized, and thus, isolating the specific procurement effects is complicated. Therefore, we cannot dissert a causal relationship or estimate the true magnitude of the effects. Nevertheless, we identify critical characteristics that affect cost and revenue when implementing sustainability initiatives in the procurement function. We recognize the dimensions of *possibility* (trade-offs and limitations), *basis* (maturity and relevance), and *means* (prerequisites and supplier relationships) as having a significant influence on the profitability effects. The derived characteristics are consequently structured into a framework that can be used to understand how profitability is affected by focusing on sustainability in the procurement function.

## **2. Theory**

This chapter presents the fundamental theory we will use to derive insights from the data collected through this research project. First, the field of sustainability will be addressed. We will do so by defining sustainability before taking a closer look at factors that have made sustainability necessary for businesses to tackle. Secondly, we will define procurement before presenting the connection between sustainability and procurement. Lastly, we will define profitability and show how sustainability and procurement can influence a firm's profitability.

### **2.1 Sustainability**

This thesis aims to develop the understanding of how sustainability focus in the procurement function affects the firm's profitability. Thus, it will be essential to understand the topic of sustainability. In this sub-chapter, we will explore the dimensions of sustainability and define the term. In addition, we will examine the rising global significance, and the pressing need for firms to prioritize sustainability.

#### **2.1.1 What is Sustainability?**

The term sustainability is subject to various interpretations, both in academic literature and policy documentation (Purvis et al., 2019; Ramsey, 2015). With more than 300 interpretations of sustainability (Henckens et al., 2016), the term often serves as a synonym for sustainable development (Meadowcroft, 2023). One of the most influential definitions of sustainable development was provided by the United Nations (UN) Brundtland Commission in 1987. The commission described it as the practice of "meeting the needs of the present without compromising the ability of future generations to meet their own needs." (Brundtland, 1987).

Sustainability is commonly conceptualized across three dimensions: environmental, economic, and social (Purvis et al., 2019). According to the UN, the environmental dimension focuses on the responsible management of nature and climate as renewable resources. The economic dimension aims for long-term economic growth while ensuring a fair allocation of resources and economic security for individuals and society. The social dimension centers on safeguarding human rights and creating a fair and humane baseline for quality living for everyone. The three dimensions are interconnected, meaning that changes in one area can

directly or indirectly impact the others (United Nations, 2023). This indicates that there is a need for a holistic perspective when addressing initiatives concerning sustainability.

Sustainability is often viewed as an umbrella term that covers concepts such as Corporate Social Responsibility (CSR) and Environmental, Social, and Governance (ESG) (O'Brien, 2023, p. 112). Used interchangeably (Pollman, 2021, p. 8), CSR can be defined as a firm's initiatives to positively contribute to society and the environment beyond what the law requires (McWilliams & Siegel, 2001), while ESG can be defined as criteria measuring a firm's responsibility with respect to the environment and society and the level of responsibility in its management practices (Dolan & Zalles, 2021, p. 31). In this thesis, we will define sustainability as the practice of using environmental, social, and economic resources in a way that does not limit the possibilities of future generations to meet their needs (Brundtland, 1987; O'Brien, 2023; Purvis et al., 2019).

### **2.1.2 Why is Sustainability Relevant?**

The Brundtland Commission played a significant role in bringing the topic of sustainability into mainstream policy discussions. Since the start of the 21<sup>st</sup> century, there has also been a significant increase in publications on sustainability (Purvis et al., 2019). The UN's Sustainable Development Goals (SDGs), established in 2015, set a global agenda for sustainable development. The SDGs build on the Brundtland Commission's work, and it is stated that the goals are "integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental" (United Nations, 2015). Many businesses incorporate the SDGs into their reporting, highlighting their commitment to these goals to attract customers, talent, and investors (Scott & McGill, 2018).

However, some researchers argue that initiatives like the SDGs are insufficient. They contend that many companies merely use the SDGs and similar initiatives to greenwash (Munro, 2020, p. 86). Greenwashing implies that companies showcase themselves in a better light than their actual sustainability performance justifies (Utgård, 2017). Researchers have argued that there is a need for stricter regulations to ensure genuine commitment and concrete action towards sustainability measures from firms (Song et al., 2022). Even though the term sustainability has been criticized for its vagueness and for becoming a buzzword (Purvis et al., 2019; Ramsey, 2015), it is an enduring trend that demands our attention now and for the foreseeable future (Esty & Lubin, 2010).

The sustainability trend is becoming more prominent as increased stakeholder demands, new regulations, and economic incentives encourage sustainable behavior. Stakeholders, like customers, investors, and employees are showing growing concern for sustainability. Due to heightened societal awareness of negative corporate impacts, customers are now more attentive to the sustainability of products. Therefore, it might be crucial for businesses to address sustainability to retain their customers. Simultaneously, investors are pushing firms to prioritize and disclose their sustainability practices to ensure the company's long-term survival, as investors are concerned about potential lost sales and stricter future regulations. Also, some investors want companies they are affiliated with to differentiate themselves from their competitors by leading sustainability initiatives. In addition, employees who are highly qualified are increasingly attracted to companies they understand to be more sustainable (Esty & Lubin, 2010; Jørgensen & Pedersen, 2018, pp. 146-148; Unruh et al., 2016).

In addition, the regulatory environment regarding businesses and their sustainability obligations is changing. One example is the Norwegian Transparency Act, which entered into force in July 2022. The act mandates that enterprises uphold fundamental human rights and ensure decent working conditions during the production of goods and provision of services. Furthermore, the act emphasizes the public's right to access information on how enterprises address any negative impacts on these rights and conditions (Transparency Act, 2022). Various binding legislation, like the Norwegian Transparency Act, has entered into force in later years. Amongst others, the Australian Modern Slavery Act (2018), the Dutch Child Labour Due Diligence Law (2022), the UK Modern Slavery Act (2015), and the Regulation to minimize EU-driven deforestation and forest degradation (2023) (European Commission, 2023; World Economic Forum, 2022, pp. 22-23). These binding legislations stress the increasing global requirement to ensure sustainable business practices.

Moreover, economic incentives are increasingly used worldwide to drive sustainable behavior among firms (OECD, 2023). Examples of economic incentives include taxes and fees, and subsidies. Taxes and fees are typically a monetary charge on products or activities that negatively impact sustainability (EPA, 2023). One example is plastic packaging taxes implemented in several countries. In the United Kingdom, a tax on plastic packaging containing less than 30 percent recycled plastic came into force in 2022 (WTS Global, 2023, pp. 23-26). Subsidies addressing sustainability are financial, governmental support for products and activities assumed to promote sustainability (EPA, 2023). An example of a subsidy initiative is the Inflation Reduction Act, which came into force in 2022 in the United

States. The act includes several subsidies for sustainable investments, such as grants to produce clean energy (The White House, 2023).

The evolving demands and heightened expectations from customers, employees, and investors, as well as stricter regulations and economic incentives from authorities, will require businesses to consider sustainability in their operations today, and in the long run. This mandates a holistic approach considering the economic, social, and environmental dimensions of sustainability. Consequently, companies must take sustainability into account throughout their value chain, which the procurement function within a firm can promote.

## **2.2 Procurement**

While sustainability is regarded as a catalyst in this thesis, procurement can be understood as the basis of observation. In this sub-chapter, we will look at what procurement is, why the procurement function is well-positioned to address a firm's sustainability efforts, and potential limitations to the procurement function's ability to address sustainability.

### **2.2.1 What is Procurement?**

To discuss the relevance of procurement concerning sustainability, we first need to clarify what the term procurement means. Procurement, through what is often referred to as the procurement function, refers to the process of buying. This process will include activities such as understanding needs, supplier selection, price and contract negotiations, as well as following up with the suppliers about contractual obligations (Van Weele, 2018, p. 7). Another similar term to buying which is commonly used in relation to procurement, is sourcing. Sourcing can be defined as: "finding, selecting, contracting and managing the best possible source of supply on a worldwide basis" (Van Weele, 2018, p. 391).

We can divide procurement into two distinct and general categories: direct and indirect. Direct procurement relates to the purchasing of products and materials used in the production process for a firm's product(s). Indirect procurement, on the other hand, links to the purchasing of products used in a supportive function for a firm's production processes. This type of procurement is typically related to infrastructure upkeep/development or back-office activities (Van Weele, 2018, p. 6).

In later years, procurement has evolved from a purely transactional role towards a more strategic field within firms. This evolution can be attributed to the changes in the business context in which firms operate, such as increased globalization, more/better information through technological advancements, and greater demand for accountability (Tassabehji & Moorhouse, 2008). These underlying factors that have increased the strategic importance of procurement allow us to understand why procurement can be an essential tool in a firm's effort to address sustainability.

As the world has become increasingly globalized, businesses have evolved to pursue a global scope for their sourcing activities (Ozsevim, 2023; Sunjka & Papadopoulos, 2022). In other words, firms increasingly use and rely on global value chains. Using global value chains creates opportunities for firms by enhancing their competitiveness (Sunjka & Papadopoulos, 2022; Van Weele, 2018, p. 17). However, they are also challenging to manage, as potential disruptions are complicated to predict and address. One way in which firms can address this uncertainty, is by utilizing closer relationships with suppliers. A relational approach to the buyer-supplier relationship allows for the achievement of strategic benefits like commitment, investment, communication and trust (Aghazadeh & Maleki, 2023). Overall, as a more globalized world presents opportunities and challenges, firms are pivoting towards a more strategic approach to procurement.

### **2.2.2 Sustainability and Procurement**

Firms operate in a complex world where collaboration with external stakeholders is typically a necessity. Research shows that 50 to 70 percent of all sustainability issues cannot be solved independently within the realms of a single business (O'Brien, 2023, p. 109; Staal, 2022). To tackle sustainability issues, firms must adopt a supply chain perspective. World Economic Forum explains supply chain sustainability as: "the shaping of a company's investment, operational and procurement decisions to achieve positive environmental, social and governance outcomes and the reduction of harm" (World Economic Forum, 2022, p. 3).

Impending regulatory changes further emphasize the importance of a supply chain perspective when firms tackle sustainability challenges. An example may be the efforts undertaken by the European Union. On the 23<sup>rd</sup> of February 2022, the European Commission adopted the proposal for a directive on corporate sustainability due diligence. Amongst other considerations, the proposed directive establishes new rules to hold businesses accountable for

adverse impacts of their actions, including in their value chain, regardless of geographical location (European Commission, n.d.-a).

When adopting a supply chain perspective to sustainability efforts, the procurement function within the firm becomes imperative; as it is uniquely positioned to address sustainability. Close relationships with external and internal stakeholders allow procurement to drive sustainability-empowering changes. At the same time, it is important to acknowledge that the degree to which the procurement function can influence internal and external stakeholders varies. For instance, its strategic importance might be perceived as modest by the firm's management (Van Weele, 2018, pp. 303-305), potentially resulting in limited opportunities for engaging in sustainability initiatives.

Through procurement's positioning between internal and external stakeholders, the procurement function is uniquely situated to drive sustainability efforts because of its ability to affect a firm's value chain. A value chain approach to sustainability is vital because most sustainability challenges happen outside the realms of a single company. In addition, new legislation demands greater accountability regarding firms' actions throughout the entirety of value chains. Thus, procurement is essential for a firm's ability to tackle the complex and pressing sustainability challenges. However, market conditions or firm priorities may negatively affect the procurement function's ability to affect the firm's sustainability efforts. At the same time, it is important to recognize that sustainability can be addressed in most functions of an organization, even though we choose to focus on procurement. For instance, the research and development function can design more environmentally friendly products, and the marketing function can promote such products (UN Global Compact, n.d.).

## **2.3 Profitability**

The last theoretical sub-chapter is centered around the profitability aspect of this thesis. Profitability considerations can promote and limit a firm's ability to implement sustainability initiatives in its procurement function. In this chapter, we will define profitability and its components. Additionally, the link between profitability and sustainability, as well as profitability and procurement, will be presented. An important distinction is that we will focus on profitability mechanisms, and not specific financial performance metrics related to accounting or market indicators.



### 2.3.1 What is Profitability?

The term profitability can be defined as a measure describing a firm's profit relative to its expenses (Gartner, 2023). That is, profitability breaks down into two parts: revenue and expenses. Thus, we will categorize a business as profitable if the revenue generated exceeds the associated costs (Horton, 2023). To understand the importance of profitability, clarifying what firms use profits for will be helpful. A firm's profits will either be transferred to its owners or reinvested in the company. Even if firms can utilize financing, liabilities cannot increase indefinitely. Thus, a firm would cease to exist if there is a lack of capital or financial resources to continue business operations. In other words, achieving profits is a necessity for the survival of a firm (Maverick, 2022).

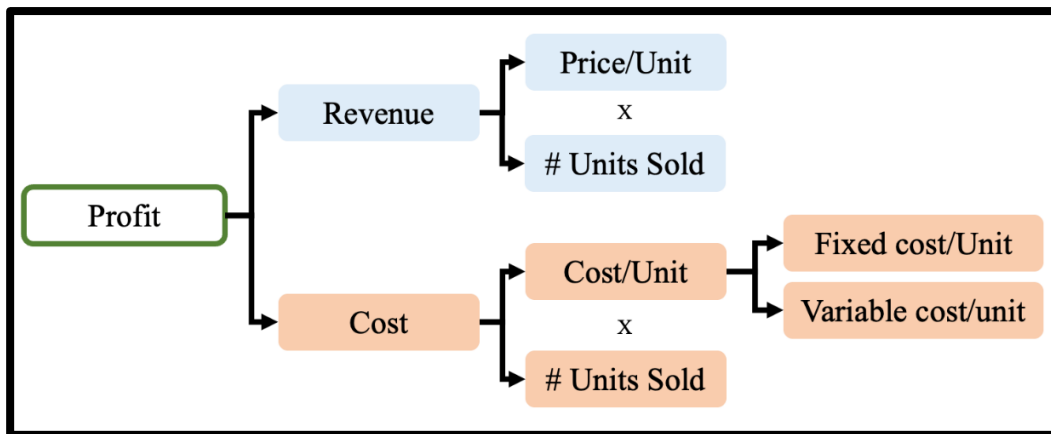


Figure 1: Profitability Framework (Berge, 2022).

The profitability framework illustrated in *Figure 1* can be used to analyze how profits fluctuate with changes in revenue and cost. Revenue can be defined as the amount of income that a firm generates by selling products (Investopedia, 2022). *Figure 1* shows that revenue can be described as the product of the unit price and number of units sold. Subsequently, costs are the monetary amount used to produce (Ashburn, 2023). Furthermore, the figure shows that costs can be described as the product of unit cost and number of units sold. Furthermore, unit costs can be broken down into fixed costs per unit and variable costs per unit.

Costs, however, can be a complex topic. When considering the value of an asset or a capital project over time, the price, may be unclear. Purchase prices are often accessible to view; however, there are also costs associated with operations. A total cost of ownership (TCO) approach to costs considers purchase price, or initial investment, and operation costs. When buying, a TCO approach can achieve the best value or lowest cost in the long run (Twin, 2023).

Like TCO, life cycle cost (LCC) or life cycle analysis (LCA) can be used to understand the true extent of a cost better. LCC includes costs that arise through a product's life cycle, including environmental burden. LCA is a structured and scientific approach used to calculate the environmental burden of a product (DFØ, 2023).

To increase profit, a business can increase revenues, decrease costs, or both (Jørgensen & Pedersen, 2018, p. 138). Revenues can be enhanced by increasing the sales volume or the price per product. Sales volume can grow by selling more products to current or new customers. The price per product can be raised by heightening the customers' perceived value of the products the firm is selling, increasing the customers' willingness to pay (WTP). Costs can be reduced by making operations more efficient, through reducing the variable or fixed costs.

By distinguishing between potential profit and realized profit, Bjørnenak (2003) provides a greater understanding of a firm's profitability. Potential profit refers to the profit a firm can achieve under optimal efficiency. Realized profit refers to the actual profit the firm earns. The potential profit is calculated by subtracting costs at maximally efficient production from revenues generated by profitable customers and products. Realized profit uses the potential profits as a basis but accounts for provisions or deviations related to higher factor prices (material and labor), slack in activities, unprofitable products, and unprofitable customers. In essence, this is an analysis of a firm's competitive efficiency, providing a comprehensive understanding of a firm's profitability.

### **2.3.2 Profitability and Sustainability**

The relationship between profitability and sustainability has been debated in academic and business contexts. There has been a common perception that sustainable practices are more costly, negatively affecting a firm's competitive efficiency. In other words, striving for sustainability has been seen as a trade-off with a firm's profitability (Porter & Kramer, 2011).

Friedman (1970) and Freeman (1984) laid the foundation for the ongoing debate about the business case of sustainability (Jørgensen & Pedersen, 2018, p. 194). Friedman argued: "There is one and only one social responsibility of businesses – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game." In essence, Friedman stated that businesses should focus on maximizing profits for their shareholders while operating within the legal framework. Many firms viewed CSR to negatively impact shareholder return. Today, however, more and more firms seek a balance

between making profits for their shareholders and contributing positively to society by considering their operations' environmental and social impacts (O'Brien, 2023, pp. 124-125).

Freeman (1984) argued that firms should be attentive to all stakeholders affected by their actions. This includes shareholders, employees, customers, suppliers, and society. He claimed that the firm cannot survive in the long run if it solely caters to its shareholders. This perspective aligns with today's emphasis on the triple bottom line of People, Planet, and Profit, suggesting a holistic approach that considers the economic, social, and environmental dimensions of sustainability. In essence, this perspective argues that to achieve a competitive advantage, firms should simultaneously focus on generating value for customers, society, and shareholders (Van Weele, 2018, pp. 360-364).

Furthermore, recent research supports the possibility of aligning sustainability and profitability. One example is Eccles et al. (2014), who examine 180 firms over an 18-year period to assess the impact of adopting sustainability initiatives on long-term performance. The firms in their sample were matched to be similar in most characteristics, except for their commitment to sustainability. Their findings indicate that firms which implemented multiple sustainability initiatives at the outset demonstrated greater performance in both stock market and accounting metrics by the end of the observational period. Flammer (2015) identifies a similar correlation by examining the impact of corporate social responsibility (CSR) on profitability. By exploring a subset of firms randomized on whether CSR proposals were marginally passed or not in annual shareholder meetings, the author finds that firms that did implement CSR initiatives experienced enhancement in both firm value and accounting performance in the subsequent four years.

However, it is worth noting that the study conducted by Eccles et al. (2014) only included U.S. companies. Therefore, it is important to be aware that inherent similarities between U.S. companies can drive the results, and such findings might not be present in other markets or on a global scale. Furthermore, Shahzad and Sharfman (2017) points out that studies showing a positive relationship between corporate social responsibility and financial performance might be more easily published.

For sustainability initiatives to be profitable, they must either increase the firm's revenues or reduce costs, which is achieved directly or indirectly. and Pedersen (2018, pp. 138-139) outline a framework that divides these effects into four categories. Firstly, firms can increase revenues

by introducing sustainable products that align with consumer preferences and enhance the firm's brand value, leading to greater sales and customer loyalty. Secondly, cost reductions can be realized through more efficient resource utilization, such as material and energy savings or tax reductions resulting from implementing sustainable practices. Thirdly, a firm's commitment to sustainability can enhance its immaterial resources, for instance, by attracting talent who prioritize these values. Fourthly, sustainability initiatives can mitigate potential regulatory and reputational risks, ensuring the firm is prepared for future governmental regulations and avoiding lost sales due to dissatisfied customers (Esty & Winston, 2006, pp. 101-104; Jørgensen & Pedersen, 2018, pp. 138-140; Lefevre et al., 2010).

The relationship between sustainability and profitability has garnered significant attention in recent years, and much research has been conducted in this area (Jørgensen & Pedersen, 2018, p. 137). Since the early 1970s, scholars and investors have published over 2000 empirical studies and several review studies on this relationship (Friede et al., 2015). However, a noticeable gap exists when narrowing the focus to the interplay between sustainability focus in the procurement function and its subsequent impact on profitability.

### **2.3.3 Profitability and Procurement**

For many companies, procurement costs constitute between 50 and 80 percent of total costs (PwC, 2013). Consequently, the procurement function can significantly affect a firm's profitability. A reduction in procurement spend, provided it does not impair the quality of the firm's products, directly improves its bottom line (Van Weele, 2018, p. 14). In addition to cost reduction, the procurement function can enhance the firm's profitability by contributing to risk reduction and revenue growth (Lefevre et al., 2010).

Cost reduction can be achieved by reduced purchase prices, consumption, and compliance costs. Specifically, the procurement function can negotiate to lower the purchase prices, source products that alleviate resource strain within production, and meet regulatory standards, which can reduce taxes. Risk reduction can be achieved by compliance with regulations and customer expectations, which involves avoiding sourcing products that can lead to negative publicity and, consequently, a loss of sales. In other words, the procurement function can contribute to maintaining brand value (Lefevre et al., 2010).

Traditionally, there was a perception that a procurement function primarily affected a firm's bottom line through cost reduction, a sentiment that still holds in many firms today (Van

Weele, 2018, p. 162). However, it also has the potential to impact the top line of a firm. The procurement function may contribute to revenue growth by, for instance, sourcing quality products or developing new products through supplier collaborations (Kepler, 2016; Lefevre et al., 2010; Van Weele, 2018, p. 14). Customers might prefer, and pay a premium for, products containing specific components or produced in a certain way (Lefevre et al., 2010). The procurement function can be responsible for sourcing such components. That said, a procurement function's role varies among companies, and its impact on the top line can be influenced by the responsibilities management delegates to it (Van Weele, 2018, pp. 303-305).

However, attributing a revenue increase to a single business function can be challenging. Several departments, including research and development (R&D), product management, and procurement, could have contributed to a revenue increase to varying degrees. For instance, the R&D department might be the one that decides whether the firm should procure a specific component for a product. Also, to capitalize on increased customer WTP after introducing specific components into products or production processes, the marketing and sales departments might need to communicate these enhancements effectively to customers (Lefevre et al., 2010; UN Global Compact, n.d.) Overall, the procurement function can contribute to increased revenue, but it can be challenging to isolate its specific contribution.

## **2.4 Literature Review**

This research project focuses on the specific and sparsely researched intersection between sustainability, procurement, and profitability. That is, there is limited peer-reviewed research within this particular field. Using EBSCO Business Source Ultimate and filtering for peer-reviewed information, the search term "sustainable AND procurement AND profit" yields 30 results. On the contrary, the search term "sustainable AND procurement" yields 980 results, and "sustainable AND profit" yields 2 798 results. As a result of the limited existing research on the topic at hand, we will analyze the current literature in the adjoining fields, that is, sustainability in relation to procurement and profitability. By doing so, we aim to approximate the field we are researching by summarizing the existing literature on topics closely related to the topic at hand for this thesis.

In this literature review, we will focus on meta-studies on sustainability and procurement, as well as sustainability and profitability. We can cover more of the published literature in the

field by focusing on meta-studies or literature review articles. This approach enables a comprehensive understanding of the topics and their evolutionary trajectory.

### **2.4.1 Sustainability and Procurement**

Already over a decade ago, Miemcsyk et al. (2012) found that the topic of sustainable procurement was experiencing increased interest. By mapping special issues publications in the field, the researchers found an upward trend in the number of publications, emphasizing how sustainability in procurement has become a current research topic. Furthermore, the researchers found that what constitutes sustainability in procurement has evolved from a purely environmental perspective towards incorporating the social dimension of sustainability.

A subsequent field within sustainable procurement that has considerable publications is supplier selections. By conducting a meta-literature review on the topic of sustainable supplier selection, Rashidi et al. (2020) reveal that: "There has been no major shift or change in the traditional supplier selection practices", "The ratio of the applied social criteria is relatively low compared to the total number of criteria", and that "The innovation capability of suppliers needs to be further considered." These findings might indicate a low maturity level regarding implementing sustainable procurement practices, specifically regarding supplier selections. At the same time, the authors state that there is great potential for further research, primarily through engagement from practitioners, as most of the publications are produced by academic researchers. It is also worth mentioning that this meta-review analyzes publications between 1990 and 2018. In a rapidly evolving field, these findings may be outdated and, thus, have limitations to how accurately they represent the current state in 2023.

### **2.4.2 Sustainability and Profitability**

The understanding of the relationship between sustainability and profitability has been widely discussed and researched over the last decades. The findings from research addressing this topic are varied and not clear-cut. In a literature review article addressing the "business case" for corporate social responsibility, Salzmann et al. (2005) identify "clearly insufficient understanding of manager's key arguments or business logic for adopting corporate sustainability strategies". In the article, the authors review theoretical frameworks, instrumental studies, descriptive studies, and tools related to the business case for sustainability (BCS), which is the economic rationale for corporate sustainability management. While the business case is unclear in their findings, the authors clarify that

complexity and materiality significantly affect the BCS. Complexity arises from BCS being dependent on numerous parameters that vary across industries, countries, and time. Materiality is related to the economic value of operating more sustainably and materializes in the long term. Furthermore, the effect BCS has on intangible assets, like brand value, is typically complex to quantify (Salzmann et al., 2005).

On the other hand, researchers Orlitzky et al. (2003) and Friede et al. (2015) have all identified a positive relationship between social responsibility and financial performance through meta-analyses. For instance, Orlitzky et al. (2003), through the analysis of 52 studies aggregating a total of 33 878 observations, find that Corporate Social/environmental Performance (CSP) and Corporate Financial Performance (CFP) are positively correlated, even across industries and study contexts. In addition, they find that the relationship between CSP and CFP itself tends to be both simultaneous and bi-directional.

To derive a generalizable statement regarding the relationship between environmental, social, and governance (ESG) criteria and CFP, Friede et al. (2015) combine the findings from approximately 2200 unique studies published on the topic. The authors find a nonnegative relationship between ESG and CFP in about 90 percent of the studies included. Furthermore, Friede et al. (2015) show that "the positive impact of ESG on CFP appears stable over time".

### **2.4.3 Literature Review Conclusion**

Due to the limited research on how sustainability in procurement affects profitability, we included a summarization of the literature on the adjoining topics sustainability and procurement, and sustainability and profitability. Regarding sustainability and procurement, the current research indicates an increased interest in the topic and a matured understanding of sustainability, exceeding a purely environmental perspective (Miemczyk et al., 2012). Furthermore, the literature on sustainable supplier selections indicated a potentially low maturity level related to implementing sustainable procurement practices (Rashidi et al., 2020). Regarding how sustainability may affect profitability, Salzmann et al. (2005) found that the sustainability business case was unclear. However, this may be attributed to the complexity and materiality of analyzing the impact of sustainability. At the same time, both Orlitzky et al. (2003) and Friede et al. (2015) are evident in their findings that there is a positive correlation between a firm's sustainability approach (CSP or ESG efforts) and the financial performance of a firm.

## 3. Methodology

In this chapter, we will describe and justify our methodological choices, devised in light of the limited research on the topic at hand, as evident from Section 2.4. We will start by presenting our approach before describing how the data was collected. Then, the analysis procedures will be detailed, before lastly addressing the methodological quality and ethical considerations.

### 3.1 Approach

Through this research project, we intend to better our understanding of the link between sustainability in procurement and profitability. We aim to generalize and describe the connection. However, due to resource and accessibility limitations, we do not intend to draw causal conclusions. Instead, we see our research as an initial step for broader research in this field. Thus, our research has an exploratory purpose.

To answer the research questions presented in Section 1.2, we conduct semi-structured interviews with procurement professionals. This decision is related to the complexity of studying the topic. Firms typically publish profitability data on an aggregated, firm-based level. Procurement-specific profitability data is therefore not readily available. In addition, such data is often sensitive for firms, restricting their willingness to share. Given the data availability challenges and the exploratory purpose, we found qualitative data to be best suited for this project as it allows for access to important and valuable perspectives that can facilitate enhanced understanding of the topic we are researching.

In addition, we use an embedded multiple-case strategy. Firstly, a multiple-case approach is chosen to increase the transferability of the results. Specifically, we aimed to include three cases, materialized as three firms. Secondly, we use an embedded case strategy, as we recognize that the nature of the procurement role may influence the perception of the individual respondent. Therefore, we do not address each case as a holistic unit but rather each respondent within each firm as a sub-unit. Doing so enables us to explore a more diverse perspective on the topic we are researching.



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## 3.2 Data Collection

### 3.2.1 Data Type

Before detailing the cases, it will be useful to clarify the specificity of the data we collect. In this project, we conduct semi-structured interviews to obtain mono-method qualitative data. Semi-structured interviews are beneficial for this project as they allow for using probes, or follow-up questions, to make the respondent elaborate on their answers (see *Appendix 3*). Given the exploratory purpose and the complexity of the research topic, this allows for the pursuit of relevant data (Saunders et al., 2016, p. 394). The interviews were between 48 and 73 minutes in length, and the audio was recorded for use in the analysis process.

### 3.2.2 Defining the Sample

The general population in this project can be described as procurement professionals. The target population for our research is procurement professionals who are experiencing a need to pursue or address sustainability. We use purposive sampling for the case selection. Purposive sampling can be described as a technique where the researchers use their judgment to select specific cases (Saunders et al., 2016, p. 301). Specifically, within purposive sampling, a critical case sampling technique is used. This entails that cases are selected based on their ability to make a point or their importance. Understanding each case will, in turn, allow for generalizations to be made (Saunders et al., 2016, p. 302). In the creation of the sample for this project, critical case sampling materializes through these selection criteria:

1. Companies based/headquartered in Norway.
2. Established and professionalized procurement function.
3. International operations – a proxy for using global and complex value chains.

The first criterion is based on Norway's regulatory or legislative barriers that force companies to address sustainability through their procurement activities. One example may be the Norwegian Transparency Act (2022). Thus, this criterion allows for a point to be made, as all companies in the sample will have experience in the sustainable procurement topic. The second criterion ensures a degree of differentiation from other aspects of a business. Professional procurement functions may allow for the isolation of procurement effects, again increasing the ability to make a point through the research. The last criterion is to ensure that the sample consists of firms with the most significant sustainability challenges when assuming

that complexity in value chains increases the complexity of sustainability challenges. Thus, it promotes a selection of the cases with the most significant impact.

Using purposive sampling, we identify three relevant cases. The three cases materialize as the three Norwegian companies, Norsk Hydro ASA, Yara International ASA and a third firm. All companies are headquartered in Oslo, and they have well-established procurement functions. In addition, all three companies operate globally, with production spanning continents (Hydro, 2023; Yara, 2023).

### **3.2.3 Respondent Selection**

The primary technique used to select interview respondents was the snowball method, a form of volunteer sampling. We identified a higher-level procurement official in each of the respective companies. These representatives were then asked to identify three potential respondents within their companies.

A principal goal in the sampling process was to ensure variability within each case, which is linked to using an embedded case strategy. We wanted to ensure that the three respondents within each company could contribute with diverse perspectives. To do so, we created a two by two (2x2) matrix that could differentiate the type of respondents included in the study. The matrix is built upon a vertical dimension proxying procurement and a horizontal dimension proxying profitability. The vertical dimension represents a continuum of generalized procurement activities, from operational to strategic. Fundamentally, this dimension is built on the assumption that employees focused on the strategic dimension of procurement have a different perspective on the field than employees mainly working in the operational dimension. The horizontal dimension focuses on profitability by using complexity in sourcing as a proxy. The general idea is that the greater the complexity of sourcing, the more significant profitability effects may be present. Overall, the matrix can be described as a sampling tool, and it can be seen in *Figure 2* below.

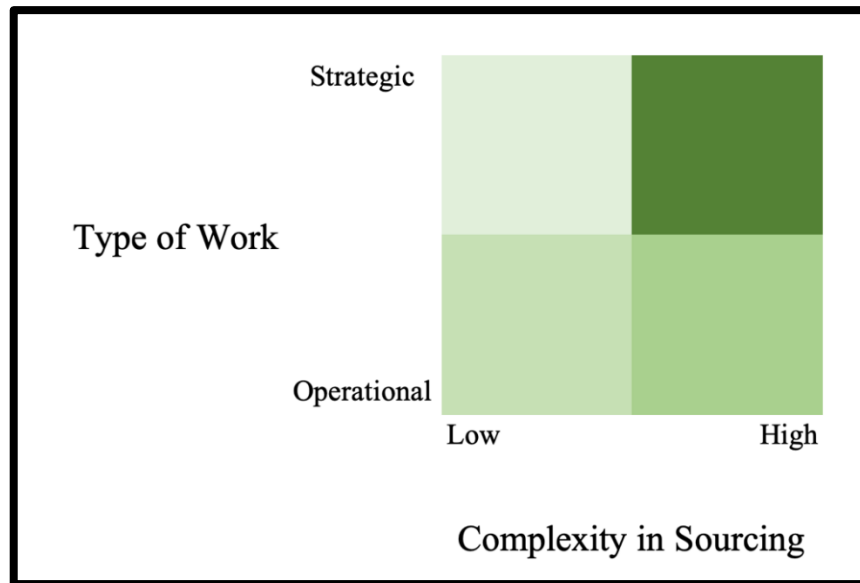


Figure 2: Respondent selection matrix.

During the scheduling of the interviews, we started to experience troubles with the third firm. After reaching out to the company, we got a highly positive response, where the company representative clearly stated a desire to participate in our project and that they would get back to us with specific candidates. However, we did not hear back from the company for several weeks and through numerous attempts at regaining contact. Towards the end of our interview phase, our supervisor was able to obtain contact with the company. At this point, it was no longer possible for us to include the company in the research due to strict time constraints surrounding this project. Therefore, the number of cases were reduced from three to two.

### 3.3 Data Analysis

#### 3.3.1 Transcribing the Data

To analyze the interview data, the audio recordings were transcribed using Microsoft Word's transcription tool. However, this automatic transcription tool was not flawless. Some sentences were left untranscribed, while others were incorrectly transcribed, thus not accurately conveying the respondents' intended meaning. This was related to the quality of the audio recordings, the respondents' accents, technical terms, and names. Therefore, we supplemented the automatic transcription with data cleaning. We reviewed the automatic transcriptions in conjunction with the audio recordings and made amends for any transcription errors.

### 3.3.2 Thematic Analysis

As our research project aims to derive generalizable characteristics regarding the relationship between sustainability, procurement, and profitability, a thematic analysis was used to analyze the data as it facilitates the identification of patterns and relationships through a structured approach (Saunders et al., 2016, p. 579). A thematic analysis includes four procedures: becoming familiar with the data, coding the data, searching for themes and recognizing relationships, and refining themes and testing propositions. The process is often non-linear, and consequently there is typically movement back and forth between the procedures as new insights are gained throughout the analysis (Saunders et al., 2016, pp. 580-586).

By coding the interview data, the accessibility of relevant data increases (Saunders et al., 2016, p. 580). Given the exploratory purpose of the research project, we use an inductive approach to coding, which infers coding a majority of the collected data (Saunders et al., 2016, p. 582). In this project, we conducted two rounds of coding using a combination of *in vivo* codes, codes based on terms used by the respondents, and labels (Saunders et al., 2016, p. 582). The first round was aimed at developing an initial set of codes and further the familiarization process with the data, and was conducted independently by each of the researchers. In the second round, the inductively derived codes were discussed, and a final set of codes was derived for each individual interview transcript.

The third procedure is related to the search for themes and relationships in the data. A theme can be explained as a grouping or a general category of related codes that can be used to derive insights regarding the research question. This process typically occurs throughout the previous procedures in practice, but is regarded as a distinct process in a thematic analysis (Saunders et al., 2016, p. 584). The results of the second coding round were used to search for themes and relationships, with guidance from the research questions.

The last procedure is related to refining themes and testing propositions. Refining the themes ensures coherence amongst the final themes, providing a well-structured framework for analysis (Saunders et al., 2016, p. 585). Furthermore, testing propositions is essential to identify alternative explanations. Only through testing propositions can valid conclusions be derived (Saunders et al., 2016, p. 586). By re-reading the coded data, we decide whether some themes should be combined while others should be separated.

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## 3.4 Methodological Quality

### 3.4.1 Dependability

The dependability of qualitative research, specifically semi-structured interviews, are related to whether different researchers could derive similar findings, by addressing whether any biases have affected the interview data (Saunders et al., 2016, p. 397). In the following section, we will define interviewer-, interviewee-, and participation bias in addition to participant- and researcher errors, and clarify our efforts to limit their impact on our data.

Interviewer bias is when the interviewer can influence the respondent's answers through non-verbal behavior, tone, or formulation (Saunders et al., 2016, p. 397). In this project, we address this potential issue through two means of action. The two researchers conduct half of the interviews each, and the interview-researcher selection is randomized. In addition, both researchers were present at all interviews to increase the sense of accountability with the interviewer to minimize potential interviewer bias situations.

A second form of bias that can affect the data is interviewee bias. In this situation, the interview respondent's perception of the researchers or sensitivity to specific topics may taint the collected data (Saunders et al., 2016, p. 397). We create credibility by preparing extensively before conducting the interviews, both regarding the topic of this project independently and how the different companies address the topic. In addition, to address potential sensitivity or lack of trust issues, we leverage the anonymity aspect of our research design. We clarify the extent to which we ensure anonymity to stress that information revealed through the interview will not be directly connected to the respondent or the company.

Furthermore, participation bias may affect the data through a non-random sample. This bias arises from the fact that the participants who are willing to partake differ from the general population. This bias may be especially relevant for this project as snowball sampling was used to find the specific respondents. To address this potential issue, we used transparency in our communication. We clearly stated the project's scope, why it was particularly relevant in the field of procurement, and how demanding the interview would be, stressing that it would take a maximum of 90 minutes. The purpose of such communication was to make participation interesting and predictable, increasing the probability of any respondents participating.

In addition to the biases, the dependability of the data can be affected by participant- or researcher error. Participant error are factors affecting or altering participant performance (Saunders et al., 2016, p. 203). We try to mitigate such potential errors by allowing the participants to decide when the interview should be conducted and whether it would be performed digitally or physically. Researcher error is related to the potential (mis)interpretation of data undertaken by the researcher. We address this by allowing each researcher to individually analyze the data before a final analysis is derived by combining the two analyses. In addition, the audio recordings were available throughout the project to clarify participant's responses when needed.

### **3.4.2 Transferability**

The transferability of research is related to the degree to which the findings of a particular research project may be applicable in other settings (Saunders et al., 2016, p. 398). The degree to which the findings from this project are transferable is unclear. A few critical cases are used for this research. Furthermore, time constraints limit the number of participants in the project. These factors may negatively affect the transferability of the findings.

Full descriptions of the research questions, design, and context are provided through this thesis to facilitate transferability. However, it is essential to acknowledge the limited scope of this research project. The purposive sampling utilized in this study might be challenging to replicate. Ideally, a larger sample size would have been preferential as more variation within the sample is assumed to affect the potential transferability positively.

### **3.4.3 Credibility**

The credibility of a research project refers to whether the researchers can infer the participants' intended meanings by accessing the participants' knowledge and experiences (Saunders et al., 2016, p. 398). We have utilized several measures to ensure and promote credibility.

Firstly, we have focused on clarifying vague and unclear statements during the interviews. By consistently following up on statements made by the participants, we have obtained data that describes and explains context and perspectives in depth. Through the use of two interviewers, we were better suited to acknowledge vague statements and address these.

Secondly, by conducting separate analyses of the interviews before synthesizing them into a joint analysis, we were positioned to unveil statements that did not accurately reflect the

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interviewee's knowledge and experience. Subsequently, we could use the audio recordings to enlighten the responses in an analysis setting.

### **3.4.4 Ethical Considerations**

In research, ethics define principles for researchers' behavior that serve to maintain the rights of those affected by the research project (Saunders et al., 2016, p. 239). In this project, which utilizes interviews as a data collection method, considerate interaction with the respondents is essential. This requires attention to several ethical principles, including ensuring informed consent and voluntary participation and maintaining the respondents' anonymity and confidentiality. Informed consent involves respondents understanding the implications of participation prior to giving their agreement, and in combination with voluntary participation, this can positively affect participant engagement. Addressing participants' anonymity and confidentiality can increase the participants' willingness to share sensitive data. In sum, attention to these principles can enhance the quality of the research and preserve its credibility (Saunders et al., 2016, pp. 243-245).

To ensure informed consent and voluntary participation, an information letter was sent to the respondents before conducting the interviews (see *Appendix 2*). This letter informed the respondents about the project's purpose and what participation entailed. The letter also included a consent form. Moreover, the letter emphasized that participation was voluntary and that respondents could withdraw at any time without providing a reason, which was also verbally reiterated to the respondents at the start of the interviews.

Several measures were taken to maintain the respondents' anonymity and confidentiality. Firstly, each respondent was assigned a pseudonym consisting of a letter (A or B) representing the company and an arbitrary number, and this was the only identifier used by the researchers throughout this project. Secondly, any information that could identify a person or the respective company was removed from any quote included in this thesis. Thirdly, the audio recordings and corresponding transcriptions were stored securely, only accessible to the two researchers and only saved for the project's duration. Additionally, permission was granted to collect and store the data by the Norwegian Agency for Shared Services in Education and Research (Sikt) (see *Appendix 1*). Being held answerable to an independent party like Sikt increases the researchers' accountability for managing the data ethically.

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### 3.5 Methodology Conclusion

The methodological choices undertaken in this research project are summarized in *Table 1*.

Methodological choices	
Research Purpose:	Exploratory
Data Collection and Analysis Methods:	Qualitative
Research Strategy:	Embedded Multiple Case Study
Data Collection Method:	Semi-structured Interviews
Data Analysis Method:	Thematic Analysis

*Table 1: Methodological choices.*



## 4. Data Analysis

In this chapter, we will present our research data analysis, conducted through the four procedures of thematic analysis. To contextualize the analysis, we will start by describing the collected data. Our initial familiarization with the data involved reading, cleaning, and summarizing the transcripts, enabling us to begin the coding process. We will then present the themes that were derived from these codes and explore their interconnectedness.

### 4.1 Description of Data

To understand the context of the analysis, it can be useful to first explore the collected data through descriptive information. We will start by presenting the variation in interview respondents in this project, before presenting summary characteristics of the interview data.

In the figure below, the six participants are categorized in the matrix from Section 3.2.3, to illustrate the diversity of roles amongst the respondents. The respondents and companies are anonymized. All respondents "A#" are from the same company, and subsequently, all respondents "B#" are from the other company in the sample. As intended, we obtain a sample with inherent variation in the procurement roles, thus obtaining the possibility to explore a varied set of perspectives in a procurement function.

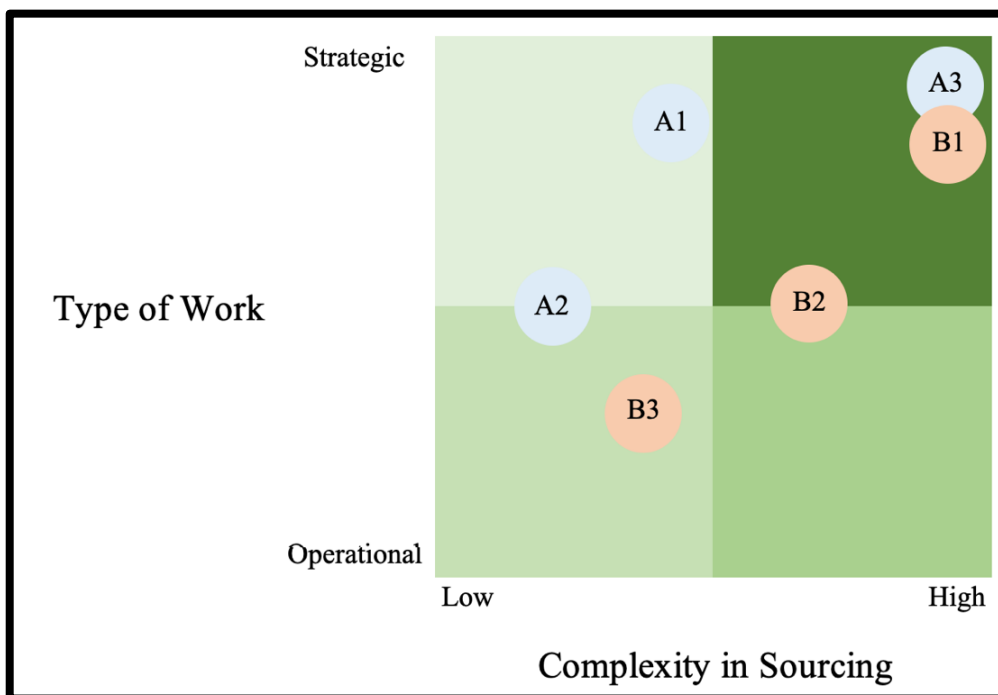


Figure 3: The individual respondents' location in the matrix.

In *Table 2*, a summary of characteristics concerning the collected data can be seen. In the table, the sum of unique codes refers to the sum of unique codes across all the individual transcripts. In several instances, similar codes were used across the separate interview transcripts. In the end, we identified a total of 85 unique codes from a total of 376 minutes of recordings.

<b>Interview</b>	<b>Audio-recording (hr:min:sec)</b>	<b># of pages (transcript)</b>	<b># of words (transcript)</b>	<b># of unique codes</b>	<b># themes</b>
A1	1:09:15	18	11 142	29	7
B1	1:03:51	17	7 992	27	8
A2	1:04:21	21	9 489	29	9
B2	0:48:32	21	7 131	30	8
A3	1:12:34	14	8 699	30	9
B3	0:58:02	19	7 333	22	8
<b>Sum</b>	<b>6:16:35</b>	<b>110</b>	<b>51 786</b>	<b>85</b>	<b>9</b>

*Table 2: Summary characteristics of primary data and corresponding coding.*

## 4.2 Themes

The purpose of the themes in a thematic analysis, is to indicate ideas that may be important for discussing the research questions (Saunders et al., 2016, p. 584). In sum, we derive nine distinct themes from the 85 unique codes. The themes were found by grouping similar codes and creating a descriptive label for these groups. Across the interviews we derived the themes Implementation, Maturity, Supplier Relationships, Costs, Benefits, Prerequisites, Relevance, Trade-offs, and Limitations. *Figure 4* shows themes, and codes that may fall within a theme (see *Appendix 4* for the complete list of themes and corresponding codes).

B2		A3	
Coding 1	Themes	Coding 1	Themes
Initiative	Implementation	Initiative	Implementation
Strategy		Legislation	
Journey		Incentives	
Positioning		Strategy	
External inspiration		Drive (sustainability)	
Maturity	Maturity	Maturity	Maturity
Drive (sustainability)		Windowdressing scale	
Accountability		Supplier reaction	Supplier Relationships
Newfound interest		Measurability	
WTP		Supplier development	
Evolution in focus	Supplier Relationships	Cost increase	Costs
Windowdressing scale		True cost	
Value chain		TCO	
Measurability		Cheaper (now)	
Supplier development		Cheaper (future)	
Partner	Costs	Risk mitigation	Benefits
Supplier reaction		Competitiveness	
Total cost		Value proposition	
Cost increase		Increased sales	
No cost increase		Cheaper	
Competitive advantage	Benefits	Consumer demand	Prerequisites
Gain		Structure	
Capitalisation		Training	
Benefits		Resources	
Traceability		Sustainability understanding	
WTP	Prerequisites	Supply chain	
Training		Resilience	Trade-offs
Expertise	Relevance	Trade-off	
Sustainability understanding		Market constraints	Limitations
Relevance	Quantify benefits		
Resilience	Trade-offs		

Figure 4: Excerpt of the coding and themes overview. See Appendix 4 for the complete overview. The colors have no significance and were selected at random.

From Figure 5 below, an illustration of the themes, their interconnectedness, and relevance to the research questions can be seen. To the right, we have Implementation, symbolizing the tangible initiatives the respondents have experienced or are experiencing, showing the outcome of sustainability initiatives (Chapter 4.2.1). To the left, we have the respondents' understanding of sustainability. The themes of Relevance and Maturity develop a baseline for analysis through accurate descriptions of how respondents perceive the importance of sustainability (Chapter 4.2.2). Centrally, we have the effect on profitability through Costs (Chapter 4.2.3) and Benefits (Chapter 4.2.4). These factors are viewed as the change variable,

where this thesis strives to understand how sustainability efforts induce changes to both costs and revenue. However, since the revenue and cost effects are not quantified, the perception of these effects may be tainted by the respective firm's means of addressing sustainability. This is explored through the themes of Prerequisites and Supplier Relationships (Chapter 4.2.5). Lastly, at the bottom, we find factors that affect the firm's possibility of addressing sustainability in the procurement functions. In many cases, these factors, which materialized as the themes of Trade-offs and Limitations (Chapter 4.2.6), hinder the company's ability to address sustainability regardless of profitability effects.

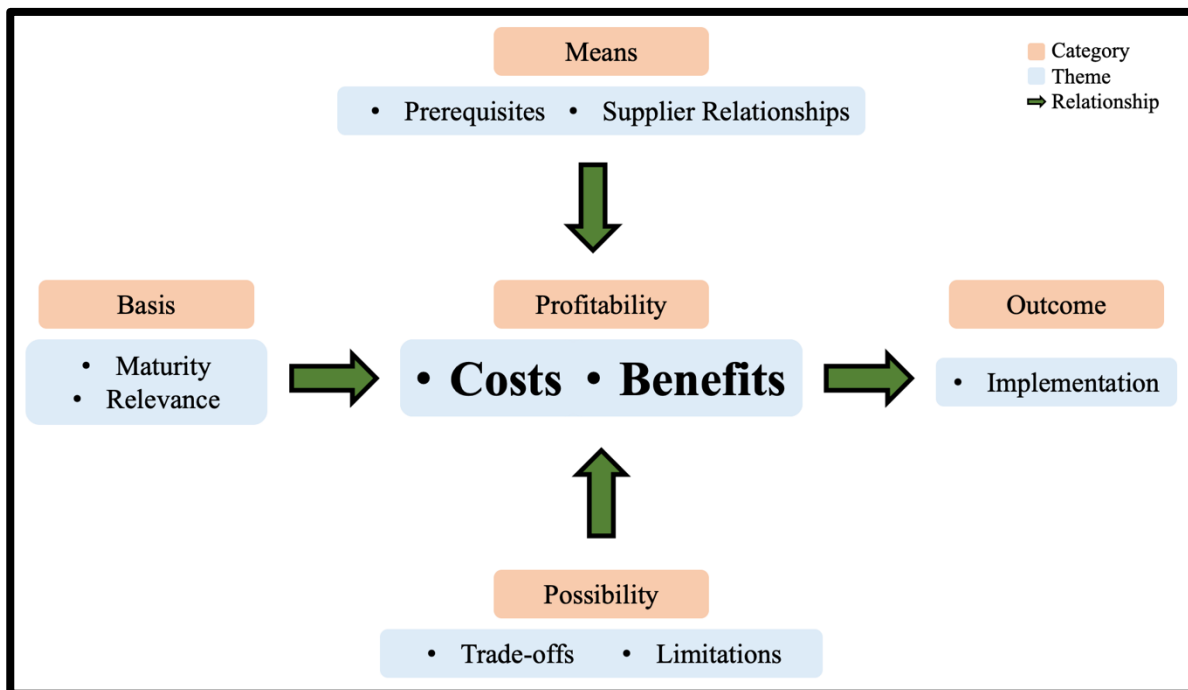


Figure 5: Themes; interconnections and importance.

### 4.2.1 Implementation

To analyze how sustainability focus in the procurement function affects a firm's profitability, it is crucial to ensure that the sample used to collect the primary data has experienced implementation of sustainability initiatives in their procurement function. The first theme addresses the implementation of sustainability initiatives in a broad manner. Firstly, all respondents can relate to specific initiatives undertaken to promote sustainability in their procurement scope:

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*"Oil and gas (...) is the highest volume. So, we look for alternatives, and the company is also looking for alternatives. The company is running a decarbonization program, looking at alternative sources of energy. Like for example, replacing natural gas or propane with hydrogen, biogas, direct electrification and so on." – B2*

*"(...) we have a system in place where we, let's say, request our suppliers to do a sustainability rating (...)" – A3*

*"So, it's because when it started in 2018, this landfilling of 20,000 to 30,000 tons was not that big of an issue. You know, it's become more of a big issue, so we set the target in 2030 that we will be as close to zero as practically possible." – B3*

Secondly, the broad manner of implementation also addresses how these sustainability initiatives came to be. We find that the implementation of sustainability initiatives in procurement predominantly are driven by corporate strategy or as an external constraint through legislation:

*"(...) No, we keep understanding that it [sustainability] is the investment that we need to do for society in the future and this is something I really believe. I think that this position, I can say that it is the strategical position of the company." – A1*

*"No, I think we have a very defined sustainability agenda. Strategy within the company is quite defined, with actions on how to arrive or fulfil the strategy." – A2*

*"You will know that since last year you have the Norwegian Transparency Act. (...). Not only that, but that is a big element and there is lots of other similar regulation. Companies have the responsibility to make sure that workers in their value chain, in their supply chain are treated fairly, and that especially these really poor situations or child labor and forced labor and, let's say, not paying people a so-called living wage are not happening." – A3*

Lastly, the implementation theme also addresses how procurement professionals experience the inclusion of sustainability initiatives that affect their work. They describe the

implementation as a journey. That is, the implementation is a process the companies need to work on over time:

*"We don't have everything created, but I think we are on a journey. (...) So, I think we have good initiatives, and we are increasing. But I think we are on a journey, and if you define this [sustainability initiatives] as the top priority of our area, probably we need more time to focus on that." – A1*

*"That there has been development on this over the last years, and you see it's getting higher attention, more focus. And so, I'm not saying that we are perfect, we will continue the journey. I think this is a journey. So, step by step I think we are taking the right directions, and I'm quite sure that would be good in five years or ten years, something different than what we're doing now today." – B1*

Through these examples of the theme of Implementation, the outcome of sustainability initiatives in the procurement function can be visualized. Firstly, we find that all respondents have experience with sustainability initiatives implemented in the procurement function at some level. Furthermore, we see that both corporate strategy and legislation tend to be crucial for driving implementation. Lastly, we find that implementing sustainability initiatives is perceived to be a journey, with an expectation of evolution in the approach to find the optimal way of implementing sustainability initiatives in the procurement function.

#### **4.2.2 Relevance and Maturity**

In addition to the theme of Implementation, the themes of Relevance and Maturity increase our understanding of the sustainability focus in procurement. This is important because the main research question is centered around sustainability efforts in the procurement function and how such efforts affect profitability. Through the themes of Relevance and Maturity, the understanding of sustainability efforts can be further explored and described.

The theme of Relevance addresses the respondents' understanding of sustainability in general and factors that make it relevant for their firm to tackle sustainability.

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*"I think that sustainability, it's not about environmental, we can say, but it's included. But I think we have governance and social factors included. So, I think that in the beginning of the process, when we define like sustainable procurement, everyone are thinking just about environmental, and over time, we are changing our mind to "No, no, no, it's not just like that". Let's understand a bit more about it. And today, it's very clear for the team that we are not discussing about environmental initiatives - considering just that. We are considering, actually, the environmental, governance and social factors included in sustainable procurement." – A1*

*"I need to say that the theoretical thing, that is you know you have to deliver things better or at equal level to the next generation, that's the theoretical part of it. For me, I think it's constant improvement on what we do. Because, you cannot always make the big, big leaps, you have to make the small steps and always have a focus on it. But when you say sustainability, it's related to environment, society, etc. It's a bit wider definition than CO2. Put it that way." – B2*

Respondents relate to sustainability from a diverse perspective, where they see beyond purely environmental dimensions and include the social and economic dimensions. At the same time, it should be noted that the respondents typically had a greater understanding and knowledge concerning their firm's sustainability initiatives related to the environment.

The theme maturity focuses on different change factors that affect the perceived importance of sustainability, in the procurement function. One such change factor is how procurement professionals approach procurement projects. We find that the participants focus less on the transactional side of procurement and approach the field more strategically. This includes challenging preconceived mindsets or norms.

*"And we need to change our mindset. If we change our mindset, we can increase part of it [sustainability]. But understanding the results in a medium and long term. So yes, it [sustainability] could increase, but it could not. But the main point is that if we need to increase, we need to understand the result in our medium or long term." – A1*

*"The time that you were only negotiating your price is Stone Age you. You negotiate service level. You make sure that you're not squeezing your suppliers (...)" – A2*

In addition, maturity also addresses how the procurement professional perceives that the importance of sustainability has evolved. That is, the sustainability focus can be viewed as a change factor itself. Sustainability has increased in importance over time, so much so that it may be used to argue for more expensive solutions.

*"There was a big jump about five years [ago]. I was not doing sustainability at all five years ago." – A2*

*"But what we did last year, we had the management say to us that we accept the higher cost if we could avoid sending material [to landfills]." – B3*

Moreover, a firm may depend on other supply chain participants to implement practical and effective sustainability efforts. The respondents state that significant sustainability challenges cannot be tackled independently, and that collaboration is needed across the value chain.

*"Because we will not define and we will not implement an initiative alone, we are a company, we need others. We need to create together." – A1*

*"I think the same for biogas, for example. Currently it's not enough production in order to buy it as a commodity for an industry user like us with high volumes. So you need to be a part of it all, follow the market. And maybe even sometimes see if you can develop something with some suppliers." – B2*

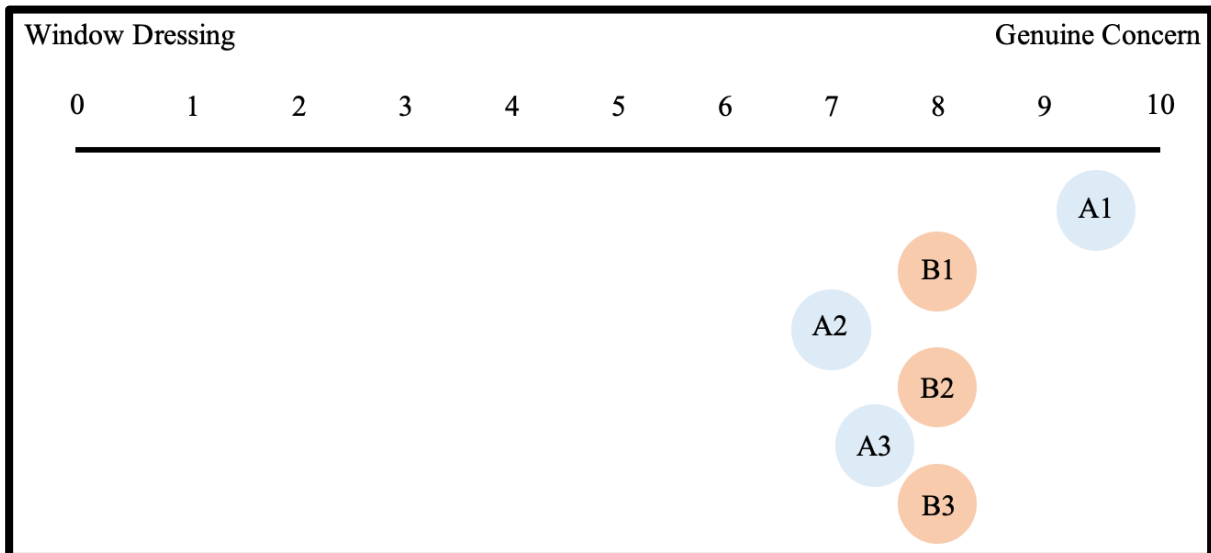
Furthermore, the ability to pursue sustainability efforts is frequently linked to the value such efforts have for potential customers. Thus, a vital change factor describing the maturity of sustainability focus in a firm may be the customer's willingness to pay (WTP) for such products. We find clear evidence that there can be a markup for products using input factors sourced through sustainable procurement activities.

*"Due to that we have greener products and perhaps also are willing to buy or pay more. Due to our greener product." – B1*



*"If you go back five years, they had no value. But I think the value of these products increases, so there is a higher willing to pay in the market than it was before. And I think if you read about the big companies (...), they had quite high ambitions and so on. That is sort of reflecting the way we work as well. We are partners. With some of these customers. And they are pushing us." – B2*

Lastly, the participants were asked to subjectively quantify how they perceived the maturity of their respective firm's sustainability focus. A scale of one to ten was used to distinguish whether the efforts were perceived as window dressing or genuine concern. The results can be seen in *Figure 6*. In general, the respondents argue that they are still early in the sustainability journey and that there is potential to do more. Furthermore, they recognize that firms often cannot allow sustainability to triumph all other aspects of their operations.



*Figure 6: Individual respondent perception of their firm's sustainability efforts.*

*"(...) we sell premium products, and we are seen as such. So, we'll never compromise on quality. And then if we can make it more sustainable while keeping quality, then let's do it." – A2*

Regarding the theme of Maturity, we find that procurement activities are approached more strategically to challenge preconceived mindsets. There is also a greater focus on sustainability; in some cases, sustainability can be valued more than minimizing costs. In addition, we find a need for a value-chain approach, as many sustainability challenges cannot be tackled independently. Furthermore, the market is understood to be positively instilled towards more sustainable approaches, which is evident through greater WTP for such

products. Lastly, there is a consensus that firms are still early in embracing sustainability, meaning that there is still great potential for implementing sustainability initiatives in the procurement function.

### 4.2.3 Cost Effects

The first sub-question of the leading research question asks whether it is always costly for businesses to source more sustainable products. When addressing this question, the theme of Costs becomes imperative. Through this theme, we can explore the cost dynamics of sustainable sourcing, including direct cost effects related to a firm's products and indirect cost effects, for instance, assessing suppliers' sustainability. In addition, we explore instances where a combination of direct and indirect cost effects may be present, for example, when using a total cost of ownership (TCO) perspective.

The respondents indicate that choosing sustainable solutions often comes at a higher upfront cost than less sustainable alternatives. Also, some respondents have observed that their existing suppliers increase product prices to offset the added costs associated with sustainability measures.

*"If you do a tender and have a regular supplier and a more advanced sustainable supplier, typically the price from the better sustainable supplier has extra costs." – B1*

*"At the moment, the availability of many solutions is still very limited, and a lot of these solutions come at a higher cost than the less sustainable solution." – A3*

Some respondents point out increased costs associated with addressing sustainability in supplier assessments. However, others perceive no increased costs but rather a shift in prioritizing existing resources.

*"A similar audit like 10 or 15 years ago didn't have that much focus on sustainability, so it has sort of increased the time required to do the audit. Yes, you probably use more time and resources on it, and it has a cost." – B1*

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*"The cost is me and my colleague, and now it's just a question of prioritizing your agenda. It's kind of a change on the topics you're working on, but it's not more people to work on this." – A2*

An interesting finding is that certain sustainable solutions are cheaper than their counterparts today. Furthermore, there is an anticipation among respondents that sustainable solutions will become comparatively cheaper in the coming years due to factors such as taxes on unsustainable solutions, and innovation.

*"The recycled [input factor] is cheaper than the virgin [input factor]. So, we will supply more sustainable packages while paying a little bit less (...) So, you can be more sustainable for equivalent cost or sometimes a little bit cheaper cost." – A2*

*"You see that more and more they are starting to introduce plastic taxes, which you can avoid completely or partly when you use recycled plastic. So, if you take into account the tax avoidance, that the solution as such is sometimes less costly (...), then you save cost, and you have a lower carbon footprint (...). So, it depends a bit on what it is, but some solutions they are readily available, and if you make the right choices, they are available at a lower cost already today." – A3*

*"If you start to work on finding sustainable solutions together with your suppliers (...) and in the end, it leads to developing innovative solutions that in many cases actually can be cheaper right from the start." – A3*

Several respondents underscore that when adopting a long-term perspective, the cost assessment becomes more favorable than only evaluating the initial cost. This is achieved by using life cycle analysis (LCA) or having a TCO perspective. In other words, the respondents suggest that the higher initial costs should be viewed as long-term investments.

*"For example, we're now working with electrification of the vehicle fleet. It's sometimes challenging, you know. You know for sure it's higher CapEx. But then we have to sort of find the benefits, on the flip side; long term TCO costs, work environment, less dust, less noise, less vibrations, operating costs." – B2*

*"If you look at electric trucks, (...) They are for the moment still very expensive. But if you look at the total costs for an electric truck including cost of the electricity, etcetera, it is expected that these things within like ten years they will be at a lower total cost of ownership than a diesel truck." – A3*

*"It will sometimes need some investment; we need to increase some prices. We need to do because we are trying to reach the best results in a medium or long term, and not just in a very short term (...). In the first and second year, we will pay more because we need to support the supplier with the investment of the machine, and from the third or the fourth year to the tenth, we (...) understood that OK for two years that is fine, we have eight years that will support us." – A1*

Through the theme of Costs, we find diverse cost implications from pursuing sustainable sourcing. The respondents emphasize that, in many cases, it might be more expensive to pursue sustainable solutions. However, they recognize that, in some cases, sustainable solutions might be cheaper than their less sustainable counterparts. We find that a central factor in the respondents' cost assessments is their time perspective. Specifically, this involves whether they focus on initial costs or adopt a TCO perspective when considering the cost effects of sustainability initiatives in the procurement function.

#### **4.2.4 Revenue Effects**

The preceding exploration of Costs revealed certain increased costs associated with sustainable sourcing. This leads to the second sub-question, which asks whether the benefits of sustainable procurement may offset these costs. By exploring the Benefits theme, we can discover both tangible and intangible benefits of sustainable sourcing.

We find that the sustainability focus has changed the companies' approach to their value chain. The respondents explain that their companies have begun to recognize the second-hand value of products and consequently find value in byproducts that were previously disregarded.

*"We succeeded on making up products from our waste (...) a company in the Netherlands was buying these used [byproducts], and they are crushing it and selling it to customers. From this company, we got paid €85 per ton, so it's a saving compared to the practice we had with the landfilling." – B3*

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In addition, we find that the companies believe sustainability focus can transform into a competitive advantage, distinguishing them from the competition.

*"Of course, it could also be a competitive advantage, and that is something that we in [company name] have a lot of focus on." – B1*

*"(...) to gain advantages towards competitors (...) you know, that you have a more sustainable production than the next producer." – B2*

Furthermore, we find that the competitive advantage could be materialized through strengthened brand value, and attracting both talent and customers.

*"You need to sort of attract the right people to Oslo [the headquarter] and need to have the right people working at the plant. It's industry, and no one wants to work in a [profanity] business, you know." – B2*

*"We are well branded on the market. [Company name] has a very good perception. Having a [company name] logo these days on your external presentation and slideshows is really of a high value. And especially when you talk about sustainability. They always ask: "Can I put [company name] logo?" and explain that: "You are moving towards more sustainable world". And they even want to have some joint press release and those kinds of things." – A2*

In addition, we find that firms can reduce risk by considering sustainability in their procurement function, enhancing the firm's competitive advantage. The respondents highlight the potential to address both reputational and operational risks. They stress that engaging with suppliers that lack sustainability practices can harm their reputation and production efficiency.

*"It could be sort of a negative impact of not doing it, that will come with a cost (...). It could be reputational risk. Certainly, there could be sort of a big campaign on social media against your company, sort of advocating for boycotting of [company name] products due to this and that." – B1*

*"This, for me, is a clear example of risk management. As a company, you do not want to be associated with that [human right violations in the supply chain] because it's not good for your reputation." – A3*

*"If a supplier doesn't meet up to their environmental permits, they might have to stop the operations. It's important that you understand that because then you can take action. If you have a really important supplier and without you having any idea this company is taken out of business, then you have a problem. Because then you certainly need to search for your goods or materials that you purchased from that supplier, you need to find an alternative. You need to understand the risk and mitigate it to make sure that you don't end up with a problem, and then suddenly you have to rush into things, and you're not gonna be able to buy, you have to stop your operations (...). The cost can explode, and the availability can become really difficult." – A3*

The resulting benefits of sustainability focus might include increased WTP and sales. Respondents particularly emphasize the willingness to pay for their sustainability-certified products. Additionally, it is emphasized that there has been an increase in customer interest for these products in recent years.

*"As I have understood, it's been difficult to get a premium for these more sustainable products, but this is gotten more focused on the different buyers, [industry] producers and such, and today they get some premium on this low carbon products." – B3*

*"There is currently enough interest from the customer side to be able to sell our lower impact, green products for a higher cost and be completely sold out on the limited quantities that we have on offer." – A3*

However, the respondents emphasize challenges in measuring benefits, especially during times when large external shocks hit, like sharp rises in inflation or global trade limitations stemming from a pandemic. It is also expressed that there might be a significant delay before the results of new projects become apparent.

*"There are so many factors behind having more or less market share in these days and the last years. The price of everything went sky-high. Either our product which we sent to customer went sky high while we were implementing [sustainable material]. So, what is the effect of [sustainable material]? What is the effect of the price of [other input factors]?" – A2*

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*"If starting into something completely new, you have to pay for the development of the solutions. You're working with rather small projects, which, of course, are far less efficient than the big, huge projects based on existing technology. So, if you would calculate the cost of such a product test where you take into account all the cost of this new equipment that you paid, then you will never be able to collect that money back from your customers on the first small quantities that you sell. Again, you need to see this as an investment. So, in that respect, it is really, really difficult to calculate." – A3*

In exploring the theme of Benefits, we find both tangible and intangible benefits of increased sustainability focus in the procurement function. Firstly, we uncover evidence suggesting that companies have gained a better understanding of the potential of their value chain, thus realizing value from the likes of waste and other byproducts. Secondly, the respondents emphasize that sustainability can become a competitive advantage, materialized through strengthened brand value, and attracting talent and customers. Thirdly, they stress that a focus on sustainability can reduce both reputational and operational risk. Lastly, the respondents have witnessed increased WTP and sales for their company's sustainable products. However, they emphasize that there are often substantial difficulties in measuring the benefits of sustainability initiatives.

#### **4.2.5 Prerequisites and Supplier Relationships**

The themes of Prerequisites and Supplier Relationships can be beneficial to explore in order to understand the cost and revenue effects in depth. This research project focuses on understanding the profitability effects of sustainability initiatives in the procurement function. What we have found so far is that the specific cost and revenue effects are difficult to measure. Thus, our findings regarding cost and revenue effects might be influenced by the respondent's perception of these effects, given the qualitative data approach of our research project. The procurement professional's prerequisites regarding sustainability efforts and general supplier relationships are identified as two critical factors influencing the respondent's perception of cost and revenue effects.

The theme of Prerequisites includes codes like training, available resources, knowledge, and expertise. In sum, this theme addresses the tools the respondents possess to implement sustainability efforts in their procurement activities successfully. These prerequisites can be vital because they affect the estimation error when addressing cost or revenue effects. We find

that the respondents experience active development of knowledge on the topic of sustainability through their companies. However, learning more about sustainability might be underprioritized in a hectic work environment, especially if it is not distinctly prioritized.

*"(...) we have in the last year created an ESG marathon that we invite suppliers to present some initiatives that they use to hear about ESG." – A1*

*"(...) But to keep in our mind, daily discussing about sustainable initiatives, changing the mindset, I think that we need more, we need to discuss more about this. A lot of times, year by year, so I believe that we need more in terms of training and pushing the guys to change the mindset implementing initiatives. So, I think we have some opportunities on that." – A1*

*"How can you train? You know in our organization, you get all the training you want, but you need to set aside the time, and you need to know what you want and all this. So, it's a matter of time." – B2*

Another important factor concerning the theme of Prerequisites is the availability of internal subject matter experts who can offer support on the topic of sustainability. The respondents communicate that their respective companies are actively working on developing in-house expertise on sustainability. The availability of such resources can increase confidence within the procurement function concerning implementation of sustainability initiatives.

*"On same levels, as there are legal experts, there are sustainable experts, those that give you guidance and will support you in order to make the right decisions when you are in doubts what to do, and then also develop sort of the frameworks that we are obliged to work with." – B1*

In addition to the theme of Prerequisites, the theme of Supplier Relationships is a driver of cost and revenue effects. This theme addresses how suppliers can be influential when implementing sustainability efforts in the procurement function. Firstly, a firm is often dependent on its suppliers when venturing into sustainability initiatives, and a greater supply chain perspective is therefore needed:

*"Because we will not define and we will not implement an initiative alone, we are a company, we need others." – A1*



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Through the interviews, the respondents generally indicate that suppliers tend to be supportive of sustainability initiatives. However, it is not a given. The suppliers' attitude towards sustainability efforts may affect the perceived magnitude of cost and revenue effects both in negative or positive directions.

*"No, no one is skeptical anymore. It doesn't mean that we can do it tomorrow. But I think that they all understand. It's not that you get something free, but it's easier now than it was five years back, definitely." – B2*

*"So, I think in general, you may even say that maybe some suppliers were kind of, let's say, OK, finally they come around, and they start to do this, so I think it is a little bit all over the place, but in general I think it is. Sometimes it's less cumbersome and less complicated to discuss the matter and get the support from your suppliers than people might think." – A3*

*"Six years ago, we used to have a lot of small ones [suppliers] in a local position that they do not have any focus on this kind of thing. (...) in this moment, we are discussing with them, and they're like, "this is not important for me, so OK, I understand your point, but I can't support you because I'm not ready for that"." – A1*

Concerning the theme of Prerequisites, we find that there is active development of knowledge on sustainability within the companies. However, the respondents indicate that prioritizing knowledge development can be difficult. In addition, we find that the availability of in-house expertise can boost confidence in implementing sustainability efforts in procurement. Through the theme of Supplier Relationships, our evidence indicates that firms depend on suppliers when addressing sustainability. Thus, a value chain perspective is beneficial. When including the suppliers, we find that suppliers tend to be supportive of sustainability initiatives.

#### **4.2.6 Trade-offs and Limitations**

The themes of Trade-offs and Limitations are useful to explore as they highlight factors that limit a firm's ability to implement sustainability initiatives in their procurement functions, regardless of cost and revenue effects.

Companies have limited resources, meaning that they need to prioritize between attributes that characterize the firm. In this prioritization, trade-offs are made. Firms are not able to

implement sustainability regardless of all other attributes. Through our research, we find that there is often a lack of clear guidelines from upper management regarding the weighting of the sustainability criterion. There are continuing trade-offs concerning how important sustainability should be in the procurement function.

*"You do trade-offs between cost, risk, quality, and sustainability. It's not always that all projects tick off on all." – B1*

*"It's up to the one handling the project of the procurement to decide. We have this evaluation, where you have you set the weight for different categories, and you can maybe choose to split this system related to 0 or to 50 percent. So, it varies with the projects." – B3*

Furthermore, in recent times, the procurement world has experienced many external shocks. These shocks have resulted in the need to prioritize supply chain resilience, often on account of sustainability. This can be understood as both a trade-off between supply chain resilience and sustainability, but also a market limitation hindering firms' ability to pursue sustainability initiatives in their procurement function.

*"Since COVID and the Russo-Ukrainian war, the market completely changed and switch to a seller market from a buyer market and from regional to a global market. So, for the last, let's say 3-4 years, I'm mainly focusing on securing business continuity and flexibility while keeping control on the price and giving that's getting access to the best technology available." – A2*

*"Many, many companies have been struggling during COVID because they are not able to get supplies (...) The robustness, the resilience of the supply chain is very high on the agenda now in most companies." – B1*

*"Yeah, resiliency. You know, it's has become more important last three years since the pandemic (...) That means that we have stable and constant flow of materials. We cannot rely on instability. It's critical if you have to shut down. It's very, very critical." – B2*

Furthermore, the respondents stress that limitations with the market hinder their ability to become more sustainable. Limitations are typically related to how concentrated the markets they procure from are.

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*"What is the specific difficulty in our operations is that, in many, many of the categories, it is far from easy to find a lot of suppliers. On certain raw materials or on natural gas in certain regions, we might be happy if you have a second supplier. There are, unfortunately, situations that we have not a lot of room to maneuver." – A3*

Regarding the theme of Trade-offs, we find that firms have to make trade-offs between sustainability and attributes like cost, risk, and quality, which hinders their ability to pursue sustainable solutions. Moreover, the respondents emphasize the increasing importance of prioritizing supply chain resilience, which necessitates trade-offs where sustainability is often deprioritized. Through the theme of Limitations, we find that prioritizing supply chain resilience is a market limitation hindering firms' ability to pursue sustainability initiatives. Additionally, highly concentrated markets limit the firms' ability to focus on sustainability.

### **4.3 Data Analysis Conclusion**

In this chapter, the analysis of the collected research data has been presented. The research data was investigated using a thematic analysis. The different stages of thematic analysis can be challenging to separate and present individually, as they are not necessarily conducted in a linear order. Firstly, we introduced descriptive facts concerning the interview data before summarizing the result of the coding process. After that, we presented the result of the third and fourth procedures in combination through the sub-chapter Themes.

Through our analysis, we identify nine distinct themes. In addition, by recognizing relationships between the themes, refining the themes, and creating testable propositions, we created a framework that illustrates how the themes are interconnected. When describing the relationships, some themes are bundled into a category, or a higher-level theme. A summarization of the themes, categories, and descriptions of the categories can be seen in *Figure 7*. Additionally, a summary of the findings within each theme can be seen in *Table 3*.

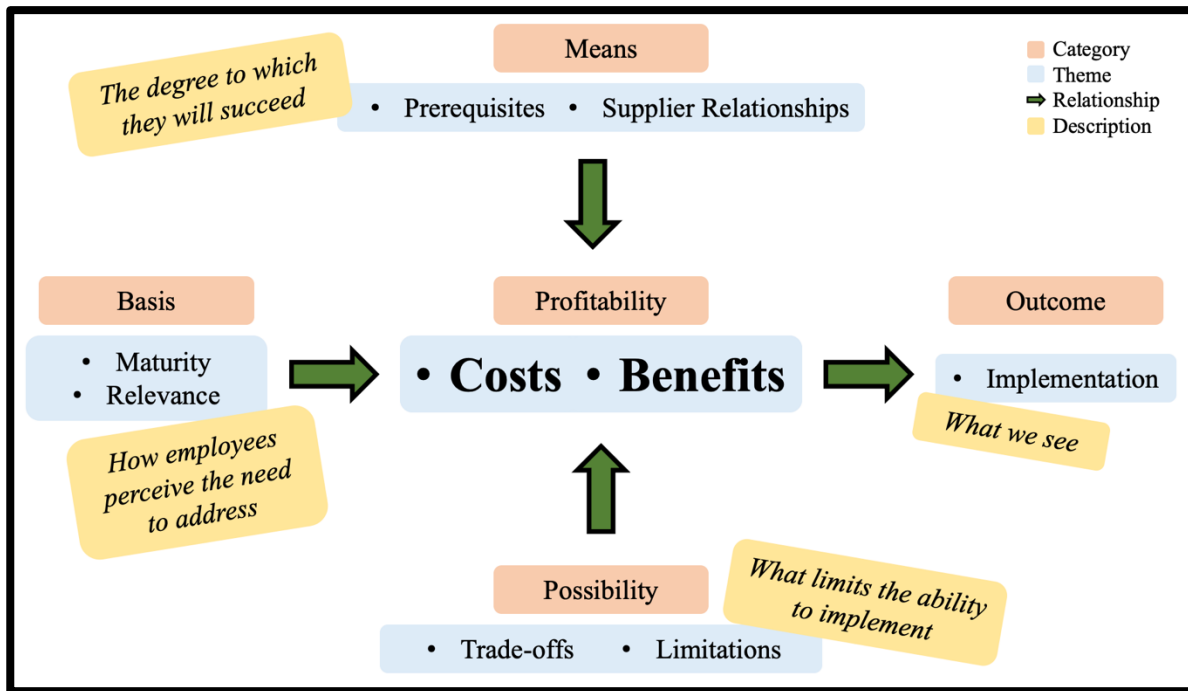


Figure 7: Themes; interconnections and importance with descriptions.

(Summarization of findings on the next page).

Themes	Findings
Implementation	<ol style="list-style-type: none"> <li>1. Sustainability initiatives are being implemented today</li> <li>2. Corporate strategy and legislation drive implementation</li> <li>3. Perceived to be a journey, expected to evolve over time</li> </ol>
Relevance	<ol style="list-style-type: none"> <li>1. Diverse perspectives on sustainability, including environmental, social, and economic dimensions</li> <li>2. Greatest understanding of environmental dimension</li> </ol>
Maturity	<ol style="list-style-type: none"> <li>1. Strategic approach to procurement activities</li> <li>2. Challenging established norms</li> <li>3. Sustainability is in fact in the spotlight</li> <li>4. Value chain approach needed to tackle sustainability</li> <li>5. Market appreciative of sustainable solutions, greater WTP</li> <li>6. Genuine concern from firms, but still more potential</li> </ol>
Costs	<ol style="list-style-type: none"> <li>1. Might be more expensive to pursue sustainable solutions</li> <li>2. In some cases, sustainable solutions might be cheaper</li> <li>3. Initial costs vs. TCO affects perceived costs</li> </ol>
Benefits	<ol style="list-style-type: none"> <li>1. Realizing value from the likes of byproducts</li> <li>2. Sustainability focus can become a competitive advantage, through strengthened brand value and firm attraction</li> <li>3. Reduction in both reputational and operational risk</li> <li>4. Increased WTP and sales</li> <li>5. Substantial difficulties in measuring benefits</li> </ol>
Prerequisites	<ol style="list-style-type: none"> <li>1. Active development of knowledge, still learning potential</li> <li>2. In-house expertise increases confidence in implementation</li> </ol>
Supplier relationships	<ol style="list-style-type: none"> <li>1. Firms are dependent on their suppliers to implement</li> <li>2. Suppliers tend to be supportive of sustainability pursuit</li> </ol>
Trade-offs	<ol style="list-style-type: none"> <li>1. Trade-offs between sustainability and attributes like cost, risk, and quality limits ability to pursue</li> <li>2. Supply chain resilience limits focus on sustainability</li> </ol>
Limitations	<ol style="list-style-type: none"> <li>1. Need to address supply chain resilience</li> <li>2. Concentrated markets</li> </ol>

Table 3: Critical findings for each theme.

## 5. Discussion

Through the discussion section of this thesis, we will elaborate on the meaning and relevance of our results and assert the importance of our findings. The discussions will be based on the nine themes derived through the analysis of the interview data. We will start by answering the two sub-questions of the leading research question. Using the answers from the sub-questions, we will discuss the implications of our findings, thus answering the main research question. Lastly, we will address the limitations of our research and analysis.

### 5.1 Is it Always Costly?

The first sub-question asks: *"Is it always costly to source more sustainable products?"* From our data analysis and the theme of Costs, we found that the short answer to this question is no. In many cases, pursuing more sustainable products might be more costly, but this is not always true. This finding opposes the traditional perspective that sustainability is generally a cost driver (Porter & Kramer, 2011). To further derive meaning from this result, it might be helpful to address in which cases it is more costly by identifying key cost drivers.

Firstly, we find that market limitations can be a key cost driver. In cases where the market is highly specialized or there is a lack of availability for more sustainable solutions, the cost of pursuing sustainability is often high. This finding can be seen in light of Bjørnenak's (2003) description of potential profit, where the pursuit of sustainability might lead to higher factor prices which negatively affects the firm's competitive efficiency, increasing the distance between realized and potential profit. Thus, when a firm ventures into sustainability initiatives, it should start by considering the possibility of implementation, given the market constraints.

Secondly, the maturity regarding sustainability within a firm can be a tipping point for the cost of pursuing sustainability. If the people tasked with implementing sustainability initiatives do not understand the point of doing so or lack the competence to implement initiatives efficiently, the cost of pursuing sustainability rises. However, when discussing maturity, it is crucial to understand where the sustainability drive comes from. Shareholders or legislations might be forceful and not coincide with the maturity level within the firm. If this is the case, pursuing sustainability might become a forced push, which increases the probability of the initiatives becoming costly, negatively affecting profitability.

Lastly, the means the procurement professionals possess to implement sustainability initiatives might decide whether it becomes more costly to source sustainably or not. Without proper internal guidance, resources might not be used efficiently. In addition, we find that a firm often depends on suppliers to implement sustainability initiatives successfully. Our finding coincides with O'Brien's (2023, p. 109) finding that a majority of sustainability issues cannot be solved independently by a single firm. In cases with a lack of support from suppliers or even disregard, the cost of sourcing sustainably might increase.

It is essential to clarify that the different factors described above are viewed as drivers of cost. This means they have the potential to negatively affect costs, but they might not. The various factors might also coexist, enlarging the adverse effects, or affect costs independently. Furthermore, these are viewed to be the most significant factors that affect costs negatively.

In addition to the cost drivers discussed above, it is helpful to address how time perspective may influence the perception of costs. Through our research, we find that the perceived magnitude of a cost might depend on whether the upfront cost or Total Cost of Ownership (TCO) is considered, where a TCO perspective infers a perception of lesser cost for sustainability initiatives. This observation aligns with Twin's (2023) proposition that TCO can achieve the best value or lowest cost in the long run. However, it is essential to acknowledge that specific characteristics of a firm might affect the possibility of using a TCO perspective. For instance, undertaking costly investments that prove beneficial over time assumes that a firm has the financial strength to pursue such initiatives.

## **5.2 Are There Any Positive Profitability Effects?**

The second sub-question asks: *"If there are costs related to sourcing sustainably, will the positive effects of sustainable procurement allow for maintaining or increasing the firm's profitability?"* This question addresses the opposite effects of those discussed in Section 5.1. Through our analysis, we find several significant and positive effects of sourcing more sustainably, which may, in fact, offset the adverse effects. This finding coincides with Kepler, Lefevre et al. and Van Weele's proposition that procurement has the potential to impact the topline of a firm positively (Kepler, 2016; Lefevre et al., 2010; Van Weele, 2018, p. 14).

Firstly, our research identifies clear evidence of increased willingness to pay (WTP) for products resulting from more sustainable business practices. However, it is essential to note

that it is difficult to determine the degree to which sustainable sourcing significantly impacts the WTP, or if other factors drive this finding. Another potential factor weakening the effect of increased WTP might be related to the fact that these products are often new on the market. The customers may therefore have an above-par appetite for solutions that allow for differentiation from competitors and enhancement of brand value. If this is the case, WTP might be lower if or when these sustainable products become mainstream.

Secondly, a key finding throughout our research is that firms believe an increased sustainability focus in their sourcing activity is or might become a competitive advantage. The effect of such advantages might be increased brand value or reduced risk. However, as emphasized by Salzmann (2005), we also find that it is difficult to single out the results of sustainable procurement, and other factors that might affect brand value or perceived risk.

The findings related to positive effects like increased revenue through greater WTP or a risk reduction coincide with Jørgensen & Pedersen's (2018, pp. 138-140) explanations of how sustainability affects a firm's performance. Even though our research finds a perception of significant benefits related to increased sustainability, these benefits are difficult to isolate, quantify, and compare to the specific costs associated with sustainable sourcing. Nonetheless, it is worth mentioning that empirical research has established a positive correlation between sustainability and profitability (Flammer, 2015; Friede et al., 2015; Orlitzky et al., 2003). Considering our research in light of such findings might lead us to conclude that there is a possibility for the benefits of sustainable procurement to, in fact, allow for maintenance or an increase in firm profitability.

### **5.3 Implications**

The purpose of this research project was to answer the question: *"How does sustainability focus in the procurement function affect the firm's profitability?"* Through the two sub-questions, we found that it is not always costly to source more sustainably, and we find positive revenue effects of sustainable sourcing, which has the potential to offset any associated cost increase. In sum, we find that sustainability focus in the procurement function can, in fact, positively affect firm profitability. However, this is one potential scenario. We also find that sustainability focus in procurement can be costly, and due to difficulties in quantifying the direct benefits of pivoting the procurement function towards more sustainable operations it is not possible to conclude that there is an overweighing positive effect on profitability.



What we do find is several factors that have a significant effect on how procurement professionals perceive both the costs and benefits of sustainability initiatives. This perception is essential because it affects the potential to implement sustainability initiatives. We find that the procurement functions' basis (maturity and relevance), their means (prerequisites and supplier relationships), and possibilities (trade-offs and limitations) are imperative factors to consider when analyzing the profitability effect of sustainability initiatives in procurement (see *Figure 7*). The basis can be understood as how the employees perceive the need to address sustainability. Means affects the degree to which they will succeed in implementing sustainability initiatives. Possibility limits the ability to implement such initiatives. By addressing these factors, the procurement function can be optimized to succeed in implementing sustainability initiatives. Thus, by addressing the perception of cost and revenue effects, the firms can positively affect the factual profitability outcome of sustainability initiatives in the procurement function.

## **5.4 Limitations**

In this sub-chapter, we will discuss the limitations of our research and subsequent analysis. It can be helpful to reiterate the research objective to contextualize the limitations. Through this research, we have aimed to derive characteristics that can shed light on how sustainability initiatives in procurement might affect a firm's profitability.

A significant limitation following this research objective is that we solely focused on the procurement function of a firm. In addition, we have focused on procurement in private companies, thus disregarding the field of public procurement. These limitations may affect the transferability of our results. For instance, the activities organized under procurement in one firm might significantly vary from those of another firm. Additionally, the public procurement sector has a wider scope than private firms, with objectives such as the efficient delivery of public services, encompassing private firms' primary objective of creating profits (Arlbjørn & Freytag, 2012). As public procurement represents a significant part of the overall procurement field, not addressing this area and its wider scope, makes our results less transferable.

Furthermore, some limitations of our research arise from the chosen research methodology. We have chosen to use an exploratory research design, focusing on critical cases. On one hand, this allows us to gather what is considered the most relevant data, by purposively sampling specific cases. However, on the other hand, the transferability of the results is consequently negatively affected, as the chosen cases might not be representative for the entire population.

Moreover, we find that the two companies interviewed have several similar characteristics. They are both sizeable Norwegian industrial firms. There is a possibility that our findings might be influenced by these similarities, again reducing the transferability of the results. However, given the nature of the research question, this approach has allowed for exploration and the discovery of significant relationships.

Discussing the sample size used in our data collection is also essential. We intended to conduct nine interviews. Due to unforeseen events, we were only able to conduct six interviews in the end. In an already small sample size, this reduction is significant and again negatively impacts our findings' transferability. However, we will argue that given the scope of our research project, we were still able to derive valuable results.

Additionally, the relevance of external shocks like economic incentives must be discussed. As sustainability has become a more prominent concern, various economic incentives have been implemented globally. These incentives can be negative or positive, thus affecting both the cost and revenue dimensions of profitability. At the same time, the incentives can be fluctuating, varying with factors such as governmental political orientation. Economic incentives might, therefore, lead to an over- or under-estimation from our participants, regarding the perceived revenue and cost effects of implementing sustainability initiatives in procurement. This is especially relevant given the short timeframe that the interviews were conducted over. In sum, economic incentives further complicate the process of determining the overall profitability effect and potentially decrease the dependability of our findings.

In conclusion, we see various limitations to our research project, following the scope of our analysis, methodological choices, and unforeseen events. The majority of limitations affect the transferability of our findings. However, given the exploratory nature of our research, the importance of reduced transferability can be discussed. This is because our research must be understood as a precursor to upcoming research in the field, merely identifying potential avenues for future research.

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## 6. Conclusion

In this last chapter, we will reiterate this research project, emphasizing on why and how this thesis provides a valuable contribution to the field of procurement. We will start by examining the main findings and reflect on the research process. Lastly, we will discuss promising areas for future research.

This research project has focused on the crossroads between sustainability initiatives in procurement and how such initiatives affect a firm's profitability. That is, we have focused on how revenue and costs may be affected by a need to address sustainability, particularly in the procurement function. Specifically, we have been working on the research question:

*How does sustainability focus in the procurement function affect the firm's profitability?*

We identify three main dimensions of characteristics, or themes, affecting profitability: *basis*, *means*, and *possibility*. Basis can be broken down into maturity and relevance, and relate to the employees' perceived need to address sustainability. Means consists of prerequisites and supplier relationships, which describe whether the procurement professional possesses the tools needed to succeed with the sustainability initiatives. Lastly, possibility, which includes trade-offs and limitations, addresses factors limiting the procurement function's ability to implement sustainability initiatives. In sum, a framework has been developed, presenting an insightful understanding of the interdependencies between profitability effects and these characteristics, thereby offering academics and business professionals enhanced insights into the profitability implications of sustainability focus in the procurement function.

As described throughout this thesis, we understand the intersection between sustainability, procurement, and profitability to be a topic that has not been extensively explored. Thus, our exploratory study aims to create a basis for future research, uncovering promising avenues for future exploration. Through our research, we have discovered three dimensions of characteristics and argued for their relevance. However, there is great potential to further our comprehension of these findings. Using our research as a basis, we see several possibilities to enhance our understanding of these characteristics through future research.

Firstly, the transferability of the results can be addressed. The importance of the three characteristics can be researched with a broader scope. For instance, by including a greater

variety of firms. Another way to increase transferability would be to research the relevance of the characteristics from a public procurement perspective. Secondly, a quantitative approach to understanding the characteristics can increase the ability to conduct causal inference regarding the relationship between sustainability in procurement and profitability.

Furthermore, we believe a quantitative analysis of the cost and revenue effects can be enlightening. Our thesis is based on procurement professionals' perceptions of the profitability effects and, thus, not on objective data. By finding a solution that allows for the collection of quantitative data regarding sustainability in procurement and subsequently conducting a longitudinal study, our understanding of the effects on profitability and how they develop over time may be enriched.

Sustainability is an enduring trend that demands our attention now and for the foreseeable future (Esty & Lubin, 2010). While the procurement function cannot be viewed as an independent cog in the machinery of a firm, there is no doubt that it can play a significant role in driving sustainable development, even when considering profitability. We hope this thesis serves as a starting point for future research on the intersection of sustainability, procurement, and profitability, contributing to a more sustainable world.

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## 8. Appendix

### Appendix 1: Approval from Sikt



[Notification form](#) / [Masteroppgave - høsten 2023, BUS NHH](#) / Assessment

## Assessment of processing of personal data

Reference number	Assessment type	Date
158792	Standard	27.09.2023

**Title**  
Masteroppgave - høsten 2023, BUS NHH

**Institution responsible for the project**  
Norges Handelshøyskole / Institutt for foretaksøkonomi

**Project leader**  
Malin Arve

**Student**  
Håvard L. Robertsen

**Project period**  
21.08.2023 - 20.12.2023

**Categories of personal data**  
General

**Legal basis**  
Consent (General Data Protection Regulation art. 6 nr. 1 a)

The processing of personal data is lawful, so long as it is carried out as stated in the notification form. The legal basis is valid until 20.12.2023.

[Notification Form](#)

**Comment**  
OM VURDERINGEN  
Sikt har en avtale med institusjonen du forsker eller studerer ved. Denne avtalen innebærer at vi skal gi deg råd slik at behandlingen av personopplysninger i prosjektet ditt er lovlig etter personvernregelverket. Vi har nå vurdert at du har lovlig grunnlag til å behandle personopplysningene.

FØLG DIN INSTITUSJONS RETNINGSLINJER  
Det er institusjonen du er ansatt/student ved som avgjør hvordan du må lagre og sikre data i ditt prosjekt og hvilke databehandlere du kan bruke. Husk å bruke leverandører som din institusjon har avtale med (f.eks. ved skylagring, nettspørreskjema, videosamtale el.).

Personverntjenester legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

MELD VESENTLIGE ENDRINGER  
Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til oss ved å oppdatere meldeskjemaet. Se våre nettsider om hvilke endringer du må melde: <https://sikt.no/melde-endringer-i-meldeskjema>

OPPFØLGING AV PROSJEKTET  
Vi vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Lykke til med prosjektet!

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## Appendix 2: Information Letter for Participants

### Information letter regarding participation in the research project

*Master Thesis NHH –*

*Sustainability in Procurement and the Link to Profitability*

#### **Purpose of the project**

You are invited to participate in a research project where the main purpose is to better our understanding of how sustainability focus in a firm's procurement function affects the firm's profitability.

The project will use an exploratory research design, utilizing semi-structured interviews to collect data. Our research question is:

*How does sustainability focus in the procurement function affect*

*the firm's profitability?*

By answering this question, we aim to establish whether there are any generalizable characteristics in the relationship between sustainability focus in procurement and the profitability of a firm. Developing our understanding of this field, can allow for optimization of future sustainability efforts in the procurement function.

The interviews are conducted as a method of data collection for a master thesis.

#### **Which institution is responsible for the research project?**

Norwegian School of Economics (Norges Handelshøyskole/NHH) is responsible for the project (data controller).

#### **Why are you being asked to participate?**

The population for our research has been defined as procurement specialists/experts. Due to resource limitations, we have utilized sampling techniques to derive the final sample for these interviews. The selection criteria used are:

- *Companies based in/headquartered/run from Norway.* This restriction is related to the feasibility of conducting interviews and the existence of regulatory/legislative barriers forcing such companies to address sustainability.

- *Procurement function.* We include companies that have established and professionalized procurement functions in our sample.
- *International operations.* Companies with international scope are included, as international scope is used as a proxy for the possibility that the companies utilize complex value chains.
- The final selection of interview respondents was done using the “snowball method”. We contacted a higher-level procurement professional in a potential company. This company representative then nominated relevant candidates.

In total 9 respondents have been asked to participate in the interviews, including yourself.

### **What does participation involve for you?**

If you choose to take part in the project, this will involve you participating in a semi-structured interview. It will take approximately 1 hour and 30 minutes to complete. The interview includes questions about procurement, sustainability, and profitability. Your answers will be recorded electronically in audio-only format.

### **Participation is voluntary**

Participation in the project is voluntary. If you choose to participate, you can withdraw your consent at any time without giving a reason. All information about you will then be made anonymous. There will be no negative consequences for you if you choose not to participate or later decide to withdraw.

### **Your personal privacy – how we will store and use your personal data**

We will only use your personal data for the purpose(s) specified here and we will process your personal data in accordance with data protection legislation (the GDPR).

- Only the students conducting the interview and the thesis supervisor will have access to the personal data.
- To ensure that no unauthorized persons can access the personal data, we will undertake these measures:
  - Your personalia will at no point be recorded or denoted in any of the project documents or final thesis. We will decode your response to ensure anonymity.
  - The interviews will be transcribed and decoded as quickly as practically possible. The recorded audio will be deleted as soon as the transcription and decoding process has been completed.

The response will not be directly recognizable in the publications. We will not publish your name or what position you have within the company. The response will be completely anonymized.

### **What will happen to your personal data at the end of the research project?**

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The planned end date of the project is the 20<sup>th</sup> of December, 2023. Personal data, including digital recordings will (at the latest) be permanently deleted at the end of the project.

### **Your rights**

So long as you can be identified in the collected data, you have the right to:

- access the personal data that is being processed about you
- request that your personal data is deleted
- request that incorrect personal data about you is corrected/rectified
- receive a copy of your personal data (data portability), and
- send a complaint to the Norwegian Data Protection Authority regarding the processing of your personal data

### **What gives us the right to process your personal data?**

We will process your personal data based on your consent.

Based on an agreement with the Norwegian School of Economics (Norges Handelshøyskole/NHH), The Data Protection Services of Sikt – Norwegian Agency for Shared Services in Education and Research has assessed that the processing of personal data in this project meets requirements in data protection legislation.

### **Where can I find out more?**

If you have questions about the project or want to exercise your rights, contact:

- Norwegian School of Economics (Norges Handelshøyskole/NHH) via
  - Gajanan Gajendra-Dhresh (Student):
    - [Gajanan.Gajendra-Dhresh@student.nhh.no](mailto:Gajanan.Gajendra-Dhresh@student.nhh.no)
    - +47 46 69 28 87
  - Håvard Robertsen (Student):
    - [Havard.Robertsen@student.nhh.no](mailto:Havard.Robertsen@student.nhh.no)
    - +47 94 13 03 83
  - Malin Arve (Supervisor):
    - [Malin.Arve@nhh.no](mailto:Malin.Arve@nhh.no)
    - +47 55 95 91 52
- Our Data Protection Officer:
  - Monica Nielsen Øen
    - [personvernombud@nhh.no](mailto:personvernombud@nhh.no)

If you have questions about how data protection has been assessed in this project by Sikt, contact:

- email: ([personverntjenester@sikt.no](mailto:personverntjenester@sikt.no)) or by telephone: +47 73 98 40 40.

Yours sincerely,

*Malin Arve*

*Gajanan Gajendra-Dhresh*

*Håvard Robertsen*

Project Supervisor

Student

Student

## **Consent form**

I have received and understood information about the project “*Master Thesis NHH – Sustainability in Procurement and the Link to Profitability*” and have been given the opportunity to ask questions. I give consent:

to participate in a semi-structured interview

I give consent for my personal data to be processed until the end of the project.

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(Signed by participant, date)



## Appendix 3: Interview Guide

### *Interview Guide – Sustainability in Procurement and the Link to Profitability*

Activity	Description	Time (approx.)
Introduction	<p>Brief introduction of the researchers.</p> <p>Brief introduction of the research project.</p> <p>Address methodology, how the data will be stored and used, and that the results will be anonymized.</p> <p>Address any concerns the respondent may have.</p>	10 min
Topic	<p>Topic 1: Background information</p> <ul style="list-style-type: none"> <li>- Question 1:               <ul style="list-style-type: none"> <li>“Tell us about your position in the company?”</li> <li>○ Probe 1.1:                   <ul style="list-style-type: none"> <li>“Can you elaborate on how the company is structured and where your role fits in?”</li> </ul> </li> <li>○ Probe 1.2:                   <ul style="list-style-type: none"> <li>“Can you tell us about the types of projects you normally work on in your respective role?”</li> </ul> </li> <li>○ Probe 1.3:                   <ul style="list-style-type: none"> <li>“Can you give us a better understanding of your team and the colleagues you work closely with?”</li> </ul> </li> </ul> </li> </ul> <p>Topic 2: Procurement</p> <ul style="list-style-type: none"> <li>- Question 2:               <ul style="list-style-type: none"> <li>“Can you tell us what your job as a procurement specialist entails?”</li> <li>○ Probe 2.1:</li> </ul> </li> </ul>	15 min  (25 min)

	<p>“How do you experience that procurement has evolved throughout your career?”</p> <ul style="list-style-type: none"> <li>○ Probe 2.2 “Have you experienced any significant changes in the field?”</li> </ul> <p>Topic 3: Sustainability</p> <ul style="list-style-type: none"> <li>- Question 3: “What do you associate with the term sustainability?” <ul style="list-style-type: none"> <li>○ Probe 3.1 “Would you describe it as something negative or positive?”</li> </ul> </li> <li>- Question 4: “How does your company address sustainability?” <ul style="list-style-type: none"> <li>○ Probe 4.1: “Is sustainability something your manager and colleagues discuss?”</li> <li>○ Probe 4.2: “Do you measure the sustainability impact of your work?”</li> <li>○ Probe 4.3: “To what degree are you held accountable for sustainability impact?”</li> <li>○ Probe 4.4: “Which stakeholders drive sustainability efforts?”</li> </ul> <p style="color: red; margin-left: 20px;">Focus on: Examples &amp; Practice</p> </li> <li>- Question 5: “Do you experience your company's sustainability efforts as window dressing or genuine concern?”  Use a scale (1-10) so that the respondent elaborates.</li> </ul>	<p>15 min  (40 min)</p>
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	<ul style="list-style-type: none"> <li>○ Probe 8.1: “Can you elaborate on these effects?”</li> <li>○ Probe 8.2: “Have you been able to quantify these positive effects and compare them to the cost of implementing sustainability efforts?”</li> <li>- Question 9: “Are there any other benefits as a result of sustainability-driven changes in procurement?” <ul style="list-style-type: none"> <li>○ Probe 9.1: “Can you describe the financial implication of such gains?”</li> </ul> </li> <li>- Question 10: “How do you experience that willingness to pay is affected by a more sustainable approach to procurement or value chain design?”</li> <li>- Question 11: “How do you experience that sales volume is affected by a more sustainable approach to procurement or value chain design?”</li> </ul>	
Concluding remarks	<ul style="list-style-type: none"> <li>- Question 12: “Is there anything more you want to share in relation to the topics and questions we have gone through today?”</li> </ul> <p>Concluding remarks from the researcher.</p> <p>Reiteration of privacy, treatment of data, and anonymity.</p> <p>Completion of any paperwork if necessary.</p>	15 min (90 min)

## Appendix 4: Interview Data, Codes and Themes

Coding of Interview Data

A1		B1		A2		B2		A3		B3	
Coding 1	Themes	Coding 1	Themes	Coding 1	Themes	Coding 1	Themes	Coding 1	Themes	Coding 1	Themes
Journey	Implementation	Green transition Initiatives	Implementation	Initiative Legislation Strategy	Implementation	Initiative Strategy Journey Positioning	Implementation	Initiative Legislation Incentives Strategy	Implementation	Circularity Initiative Strategy	Implementation
Necessity		Relevance		Circularity		External inspiration		Drive (sustainability)	Maturity	Mindset change	
Redefining Work Strategy		Journey		Maturity change		Maturity		Window dressing seal	Maturity	WTP	
Mindset change		Accountability		Accountability		Drive (sustainability)		Maturity	Maturity	Accountability	
Maturity		Incorporated Approach	Maturity	Maturity		Accountability		Window dressing seal	Maturity	Drive (sustainability)	
Time perspective	Maturity	WTP		Drive (sustainability)	Maturity	Accountability		Supplier reaction	Supplier Relationships	Evolution	
Unclear priority		Value chain		Ambition		Newfound interest	Maturity	Supplier development	Supplier Relationships	Window dressing seal	
Structural differences		Window dressing seal		Window dressing seal		WTP		Supplier development	Supplier Relationships	Value chain	
WTP		Value chain	Supplier Relationships	Value chain		Evolution in focus		Cost increase	Supplier Relationships	Supplier reaction	
Window dressing seal		Measurability	Supplier Relationships	Value chain		Window dressing seal		True cost	Supplier Relationships	Supplier reaction	
Codependence	Supplier Relationships	Supplier perception	Supplier Relationships	Supplier Partners		Measurability		TCO	Supplier Relationships	Supplier development	
Supplier development		Cost increase	Costs	Measurability		Supplier development		Cheaper (now)	Supplier Relationships	Supplier development	
Supplier engagement		Competitive advantage	Costs	Partner		Supplier reaction		Cheaper (future)	Supplier Relationships	Supplier development	
Investments		Profitability	Benefits	Cost increase		Supplier reaction		Risk mitigation	Supplier Relationships	Supplier development	
Total cost	Costs	Brand perception	Benefits	Cheaper		Supplier reaction		Competitiveness	Supplier Relationships	Supplier development	
Costless		Quantifying benefits		No cost increase		Supplier reaction		Value proposition	Supplier Relationships	Supplier development	
Savings		Expertise		Consumers	Benefits	Supplier reaction		Increased sales	Supplier Relationships	Supplier development	
Gain		Structure (sustainability)	Prerequisites	Distinguish positive		Supplier reaction		Consumer demand	Supplier Relationships	Supplier development	
Value added		Training		Brand perception		Supplier reaction		Structure	Supplier Relationships	Supplier development	
Brand perception	Benefits	Sustainability unders	Relevance	Resources		Supplier reaction		Training	Supplier Relationships	Supplier development	
Supplier perception		Unfair (sustainability)		Support	Prerequisites	Supplier reaction		Resources	Supplier Relationships	Supplier development	
WTP		Awareness		Sustainability focus	Benefits	Supplier reaction		Sustainability unders	Supplier Relationships	Supplier development	
Available resources	Prerequisites	Resilience		Market condition	Relevance	Supplier reaction		Supplier chain	Supplier Relationships	Supplier development	
Learning		Market conditions	Trade-offs	Trade-off		Supplier reaction		Resilience	Supplier Relationships	Supplier development	
Training		Trade-off		Market constraints	Trade-offs	Supplier reaction		Trade-off	Supplier Relationships	Supplier development	
More than environment				Resilience	Trade-offs	Supplier reaction		Quantity benefits	Supplier Relationships	Supplier development	
Motivation	Relevance			Market constraints	Limitations	Supplier reaction			Supplier Relationships	Supplier development	
Sustainability import				Resilience	Trade-offs	Supplier reaction			Supplier Relationships	Supplier development	