

Navigating the Green path: The Scandinavian Outdoor Industry's Quest for Sustainability

PIA HEGGELUND

MARI BERG HERSDAL

SUPERVISOR

John A. Hunnes

University of Agder, 2023

School of Business and Law

Department of International Business

Preface

This master thesis was written as our final assignment, spring 2023, and marks the fulfillment of our Masters' Programme in International Business at the University of Agder, School of Business and Law.

The decision to write together came easy due to our shared interest of the outdoor industry as well as sustainable business practices. With the encouragement of our supervisor, we decided to write the thesis as an academic article, with the aim of it being published in the Journal: Environmental Economics. This motivated our work significantly as the end goal extended that of the thesis itself. However, this made the writing process demanding as it required us to be more critical and concise than what we were both used to from writing previous papers.

We would like to thank our supervisor John A. Hunnes for motivating and guiding us along this process. Writing an article-based thesis has required a close collaboration with our supervisor, to which we are most grateful. With this we stay optimistic towards the work ahead regarding publications. Lastly, we would like to recommend future students and supervisors to perform and to enable for this type of thesis as it allows for an increased understanding of academic research and writing, which we found very rewarding.

Kristiansand, 19.05.2023

Pia Heggelund

Mari Berg Hersdal

Abstract

This study delves into the contributions made by firms within the Scandinavian outdoor industry to promote sustainable business practices. The research problem arises from the growing significance of sustainability and circular economy (CE) in the retail sector, necessitating regular investigation of these themes. By addressing the limitations of prior research, including sample size and pricing strategies, this study aims to fill the gaps by examining a broader range of firms spanning different price ranges.

To achieve the aims, four key research questions have been formulated. Firstly, the study explores the role of the Sustainable Development Goals (SDGs) in motivating firms to adopt CE practices. Secondly, it investigates strategies employed by firms to initiate value retention, a fundamental aspect of CE principles. Thirdly, the study examines the eco-innovations embraced by these firms to drive sustainable initiatives. Lastly, it explores the interrelationships between value retention, eco-innovations, and SDG 12 (considering sustainable consumption and production patterns), aiming to deepen the understanding of how excelling in these areas can contribute to the achievement of sustainability goals.

The main contributions derived from this study is that more mature firms with higher revenues are closer to achieving a CE due to bigger investment opportunities, contradicting the pressing barrier of having a rigid company culture. Also, sufficiency marketing proves to be the most used method among firms to enlighten and engage their consumers when communicating in regards to sustainability. Lastly, firms seem to prioritize product development through waste management and product innovations, rather than implementing radical changes.

Key words: Sustainability, eco-innovation, value retention, outdoor industry, sustainable development goals

Sammendrag

Denne studien tar utgangspunkt og fordyper seg i den skandinaviske friluftindustrien og hva de gjør for å fremme bærekraftig forretningspraksis. Forskningens tematikk tar utgangspunkt i det økte fokuset, og den økende betydning av bærekraft og sirkulær økonomi i detaljhandelen, noe som igjen krever regelmessig undersøkelse av disse temaene. Ved å adressere begrensningene av tidligere forskning, i henhold til utvalgsstørrelse og prisstrategier, tar denne studien sikte på å undersøke et bredere spekter av firmaer, der disse spenner over forskjellige prisklasser.

For å nå målene i studien vår er det blitt formulert fire forskningsspørsmål. For det første utforsker studien rollen til bærekraftsmålene når det kommer til å motivere bedrifter mot å ta i bruk sirkulære økonomiske praksiser. Det andre forskningsspørsmålet undersøker hvordan firmaer arbeider med verdibevaring, et viktig aspekt i sirkulær økonomi. Tredje forskningsspørsmål har til formål å gjennomgå hvordan selskaper tar i bruk øko-innovasjoner for å fremme bærekraftige initiativer. Til slutt utforskes sammenhengen mellom verdibevaring, øko-innovasjoner og bærekraftsmål nummer 12, som omhandler bærekraftig forbruk og produksjonsmønstre. Ved sistnevnte spørsmål er intensjonen å utdype forståelsen av hvordan det å utmerke seg på de nevnte områdene kan bidra til å oppnå bærekraftsmålene.

Hovedbidragene fra denne studien er at mer erfarne bedrifter med høyere salgsinntekter virker til å være nærmere å oppnå en sirkulær økonomi grunnet større investeringsmulighet. Dette motsier den pressende barrieren av å ha en rigid bedriftskultur. I tillegg viser grønn markedskommunikasjon seg å være den mest brukte metoden blant firmaene for å opplyse og engasjere forbrukere når det kommuniseres om bærekraft. Avslutningsvis ser det ut til at bedrifter prioriterer produktutvikling gjennom tiltak som avfallshåndtering og produktinnovasjoner, i stedet for å implementere større og mer radikale endringer.

Nøkkelord: Bærekraft, øko-innovasjoner, verdibevaring, utendørs industrien, bærekraftsmålene

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Introduction

Unsustainable patterns of production and consumption are one of the most urgent environmental challenges the world faces (EU, 2020). Sustainability is universally defined by the UN Secretary-General (1987, p. 54) as: “Meeting the needs of the present without compromising the ability of future generations to meet their own needs”. However, by July 2022 humanity had already used all the biological resources that the Earth recreates during a year, exceeding what the Earth can regenerate next year (Earth overshoot day, 2023).

The concept of sustainability has also for some time been evident in the business world. In a study from 1995, the authors argued that sustainability could offer firms a competitive advantage, but at the time many feared it would have the opposite effect (Porter & Van der Linde, 1995). Since then, consumer behavior has changed. A report by McKinsey & Company (2018) called *The true gen report* shows that younger consumers represented by generation Z (those born between 1997 and 2012), are particularly concerned with transparency, inclusiveness, and sustainability. Keeping up with their consumers, firms need to deviate from the mindset that sustainability is not profitable (Porter & Van der Linde, 1995).

Among the industries often criticized for their huge environmental footprint is the textile industry, accounting for ten percent of the world's total greenhouse gas emissions (EU, 2020). As the damages caused by production and consumption are especially harming nature, outdoor firms have become more active when working on sustainability compared to other sectors (Fuchs & Hovemann, 2022). To secure sustainability, the concept of circular economy (CE) has surfaced where the focus lies on keeping resources within a so-called loop, reusing materials, instead of practicing the opposite linear economy, based on take-make-waste (Van Buren et al., 2016).

Knowing that firms in the outdoor industry are communicating their efforts in operating more sustainable, we aim to investigate what implications these efforts might have, bringing us to our research problem: *How are actors in the Scandinavian outdoor industry contributing to encourage sustainable business practices for both the industry and consumers?*

Our research problem is building on Ingulfsvann (2021) study on value retention and eco-innovations. Value retention options aim to retain a product's value within the economic system through activities such as recycling and reuse (Reike et al., 2022). Whereas eco-innovation is a business approach promoting sustainable solutions throughout the entire life-cycle of a product (Prieto-Sandoval et al., 2018). A reason behind the increase in innovation is to reach the sustainable development goals, which are developed by the United Nations to ensure peace and environmental growth for all (United Nations, 2023a). According to a KPMG study from 2018, 55% of reporting companies tend to focus on SDG 12 (Rashed, 2021), considering sustainable consumption and production patterns.

We however found Ingulfsvann (2021) research to have certain limitations, as it only considered five actors within the industry of choice, all operating with relatively high pricing strategies. Also, due to the continuous and rapid growth of sustainability and CE in the retail sector we argue that it is important to investigate the topic more regularly. Hence, our study will contribute to existing knowledge by investigating a larger number of firms, within different price ranges.

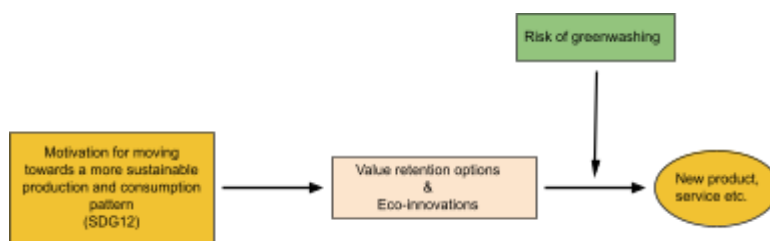
To our knowledge, only Ingulfsvann (2021) has done a similar study to that of our intention. Other relevant studies on the topic include Tunn et al., (2019) that explored different business models for sustainable consumption, Khaw-ngern et al., (2021) explored how retention options can be used as strategies to achieve a CE, and Kirchherr et al., (2018) investigated the barriers towards a CE in the EU.

To answer our research problem, we have defined four research questions. First, to what degree are the SDG motivating and contributing firms to achieve a CE? The SDG's are more frequently used as a fundament for firms to reach their overall goals (Rashed, 2021). Second, how are the firms initiating value retention? Retention options are key to a CE (Reike et al., 2022) and are already prevalent in the outdoor retail sector (Fuchs & Hovemann, 2022). Third, on which eco-innovations are the firms basing these initiatives on? As firms need innovations to become more sustainable, this question will provide us with valuable insights as to which innovations they are choosing to reenact (Prieto-Sandoval et al., 2018). Fourth, what is the relationship between retention, eco-innovations, and SDG 12? Adding to Ingulfsvann (2021) research, this will increase our knowledge regarding how excelling in retention and innovations can help to achieve sustainability goals like the SDG 12.

1. Literature review: Theory and earlier studies

To best answer the study's research problem we will provide an overview of the main concepts crucial for our research. The most fundamental concept is CE, but we will also address the SDGs, value retention options, eco-innovations, and greenwashing. These concepts have been chosen as they correlate. Before looking at how a CE can be achieved, we will look at why firms take such actions. One increasing motivation in the private sector is the SDGs, which today are often used as an overall goal for sustainable behavior (Rashed, 2021). This will indicate what type of retentions, i.e., circular activities are needed for the firm to reach said goals, which again requires innovation. Alas, circular behavior is difficult to implement and maintain, potentially resulting in greenwashing activities. In Figure 1, we have depicted the different concepts and how they relate to each other.

Figure 1. A firm's path towards Circular Economy.



1.1 Circular economy

CE has become an important topic in the later years, as demonstrated by the many articles written on the topic, resulting in several definitions. The definition used in this article is that of van Buren et al., (2016, p.3): “circular economy aims for the creation of economic value, social value as well as value creation in terms of the environment.”

To create economic, social and environmental value, the focus lies on keeping resources within a so-called loop, where in contrast to a linear economy the reuse of materials is definite (Van Buren et al., 2016). Fast fashion is for many the representation of the take-make-waste society as it is the constant delivery of new products at low prices, which has led to a huge increase in the quantity of clothes produced and thrown away. EU (2020) states that Europeans use 26 kilos of textiles and discard about 11 kilos of them every year.

Several firms in the outdoor sector refrains from following trends and using poor quality to avoid such environmental consequences. This enthusiasm and adoption of more circular business models is rooted in the fact that sustainable development is becoming a mainstream priority in several markets, as well as growing consumer awareness on sustainability (Gossen & Kropfield, 2022).

In spite of this uptake in the circular way of thinking, limited progress has been made in terms of how it is being implemented. Kirchherr et al., (2018) found several barriers to the implementation, where three among the most pressing were: lacking consumer interest and awareness, rigid company culture and operating in a linear system. According to Gossen & Kropfield (2022) the latter is still the dominant barrier in the outdoor sector.

In addition to the circular and linear economy, there is also a recycling economy. This economy allows one to reuse certain materials through recycling, but is not altogether circular as it still produces waste (Van Buren et al., 2016). Firms within the outdoor sector are communicating their actions towards a green shift, indicating an uptake of a recycling economy, and the aim of having a CE. One increasing motivation to achieve such a shift is the SDGs.

1.2 The Sustainable Development Goals

The SDG 12 considers sustainable production and consumption patterns and is particularly important in our context as it is often used as motivation for innovation and overall performance among outdoor actors (Rashed, 2021). SDG 12 consists of eight targets and indicators (United Nations, 2023b), see Table 1.

Table 1. SDG 12, Targets 12.1-12.8. Source: United Nations (2023b).

Target	Aim & indicators
12.1	Implementation of long-term sustainability frameworks which aims to support the shift towards more sustainable consumption and production.
12.2	Achieve sustainable management and efficient use of natural resources. Indicators include measuring of material footprint and material consumption.
12.3	Halve the retail and consumer levels of food waste and food loss.

Target	Aim & indicators
12.4	Reaching a sound management of chemicals and other wastes throughout their life cycle. Indicators are certificates and partnerships concerning harmful chemicals.
12.5	Reducing waste generation by retentions such as refuse, reduction, recycling and reuse.
12.6	Encourage firms to implement sustainable practices and to include sustainability information reporting.
12.7	Promote sustainable public procurement practices that are sustainable and in accordance with national policies and priorities.
12.8	Ensure that people everywhere have the relevant information and awareness for sustainable development through providing transparent and accurate information.

The first target, 12.1 is to implement what the UN calls the 10-year framework of programmes on sustainable consumption and production patterns. This is a global framework aimed at developing, replicating and scaling up sustainable consumption and production, whilst decoupling environmental degradation and resource use from economic growth. Long term frameworks like this can be used to understand the actions firms need to take going forwards.

Target 12.2 considers the resource management throughout the supply chain, potentially leading to an overall reduction in a firm's environmental footprint. 12.3-12.5 include waste management and reduction, concerning food, chemicals, and other wastes. An example in the outdoor sector is technical wear, which has long been reliant on harmful chemicals to achieve their desired attributes (Luo et al., 2021).

The last three targets, 12.6-12.8 focus on communication regarding sustainable behavior, ensuring that all information given is correct, included and encouraging. This is meant so that consumers have all the relevant information needed to make informed purchasing decisions, and includes all public information and marketing efforts that a firm provides. The next section will present what activities are needed for a firm to approach and achieve said goals.

1.3 Resource value retention options

Being able to operate within a closed resource system, firms need to implement different resource value retention options. These are activities related to creating economic and social value whilst protecting the environment. Reike et al. (2022) states that the common three

retention options (reduce, reuse and recycle) is too narrow when targeting today’s challenges, and suggests ten R’s, offering a broader picture (see Table 2).

Table 2. Value retention options, R0-R9. Source: Reike et al., (2022)

Loop	Retention options	Description
Short	R0, <i>refuse</i>	Refrain from using and/or purchasing certain materials to prevent waste creation.
	R1, <i>reduce</i>	Reduce the amount of resources used in production, or a reduction in a customer’s purchasing behavior.
	R2, <i>resell/reuse</i>	Brings products back into the loop by reselling or reusing items after initial use.
	R3, <i>repair</i>	Aims to extend the lifetime of a product, and can be done by the customer, the producers, or a repair company.
Medium	R4, <i>refurbish</i>	Overall upgrade of a product, where several components are replaced or repaired, while the main components are intact.
	R5, <i>remanufacture</i>	When the entire structure of a product is disassembled, checked, cleaned, and if necessary, replaced or repaired.
	R6, <i>repurpose</i>	Materials gain a new life cycle by reusing discarded products for another purpose.
Long	R7, <i>recycle</i>	The handling of mixed streams of post-consumer or post-producer waste streams, that can be reapplied anywhere.
	R8, <i>recover</i>	The capturing of energy from waste materials.
	R9, <i>remine</i>	Retrieving of materials after the landfilling phase.

The R’s are divided into three loops; short, medium and long. The short loop, R0-R3 exists close to the consumer, and can be connected to an actor engaged in prolonging the lifespan of the products. A concept related to R0 and R1, and often associated with the outdoor sector is sufficiency. That is, avoiding overconsumption and reducing the use of scarce natural resources (Gossen & Kropfeld, 2022). One can also use the term sufficiency marketing, where producers actively discourage consumers from buying more than they need. R2, resell and reuse are often linked, and an example from the outdoor industry is the use of third parties, such as the Scandinavian secondhand app Tise. Here both consumer and company can be a part of a new marketplace, bringing products back into the loop (Tise, 2023).

The concepts R4-R6 is a part of medium long loops, where products are upgraded, and producers become involved again. These R’s often require longer processes than repair does,

and key terms are rethinking and redesign. Measures done by outdoor firms at this stage include; do it yourself workshops and limited editions from leftover materials.

The remaining R's, R7-R9 occur in long loops, where products lose their original function. Among these, recycling is particularly relevant as it is being practiced by most outdoor retailers today. An important note is that all the retention options are linked together and the possibilities for retention strategies depend on choices made in the design and production process, which will require innovations.

1.4 Eco-innovations

Eco-innovation is directly linked to the success of CE, as innovations can refine systems capability and close material loops (Prieto-Sandoval et al., 2018). What separates eco-innovation from other innovation is that the solutions created are meant to fulfill human and nature needs in sustainable ways (Hofstra & Huisingh, 2014). Based on the four most recognized types of innovation in the Oslo Manuals (OECD, 2005), and the ten innovation types suggested by Keeley et al., (2013), a typology of eight different eco-innovations specifically targeting how a CE can be achieved has been developed by Prieto-Sandoval et al., (2018). See Table 3 for an overview.

Table 3. Eco-innovations E1-E8. Source: Prieto-Sandoval et al. (2018)

Eco-innovations	Description
E1, Business model innovation	New ways of converting a firm's offerings to revenue.
E2, Network innovations	Creating new solutions through external relationships.
E3, Organizational structure innovations	Developing new organizational and management practices that are meant to support environment strategies.
E4, Process innovations	How a firm produces its products, and ultimately intends to find new and better ways to do so.
E5, Product innovations	How a product can be developed in more sustainable manners and includes overall quality and function.
E6, Service innovations	Allowing for a product to be used multiple times by different consumers through subscriptions and rental services.
E7, Market innovations	Developed through promotion channels and have the intention to communicate brand values and the positioning of their products.
E8, Customer engagement innovations	Emphasize the experience of consumers, and intend to meet the desires of consumers through engagement.

Firms that are able to implement business model innovations (E1), have been seen to increase competitiveness, financial efficiency, and overall profitability (Prieto-Sandoval et al., 2018). This is because they are creating and capturing value through new methods of production, as well as communication, which consumers consider valuable. An example of such a model among the outdoor industry is decreasing ownership through rental services. Survey shows that consumption is gaining a new meaning among generation Z, where it is more important to have access to products or services, rather than owning them (McKinsey & Company, 2018).

Network innovations (E2) allows firms to combine their resources and knowledge. The Scandinavian Outdoor Group (SOG) is an example of such a network, where firms within the outdoor sector work together to create industry best practices (SOG, 2023). Process, product, and service innovation (E4, E5 and E6) are usually combined with the R's reduce, reuse, and recycle, but approached through different methods. For example the retention reduce within process innovation can be the creation of new substances to replace chemicals in production, whilst in product innovation it could be to use less virgin materials.

Market and customer engagement innovation (E7 and E8) are both related to customer awareness. The former creates value for customers through showing company values and positioning. Sufficiency marketing can be used to promote these aspects. The latter, E8 is concerned with engaging their consumers, where reselling is among the most common.

Thus far we have seen why firms are looking to develop a CE and how it can be achieved, which is a demanding task. Hence, there is a risk that firms will make themselves look better than they are in regards to sustainable behavior. This brings us to the concern and common pitfall that is greenwashing.

1.5 Greenwashing

According to Fuchs & Hovemann (2022), the outdoor sector is showing more concern regarding the environment than others within the retail industry, and some firms are even considered forerunners when it comes to sustainable behavior. However, a common issue found is that what is being communicated is not in line with actual behavior. Greenwashing can therefore be said to occur when a firm's communication and actions are contradictory (Delmas & Burbano, 2011).

Greenwashing can also occur through selective disclosure, which is when a firm only disclose positive information while withholding disadvantageous information (Lyon & Maxwell, 2011). Such activities can result in consumers being misled through firms' communication strategies. As mentioned, transparency is one of the most valued behaviors among generation Z, likely making it harder for firms to get away with greenwashing activities.

2. Methodology

2.1 Research setting

The research conducted in this paper has the intention to contribute to existing knowledge on how the outdoor industry is moving towards a CE. In particular, we want to extend Ingulfsvann (2021) study, by researching a wider selection of firms operating in the Scandinavian outdoor industry. To enable this, and in addition allowing us to best answer our research problem, we chose to conduct a document analysis. The document analysis is a qualitative research method where one systematically reviews and evaluates documents (Bowen, 2009). Although this method is often conducted in combination with other research methods, it can be useful on its own in cases where one is *not* in need of more data than the documents retrieved will provide.

2.2 Data collection

The firms chosen for our study are mainly collected from the SOG, which consists of 70 Scandinavian outdoor brands. The reason for selecting firms from this association is to provide credibility, as SOG is a well-known coalition housing well-respected manufacturers

(SOG, 2023). Enabling a larger sample we have also included other well known outdoor firms who are not members of SOG. See Table 4 for a full overview of firms researched. Note that Lundags is owned by Brav, meaning that the revenue reflects Brav's income as a whole. Extending Ingulfsvann (2021) research we included a larger variety of prices. The price range is divided into low, medium, and high, and is defined in relation to each other.

Table 4. Overview of all firms researched, listed by revenue.

Brand	Country of origin	Founded in year	Sale revenue in 1000 NOK, 2021	Products	Price range
Helly Hansen	Norway	1877	2 914 000	Apparel and bags	Medium/high
Revolution race	Sweden	2014	1 380 561	Apparel, backpacks and shoes	Medium
Fjällräven	Sweden	1960	959 900	Apparel and hiking-gear	High
Norrøna	Norway	1929	613 821	Apparel and hiking-gear	High
Bergans	Norway	1908	510 206	Apparel and hiking-gear	Medium/high
Peak Performance	Sweden	1986	284 453	Apparel	Medium
Stormberg	Norway	1998	268 000	Apparel and hiking-gear	Low
Twentyfour	Norway	2006	265 718	Apparel	Medium/Low
Lundhags	Sweden	1932	242 683	Apparel and bags	Medium
Didriksons	Sweden	1913	193 800	Apparel	Medium/high
Pinewood	Sweden	1996	182 061	Apparel	Medium/low
Skogstad	Norway	1937	174 348	Apparel	Low
Houdini	Sweden	1993	157 670	Apparel	High
Klättermusen	Sweden	1975	114 792	Apparel and bags	High
Haglöfs	Sweden	1914	109 700	Apparel and hiking-gear	High
Tenson	Sweden	1951	64 719	Apparel and backpacks	Medium/low
Nordisk	Denmark	1901	56 847	Apparel and hiking-gear (tents)	Medium/low
Tierra	Sweden	1983	52 644	Apparel	Medium/high

Brand	Country of origin	Founded in year	Sale revenue in 1000 NOK, 2021	Products	Price range
Beyond nordic	Sweden	2019	31 541	Apparel and backpacks	Low
Röyk	Sweden	2010	4 008	Apparel	Medium

The documents used in our research are firms' websites and public reports. Using only public information ensures that all the firms are evaluated based on the same terms. Bowen (2009) specified that even though documents contain a lot of data, one should be cautious as they may not always be accurate, which in our case is why the ethical problem of greenwashing is especially important to consider.

The public information available varied in terms of quantity. Some actors have published extensive information as well as sustainability reports, whilst others offer limited insights. Also, there is a vast difference in how the firms are presenting themselves, where some seem to be more transparent, including information regarding what they are not doing well, as opposed to some stating to be excellent on most accounts. Both of which need to be taken into consideration when interpreting the data collected.

To depict the differences in quantity and quality we categorized the information as low, medium and high. In regards to quantity, low was given if the information available included a brief introduction of the firm's sustainability work, whereas medium was given to those who gave detailed information about said work. If the firm also included informative reports they received a high score. When considering the quality of the data, low represented simplistic information restricted to the website, for example when details regarding actual behavior and strategy were lacking. Medium includes information regarding different measures considering their risk analysis and time specific goals. To receive a high score the firm must also provide numeric information regarding their environmental impact, as well as credible references (see Table 5).

Table 5. Source of data collection.

Brand	Website	Sustainability reports	Blog	Quantity of information	Quality of information
Helly Hansen	x			Medium	High
Revolution race	x	x		High	Medium/High
Fjällräven	x		x	Medium	Medium
Norrøna	x	x	x	High	Medium
Bergans	x			Medium	Medium
Peak Performance	x	x		High	High
Stormberg	x	x	x	High	Medium
Twentyfour	x	x		Low	Low
Lundhags	x			Low	Low
Didriksons	x	x		High	High
Pinewood	x			Medium	Low
Skogstad	x			Medium	Low
Houdini	x	x		High	High
Klattermusen	x			Medium	High
Haglöfs	x	x		High	High
Tenson	x	x		Medium	Medium
Nordisk	x			Medium	Medium
Tierra	x			Medium	High
Beyond Nordic	x			Medium	Medium
Röyk	x			Medium	Medium/low

2.3 Data analysis

When performing a document analysis, one goes through the following steps: skimming, reading, and interpreting (Bowen, 2009). The authors started by mapping out where to find relevant information, then divided the sample set and read the information thoroughly. The information found was categorized into three tables covering the 10R's, the eco-innovations and the targets of SDG 12. This was followed by a quality control of the other author's findings. Among these topics, not all retention options, eco-innovations, and SDG targets hold the same relevance to the outdoor sector and will not be presented in the results. These are R4, R5, and R8, E3, and SDG target 12.3, and 12.7.

To ensure that the firms were evaluated equally, guidelines were defined for each retention option, eco-innovations and SDG target. For example, for a firm to fulfill the SDG, target 12.2, they needed to provide numeric information showing a positive trend in their environmental footprint over the past time period. This means that some of the firms evaluated could have a positive trend in emissions, but are not evaluated as such as they have not published said information. However we found it necessary to set consequential criteria to decrease the risk of being subject to greenwashing.

3. Findings and discussion

This section presents the findings in a systematic manner, aligning with the structure of the literature review (SDG 12, value retention options, and eco-innovations). To enhance clarity and facilitate comparison, a table overview of the firm's score on each topic precedes an analysis of their interrelationships. The discussion is guided by the four research questions to better enlighten and answer our research topic: *How are actors in the Scandinavian outdoor industry contributing to encourage sustainable business practices for both the industry and consumers?*

3.1 SDG 12 as motivation

From the findings, we discern the varying levels of focus firms place on specific SDG 12 targets, identifying those with the highest and lowest priority which is the order they will be presented. All firms but Beyond Nordic fulfilled target 12.4 (waste of harmful chemicals), and all but TwentyFour and Tenson fulfilled target 12.5 (reducing waste generations). Waste in regard to harmful chemicals seems to be harder for firms offering technical wear with special attributes, such as extreme weather repellent jackets from Didriksons or ice climbing gear from Norrøna. Still, they fulfill the target as they have been able to refuse the use of certain chemicals. Firms that have implemented at least half of the retentions refuse, reduce, recycle, or reuse have been classified as fulfilling target 12.5. However, only three firms; Bergans, Haglöfs and Houdini have implemented all mentioned retention options and are among the highest ranking firms overall (see Table 6).

Twelve of the firms fulfilled target 12.6 (reporting). The reports vary vastly in content, where Didrikson, Haglöfs, Houdini and Peak Performance are all very detailed, making them among the highest achievers when considering target 12.8 (inform). Other firms only offer general information, without any indication of the firm's activities to support their claims. Some examples that have been used by many are; claiming that they make products to last, wanting to make the world better and that products should be passed on when a customer grows tired of them. General statements and encouragements without offering solutions is more in line with sufficiency marketing as presented by Gossen & Kropfeld (2022).

Nine firms fulfilled target 12.1 by presenting long term frameworks of their goals. Norrøna, Didriksons and Houdini all present a very detailed framework. The firms that did not fulfill this target are communicating general goals without any timetable or strategy behind them, again making it more of a branding tactic. The target that most firms missed was regarding their material management (12.2), where only Didrikson and Houdini provided numeric information showing a decrease in their environmental footprint. The two firms are the only ones to receive a 100% score on the SDG 12 (see Table 6). Haglöfs also claims to be carbon neutral through compensating activities. Still, as presented in their reporting, emissions related to their own activities are increasing, meaning they did not fulfill the target (Haglöfs, 2021, p. 44). This does however strengthen their credibility in regards to target 12.8.

Based on these findings: to what degree are the SDG motivating and contributing firms to achieve a CE? From our analysis there is a correlation between score percentage (see Table 6) and circular solutions implemented within a firm which will be demonstrated in the next sections. Along with sustainable behavior, the firms who received a 83% score or higher all present valid information on sustainable action, indicating that the firms who do well on this goal are closer to achieving a CE than those with lesser results.

Firms with lower scores are also incorporating sustainable behavior, but pay more attention to product development rather than shifting bigger processes. This aligns with the KPMG (2018) study claiming that the SDG works as a motivator for firms to act more sustainable (Rashed, 2021). The firm's means in terms of revenue (see Table 4) could also influence this aspect, considering that younger and less mature firms might not have the same investment opportunities as their older and more established counterparts. However, considering one of

Kirchherr et al., (2018) pressing barriers of CE, a rigid company culture, it would have been plausible that the results in fact were opposite.

Table 6. Firms performance on SDG 12 targets 12.1-12.8. Sorted by firms overall score.

Brand	12.1 - Long term framework	12.2 - Material management	12.4 - Waste (1)	12.5 - Waste (2)	12.6 - Reporting	12.8 - Inform	Overall score in %
Didriksons	1	1	1	1	1	1	100%
Houdini	1	1	1	1	1	1	100%
Bergans	1		1	1	1	1	83%
Haglöfs	1		1	1	1	1	83%
Helly Hansen	1		1	1	1	1	83%
Norrøna	1		1	1	1	1	83%
Peak Performance	1		1	1	1	1	83%
Revolution race	1		1	1	1	1	83%
Stormberg			1	1	1	1	83%
Tierra			1	1	1	1	66%
Fjällräven			1	1		1	50%
Lundhags			1	1		1	50%
Röyk			1	1		1	50%
Beyond Nordic	1			1			33%
Klattermusen			1	1			33%
Nordisk			1	1			33%
Pinewood			1	1			33%
Skogstad			1	1			33%
Tenson			1		1		33%
Twentyfour			1		1		33%
Overall score in %	45%	10%	95%	90%	60%	65%	

3.2 Implementation of value retention options

After identifying the sustainability goals pursued by the firms, it is crucial to implement actions to achieve them, leading us to our next research question: How are firms initiating value retention? Among the twenty firms, R7 (recycling) is the most prevalent retention, with 90% implementation (see Table 7). Most firms implement this by using recycled materials, while others are working on creating products easy to recycle at the end of their life-cycle.

Houdini seems to be the firm to have come the farthest in terms of recycling, where 85% of their latest collection is made from recyclables of which 39% is also biodegradable (Houdini, 2023). Still, not all of those making products easy to recycle are offering a way for the customer to do so, requiring customers to find actors who collect used materials. Ta et al., (2022) claims that knowledge or incentives by the firm affect a customer's sustainable behavior patterns, making it plausible that the lack of such solutions makes the customer less likely to recycle their textiles.

Refuse, reduce and repair (R0, R1 and R3) are also implemented by a majority of the firms. All 15 firms to have implemented R0 are refusing the use of certain harmful chemicals, and some are also refusing the use of animal based materials such as fur and leather. For instance, Stormberg has refrained from even producing faux fur as it supports the trend of fur. Out of the 14 firms who are reducing their use of materials, all claim to do so by producing fewer products that last longer, using the term "lasting a lifetime". A few firms, like Didriksons does in fact offer life-long repairs, but for others, it is unclear what a lifetime actually means and can simply be another form of sufficiency marketing.

The brands that are most concerned with longevity have all received a 57% score or higher (see Table 7) and are among the higher priced brands. Repair services are offered by 13 of the firms, both in shop and online. Helly Hansen, combines repairs with communication efforts by providing customers with detailed instructions on how to fix their garments themselves, accompanied by a repair kit included with the purchase. There is also a connection between the generosity of the repair solutions and those that value longevity, strengthening the credibility of those firms on the matter.

The focus on longevity is also reflected by the increase in second-hand alternatives (R2), which eight firms have implemented. Stormberg have implemented their second-hand market differently to the rest. They collect used products from customers which are then sent to a Norwegian prison where the inmates are offered work training and receive a work certificate to repair the garments before they are resold in two of the firm's stores. As the second-hand market is increasingly attractive among young consumers (McKinsey & Company, 2018), Bergans and Twentyfour have also embraced the Tise platform. Repurpose (R6), is another retention gaining attention, but only Bergans and Haglöfs have implemented it, however most focus on repairing or reusing garments to create new ones instead. Remine (R9) is a retention

only Norrøna and Houdini have implemented. The retention is linked to the firm's recycling activities, where Norrøna for instance uses regenerated nylon from landfills and oceans.

In our second research question we ask how firms are initiating value retention. To this question we can conclude that firms mostly implement retentions that specifically target their products. This supports Reike et al., (2022) notion that retention strategies mostly depend on choices within the design and production processes. The choice for implementation also reflects the most common retention types; reduce, reuse and recycle along with refuse and repair.

Table 7. Firm degree of implementation of value retention options, R0-R9. Sorted by firms overall score.

Brand	R0 - Refuse	R1 - Reduce	R2 - Resell/re use	R3 - Repair	R6 - Repurpose	R7 - Recycle	R9 - Remine	Overall score in %
Bergans	1	1	1	1	1	1		86%
Haglöfs	1	1	1	1	1	1		86%
Houdini	1	1	1	1		1	1	86%
Norrøna	1	1		1		1	1	71%
Didriksons	1	1		1		1		57%
Fjällräven	1	1		1		1		57%
Helly Hansen	1	1		1		1		57%
Klattermusen	1		1	1		1		57%
Peak Performance	1	1		1		1		57%
Revolution race	1	1		1		1		57%
Lundhags		1		1		1		43%
Nordisk		1		1		1		43%
Pinewood		1	1			1		43%
Stormberg	1		1			1		43%
Tierra	1			1		1		43%
Beyond Nordic		1	1					29%
Röyk			1			1		29%
Skogstad	1					1		29%
Tenson		1				1		29%
Twentyfour	1		1					29%
Overall score in %	70%	70%	45%	65%	10%	90%	10%	

3.3 Needed eco-innovations

Innovations are needed to implement new solutions, bringing us to the third research question: On which eco-innovations are the firms basing these initiatives on? The eco-innovations most firms focus on are product-, network-, market- and process innovation (E5, E2, E7 and E4) in the listed order (see Table 8). Product innovation (E5) is based on making products last longer by creating high quality and functional products, “high quality” raises the same question as longevity, since it is rather subjective. To implement such solutions many of the firms are working together through networks (E2), both within the industry and with third party collaborators.

Out of all 20 firms, 17 successfully meet the criteria of E7 by effectively communicating their values. As an illustration, Bergans organized a fashion show in their stores featuring redesigned products on Black Friday 2020, serving as a demonstration against the year's biggest sale event that promotes fast fashion. However, brand values and action do not always seem to align. Some firms are for instance communicating green values, while still embracing campaigns such as Black Friday. Sufficiency marketing such as this can likely reduce a firm's credibility, an important factor for generation Z (McKinsey, 2018).

Customer engagement (E8) is implemented by eight of the firms (see Table 8). Stormberg, Houdini and Bergans are creating engagement with and from their customers through in-store recycling, where they encourage customers to deliver their used garments to be recycled. In return the customer receives a value voucher that can be used in their stores. According to Grębosz-Krawczyk et al., (2019), this increases brand value among consumers, making it coherent with E7. The most common method of encouragement is however through sufficiency marketing. Peak Performance (2023) embraces this form for communication, and is exemplified on their website: “STILL WANT A NEW JACKET, DESPITE WHAT YOU’VE JUST LEARNED? That’s great. But we’ve seen your current one, and it looks fantastic too.”

Only two firms, Bergans and Houdini, have successfully implemented E1 (business model innovation) and E6 (service innovation), yet another trend that McKinsey & Company (2018) study shows to have increasing importance among generation Z. As we have considered the offering of rental and subscription as new business models within the sector, Bergans and

Houdini have also fulfilled the terms for E1, thus being the only firms to receive a 100% score on eco-innovations (see Table 8).

The third research question; On which eco-innovations are the firms basing these initiatives on? offer similar insights as the second as the product itself is prioritized through eco-innovation E4, E5 and E2. Communication (E7) is both a strategy used to highlight the firm's actions overall, and a way for them to further engage their audience (E8). Sufficiency marketing has proved to be the most used method among all firms, which holds the potential to both strengthen and weaken a firm's credibility.

Table 8. Firms implementation of eco-innovations E1-E8. Sorted by firms overall score.

Brand	E1 - Business model	E2 - Network	E4 - Process	E5 - Product	E6 - Service	E7 - Market	E8 - Customer engagement	Overall score in %
Bergans	1	1	1	1	1	1	1	100%
Houdini	1	1	1	1	1	1	1	100%
Didriksons		1	1	1		1	1	71%
Norrøna		1	1	1		1	1	71%
Revolution race		1	1	1		1		71%
Fjällräven		1	1	1		1		57%
Haglöfs		1	1	1		1		57%
Helly Hansen		1	1	1		1		57%
Klattermusen		1	1	1		1		57%
Nordisk		1	1	1		1		57%
Peak Performance		1		1		1	1	57%
Pinewood		1	1	1		1		57%
Röyk			1	1		1	1	57%
Stormberg		1		1		1	1	57%
Beyond Nordic				1		1	1	43%
Skogstad		1	1	1				43%
Tenson		1					1	43%
Tierra		1		1		1		43%
Twentyfour		1		1				29%
Lundhags				1		1		29%
Overall score in %	10%	85%	65%	95%	10%	85%	45%	

3.4 Relationship between SDG 12, retention options, and eco-innovations

In this section we address the fourth and final research question: What is the relationship between retention, eco-innovations, and SDG 12? Table 9 illustrates the relationships revealed by our analysis based on SDG 12, showing which retention options and eco-innovations correspond to each target.

Table 9. Relationship between SDG 12, retention options, and eco-innovation

	12.1 - Long term framework	12.2 - Material management	12. 4 - Waste (1)	12.5 - Waste (2)	12.6 - Reporting	12.8 - Inform	
Value Retention Options	R0	R0	R0	R0	R0	R1	
	R1	R1	R1	R1	R1	R2	
	R2	R2		R2	R7	R7	
	R3	R3		R7	R9		
	R6	R6					
	R7	R7					
	R9	R9					
Eco-innovations	E1	E1	E2	E1	E2	E7	
	E2	E2	E4	E2	E7	E8	
	E4	E4	E5	E4			
	E5	E5		E5			
	E6	E6		E6			
	E7	E7					
	E8	E8					

From the findings it seems that the firms providing detailed long-term frameworks (12.1) invest more resources in network, process and product innovation (E2, E4 and E5). Targeting specific retention options such as refuse, reduce and recycle (R0, R1 and R7). For example, Norrøna is investing in the development of chemical free materials along a network of suppliers, aligning with their sustainability goals. The investment activity correlates with the firms that have higher revenue, but also to those with higher priced products (see Table 5). Target 12.1 is however likely to hold an influence on all retention options and eco-innovation, since the firms with concrete frameworks seem to work more systematically towards specific goals. Target 12.2, material management can also be said to have a direct impact on all areas, as all retention options and eco-innovations in some way influence the firm's overall environmental footprint.

Both targets regarding waste (12.4 and 12.5) have a high correlation with the retention options refuse and reduce (R0 and R1) as the firms seem to prioritize waste solutions regarding their products. Targeting waste solutions, process- and product innovation is mostly used (E4 and E5). This is evident as new production methods and materials are used to

implement such retentions. One way to achieve new methods is by learning from others, also making network-innovation (E2) relevant at this stage. In addition, target 12.5, concerning waste behavior specifically mentions reuse and recycling (R2 and R7) as ways to reduce waste generations. Being able to implement R2, innovations such as rental or subscription is used, which alter the overall business model of the firm (E1 and E6).

The target concerning reporting (12.6) is meant to hold firms accountable, and to keep consumers well informed. Therefore, the accuracy of a firm's reports also affects their performance on target 12.8 (inform). Sustainability reporting is a new concept for many firms, and third-party organizations are often used to contribute to their risk assessments and reporting, showing a correlation between the target and network innovation (E2). The quality of the information included is important, and the firms with a high quality score (see Table 5) included retention R0, R1, R7 and R9, presenting numerical information even when the numbers were showing unfavorable outcomes. This also includes market-innovation (E7) as the reports usually contain the firm's overall goals, vision, and values. The last target (12.8) correlates with the same retention options as 12.6, as these topics are considered valuable for the consumer and are implemented through market- and customer engagement innovations (E7 and E8).

Based on the correlations presented: What is the relationship between retention, eco-innovations, and SDG 12? The findings support the notion that the more mature firms with higher revenue are more likely to invest in sustainable processes beyond that concerning the product, and are usually the ones with detailed frameworks. Furthermore, there is a correlation between the firm's price range and how goal oriented they are towards certain specializations. Our analysis also demonstrates that product improvement is the most implemented solution, and probably the most feasible option for most firms. The retention options and eco-innovations with highest correlation to the SDG targets are, R0, R1, R2 and R7, and E2, E4, E5 and E7 (see Table 9).

3.5 Comparison to previous studies

Even though Ingulfsvann (2021) study was conducted three years prior to our study, Bergans, Fjällraven, Houdini and Haglofs scored relatively similarly in regards to value retention options and eco-innovations. The differences found from Ingulfsvann study to ours was that Fjällräven did not fulfill the criteria for the retention resell/reuse. The same brand did not

meet the requirements of network innovations in Ingulfsvann study, but did in our research. Furthermore, Ingulfsvann rewarded Haglöfs with E1, business model innovation. Haglöfs did not meet these requirements in our research, but did fulfill network innovations which they did not in Ingulfsvann study. These differences are likely to be the result of change over time, demonstrating the importance of frequent research on the topic. Ingulfsvann (2020) further commented, similar to our observation, that the pressing barrier of hesitant company culture seems to have been overcome.

Lastly, Ingulfsvann (2021) presented a limitation to his research, being that the five brands he studied were quite expensive, and that it was therefore doubtful that the aspects researched would apply for low-cost brands. Having researched a bigger selection of firms, operating within different price ranges, we can somewhat confirm this assumption. For instance, the more expensive firm Norrøna fulfilled 71% on the resource value retention options and the eco-innovations, whereas the lower priced firms TwentyFour and Beyond nordic only fulfilled 29%. The most surprising finding, where Ingulfsvann's assumption did not hold, was with Fjällräven. This firm operates with a high price range, but did not fulfill more than 57% on neither value retention options nor the eco-innovations.

4. Conclusions

This study examined how a firm's motivation regarding SDG 12 correlates with their sustainability activities when considering implementation of retention options and eco-innovations. To our knowledge, this is the first study to explore value retention and eco-innovations in light of SDG 12, contributing to a better understanding of firm's motivations for sustainable action than previous studies.

The findings make several contributions regarding CE in the outdoor industry. They indicate that more mature firms with higher revenue are closer in achieving a CE than less mature firms that operate with smaller revenue. This contradicts the pressing barrier of having a rigid company culture, and indicates that implementing sustainable actions require large investments in addition to business experience. Throughout the research, sufficiency marketing proved the most repetitive amongst the firms sustainability communication

methods. The method has been seen to both strengthen and weaken the firm's credibility in different contexts, but when used in line with the firm's actual behavior this is a tool that can be applied together with all SDG targets, retention options, and eco innovations.

The findings further demonstrate that the SDG targets covering waste, and the retentions and eco-innovations concerning product development are the most prominent within the industry. This indicates that altering the products in terms of making them more sustainable is easier to achieve for firms than altering internal business processes such as service innovations.

Considering the cost of sustainable investments, a solution for less mature firms could be to implement network innovations to a higher degree, allowing them to share expenses and knowledge with others in the industry. Defining specific long-term goals and working with concrete numbers seems to enable firms to become more specialized, and thus easier adaptable to new sustainable solutions. Furthermore, the study highlights some increasing consumer trends in which the firms potentially could benefit from. This includes prioritizing development on larger processes such as rental and second-hand options.

For future research we suggest exploring a bigger selection of firms worldwide, as this study was limited to 20 Scandinavian firms. This could provide a better picture on how the outdoor industry is affected as a whole. Exploring the customer perspective is another potential research avenue that can provide valuable insights to firms regarding consumer preferences and priorities. Ultimately guiding firms in effectively allocating their investments for a sustainable future.

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Addendum

Introduction

This second part of the thesis serves as an addendum that aims to provide further clarification and elaboration on the theoretical and methodological considerations that were made during the research process. The purpose of this addendum is to offer a deeper insight into the research methodology employed and to highlight the underlying theoretical framework that guided the study. In doing so, this section aims to strengthen the rigor and validity of the research findings presented in the research article. Moreover, this addendum also reflects on the process of writing an academic research article aimed at a specific journal. Through this reflection, we aim to share our learning experience and provide valuable insights and recommendations for future students choosing to write an article-based master thesis.

1.0 Theoretical considerations

As the articles in the journal we sought to publish in were approximately between 4000 and 6000 words, we wished to not exceed this word count. This meant that we could neither include every theoretical aspect we wanted, nor elaborate as much as we wished. Therefore, this section will clarify why certain choices were made, and explain the underlying framework that guided our study.

We encountered uncertainty in selecting the foundation for our research, deliberating between focusing on the subject of sustainable business models or that of the circular economy. However, as circular economy was the topic we perceived would enable us the most insight only using the websites of firms, it was arguably more reasonable to pursue. Furthermore, as we wished to extend Ingulfsvann's research (Ingulfsvann, 2021), we needed to find yet another aspect to explore, in addition to resource value retention options and eco-innovations. After researching potential aspects, the decision fell upon adding sustainable development goal 12 (SDG12), as this goal, which considers responsible production and consumption patterns (United Nations, 2023), is highly relevant for the textile industry. Europeans alone use nearly 26 kilos of textile

every year, causing the textile industry to thrive off consumption and thus produce in ways often *not* considered responsible (EU, 2020).

To showcase how the three theoretical aspects, SDG12, resource value retention options and eco-innovations correlates, we constructed the following framework.

Figure 1. A firm's path towards Circular Economy.

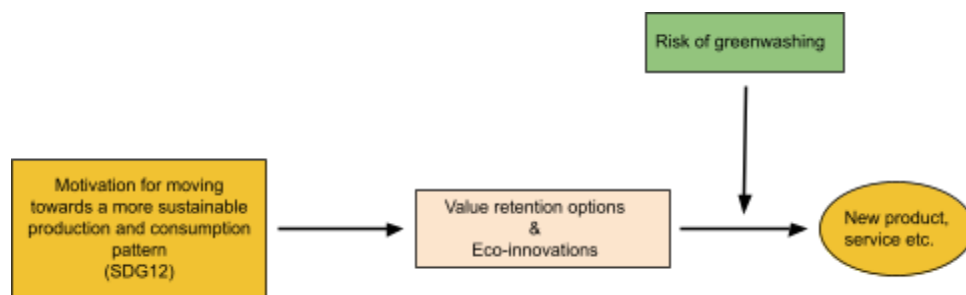


Figure 1 serves the purpose of demonstrating how one's motivation for moving towards a more sustainable production and consumption pattern, ultimately being the goal of SDG12, affects a firm's actions in regards to which value retention options to implement, and which eco-innovations are needed to do so. Furthermore, the figure shows that a firm's actions, regarding value retention options and eco-innovations, may lead to new products and services. Yet, one needs to consider the risk of greenwashing in the creation of new products and services through value retention options and eco-innovation, as some firms may wish to be perceived as producers of environmentally friendly products, even though this is not the case.

As explained we wished to build on to that of Ingulfsvann study, which consisted of resource value retention options and eco-innovations. These two aspects are highly relevant when exploring how firms work towards sustainability as they both, in separate ways, give detailed explanations as to what actions can be done to ensure sustainable practice.

As mentioned in the article, there are ten different resource value retention options firms may pursue when targeting today's challenges (Reike et al., 2022). The R's, which are explained in depth in the article, are all fairly easy to understand and give firm's, wishing to become more sustainable, a good pinpoint as to what actions to enact on. Ingulfsvann further measured firms according to eight eco-innovations developed by Prieto-Sandoval et al., (2018) in his study. The eco-innovations all facilitate circular economy in different ways, where some of the innovations are easier to implement than others. Network innovations, which is the collaboration between companies, seems easier (based on our analysis) to implement than for instance business model innovations.

Sustainability has become a buzzword and consumers expect firms to take action in terms of the topic (Scoones, 2007). Some may on the contrary struggle to do so, as it requires one to shift one's way of operating in terms of the aforementioned value retentions and eco-innovations. Therefore, greenwashing was an aspect we felt was necessary to include, as some firms may be tempted to display green behavior without actually implementing such behavior (Delmas & Burbano, 2011). We were uncertain how to incorporate the aspect as we did *not* intend to explore it in depth, rather only mention it as a risk to be aware of. This was especially important to consider in terms of our data collection method, as we had no way of checking if the information given on the firms websites was actually in line with the actions of the firms researched.

2.0 Methodological considerations

Bougie & Sekeran (2020, p.2) describe business research "as an organized, systematic, data-based, critical, objective, inquiry or investigation into a specific problem, undertaken with the purpose of finding answers or solutions to it". This description demonstrates the importance of research, and further why one needs to be certain in the chosen method used in the research process.

In short, a quantitative method uses statistical analyzes to obtain its findings (Marczyk, DeMatteo, & Festinger, 2006). This research method often gathers data through structured

questionnaires, simulations and correlational studies and results in data in the form of numbers (Bougie & Sekaran, 2020). The qualitative method is on the other hand not concerned with showing numeric representativity, but rather seek to give a deeper insight to a certain problem (Queiros et al., 2017). Qualitative data is thus in the form of words from conducting for instance structured interviews, focus groups, case studies or document analysis (Queiros et al., 2017; Bowen, 2009)

To answer our research question we needed to use the research method which would allow us to gain insight on how different firms work in terms of sustainability, and further how they communicate their efforts to their consumers. This could be done in both a quantitative and qualitative manner. If we were to use the qualitative methodology, we could gather data through structured interviews or by conducting a document analysis. If we on the contrary chose the quantitative methodology, data could be collected through for instance surveys.

Structured interviews is a data collection method where a present interviewer asks the same questions from a standardized list to every respondent, also including follow-up questions (Queiros et al., 2017; Segal et al., 2006). Structured interviews can be divided into fully structured and semi structured interviews, where fully structured interviews follow both the formulation of the questions and the standardized list in order. Semi structured interviews on the other hand allows the interviewer to modify the questions to a certain degree, as long as the main message remains the same (Segal, 2006). Structured interviews allow one to reach a fairly large sample, and further enables one to easily compare the answers given by the respondents. The method could nonetheless prove to be time consuming and it may be difficult to acquire detailed information (Queiros et al., 2017).

A document analysis is a qualitative research method where both printed and electronic documents, such as books and newspapers, are systematically reviewed and evaluated. The documents reviewed contain text that has not been subject to any interference from the researcher, meaning that the information is solely subjective from the researcher's opinion. This method of collecting data is, as mentioned in the article, often used in combination with other research methods, but can also be used on its own when all data necessary can be found in the

documents retrieved (Bowen, 2009). The document analysis is cost-effective, stable and highly available, but can, like structured interviews, lead to insufficient details, in addition to being subject to biased selectivity (Bowen, 2009).

One of the most common methods of collecting data in quantitative research is through surveys. The method allows one to receive answers directly from people of which the research concerns through carefully chosen questions organized in a specific sequence (Queiros et al, 2017). Conducting quantitative research through surveys has a small development period, is cost effective and allows one to reach a broader audience, hence being more representative. They may on the contrary neglect the emotions of the respondents and rely heavily on how well respondents have answered the given questions (Queiros et al., 2017).

Having looked into the different methods, and furthermore the advantages and disadvantages of these, we learned that the qualitative method would enable us to gather the most detailed data, thus being essential in order for us to answer our research question. Our choice of method was chosen even though Bougie and Sekaran (2020) explain that there are no generally accepted guidelines for analyzing qualitative data, thus making the analysis of this data difficult.

Extending that of Ingulfsvann's research through looking into a broader selection of firms, could be done both through conducting structured interviews and document analysis. As we were somewhat time compressed, and since structured interviews can be time consuming we decided to opt for the document analysis. The data analysis further allowed us to collect data on our own terms, as we were not reliable on the schedules of the firms we wished to study.

The decision of not conducting structured interviews was also based on the fact that the authors worked for two of the firms researched in the study. The positions of the authors could thus prove problematic when interviewing competing firms as they could potentially withhold information, not wanting their competition to gain insight in their operations. The method further allowed us to evaluate each firm on the same terms, strengthening the validity of the research, whereas structured interviews could compromise the validity of the research due to the authors not being biased. To further ensure the validity, the authors did not assess one's "own" firm.

As mentioned in the article, we used the firm's websites as documents, and went through the steps, skimming, reading and interpreting when transforming the documents into data (Bowen, 2009), see Appendix A . The amount of time spent on the different firm's varied greatly, as some firm's had websites containing only basic details about their environmental work, while others provided long reports, or had comprehensive websites containing detailed descriptions of how they were working with the topic.

Throughout the process of gathering data we encountered some challenges. First, the websites varied in quality making it difficult to obtain data at times. For instance, when trying to explore Helly Hansens sustainability work on their website, a small window appeared wanting you to confirm your location. When you however did, the website crashed. This meant that a lot of the data obtained from Helly Hansen was done by reading the information on the website, with a rather large square blocking one's view.

The variation in the information given by the firms was yet another issue we encountered. Some firms spoke very generally about sustainability, while others provided numbers and specific actions in their work towards being sustainable. This made it challenging to decide which firms actually succeeded on the different measures. We therefore agreed upon requirements for each measure that the firms needed in order to fulfill them, ensuring that we were judging them all equally. Furthermore, the sustainability work of firms was mostly very easy to locate, but this was not always the case. Bergans was for instance a firm where we first struggled to find information in regard to sustainability, but when we did the information was quite extensive. This means that even though we spent a lot of time searching through the websites of the firms, we might have missed some information. Lastly, the collection method proved to be very time consuming. This was due to all the challenges listed above, in addition to having to navigate through three excel sheets to decide which parameters the firms succeeded in.

3.0 Reflections of writing an article

3.1 Choice of journal

Prior to determining an appropriate structure for our article, we needed to identify a journal in which we aimed to have the article published. The journal of our choice would need to be an reputable journal in the Norwegian register of scientific journals (Register over vitenskapelige publiseringskanaler). Furthermore, we sought to find out if the journal was present in the Chartered Association of Business Schools (ABS) journal guide, a guide of relevant academic journals within the business and management field. The ABS-guide is common to use by business schools, including Norwegian business schools, as it evaluates journals, assigning them with a rating to indicate their quality (Chartered association of business schools, 2023). Our supervisor proposed the following two journals; *Problems and perspectives in management* and *Environmental Economics*, and instructed us to find the most relevant journal for our study.

After researching both journals, and looking at the other articles published in them we decided that *Environmental Economics* would be the right option for our article. Environmental economics is crucial to facilitate sustainable development, as it enables one to identify efficient methods for natural resource management (Munasinghe, 1993). Our article therefore seemed highly relevant for the journal, as it researches how firms in the Scandinavian outdoor industry address this exact issue.

After selecting a journal for publication, we needed to adapt our article to meet the journal's standards. This entailed ensuring that our article's structure complies with the journal's requirements and aligning our word count with that of other articles in the journal. Fortunately, the preferred structure of the journal was relatively straightforward and closely resembled our intended structure.

3.2 Reflection on the writing process

Writing an academic article aimed for publication has proven difficult, yet very educational and rewarding. Knowing that our research might be published motivated us throughout the writing

process, and it felt meaningful to conduct research that people can use in the future, rather than writing a traditional master thesis that would potentially only be read by the examiners.

We were both under the impression that we were good writers, having studied for many years. However, after the first meeting with our supervisor, we quickly discovered that there was room for improvement. Having such a close collaboration with a supervisor has been very interesting and he has helped us improve our writing skills tremendously in regards to for instance sentence formulation. We were both shocked by how time consuming the writing process was as it required re-writing, re-formulating and in general a lot of proofreading. Also, as articles are shorter than regular master thesis, we had to be very assertive with the content we chose to include in the article. Having to communicate with fewer words was very challenging and we spent a lot of time formulating sentences to express the right message using a limited amount of words.

Even though writing an article has been challenging, we would both do it again. It was interesting to learn how different journals have different requirements, as this was something neither of us were aware of. Furthermore, we are both certain that our writing skills would not have improved this greatly if we had written a standard master thesis.

We would certainly advise other students to write articles, even though it is both challenging and an unknown territory for most. It is rewarding to think that someday, someone might refer to our article in their research. This thought has motivated us to spend a lot of time conducting our research thoroughly in order to make it relevant for others to use in the future.

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Appendix B – Discussion paper

“Responsible”

By

Pia Heggelund

Introduction

This discussion paper serves the purpose of discussing *responsible* in terms of the topic chosen for me and my co-author's master thesis. First, there will be a short presentation of the thesis. Then, I will discuss how the thesis relates to responsibility. Lastly, I will present ethical challenges that we encountered upon, and how these challenges were managed.

Presentation of the master thesis

Although the term sustainability seems to be the uttermost used buzzword in the past decades, production and consumption is still one of the major causes to the most acute environmental challenges (EU, 2020; Scoones, 2007). The clothing industry alone is responsible for ten percent of the world's total greenhouse emission, causing the industry to be highly criticized. With this in mind, we wished to research the outdoor sector of the industry, as this sector produces clothing and gear to be used in the nature, which is ultimately being destroyed by the production.

Our research builds on a study conducted by Ingulfsvann (2021) where five Scandinavian firms were studied in terms of how they acted in regard to ten value retention options suggested by Reike et al., (2022) and eight eco-innovations proposed by Prieto-Sandoval et al., (2018). To further extend that of Ingulfsvann (2021) research we incorporated Sustainability Development Goal 12 (SDG 12), considering sustainable production and consumption patterns (United Nations, 2023). We would also be increasing the data selection from five to 20 firms.

Having found a study we wished to build on, and essentially what aspect we wished to add onto the study, we defined the following research problem: *How are the actors in the Scandinavian outdoor industry contributing to encourage sustainable business practices for both the industry and consumers?* To answer this research problem, we further specified four research questions. First, to what degree are the SDG motivating and contributing firms to achieve a circular economy? Second, how are the firms initiating value retention? Third, on which eco-innovations are the firms basing these initiatives on? And lastly, what is the relationship between retention, eco-innovation, and SDG 12?

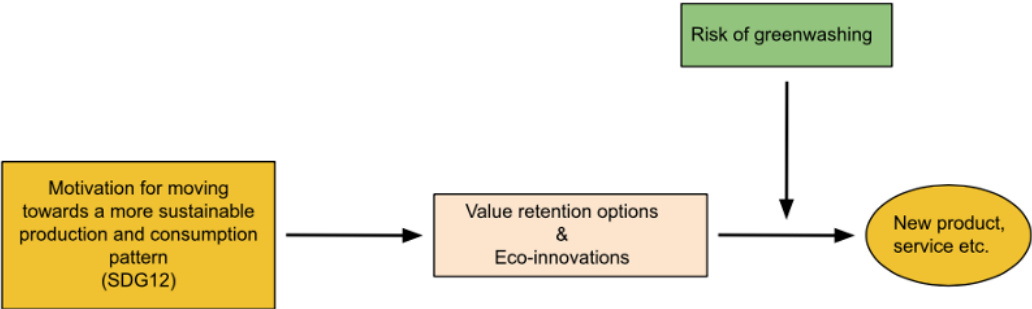
A fundamental concept in our study was circular economy, which entails keeping resources within a so-called loop (Van Buren et al., 2016). The concept has become an increasingly important topic

in the later years, and our study shows that achieving a circular economy seems to be the goal for several firms in the outdoor industry.

To demonstrate how the different concepts in our study are interrelated, and further how firms move towards achieving circular economy we created Figure 1. The SDG 12 as mentioned considers sustainable production and consumption patterns. This goal is often used as a fundament for firms to reach their set goals and consists of eight targets that firms can aim at achieving (Rashed, 2021; United Nations, 2023).

Furthermore, a firm’s actions in regard to the value retention options, which are activities related to creating economic and social value while at the same time preserving the environment (Reike et al., 2018), enable firms to reach the targets of SDG 12. To successfully implement a circular economy, one is also in need of eco-innovations, as innovations can revise systems and potentially close loops (Prieto-Sandoval et al., 2018). Initiating the value retention options and eco-innovations will then potentially allow one to create new and more sustainable products and services. However, greenwashing is an aspect that one will need to be cautious of in the creation of new products and services, as some firms may wish to portray themselves as environmentally friendly firms when this might not be the case.

Figure 1. A firm's path towards Circular Economy.



Responsibility

First, I would argue that our master as a whole is related to the topic of responsibility, as it explores sustainability within an industry where the production of goods have big negative consequences

for the earth (EU, 2020). To preserve the earth and its resources, firms need take responsibility and initiate activities that will make their production more environmentally friendly.

Our study has revealed that several firms are trying to own up to their responsibility and have come a long way in doing so by producing products in more sustainable ways through for instance reducing water consumption or making products more durable so they can last longer. Some firms however have the potential of doing more. As our study concludes, it seems as though the more mature firms with higher revenues have come further in their quest of becoming sustainable compared to the less mature firms with lower revenues.

Further, we were encouraged by our supervisor to write an article-based master thesis. This meant that we were responsible for finding a journal to potentially publish in. The journal would also need to be both in the Norwegian register of scientific journals as well as present on the Chartered Association of Business Schools (ABS) journal guide. In addition to finding a journal to publish in we were responsible for following the guidelines the journal of choice had. This for instance meant keeping the word count on the article between 4000 and 6000 words.

As the intention of our study was to have it published, we needed to consider the fact that someone, some day, could use the study as a reference. Therefore, we felt an extra sense of responsibility to write in a concise manner to ensure what we communicated could not be misinterpreted. Although this was challenging and time consuming, the thought of our research being read and used in the future motivated us throughout the work with the thesis. As always in academic writing we were also responsible for referencing according to the APA guidelines.

Ethical Challenges

During the course of writing our master thesis, we encountered upon a few ethical challenges. First there was as mentioned the aspect of greenwashing we needed to be aware of. Greenwashing occurs when a firm's communication and actions contradict one another (Delmas & Burbano, 2011). Having used document analysis as our data collection method made this challenge even more relevant as even though the documents contain large amounts of data, this data may not always be correct (Bowen, 2009). Hence, to ensure that every company was evaluated on the same

terms we only used public information which meant that detecting greenwashing behavior was practically impossible.

Furthermore, greenwashing can occur in different ways where some firms may only disclose the positive information and withhold negative information (Lyon & Maxwell, 2011). Therefore, selective disclosure was yet another ethical issue we needed to consider. To manage this issue, we set clear boundaries as to how we rewarded the firms. If a firm was too general in their communication, they were not rewarded with succeeding on that target. If the firm however disclosed specific details such as providing numeric information, we rewarded the firm with succeeding on the target.

Another major ethical challenge we needed to consider in the study was that I am an employee of Norrøna, and that my co-author, Mari, is employed by Stormberg, which are two firms explored in the study. Our respective roles in the firms could prove difficult as we both knew more about the firms than what was publicly available. To ensure validity in our research every firm therefore had to be both evaluated exclusively based on publicly disclosed information, as well as on some certain criteria discussed before starting the data collection. This meant that even though we might have known about certain efforts made by the firm of which we are employed, we could not reward the firm with succeeding on this effort if the information was not accessible on their website.

We furthermore decided to not evaluate the firm for which we were employed, to ensure that all firms were evaluated on the same terms. Our employment was also the reason we chose to conduct a document analysis instead of structured interviews, the data collection method we first sought to be the best option. Conducting structured interviews could prove problematic as firms could potentially withhold information, not wanting to disclose certain details to their competing firms.

The firms we researched were as mentioned Scandinavian meaning that we both had some preexisting knowledge about several of the firms. I found this to be yet another ethical challenge as I already had some assumptions as to how the firms would perform based on for instance what firms I perceived to produce high quality appeal and vice versa. I therefore had to ensure that I was consistently evaluating the firms on the same criteria, not giving the firms of my preexisting liking any benefits, rewarding them with succeeding on targets that they did not deserve. The criteria we

set ahead of the data collection were once again useful in terms of this challenge, as it meant that the firms had to meet these to succeed on different targets.

Lastly, we had to be cautious as to how we were formulating our findings since we did not want to offend the firms that had been researched. Therefore, we tried to avoid making harsh statements as to how some firms may have not come a long way in terms of making their products more sustainable. The reason behind this was that since we only collected publicly disclosed data, we had no way of knowing if the firms could have either neglected to communicate certain activities, or perhaps if their websites were yet to be updated. We also considered speaking respectfully of the firms researched to be necessary for the article to be viewed upon as professional.

Conclusion

The topic of responsibility has through this discussion paper proven highly relevant for our master thesis. First, it was argued that the thesis itself relates to responsibility as it has researched an industry highly criticized for their lack of responsibility in terms of how the production of goods within the industry has previously had big negative consequences for the earth. Furthermore, as we were encouraged to write an article-based thesis we were responsible for finding an appropriate journal to aim at publishing in, in addition to ensuring that we were following the guidelines of the journal of choice. Lastly, since we aimed at publishing our thesis, meaning that it could someday be used as a reference, we felt an extra sense of responsibility to write in a concise manner to make sure that what we communicated was not misinterpreted.

Throughout the process of writing the master thesis we also encountered upon some ethical challenges. First, as some firms may wish to be perceived as more environmentally friendly than they are, we had to be cautious of greenwashing. This was especially relevant due to our data collection method being document analysis. Selective disclosure, which is a type of greenwashing, was yet another challenge we had to be aware of. We managed this challenge to the best of our ability by agreeing upon a set of criteria that the firms would need to fulfill to succeed on certain targets.

Moreover, both my co-author and I worked for two of the researched firms. We therefore decided to conduct the document analysis, only using publicly disclosed information. The criteria we set

for the firms to fulfill certain targets enabled us to handle this challenge, and we also decided upon not evaluating one's own firm. I found preexisting knowledge and associations to be yet another ethical challenge, as it caused me to have assumptions as to how the firms would score. Again, the criteria we set enabled me to evaluate the firms fairly. Lastly, we had to be cautious as to how we formulated our findings to hinder potentially offending any firms researched. We saw this as a necessity in order for the article to be perceived as professional, which was one of our goals when we decided upon writing an article aimed at being published.

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Appendix C – Discussion paper

“Responsible”

By

Mari Berg Hersdal

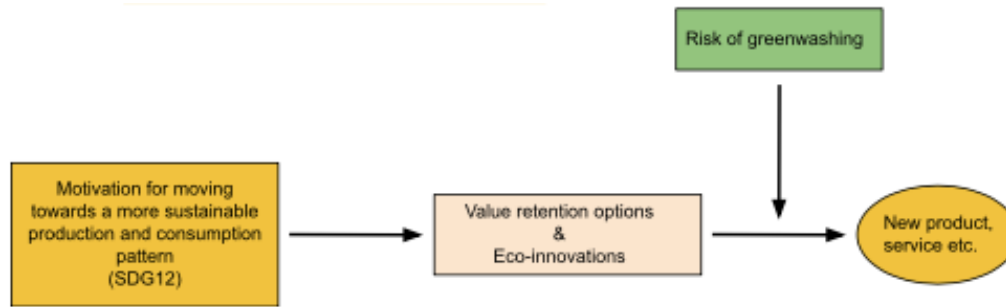
Introduction

This discussion paper aims to answer how the term responsibility relates to the master thesis I have conducted along with a fellow student this last semester as a master student of the program, International Business at the University of Agder. In order to do so I will start this paper by briefly presenting my master thesis. Following a short description of responsibility in terms of the research topic and the nature of the thesis, before discussing responsibility in terms of ethical challenges related to the thesis, and how these aspects have been managed during the research.

Along with a fellow student we have written a master thesis on the research topic: *How are actors in the Scandinavian outdoor industry contributing to encourage sustainable business practices for both the industry and consumers?* Our thesis explores this topic by evaluating 20 Scandinavian firms on three areas. Firstly, is the United Nations (2023) Sustainable Development Goal (SDGs) number 12, as this is increasingly used as an overall goal for firms' sustainable behavior (Rashed, 2021). Goal number 12 considers sustainable production and consumption patterns and is thus highly relevant in the textile sector. Secondly, we consider Reike et al., (2022) 10 value retention options (10 R's), which aim to preserve a product's value within the economic system through certain activities, where perhaps the most common are recycle, reuse, and reduce. And lastly, Prieto-Sandoval et al., (2018) eight eco-innovations, which are innovations that aim to fulfill the needs of human and nature in a sustainable manner.

Along with these three concepts, there are two other important topics that the paper explores. Circular economy (CE) which aims to create economic value, social value as well as environmental value, and is the end goal for the firm's activity. The second topic is greenwashing, which occurs when a firm presents wrongful information concerning their sustainable behavior, a risk both firms and customers face in the green shift of the business world. Figure 1 below illustrates how all these concepts are intertwined by setting SDG 12 as the firm's motivation and goal, the value retention options as activities to reach said goals, eco-innovations which are needed to enable retentions, and ultimately this can result in new products, services and so on.

Figure 1. A firm's path towards Circular Economy.



Our master thesis is meant to build onto Ingulfsvann (2021) study, where he evaluates five Scandinavian outdoor firms on value retention options and eco-innovations. We are adding to the research by exploring a bigger sample which also vary more in price strategy than that of Ingulfsvann sample. We are also adding the SDG 12 in order to offer insights as to why firms act sustainable in addition to how. Furthermore, with the encouragement of our supervisor, we have written the master thesis as an academic article, aiming for it to be published in the journal: Business perspectives – Environmental Economics. This decision affected our work significantly, as the article had to be written with the specific journals' guidelines in mind, which varied in terms of how both of us, the authors, were used to writing.

Responsibility

The researched topic of the master thesis itself is correlated to the term, responsibility. The topic for our research was regarding firms' sustainable behavior, which is in line with their business ethics. Good business ethics is considered financially good for business and Joyner & Payne (2002) claims that ethics, values, integrity, and responsibility are required in the modern workplace. The term business ethics is used when business and ethics are combined and are often related to corporate social responsibility (CSR). CSR is when business activities are in line with values and expectations of society (Joyner & Payne, 2002), where acting in accordance with the environment has become expected by consumers over the years (McKinsey & Company, 2018). Our study shows that the outdoor industry is responding to a responsibility towards nature. More so than other textile retailers due to their promotion and passion for our planets hiking grounds –

the nature (Fuchs & Hovemann, 2022).

The nature of our thesis being article-based also affected what the term responsibility meant for our work. Firstly, we were responsible for choosing a journal suitable for our study that was registered in the Norwegian register of scientific journals (Register over vitenskapelige publiseringskanaler). Secondly, we had to make sure that the journal was to be found in the Chartered Association of Business Schools (ABS) journal guide. This guide is commonly used by business schools as it assesses their quality. After making sure that the journal of our choice had the proper acknowledgments that it required, we were also responsible to familiarize ourselves with the journals guidelines and making sure that they were followed in our writing process.

As well as being responsible for following the university's guidelines on the master thesis, we also had to follow that of the journal, making our writing process different than the standardized master thesis. We experienced this responsibility to be motivating for our process. The possibility of getting our article published made us aware of the fact that as opposed to having the thesis read once by a sensor, and maybe once or twice by the occasional student, there was now the possibility for our work to become public information, contributing to already existing research. This strengthened our sense of responsibility and encouraged us along the process in order to produce an academic article that fulfilled our aspiration of both the master thesis and for the possibility of publication.

Ethical challenges

After deciding the topic for our thesis, being circular economy, we wanted to explore this in the outdoor industry as my co-author is employed by Norrøna, and I am employed by Stormberg. At first, we figured this would enable us to provide a lot of useful information, and we could even perform key interviews within the firms. However, after discussing our thoughts with our supervisor we found that our job positions may in fact harm the research as the credibility could be questioned. What's more, is that if we were to interview competitors (as was our initial thought) of the brands to which we work for, this might be considered unethical as if we were there to retrieve information in a competitive market and they could respond by withholding

information. Due to our job positions, we also decided that neither of the authors should evaluate the firm for which they worked, making it as subjective as possible. This led to our decision of performing a document analysis instead of interviews as we would avoid these ethical issues. A document analysis is a qualitative research method where we systematically reviewed and evaluated the public information on all 20 firms researched in the study.

Bowen (2009) stressed the fact that even though a document analysis may contribute to a lot of data, this is not necessarily always accurate or reliable data, which one needs to be cautious about. In our case, the ethical problem of greenwashing was especially important to be aware of. Firms may want to seem more sustainable than they in fact are by conducting in greenwashing activities. This can be done by disclosing relevant information, or by giving wrongful information (Delmas & Burbano, 2011). As researchers there are ethical concerns to consider, such as responsibility. According to Bhattacharyya & Ray (2021), this responsibility includes to be honest and respectful to all who are affected by the research. Considering the former, we had to ensure that we were able to present truthful information and not being subjected to greenwashing.

To minimize the risk of being subjects to greenwashing we established some guidelines for how we would evaluate the firms on each SDG 12 target, value retention option, and eco-innovation. For example, in order for a firm to fulfill SDG 12, target 12.2 material management, the firms had to provide numeric information showing a positive trend in their CO₂ emissions over the last time period. This was followed by a quality check by the other author as well, to make sure that all information were rightfully perceived. Following such strict guidelines also ensured that all firms were being evaluated on the same premises. However, it does also mean that a firm could have fulfilled targets without being evaluated as such if the information was not made public. Even so, we believe this was necessary to strengthen the thesis credibility.

Along with ensuring truthful information that have not been impacted by greenwashing, we were also responsible to conduct our research respectfully (Bhattacharyya & Ray, 2021), considering that we were building onto already existing research. Our analysis was meant to strengthen and contribute to already existing information, and we were mindful about how we presented Ingulfsvann research as it was the foundation for our study. Furthermore, we considered the

aspect of being respectful when presenting the firms. When performing such a deep dive into firms' statement and actions, it provided us with both favorable and unfavorable information on the firms. We did however not wish to humble any of the subjects, and this was taken into account as to how the information was presented in the result and discussion section of the thesis.

Conclusion

Through the discussion paper I find that the term responsibility highly correlates with our master thesis. Firstly, due to the nature of the thesis, where the topic itself is in relation to corporate responsibility and why and how they in fact act in a sustainable manner. The outdoor industry is responding to a responsibility towards the preservation of nature, and to be part of a green shift in the private sector. Secondly, responsibility held high meaning to both of the authors of the thesis as writing an article-based thesis made us responsible for following guidelines and upholding standards, not only to that of the university, but also to that of the Journal of choice.

During the writing of our thesis some ethical issues presented itself, where we considered responsibility in terms of truthful and respectful information. These started already in the starting phase of the writing process, where we had to make a choice on what kind of research method were the most ethical to conduct due to our job positions. During the collection, and interpretation of data, greenwashing was the biggest ethical concern the thesis faced as the research method conducted made it likely to encounter such information. Strict guidelines were therefore set to avoid wrongful information as best we could. Also, we had to be aware of how we presented our findings in a respectful manner, both in regard to previous research and to the firms researched. With this we hope to have conducted and provided a responsible master thesis in line with ethical guidelines.

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