



Sustainable Sourcing and Supplier Relationship Management in the Fashion Industry: A Case Study of Varner AS

Venla Salaterä

Haaga-Helia University of Applied Sciences

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Abstract

Author(s) Venla Salaterä
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<p>This thesis explores sustainable sourcing and supplier relationship management in the fashion industry, with a case study of Varner AS, a key player in the Nordic fashion sector. The study seeks to discover successful solutions for increasing environmental sustainability and strengthening supplier collaboration in Varner AS's fashion supply chain.</p> <p>For this thesis, a qualitative research approach was employed, which included semi-structured interviews with sustainability executives at Varner AS and extensive desktop research. The study included both primary data from interviews and secondary data from sustainability reports and academic sources to better understand current practices, challenges, and opportunities in sustainable sourcing and supplier relationships.</p> <p>Sustainable sourcing, supplier relationship management, sustainable fashion, and circular economy are fundamental concepts that drive this thesis. These terms represent the important components of the fashion industry that Varner AS aims to improve through strategic initiatives and partnerships.</p> <p>The findings show Varner AS making substantial progress in integrating sustainable practices throughout their supply chain. These include innovations in sustainable product design, material sourcing, end-of-life management, and collaborative efforts to reduce environmental consequences and enhance supplier engagement. The study emphasizes the need to align with industry standards and address sustainability concerns in innovative ways through stakeholder collaboration.</p> <p>Varner AS displays a strong commitment to sustainability through strategic initiatives and collaborations that not only meet industry standards but also serve as a benchmark for best practices in the fashion industry. The study adds to the discussion on sustainable supply chain management by providing insights that can help other organizations improve their environmental and social impacts through improved sourcing and supplier relationships.</p>
Key words Sustainable sourcing, Supplier relationships, Sustainable fashion, Circular economy

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1 Introduction

This is a research-based bachelor's thesis for the Degree Programme in International Business with the major specialization of Supply Chain Management at the Haag-Helia University of Applied Sciences.

Here the author will present an outline of the thesis, its aim, and the framework that will guide readers through the subsequent chapters in this chapter. The author will not go into detail about the background or the topic; those features will be properly covered in the coming chapters. Instead, this chapter acts as a road map, laying the groundwork for a thorough examination of sustainable sourcing and supplier relationships in the fashion industry, with a particular emphasis on Varner AS. In the next chapters, readers can expect to obtain a clear knowledge of the research's context, aims, and logical flow of content.

1.1 Background to the topic

"We believe in a fashion industry that values people, the environment, creativity, and profit in equal measure." – Orsola de Castro, Fashion Designer and Co-Founder of Fashion Revolution (Fashion Revolution 2017).

In a world where the fashion industry's pulse rushes to the rhythm of ever-evolving trends, one imperative transcends the ebb and flow of seasonal collections: sustainability. The dominant narrative surrounding fashion has altered, and the industry is at a crossroads, with decisions taken today echoing across decades. The truth is that the industry is mostly controlled by consumer demand, and now the demand for sustainable practices appears to be high. The demand for sustainability is high, and so is the conversation surrounding it. (Bringé, 2023.) A critical but often overlooked part of this transformative movement is supply chain management, which includes sustainable sourcing and supplier relationships.

Within this context, this thesis conducts thorough research on sustainable sourcing and supplier relationship management in the fashion industry, with a particular emphasis on the case study of Varner AS. Varner AS, a key player in the Nordic fashion sector, provides an intriguing background for learning how a major industry player navigates and integrates sustainability into its sourcing methods and supplier relationships. This study provides clarity regarding the challenges, possibilities, and best practices in supporting sustainability within the complicated web of the fashion supply chain through an in-depth analysis of Varner AS.

1.2 The Sustainability Imperative

A stark reality underscores the importance of sustainability in fashion: an industry recognized for its elegance and innovation is also one of the world's top polluters. According to the UN (United Nations 2018), the fashion industry accounts for around 10 % of global greenhouse gas emissions and consumes more energy than the aviation and shipping industries combined. It contributes to water pollution, habitat loss, and waste, with one garbage truck of textiles being landfilled or burnt every second (United Nations 2018).

In the face of these issues, sustainability becomes more than an option; it becomes an urgent need. High-quality industry research, such as the Global Fashion Agenda's "Pulse of the Fashion Industry" report (Lehmann et al. 2019), demonstrates that immediate action is required to reduce the sector's environmental and social effects. Transparency, ethical practices, and ecologically friendly products are being demanded by increasingly informed and concerned consumers (Lehmann et al. 2019). Failure to act on these warnings can have serious consequences, ranging from environmental impacts to reputational damage and market decline. Notable climate activists are increasingly vocal against the fashion industry's inconsistent business practices, which often fall short of the companies' stated sustainability standards. Social media magnifies these problems by providing an ideal platform for digital chatter to spread and proliferate unchecked. (Resolver 2022.)

1.3 Research Question

The aim of the thesis is to conduct a thorough examination of Varner AS's strategies and practices in sustainable sourcing and supplier relationship management within the fashion industry. By addressing the research question and investigative question outlined under, this study hopes to provide significant insights into the challenges, possibilities, and best practices connected with incorporating sustainability concepts into fashion supply chain management.

Research question: "How can Varner AS improve its environmental sustainability and collaboration in its fashion supply chain?"

To fully address the main study issue, the following sub-questions will be investigated:

Investigative question 1: How can Varner AS enhance sustainability in its fashion supply chain?

Investigative question 2: How can Varner AS enhance supplier collaboration to advance environmental sustainability goals?

Investigative question 3: In what ways can Varner AS ensure its supply chain meets sustainable industry standards?

Table 1 below presents the IQs, theoretical framework components, research methods, and results in chapters for each IQ.

Table 1. Overlay Matrix

Investigative Questions	Theoretical Framework	Research Method	Result (chapter)
<p>IQ 1. How can Varner AS enhance sustainability in its fashion supply chain?</p>	<p>This incorporates concepts of sustainable supply chain management, with a focus on sustainable design, sustainable business models, and end-of-life management, to improve sustainability in Varner AS's fashion supply chain</p>	<p>Qualitative research with an interview with Varner AS</p> <p>Desktop research was done utilizing academic resources available online</p>	<p>4.1 IQ1 results</p> <p>4.1.1 Current Sustainability Initiatives</p> <p>4.1.2 Approach to Sustainable Sourcing and Product Design</p> <p>4.1.3 Monitoring and Addressing Environmental Impacts</p>
<p>IQ 2. How can Varner AS enhance supplier collaboration to advance environmental sustainability goals?</p>	<p>This emphasizes collaborative supply chain management theories such as supplier relationships stakeholder theory, which will help Varner AS increase collaboration with suppliers to reduce waste, extend product lifecycles, and assess environmental impacts.</p>	<p>Qualitative research with an interview with Varner AS</p> <p>Desktop research was done utilizing academic resources available online</p>	<p>4.2 IQ2 results</p> <p>4.2.1 Collaboration Initiatives for Waste Reduction</p> <p>4.2.2 Strategies for Strengthening Collaboration and Communication</p> <p>4.2.3 Successful Collaboration Initiatives</p>

IQ 3. In what ways can Varner AS ensure its supply chain meets industry standards?	This focuses on aligning Varner AS's supply chain with industry standards and encouraging innovation for sustainability.	Qualitative research with an interview with Varner AS Desktop research was done utilizing academic resources available online	4.3 IQ3 results 4.3.1 Alignment with Industry Standards 4.3.2 Staying Updated on Emerging Trends 4.3.3 Challenges and Solutions in Alignment 4.3.4 Driving Innovation for Sustainability 4.3.5 Future Plan and Initiatives
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1.4 Delimitation

The primary focus of this thesis is on Varner AS's circular fashion supply chain management practices. It investigates the company's policies and practices, analyses their environmental impact, and makes recommendations for improvement. While the research may address general sustainability challenges in the fashion industry, the major focus is on circularity and its specific implementation within Varner AS's supply chain. The study does not include unrelated parts of the company's operations or other sustainability initiatives that are not related to circular supply chain management.

The first investigative question "How can Varner AS enhance sustainability in its fashion supply chain?" focuses on Varner AS's efforts to enhance sustainability in its fashion supply chain, particularly in product design, material sourcing, and end-of-life management.

The second investigative question "How can Varner AS enhance supplier collaboration to advance environmental sustainability goals?" explores how Varner AS enhances supplier collaboration to advance environmental sustainability goals, with a focus on waste reduction, product lifecycle extension, and environmental impact evaluation.

The third investigative question "In what ways can Varner AS ensure its supply chain meets sustainable industry standards?" examines how Varner AS ensures its supply chain meets sustainable industry standards and innovatively improves sustainability practices.

This topic fulfils the international component by addressing global relevance in the fashion sector, investigating international supply chain dynamics, analysing alignment with global sustainability standards, considering global consequences, and investigating international collaborations. This all-encompassing approach situates Varner AS's circular supply chain practices within the larger framework of global sustainability and fashion industry dynamics.

1.5 Anticipated benefits to stakeholders

This thesis shows considerable potential benefits for Varner AS's internal and external stakeholders. Internally, the research serves as an outlet for advancing the organization's sustainable practices. By shedding light on sustainable sourcing and fostering stronger supplier relationships, it enables Varner AS to refine its sustainability strategies, resulting in more informed decision-making processes, a reduced environmental footprint, and a better brand reputation.

Externally, the research aims to strengthen Varner AS's position as a forward-thinking, sustainability-conscious organization. This resonates especially with clients who prioritize responsible business practices, allowing the organization to acquire a competitive advantage while effectively attracting and retaining B2B clients. Furthermore, the research benefits suppliers who work with Varner AS by encouraging collaboration and trust while also enhancing their position in the supply chain.

Additionally, Varner AS's sustainability efforts not only attract investors but also reduce long-term environmental and social risks, thereby strengthening the company's resilience. Furthermore, environmental groups may seek partnerships since the research findings are aligned with their sustainability aims, fostering collaborative efforts on relevant projects.

1.6 Key Concepts

Here are definitions for central terms in this thesis:

Sustainable sourcing is taking social, ethical, and environmental factors into account when selecting suppliers, which is critical as the global supply chain expands. Companies use it to control risks, meet stakeholder expectations, and create long-term supplier relationships, hence increasing competitive advantages in industries such as food and apparel. (Ecovadis 2022.)

Supplier Relationship Management is the systematic and continuing process of analysing an organization's vendors – both goods and services – to see if any adjustments might be made to improve business operations (Jenkins, 2022).

Fashion Supply Chain includes a complex network of stakeholders, ranging from silk and cotton growers to manufacturers, distributors, retailers, and logistics providers. Transparent communication at all stages is critical for a successful supply chain, with the goal of reducing lead times, improving quality, and ensuring prompt delivery to retailers and customers. A strong fashion supply chain reduces manufacturing, inventory, and logistics costs while significantly increasing customer satisfaction. (Sampson, 2023.)

In the **Circular Fashion Supply Chain**, the entire approach to material sourcing is re-evaluated with a focus on employing renewable, recyclable, and biodegradable materials that considerably reduce the ecological footprint of textile products (ApparelMagic 2023).

Sustainability in Fashion is an all-inclusive term that refers to products, processes, activities, and stakeholders aiming to achieve a carbon-neutral fashion sector based on equality, social justice, animal welfare, and ecological integrity. Sustainability in fashion concerns more than simply textiles or products; it covers the complete product lifespan process, including how clothing is manufactured, consumed, and disposed of in landfills. (Kumar, 2023.)

Ethical Sourcing is a responsible and sustainable method to organize a supply chain and its original sources of raw materials. Ultimately, it is the responsibility of entities in the public sector to monitor that the products they are acquiring have been ethically sourced – in addition to ensuring that the health and safety of employees are protected in the process. (Safdie, 2023.)

Circular Economy is a model of production and consumption, which involves sharing, leasing, re-using, repairing, refurbishing, and recycling existing materials and products as long as possible. This extends the lifecycle of the products. (European Parliament 2023.)

1.7 Commissioning Company

Varner AS is one of the major fashion retailers in the Nordic region, with roughly 9000 employees and a network of approximately 1200 stores distributed across 5 countries. Furthermore, the company has a solid online presence in over eight countries. Varner AS, a family-owned Norwegian company, earned a notable revenue of NOK 10.6 billion in 2022, a significant increase

from NOK 9.4 billion in the previous year. This increase is mostly due to a greater online presence and increased in-store sales. (Sustainability Report 2022, 12.)

Cubus, Dressman, Bik Bok, Carlings, Volt, Junkyard, and Levi's Store (franchise) are among the well-known brands in Varner's portfolio. The majority of Varner's business (80 %) is centered on private brands that are only offered in fully-owned stores. The remaining 20 % consists of external brands offered in multi-brand stores owned entirely by Varner. The company also operates franchises, representing the international brand Levi's in the Nordic nations. (Sustainability Report 2022, 12). Varner does not own any factories, but sources from 13 Asian and European countries and collaborates with roughly 335 manufacturers who make the company's products (Sustainability Report 2022, 14).

According to Varner's sustainability report (Sustainability Report 2022, 16.), the company positions itself as a forward-thinking company that prioritizes innovative business development while keeping an unbroken emphasis on the consumer. The company is dedicated to staying ahead of the industry's evolving opportunities. Varner takes a forward-thinking approach, seamlessly integrating the online and offline worlds to create an innovative omnichannel shopping strategy. This strategy not only offers a holistic consumer experience but also emphasizes sustainable principles, showing Varner's dedication to ethical business operations. (Sustainability Report 2022, 16.)

Varner AS, like many other fashion companies, has recognized the pressing need to solve environmental and sustainability concerns in the fashion sector in recent years. This realization prompted the launch of various sustainability initiatives, establishing Varner AS as a major case study for this thesis. The necessity to navigate and excel in an ever-changing fashion landscape while adhering to environmental responsibility and sustainable practices is the driving force behind this thesis project.

This thesis seeks to dive into Varner AS's strategies for improving sustainability, reducing waste, strengthening supplier engagement, and adhering to industry norms. I hope to shed light on Varner AS' efforts and identify creative solutions that could serve as a model for industry-wide sustainable fashion practices through a thorough analysis.

2 Theoretical Framework

The foundation of this thesis is sustainable fashion, which guides us on our journey through the fashion industry's imperative evolution. It invites us to explore not only the aesthetic aspects of clothing but also the significant transformation required to bring environmental consciousness and ethical responsibility into the materials of fashion. As we delve into the theoretical framework of this thesis, the following sections will present the key features that shape the sustainable fashion narrative.

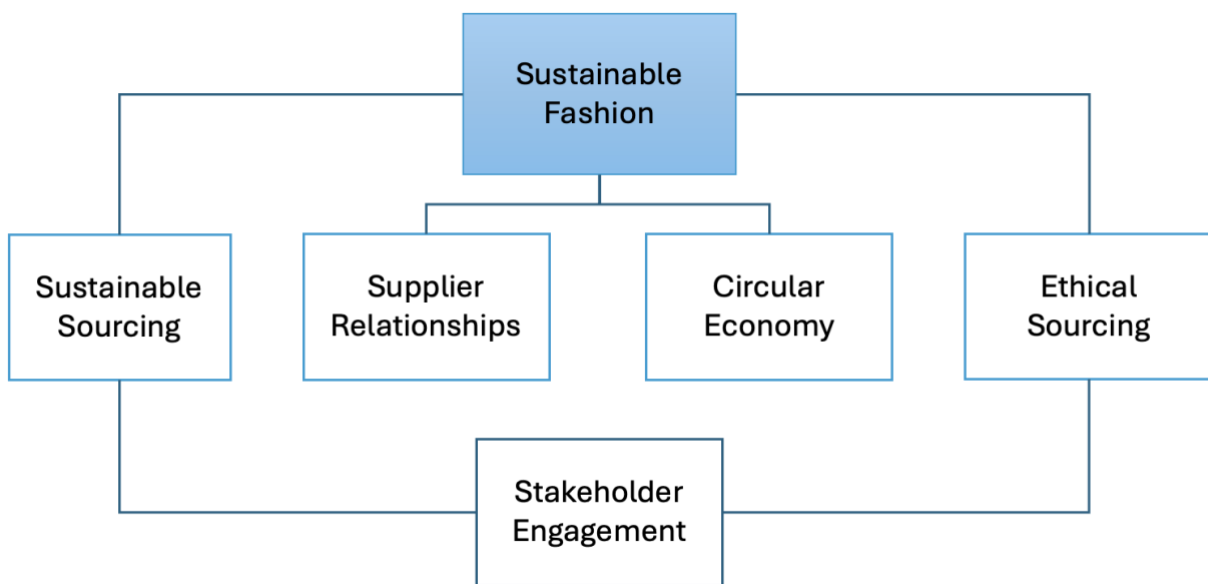


Figure 1. Thesis Framework

2.1 Sustainable Fashion

Sustainable fashion is at the heart of this thesis, representing the overarching theme of this research, the imperative to transform the fashion industry into a sustainable and responsible sector. By positioning sustainable fashion at the core, we highlight how important it is in directing the narrative towards a future in which style effortlessly blends with sustainability, supporting a paradigm shift that reaches beyond academics and into the very fabric of the fashion industry.

Sustainable fashion traces back to the Industrial Revolution, which marked a shift towards mass production and the creation of fast fashion. According to Hoopes (Hoopes, 2024), counterculture movements such as the hippie and punk rock movements of the 1960s and 1970s paved the way

for eco-friendly practices, rejecting mass-produced fashion in favor of handmade and locally sourced products. The introduction of fair trade and ethical certifications, as well as the horrible Rana Plaza disaster in Bangladesh, prompted the Fashion Revolution movement, which advocates for transparency and ethical reform in the fashion supply chain. (Hoopes, 2024.)

Pioneering brands such as Patagonia, People Tree, and Stella McCartney have set the standard for environmentally friendly and ethical practices, prompting others to follow suit. Hoopes (2024) states that the rise of conscious consumerism has increased demand for sustainable fashion alternatives, driven by a growing awareness of the environmental and social consequences of fast fashion. Sustainable materials, circular economy practices, and fashion rental and thrifting are reshaping the industry, paving the way for a more responsible and sustainable future. The fashion industry has the capacity to effect positive change for both people and the environment by collaborating with companies, governments, and consumers. (Hoopes, 2024.)

The fashion industry today supports a wide range of market levels, including a growing demand for responsible, ethical, and sustainable fashion. Although 'sustainable fashion' may appear to be a relatively recent concept, initial concerns about the design and the environment emerged in the 1960s as mentioned above by Hoopes (2024). Since then, other ways to reduce fashion's impact on the environment and society have been implemented. While the focus has often been on selecting acceptable materials, sustainably engaged fashion companies are also adopting a variety of pathways in addition to careful fabric selection. (Gwilt 2020, 7.)

2.2 Sustainable Sourcing and Supplier Relationships

The complex webs of supply chain management, which include sustainable sourcing and supplier relationships, are at the core of sustainable fashion. Here is where the transition starts, where fashion brands and retailers have a big impact, and where creative methods may be used to change the way the industry is perceived. Sustainable sourcing practices, which include careful material selection and ethical production, not only mitigate environmental harm but also appeal to customers looking for eco-conscious choices (Ecovadis 2023).

Supplier relationships are also critical. Collaborative and transparent supplier relationships are essential for eliminating waste, guaranteeing ethical labor practices, and optimizing supply chain efficiency. The success of businesses such as Patagonia and H&M exemplifies the importance of supplier engagement in achieving sustainability goals (Wren 2022, 2-9). Patagonia, for example, has developed a send-in repair service, which has gained popularity and contributed to the company's image as an ethical brand with sustainable values. Repair services necessitate the

recruitment of tailoring services, which is an ideal chance for the organization to create jobs in marginalized places while also boosting Corporate Social Responsibility (CSR) activities. (Wren 2022, 9.)

Similarly to Patagonia, brands may limit the number of clothing that ends up in landfills by encouraging customers to repurpose garments after they are no longer in use. Many brands, including H&M, have begun to accomplish this by collecting discarded items at their retail locations and sorting through them to determine which can be recycled to engage in their Sustainable Supply Chain Management (SSCM) activities by offering 15% off their next in-store purchase (Wren, 2022).

The fashion industry's move to sustainable sourcing is critical in addressing some of the social and environmental concerns faced by societies. According to Bhandari et al. (2022), sustainable sourcing is growing as a key aspect of best practice procurement, and business sustainability is strongly dependent on the practice of sustainable sourcing by the procurement team (Bhandari et al. 2022). Kenton (2023) states that sustainable sourcing emphasizes the use of a universal methodology that actively considers the social and environmental implications of sourcing policies and is aligned with the triple bottom line approach (TBL), which contends that businesses should commit to prioritizing social and environmental problems alongside profitability. According to Kenton (2023), TBL theory proposes that instead of a single bottom line, there should be three: profit, people, and the environment. This approach assesses a company's commitment to corporate social responsibility as well as its long-term environmental impact. Thus, Sustainable sourcing goes beyond the government's sustainability formal distinctions and strives for a balance between TBL's three pillars. (Bhandari et al. 2022.)

The global apparel and footwear market has become more complex to source in recent years. According to Hügl, Ibáñez, Magnus and Scalco (2023), brands are now dealing with two additional complicated factors. First, the value chain is under increased stress due to demand variations, which have caused companies to reduce or cancel orders, as well as logistics disruptions. Second, external factors like as regulations and new market entrants are redefining industry benchmarks for speed, sustainability, and digitalization. In comparison to other industries, apparel has typically had limited supplier collaboration and fewer long-term strategic connections. This dynamic exists because apparel has a diverse supply base, and companies seek low production prices in many countries. For several years, the industry has recognized that market dynamics require a more strategic approach to supplier relationships. According to a survey of apparel chief purchasing officers (CPOs) by McKinsey in 2023, it seems like they are finally acting in this matter. (Hügl et al. 2023.)

2.3 Circular Economy and Ethical Sourcing

These fundamental features mentioned above should be surrounded by circular economy and ethical sourcing, demonstrating their tight relationship to sustainable sourcing and supplier relationships. In the fashion sector, the circular economy represents an ideology shift, emphasizing resource efficiency and waste reduction. Collectively, brands, mills, and manufacturers from high street to premium retailers have demonstrated that circular fashion design can become the norm. (Ellen MacArthur Foundation 2024a.) According to the Ellen MacArthur Foundation, a circular economy in fashion improves customer experiences, strengthens the industry, and benefits the environment. It prioritizes the rights and equity of all fashion industry stakeholders and will generate new growth prospects that are distributed, diverse, and inclusive. (Ellen MacArthur Foundation 2024b.)

According to Repsol (2023), circular economy's goal is to make the best use of the material resources we have by adhering to three basic principles: reduce, reuse, and recycle. This extends product life cycles, reduces waste, and gradually establishes a more efficient and sustainable production model. The concept stems from nature, where everything has value and is used, and waste becomes a new resource. In this way, the balance between progress and sustainability is preserved. All in all, it develops a more sustainable production and consumption paradigm in which raw materials are maintained longer in manufacturing cycles and can be reused, resulting in significantly less waste. As the name implies, the goal of this approach is to keep resources in the economy for as long as possible, allowing us to use the waste we produce as raw material for other industries. (Repsol 2023.)

Ethical sourcing emphasizes the relevance of decent working conditions and appropriate labor practices in the supply chain. Today's conscientious customer evaluates not only quality and endurance, but also the brand's environmental effect, ethical alignment, attitude towards fair treatment, fair pay, employee safety, and sustainability. Gone are the times when a faster turnaround time and higher quality garments were sufficient to keep one ahead. Before purchasing a product, the modern customer pays close attention to the brand's responsibility index. Ethical sourcing is a non-negotiable quality requirement for today's garment manufacturing industry, with supplier quality management at its core. Suppliers must formally assume responsibility for conforming to quality assurance guidelines. This, in turn, suggests a predetermined mechanism of checks and balances to verify that certain requirements are met. (3Frames 2022.)

Ethical sourcing in the fashion industry is becoming more than a marketing ploy for a good reason. The apparel industry is one of the most polluting in the world, accounting for up to 10% of global carbon dioxide emissions and one-fifth of the 300 million tons of plastic generated annually. It is also one of the most labor-intensive, with employees often working in unregulated conditions. As a result, numerous apparel brands have faced criticism for their unethical sourcing practices. (Blanchfield, 2023.)

2.4 Stakeholder Engagement

Stakeholder engagement, shown as a connection, links numerous parts of this structure. It emphasizes the necessity of involving stakeholders in shaping sustainability practices, such as consumers, suppliers, and organizations that promote sustainability. Stakeholder involvement promotes teamwork and ensures that sustainability programs are appealing to people with a variety of perspectives and interests.

According to Mandarić, Hunjet and Vuković (2022), consumers are critical to driving demand for sustainable fashion practices. The gap between consumer views towards sustainability and green behavior is significant, resulting in an unbalanced psychological state. Businesses must select the most successful communication strategy, that is, nudge consumers towards sustainable fashion through subtle persuasion strategies, rather than relying on narratives that overtly advise people to 'buy green' (Mandarić et al. 2022). Furthermore, it is vital to alter consumer behavior and social standards to protect the environment and the well-being of all production stakeholders. It requires action from all players in the fashion industry, including retailers, designers, managers, and, of course, customers. The fashion sector faces significant cost pressures and competitiveness, making it difficult to change business practices. (Mandarić et al. 2022.)

Suppliers, as major stakeholders, must be involved from the start to ensure the company's value chain is sustainable. Collective responsibility will assist companies in determining which suppliers to interact with, as well as providing methods for engaging suppliers on sustainability issues. After engaging suppliers, it is important for companies to work with them to build their capabilities and discover potential for collaboration in long-term supply chain projects. (Collective Responsibility 2024.) According to Cascade (2024), an important aspect of stakeholder engagement is a stakeholder management strategy, which is a plan for engaging with stakeholders and effectively managing their expectations and interests. It entails recognizing stakeholders' needs, goals, and objectives, interacting with them, and ensuring their opinions are heard and considered when

making choices. The strategy should also contain a plan for resolving any differences or conflicts that may occur among stakeholders. (Cascade 2024.)

3 Research Methods

In this chapter, we look at the research methodology used to uncover the complexities of sustainable fashion's evolving landscape. Using a qualitative research method, we aim to understand the various perspectives and experiences surrounding Varner AS's sustainability efforts. This method serves as a foundation of this research, allowing for an in-depth analysis of sustainability narratives in the fashion industry. To highlight the challenges and strategies within organizations, semi-structured interviews with Varner AS sustainability executives and extensive data collection from diverse sources such as sustainability reports, websites, and research papers are used (Johnston, 2017).

This research design incorporates case study methodology, which entails conducting in-depth analyses of real-life examples in current contexts (Creswell & Poth 2018). This qualitative approach allows for a thorough examination of limited systems throughout time, relying on a variety of data sources such as interviews and documents. Furthermore, qualitative research incorporates a variety of traditions and procedures, providing flexibility in data collection and analysis across fields (Tuni 2024). By adopting this approach, the aim is to uncover the complex tapestry of sustainable fashion and its implications for Varner AS and the broader industry landscape.

3.1 Research Design

A precise and focused strategy is required when constructing the research approach for a qualitative thesis that uses primary data from interviews and secondary data from reports, academic literature, documents, and other sources. This methodological approach is focused on qualitative inquiry, with an emphasis on in-depth data research and analysis to properly address research issues. The research design includes the analysis of qualitative secondary data gathered from a variety of sources, including documents and academic literature. This entails evaluating and interpreting previously collected qualitative data sets to extract meaningful insights and find recurring patterns relevant to the research objectives (Johnston, 2017). The study of secondary data allows the researcher to supplement and enrich the primary data gathered via interviews, providing a more comprehensive view of the research topic. Similarly, using primary data from interviews, the researchers delve deeply into the experiences, motives, and opinions of others, learning to see the world from perspectives other than their own (Rubin & Rubin 2012, 3), which in this case entails comprehending and expanding on the information discovered through secondary research.

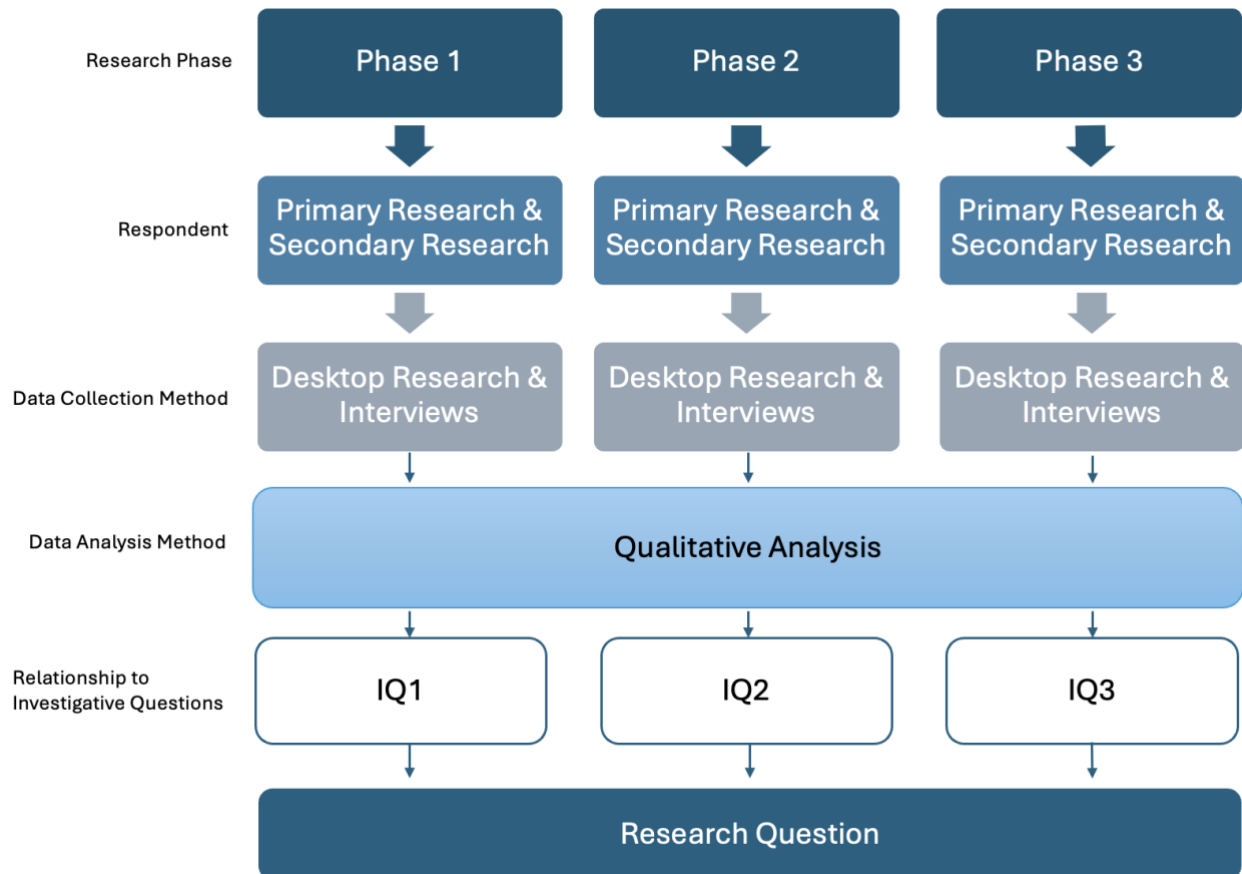


Figure 2. Research Process

The research process illustrated in the figure (Figure 2) outlines three sequential phases, each of which addresses a different component of the thesis. In phase 1, both primary and secondary research are conducted, using desktop research and interviews as data collection tools. Following that, the collected data is subjected to qualitative analysis to gather insights relevant to the first investigative question (IQ1), which leads to the examination of the research question. Phase 2 follows this structure focusing on another aspect of the research, while Phase 3 completes the sequence, resulting in a thorough comprehension of the research question. Each phase builds on the preceding one, adding to the overarching research.

3.1.1 Case study research

According to Creswell and Poth (2018), case study research is the in-depth examination of a real-life, current case or instances within a given context or setting. These examples can range from actual entities like individuals, groups, organizations, or partnerships to abstract ideas like

communities, relationships, decision processes, or initiatives. While some researchers perceive case study research as a choice of what to explore within a limited system, others see it as a methodology or comprehensive research plan. Creswell and Poth (2018) suggest that the study definition of a case study is influenced not only by the research methodologies used but also by the boundaries established around the case being studied.

In this thesis, case study research is defined as a qualitative methodology that entails a thorough examination of one or more bounded systems throughout time. It requires collecting considerable data from a variety of sources, including interviews, documents, papers, and reports, to produce a detailed description and analysis of the case or cases under inquiry. A case study's unit of analysis might range from a single instance to several cases. (Creswell & Poth 2018.) In the case of this thesis, Varner AS is used as the bounded system for the case study. It is a single case study since the study focuses on a specific company in the fashion industry and analyses its sustainable sourcing practices and supplier relationships. Varner AS may have multiple departments, processes, and relationships within its operations, but for the sake of this thesis, it is regarded as a single instance.

3.1.2 Interviews

The population in this study's interviews comprises individuals directly involved in or knowledgeable about sustainable sourcing and supplier relationship management in the fashion industry, specifically within Varner AS.

Interviewing is the most common format of data collection in qualitative research. A qualitative interview is a framework in which practices and standards are recorded, attained, challenged, and reinforced. Every research interview, by its nature, possesses some level of structure. According to Jamshed (2024), the majority of qualitative research interviews are either semi-structured, minimally structured, or in-depth. Semi-structured interviews are those in-depth interviews where respondents have to answer pre-set open-ended questions. These kinds of interviews are widely used as an interviewing format, whether with individuals or groups. They are conducted only once, with an individual or a group, and often last 30 minutes to more than an hour. Semi-structured interviews follow a semi-structured interview guide, which is a schematic presentation of questions or subjects that the interviewer must explore. (Jamshed, 2014.)

The semi-structured interviews I have used for this thesis, use both open-ended and theoretically driven questions to elicit data based on the participant's experience as well as data guided by existing constructs in the discipline in which the study is being conducted. Formulating and

ordering questions needs a significant amount of time and trial and error during field testing of the protocol, which is the set of questions that guide the interview. Each interview question is related to the research's aim, and its placement within the protocol represents a purposeful movement toward a thorough examination of the phenomenon under study. (Galletta 2013, 45.) This approach allowed for a thorough exploration of participants' perspectives, experiences, and insights regarding the company's sustainability practices.

3.1.3 Documents

Qualitative research explores and provides greater insights into real-world challenges. Unlike quantitative research, which collects numerical data points, intervenes, or introduces treatments, qualitative research generates hypotheses while both investigating and understanding quantitative data. Qualitative research collects data about individuals' experiences, perceptions, and behaviors. It focuses on the how and why, rather than how many or how much. It might be designed as a stand-alone study that just uses qualitative data, or it could be part of mixed-methods research that includes both qualitative and quantitative data. (Tenny, Brannan & Brannan 2022.)

This thesis relies on secondary data sources to get relevant information. Secondary data refers to data that has already been collected and is accessible from other sources. This kind of data is typically collected through desk research, journals, or books. (Statswork 2023.) In this thesis, secondary data consists of documents, websites, and other digital assets relevant to Varner AS, its suppliers, and the broader apparel industry. These papers include sustainability reports, supply chain management documents, industry journals, and Varner AS's and its suppliers' websites.

3.2 Research Validity and Reliability

Validity and reliability are fundamental ideas in research, required to ensure the dependability and credibility of findings. In qualitative research, validity refers to the degree to which the findings accurately represent the topic under investigation, whereas reliability refers to the consistency and dependability of the results across diverse settings. (Golafshani 2003, 600-604.)

In qualitative research, validity is frequently defined in terms of credibility, transferability, and trustworthiness. These ideas emphasize the importance for researchers to demonstrate the credibility of their findings by demonstrating the authenticity and accuracy of their interpretations. Triangulation, which involves using various data sources or methodologies to look for convergence

across distinct sources of information, is a frequent technique used to improve validity. (Golafshani 2003, 600-604.)

Similarly, reliability in qualitative research is measured in terms of consistency and dependability. Rather than relying on statistical measures of consistency, qualitative researchers value the stability and reliability of their findings over time and across different contexts. Techniques such as investigator triangulation, technique triangulation, and data triangulation are used to ensure the reliability of the results. (Golafshani 2003, 600-604.)

Overall, while the terminology and approaches may differ from quantitative research, qualitative researchers try to provide credible and dependable results using rigorous methodologies and techniques such as triangulation. By focusing on validity and reliability, researchers can increase the trustworthiness and rigor of their qualitative studies, contributing to the development of knowledge in their respective fields. (Golafshani 2003, 600-604.)

This qualitative study thoroughly examined primary and secondary data to ensure reliability and validity. The study focuses on Varner AS, a major participant in the fashion industry, and thoroughly analyses its sustainability strategies, supplier collaborations, and adherence to industry standards. By systematically analysing Varner AS's initiatives and partnerships, the study provides genuine insights into their attempts to improve sustainability in the fashion supply chain, providing a comprehensive picture of existing practices and innovative solutions.

3.3 Key concepts and theoretical framework overview

Before presenting the findings of the study, it is essential to outline the theoretical framework and essential concepts driving this research. This thesis explores the subtle dynamics of sustainable sourcing and supplier relationship management in the fashion industry, using Varner AS as a case study, and answers the following research question: "How can Varner AS improve its environmental sustainability and collaboration in its fashion supply chain?". This question is explored using three interconnected investigative questions.

First, the research analyses how Varner AS can improve sustainability in its supply chain, with a focus on current practices, sustainable sourcing, product design, and end-of-life management. These factors are interconnected, as choices in materials and production impact the environmental footprint, while end-of-life management addresses recycling. Second, the study explores improving supplier collaboration to promote sustainability. This includes reducing waste, extending product lifecycles, and improving communication with suppliers. Strong supplier relationships are essential

for achieving common sustainability goals. Finally, the study looks at how Varner AS can meet sustainability industry standards. This entails adhering to global standards, introducing innovative practices, and engaging stakeholders.

Key concepts such as sustainable fashion, circular economy, ethical sourcing, and stakeholder engagement lay the groundwork for understanding sustainability in the fashion industry. Circular economy principles promote sustainable fashion by reducing waste, ethical sourcing assures fair practices, and stakeholder engagement promotes inclusive decision-making. Overall, this sub-chapter emphasizes the interconnectedness of these concepts and sets the stage for the empirical analysis and discussion of findings.

4 Research Findings

In this chapter, the research findings are presented, addressing the main research question: 'How can Varner AS improve its environmental sustainability and collaboration in its fashion supply chain?'. Section 4.1 delves into the first inquiry, which focuses on Varner AS's sustainability measures, such as present practices, approaches to sustainable sourcing and product design, and efforts to monitor and resolve environmental impacts. Section 4.2 then looks into strategies for improving collaboration with suppliers to reduce waste, extend product lifecycles, and assess environmental impacts, while section 4.3 focuses on how Varner AS's supply chain can be aligned with industry standards and identify innovative solutions to improve sustainability. Each component offers insights into Varner AS's challenges, initiatives, and plans for addressing these essential aspects of sustainable supply chain management.

4.1 Improvement in sustainability in its fashion supply chain, especially in product design, materials, and end-of-life management

Fashion companies are increasingly reliant on external partners to manufacture their products using raw materials (e.g., fibers and leather) sourced from distant locations and subcontracting various production activities (e.g., milling, dyeing, weaving, finishing, cutting, and sewing) to companies located all over the world (Caniato, Caridi, Crippa & Moretto 2012). Businesses like Varner AS find themselves at a turning point moment, charged with reinventing their supply chain operations to comply with concepts of environmental responsibility and social consciousness.

At the core of this initiative is an understanding that old ways of operating are no longer sustainable. Every stage of the fashion supply chain, from raw material extraction to end-of-life product disposal, has a significant environmental and societal impact. Recognizing this reality, Varner AS has set out on a journey of sustainability, attempting to include eco-friendly methods into its product design, material procurement, and end-of-life management processes.

4.1.1 Current Sustainability Initiatives

Varner AS' commitment to sustainability is deeply ingrained in company activities, representing a comprehensive approach that includes environmental protection, social responsibility, and innovation. Varner cooperates with Canopy, an international award-winning environmental non-profit organization that is dedicated to protecting the world's species, forests, and climate through

the purchasing power of the global marketplace (IUCN 2024). This demonstrates the company's commitment to forest preservation by campaigning for sustainable forestry practices and the protection of endangered ecosystems. Furthermore, Varner's proactive approach to minimizing paper and packaging waste not only reduces its environmental impact but also optimizes resource use, thereby contributing to the preservation of valuable forest resources. (Fagertun, 2020.)

In addition, Varner's commitment to supporting environmentally friendly materials goes beyond rhetoric, as proven by its partnership with industry partners to promote sustainable fiber sources such as agricultural residues and recycled fabrics. To stay up to date on developments of animal welfare topics around the world, the company participates in global meetings and maintains close relations with organizations such as Textile Exchange, a non-profit that promotes positive climate and environmental benefits in the fashion, textile, and apparel industry (Textile Exchange 2024a) to ensure animal materials are responsibly sourced. Varner uses several of the Textile Exchange certifications for responsible animal materials, such as Responsible Down Standard (RDS), which encourages the down and feather industry to treat ducks and geese humanely and rewards organizations leading the way (Textile Exchange 2024b) and Responsible Wool Standard, which mandates certification for all participants in the wool supply chain, from wool farmers to final business-to-business sales, and includes severe criteria for animal welfare, land management practices, and social obligations (Textile Exchange 2024c), to help mitigate some of the risks in the supply chain. (Sustainability Report 2022, 106.) Varner is not just creating a more sustainable textile industry environment, but also fostering a culture of responsible sourcing and production.

4.1.2 Approach to Sustainable Sourcing and Product Design

Varner AS's dedication to sustainability extends beyond rhetoric, permeating its approach to sourcing, product design, and material selection. Varner embraces the textile hierarchy and sets ambitious targets for moving unsold and unsellable products, as well as textile waste, into channels for reuse, recycling, upcycling, or repurposing (Sustainability Report 2022, 110). This strategy not only reduces environmental effects but also demonstrates Varner's dedication to circularity and waste elimination.

Furthermore, Varner's Environment Management System ensures correct waste handling and disposal, with a strong opposition to landfill expansion and incineration (Sustainability Report 2022, 111). Varner guarantees that surplus and damaged goods are repurposed, reused, or recycled through collaborations with organizations such as Fretex, an organization that is part of the Norwegian Salvation Army with the main purpose of reutilizing pre-loved clothes and textiles in

order to offer clothes to those in need while also selling to consumers (Sustainability Report 2022, 112). This collaboration demonstrates Varner's dedication to reducing waste and increasing resource efficiency (Sustainability Report 2022, 112).

Basing their approach on the textile hierarchy Varner has two goals connected to textile waste. The first one is that 100 % of unsold and unsellable products are put into channels for reuse, recycling, upcycling, or repurposing. The second one is that in 2030, 30 % of their textile waste from tier 1 production facilities will be put into channels for recycling and repurposing. This depends on strong coordination with their supply chain. The more waste is exploited as a resource, the less they rely on virgin materials, which helps reduce the impact on the planet. (Sustainability Report 2022, 110.)

4.1.3 Monitoring and Addressing Environmental Impacts

Varner AS's proactive approach to sustainability is further demonstrated by its thorough monitoring and mitigation efforts to address environmental consequences throughout its supply chain. Varner uses tools such as the Higg Facility Environmental Module (Higg FEM) and participation in the Sustainable Apparel Coalition (SAC) to undertake complete examinations of supplier environmental practices, finding areas for improvement and implementing targeted strategies to drive sustainable improvements. (Sustainability Report 2022, 120-121.)

The Higg FEM is a sustainability assessment tool that standardizes how facilities measure and evaluate their environmental performance from year to year. It provides a detailed picture of a facility's environmental impact and captures every stage of the manufacturing process, including water use, waste management, and chemical and energy use. (ControlUnion 2024.)

The SAC recently rebranded as Cascale (STTinfo 2024), is a global, non-profit alliance of 300 prominent clothing, footwear, and textile brands, retailers, manufacturers, sourcing agents, service providers, trade associations, non-governmental organizations (NGOs), and academic institutions. Together with their members, they are working towards a common vision of an industry that gives back more than it receives – to the planet and its people. Their objective is to transform business for exponential impact through innovative technologies, creative collaborations and trusted industry leadership through multi-stakeholder engagement. In collaboration with their members, they have created the previously mentioned Higg FEM. (Cascale 2024.)

Moreover, Varner's emphasis on water efficiency, chemical management, and hazardous substance removal demonstrates its dedication to protecting natural resources and encouraging responsible manufacturing practices. Varner exhibits its proactive approach to sustainable

chemical management and environmental stewardship through collaboration with industry groups such as the Swedish Chemical Group and participation in projects such as the Zero Discharge of Hazardous Chemicals (ZDHC) Programme, where they joined as a 'Friends' member in 2022. (Sustainability Report 2022, 131.)

The Swedish Chemical Group is an agency that provides up-to-date information on chemical and environmental issues to members of the textile and electronics industries (RISE 2024), and ZDHC is a multi-stakeholder organization with approximately 320 signatories from different industry sectors, such as brands, suppliers, solution providers, and chemical suppliers. This membership gives Varner access to external monitoring and networks, practical tools, updates on relevant legislation, and news in the domain of chemicals in articles and substitution. (Sustainability Report 2022, 131.)

ZDHC's Roadmap to Zero Programme leads the fashion industry in eliminating dangerous chemicals from its global supply chain, laying the groundwork for more sustainable manufacturing that protects workers, consumers, and our planet's ecosystem (Roadmap to Zero 2024). The ZDHC's Roadmap to Zero Programme offers Varner an opportunity to improve the application of sustainable chemical management. Its standards, solutions, platforms, and implementation projects, as well as collaborations with others within the ZDHC Community, will be important assets for Varner as it continues its journey towards detoxing its supply chain. (Sustainability Report 2022, 131.)

4.2 Improvement in collaboration with suppliers to reduce waste, extend product lifecycles, and assess the environmental impacts

Among industrial categories, the textile and apparel industry has one of the world's longest, most fragmented, and inflexible supply chains. The textile and apparel industry requires a responsive and efficient supply chain due to its short product life cycle, high demand unpredictability, and variability. To do this, it requires excellent communication and a high level of collaboration among chain partners. (Ho, Kumar & Shiwakoti 2017.)

As companies across industries recognize the importance of tackling environmental and social issues, attention has shifted to the role of supply chain collaboration in promoting positive change. The fashion industry, with its extensive worldwide supply chains and complex network of suppliers, is at the forefront of this environmental challenge. Varner AS, with its tremendous influence and market position, has significant power to effect change throughout its supply chains.

4.2.1 Collaborative Initiatives for Waste Reduction

While Varner AS recognizes the need for explicit company policies on waste reduction and product lifecycle extension, the company has begun working collaboratively with chosen suppliers to address these issues. Notably, Varner has collaborated with denim suppliers that have made great strides in transforming cotton waste into fresh yarn. This novel solution not only saves waste but also increases the lifecycle of denim products, resulting in a more sustainable supply chain. (Gjelsvik 22 February 2024.)

The policy of transforming cotton waste into fresh yarn aims to employ waste material as a supplemental raw resource for regular manufacturing, eliminating waste. To assist the industry in moving towards zero waste, a study was conducted to use denim cut waste from the apparel industry and turn it into yarn and fabric in conjunction with virgin material. After several efforts, recycled cotton fiber was mechanically extracted from denim cut waste and combined with virgin cotton to create recycled cotton yarns with various blend ratios. As the fiber was colored, the dyeing process was omitted, and the fabric was made to resemble denim fabric by using recycled blended threads as weft and 100 % cotton white yarn in the warp. (Radhakrishnan, 2018.)

Varner also incentivizes suppliers to share information on how they use cotton waste in new goods, demonstrating a commitment to supporting and partnering with suppliers who prioritize sustainability (Gjelsvik 22 February 2024).

4.2.2 Strategies for Strengthening Collaboration and Communication

Varner AS uses industry-wide initiatives and programs to strengthen collaboration and communication with its suppliers. Varner's membership in the Sustainable Apparel Coalition (SAC) and participation in the Higg Facility Environmental Module (FEM) allow it to evaluate environmental performance throughout its supply chain and find areas for improvement. These programs encourage conversation and collaboration between Varner and its suppliers, thereby increasing openness and accountability in sustainability activities. (Sustainability Report 2022, 120.)

Varner's participation in the Zero Discharge of Hazardous Chemicals (ZDHC) Roadmap to Zero Programme demonstrates its commitment to sustainable chemical management. Varner's upstream supply chain processes are aligned with ZDHC principles to reduce environmental

impact and improve sustainability outcomes throughout its operations. (Sustainability Report 2022, 131.)

4.2.3 Successful Collaboration Initiatives

Varner AS has seen concrete results from supplier collaboration programs that prioritize waste reduction and sustainability outcomes. For example, through collaboration with denim suppliers, recycled materials have been incorporated into denim goods, reducing dependency on virgin materials and minimizing waste (Gjelsvik 22 February 2024). This strategy is consistent with Varner's goal of using waste material as an additional raw resource, which contributes to a circular economy model in the fashion industry.

Varner's pursuit of innovative solutions, such as the mechanical extraction of recycled cotton fiber from denim cut waste, demonstrates its dedication to promoting sustainable practices and fostering collaboration with suppliers. Varner's commitment to environmental stewardship and sustainable business practices is demonstrated by its ability to transform waste into valuable resources.

4.3 Supply chain alignment with industry standards and identification of innovative solutions to enhance sustainability

In the last decade, the fashion industry has seen a fundamental transition, with sustainability concerns moving to the top of company operations. As people become more conscious of environmental and social issues, companies like Varner AS face increasing pressure to align their supply chains with industry standards and pioneer creative solutions to improve sustainability. Varner AS, an important player in the fashion industry, recognizes the importance of navigating such a rapidly shifting landscape and establishing itself as a pioneer in sustainable supply chain management.

4.3.1 Alignment with Industry Standards

Varner AS remains committed to environmental and climate responsibility, directed by a comprehensive plan based on fundamental values, future goals, and worldwide industry activities. Varner assures compliance with industry standards and best practices in sustainable supply chain management by implementing comprehensive monitoring, measurement, and mitigation initiatives.

Varner displays a proactive commitment to sustainability by incorporating feedback from key stakeholders and maintaining current global efforts such as the Sustainable Apparel Coalition's Higg Index and the Zero Discharge of Hazardous Chemicals (ZDHC) Programme. (Sustainability Report 2022, 118.)

4.3.2 Staying Updated on Emerging Trends

Varner AS maintains cautiousness in keeping up with evolving trends and requirements in fashion industry sustainability. The company develops a strong framework for environmental sustainability and climate action by assessing key worldwide standards and recommendations from industry initiatives such as the OECD Due Diligence Guidance for Responsible Supply Chains in the Garment & Footwear Sector and UN Global Sustainable Development Goals. This proactive strategy keeps Varner at the forefront of industry developments, encouraging continuous improvement in sustainability practices. (Sustainability Report 2022, 118.)

The OECD Due to Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector assists enterprises in implementing the due diligence recommendations outlined in the OECD Guidelines for Multinational Enterprises throughout the garment and footwear supply chain to avoid and address potential negative impacts of their activities and supply chains. It seeks to assist the OECD Guidelines' goal of ensuring that the activities of garment and footwear companies are consistent with government objectives, thereby strengthening the foundation of mutual trust between enterprises and the societies in which they operate. This Guidance was developed through a multi-stakeholder process that included extensive participation from OECD, which stands for the Organization for Economic Co-operation and Development and is a unique forum in which the governments of 37 democracies with market-based economies work together to create policy norms to promote long-term economic progress (U.S. Department of State 2024) and non-OECD nations, corporate leaders, trade unions, and civil society and was monitored by the Working Party on Responsible Business Conduct. (OECD 2018, 3.)

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, lays out a shared vision for peace and prosperity for people and the planet both now and in the future. The 17 Sustainable Development Goals (SDGs) are at the heart of it, and they represent an urgent call to action for all countries, developed and developing, to work together globally. They recognize that ending poverty and other deprivations must be combined with initiatives to promote health and education, decrease inequality, and stimulate economic growth, all

while addressing climate change and striving to protect our oceans and forests. (United Nations 2024.)

SUSTAINABLE DEVELOPMENT GOALS



Figure 3. The 17 Sustainable Development Goals (SDGs) (UN Office for Sustainable Development 2024)

According to Varner's Sustainability Report 2022, the company's operations are strategically aligned with the UN's SDGs, with an emphasis on Sustainable Consumption and Production (Goal 12) and Climate Action (Goal 13). Varner's resolve to use 100 % preferred fibers by 2025 is particularly noteworthy, with the goal of revolutionizing textile production in favor of environmentally friendly materials. Furthermore, by establishing a 2030 target for guaranteeing all animal fibers are certified and traceable, Varner demonstrates its commitment to ethical sourcing and decreasing its carbon footprint. These efforts underscore Varner's proactive commitment to reducing environmental effects while promoting sustainable growth in the fashion industry. (Sustainability Report 2022, 31.)

4.3.3 Challenges and Solutions in Alignment

Varner AS faces no substantial obstacles in integrating its supply chain practices with industry standards, but it remains vigilant in risk mitigation and optimizing sustainability results. Varner reduces potential risks and guarantees industry standard compliance by proactively selecting suppliers and materials. However, the decision to prioritize sustainability may entail higher costs, underscoring the need for strategic investments in responsible sourcing and production practices. (Gjelsvik 22 February 2024.)

4.3.4 Driving Innovation for Sustainability

Varner AS is at the forefront of driving innovation for sustainability throughout its supply chain. The company intends to improve openness and accountability in its supply chain operations by establishing ambitious product traceability targets and researching innovative solutions such as the Textile Exchange's traceability technologies. The company's goal is for its products to be fully traceable by 2030. This means that the key elements must have known and verified origins, and all supply chains must be visible and identifiable (Sustainability Report 2022, 109). Furthermore, Varner's focus on incorporating sustainability considerations into future supply chain plans and operations demonstrates its dedication to promoting positive change within the industry.

The two internal measures taken in 2022, both the implementation of the Process Mapping Form, which allows Varner to document each step in the manufacturing process per product back to the raw material level and the start of the pilot project with Textile Genesis traceability solution, will help Varner on the journey progress towards the goal of 100 % traceable products by 2030 (Sustainability Report 2022, 109).

Process mapping refers to a method that develops a better knowledge of processes and assists organizations in identifying opportunities for change. It visually represents workflows to improve understanding of processes and their components, and includes a variety of types such as flowcharts, detailed process maps, and value-stream maps, which are essential to business process management (BPM), outlining steps, task owners, timelines, and facilitating communication among stakeholders to identify and improve process efficiency. (IBM 2023.)

The Textile Genesis is a pioneering traceability platform designed specifically for the fashion and textile ecosystem. According to Textile Genesis's (2024) website, its objective is dual: to provide complete transparency from fiber to retail, and ensure the authenticity and origin of sustainable textiles against generics. The platform is an outcome of extensive "grass-root" conversations

across the whole garment supply chain, starting from fiber growers to fabric mills, dyeing houses, cut and sew, and retail brands. It is specifically designed for premium and sustainable textiles such as wood-based fibers, sustainable cotton, recycled polyester, specialized filaments, silk, wool, and cashmere. Its system's goal is to protect brand reputation from replicas, enable level transparency from fiber to retail, and drive value-chain inventory optimization. (Textile Genesis 2024.)

4.3.5 Future Plans and Initiatives

Looking ahead, Varner AS is getting ready to begin a range of initiatives targeted at improving sustainability and efficiency throughout its supply chain. Varner hopes to help its suppliers adopt renewable energy sources and innovative chemicals by focusing on reducing greenhouse gas emissions, energy consumption, and chemical usage. In addition, efforts to include sustainability concerns into supply chain strategies and operations will be prioritized, with a focus on local sourcing and supplier performance monitoring to reduce environmental impact. (Gjelsvik 22 February 2024.)

Varner AS's Corporate Social Responsibility (CSR) and Environment teams are working on several planned projects that will focus on climate, resources, and chemicals to increase sustainability. While previous efforts focused on Tier 1 suppliers, the team is now turning its attention to Tier 2 and Tier 3, with the goal of better understanding their carbon footprint. They intend to identify important Tier 2 suppliers and examine their environmental impacts, with a special emphasis on reducing carbon footprint, water use, and wastewater management. The present focus is on Higg Index assessments and physical evaluations for Tier 1 and Tier 2 suppliers, with a focus on reducing carbon footprints and managing water management. (Gjelsvik 22 February 2024.)

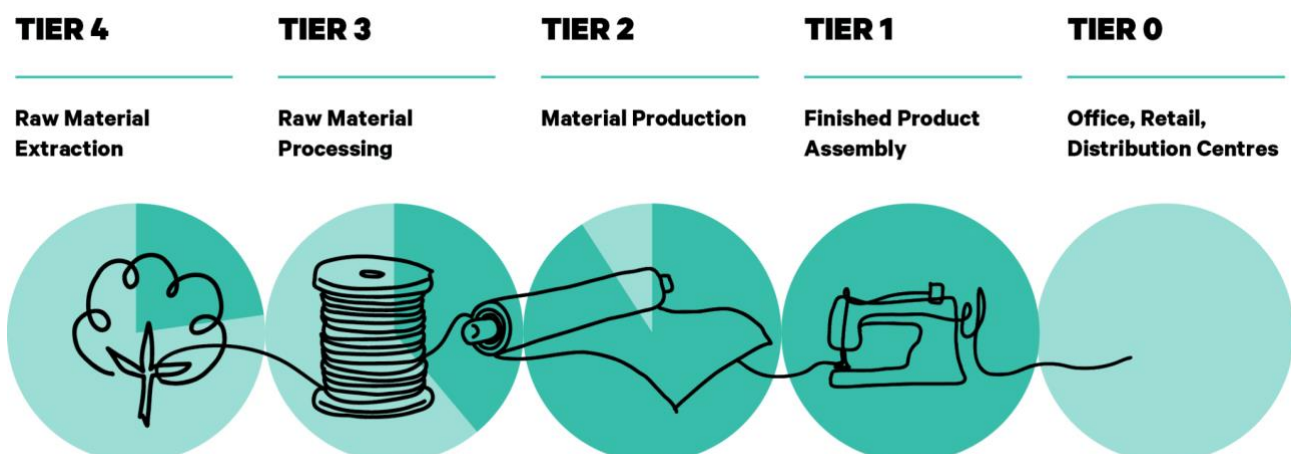


Figure 4. The textile supply chain tiers: Tier 4 to Tier 0 (Crowley et al., 2022.)

As shown in the figure above (Figure 4), Tier 2 and Tier 3 include the raw material processing and material production in the textile supply chain, which will be the focus points for Varner AS from this year forward.

In general, suppliers can be divided into three categories. Tier 1 suppliers are typically a company's direct suppliers, whereas Tier 2 suppliers are companies that subcontract to a company's direct supplier, or they may be a company's suppliers' suppliers. Tier 3 follows the first two tiers and includes the suppliers or subcontractors of a company's Tier 2 suppliers. (Toikka, 2023.) A supply chain might have more than three tiers, depending on where the materials are sourced and extracted from. The textile industry, of which Tier 4 includes the cultivation and extraction of raw materials from the earth, plants, or animals, is more likely to include multiple tiers in the supply chain (Fashion for Good 2022).

5 Conclusions

In conclusion, this thesis has highlighted the critical role of sustainable sourcing and supplier relationship management in promoting environmental and social sustainability in the fashion industry through a detailed case study of Varner AS. Varner's strategic initiatives, such as its aim to use 100 % preferred fibers by 2025 and guarantee that all animal fibers are certified and traceable by 2030, show a proactive attitude to sustainability. These measures not only help to advance the global sustainability agenda but also provide a model for industry peers. The findings show that while challenges exist, such as enhanced transparency and stakeholder engagement, they are not unsolvable. This thesis contributes to a better knowledge of the obstacles and potential for achieving sustainability in the fashion industry, highlighting Varner AS's major contributions to ethical and environmentally friendly practices.

5.1 Summary of Findings

Varner AS's dedication to sustainability runs throughout company operations, including environmental protection, social responsibility, and innovation. Collaborations with organizations like Canopy and Textile Exchange demonstrate Varner's commitment to sustainable material sourcing and responsible manufacturing processes. Notably, Varner's proactive commitment to waste reduction, circular economy principles, and end-of-life management establishes it as a pioneer in sustainable fashion innovation.

Collaborative initiatives with suppliers have helped to drive positive transformation throughout Varner AS's supply chain. Initiatives to reduce waste, prolong product lifecycles, and examine environmental impacts reflect Varner's dedication to building stronger supplier partnerships. Varner has effectively adopted sustainability measures throughout its supply chain by participating in industry-wide programs such as the Sustainable Apparel Coalition and the Zero Discharge of Hazardous Chemicals Programme.

Varner AS remains committed to aligning its supply chain practices with industry standards and developing innovative solutions to improve sustainability. Varner ensures that its operations align with global sustainability objectives by remaining up to speed on emerging trends and actively participating in programs such as the OECD Due Diligence Guidance and the UN Sustainable Development Goals. Furthermore, Varner is promoting innovation for sustainability by implementing traceability technologies and process mapping, as well as setting ambitious targets for the future.

In conclusion, Varner AS's initiatives to improve sustainability and efficiency in its fashion supply chain management, foster stronger supplier collaboration, and align with industry standards and best practices highlight its commitment to promoting positive change in the fashion industry. Varner AS intends to continue its journey towards sustainable supply chain management, setting new industry benchmarks and maintaining its position as a leader in Nordic fashion sustainability.

5.2 Implications and Recommendations

Considering these findings, the thesis proposes several recommendations. First, it urges Varner AS to promote transparency in its sustainability activities to foster trust and accountability. Additionally, it suggests investing more in technology to enhance sustainable sourcing and supply chain management efficiency. Finally, it emphasizes the need for increased involvement with stakeholders, including customers, suppliers, and regulatory bodies, to promote a collaborative environment for sustainable development.

This thesis contributes to the discussion of sustainable practices in the fashion industry, providing insights into the possibilities for transformative change. This research on Varner AS's approach to sustainability highlights the company's achievements and can inspire industry-wide moves towards more responsible and sustainable business practices.

5.3 Learning reflections

Doing research on this thesis has been a fascinating and transformative experience. Throughout the study process, I gained a better grasp of the complex relationships between sustainability and supply chain management in the fashion industry. It broadened my academic understanding and provided me with practical skills and more nuanced view on sustainability challenges. One of the most important takeaways was the complexity of adopting sustainability into supply chain practices. While the theoretical principles of sustainable fashion, circular economy, and ethical sourcing appear simple, they present significant challenges when applied in real-world scenarios. Varner AS's case study demonstrated how theoretical frameworks must be altered to meet practical restrictions and business realities. This underscored the importance of flexibility and innovation in developing sustainable strategies.

I also learned the crucial role of supplier collaboration in reaching sustainability goals. Effective communication, mutual trust, and long-term partnerships with suppliers are essential to execute

sustainable practices. The study indicated that maintaining such connections necessitates constant commitment and alignment of values and objectives between the organization and its suppliers. This insight emphasized the human element in supply chain management, where relationship-building is just as important as technology or procedural advancement.

In conclusion, this thesis has been a valuable educational experience, extending my understanding of sustainable supply chain management and improving my research skills. It has given me a better understanding of the complexities and challenges of implementing sustainability in the fashion industry, as well as the vital role that collaboration and innovation play in overcoming these barriers. These learnings will undoubtedly benefit my future professional endeavours in the realm of sustainability.

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Appendices

Appendix 1. Interview Questions

1. What sustainability initiatives is Varner AS currently implementing in its fashion supply chain?
2. Can you provide insights into how Varner AS approaches sustainable sourcing, product design, material selection, and end-of-life management?
3. How does Varner AS monitor and address environmental impacts within its supply chain processes?
4. How does Varner AS collaborate with its suppliers to reduce waste and extend product lifecycles?
5. What strategies or programs does Varner AS have in place to foster stronger collaboration and communication with suppliers?
6. Can you share examples of successful collaboration initiatives that have led to waste reduction or improved sustainability outcomes?
7. How does Varner AS ensure alignment with industry standards and best practices in sustainable supply chain management?
8. What measures does Varner AS take to stay updated on emerging trends and standards in the fashion industry sustainability?
9. Are there any specific challenges or barriers Varner AS faces in aligning its supply chain practices with industry standards?
10. What innovative solutions or technologies is Varner AS exploring to enhance sustainability in its supply chain?
11. Can you provide insights into any upcoming projects or initiatives aimed at further enhancing sustainability and efficiency?
12. How does Varner AS plan to integrate sustainability considerations into future supply chain strategies and operations?

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