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Effects of Sustainability Messages and Origin Cues on the Perceived Green Brand Equity of Norwegian Salmon

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Abstract

This study contributes to research on how sustainability communication affects a brand's perceived green brand equity. This builds upon findings in earlier research and theory stating that integrating sustainability with other drivers of choice in communication messages could generate a positive effect. Furthermore, the use of country-of-origin cues of a salient sustainable country is expected to enhance the sustainability associations and create spill-over effects for the presented brand. The purpose of this study is therefore to gain a deeper understanding of how the integration of sustainability and country-of-origin cues could be used in communication to create positive effects on green brand equity.

First, the study tested the effects of using messages that integrated sustainability aspects with a major driver for choice (taste). Secondly, hypotheses regarding whether adding a cue to an origin with salient sustainability associations (Norway) strengthens the effect of the sustainability message was tested. A 2 x 2 between-subjects design with message and origin as variables was used to test these hypotheses. Neither message (integrated vs separated sustainability message), the country-of-origin cue (Norwegian vs European), nor the interaction between the factors, had significant effects on the perceived green equity. One possible explanation for these lacking effects could be insufficient manipulations of the variables. However, unexpectedly, it was found that the country-of-origin cue had a positive effect on the perceived sustainability of the seafood category. These findings and further elaboration on the lack of support for the hypotheses are discussed. Lastly, directions for future research are suggested.

Keywords: *Green brand equity, integration of sustainability, country-of-origin cues*

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1. Introduction

1.1 Background

Environmental and sustainable concerns have rapidly increased in the last couple of decades. This has led to a societal shift in mindset, goals, and preferences. Simultaneously, there has been a rise in external environmental pressures through international environmental regulations and the environmental consciousness of consumers (Chen, 2008). This phenomenon has resulted in consumers placing more importance on the environmental and social responsibility of firms when making purchasing decisions (Wagner et al., 2009). Businesses and companies all over the world are therefore embracing corporate social responsibility strategies and more sustainable ways of producing and providing their products and services. Both due to the increasing environmental pressure, and as an opportunity to differentiate themself as a better choice (Lii & Lee, 2012). In addition, more than ever before, companies are promoting and communicating their sustainability efforts to increase their attractiveness and gain advantages through different forms of corporate social responsibility reporting (Dinnie, 2022). In sum, these actions are affecting the brand's reputation and perceived green brand equity. Green brand equity is defined by Aaker (1991) and Keller (1993) as a set of brand assets and liabilities about green commitments and environmental concerns linked to a brand, its name, and symbol that add to or subtract from the value provided by a product or service.

Simultaneously as global environmental concerns are growing, recent trends of regionalization have led to tough international competition. This is making it harder for companies to stand out, gain awareness and achieve a desired position in the global market. Companies as well as countries, therefore, use different methods to market and promote themselves in this global competitive climate, and one of them is through national branding (Dinnie, 2022). Examples of this are Scotland – “The best small country in the world”, America – “Land of opportunities”, and Costa Rica – “A peaceful country in Central America”. This concept has also been converted to products and categories, such as Norwegian salmon and French pastry. The reasoning behind including national branding as part of a brand’s marketing communication is to gain leverage through the existing associations connected to the country of origin (Koschate-Fischer et al., 2012; Supphellen,

2022). Based on these global trends, the mixed usage of sustainability and nation branding as part of a brand's communication is constantly increasing. However, the effects are not yet well documented. This is therefore an intriguing topic within the development, which has led to the conduction of this study.

1.2 Purpose of the Study

This study's purpose is to investigate to what extent integrating sustainability with another driver of choice and communicating country-of-origin cues in export markets makes a difference in the perceived green brand equity. Thus, this makes the foundation for this thesis research question.

"How may messages integrating sustainability and a main driver of choice, and cues to a country with salient sustainability associations affect green brand equity?"

Gaining this insight will provide theoretical implications in a changing international marketplace, while also providing practical implications for companies who seek to position themself and their products or services as sustainable abroad.

1.3 Structure

To respond to the proposed research question, the study first outlines the appropriate theoretical framework, discusses relevant literature, and presents the developed hypotheses. The following methodology chapter outlines the research approach regarding design, strategy, data collection, and measurements. Thereafter, the data analysis is explained, followed by the presented results. Further, the findings are discussed, and possible theoretical and practical implications are highlighted. Next, validity and reliability are addressed, and a conclusion is made. Lastly, the thesis limitations are acknowledged, and recommendations for further research are presented.

2. Literature Review

This thesis touches upon various theoretical topics, and it is, therefore, important to introduce the theoretical background for the research. Firstly, brand equity is defined before sustainability and corporate social responsibility are addressed. This leads the way to green brand equity and how this could create advantages for brands. Finally, this is viewed in the context of export markets and the use of national branding, and how these aspects contribute to positive effects on the perceived green brand equity.

2.1 Brand Equity

Firstly, to examine and understand how one brand can be more successful than another, the literature on brand equity is turned to. Hoeffler and Keller (2003) state that a strong brand yields several marketing advantages, such as getting easily recognized and creating differential responses by consumers to various marketing activities. Further on, Doyle (1992) defines a successful brand as having a differential advantage through visible identifiers such as a name, symbol, or design. In their work with strong brands, Hoeffler and Keller (2003) found that brand knowledge increases a consumer's attention, interest, consideration, interpretation, and evaluation resulting in direct and indirect effects influencing the consumer’s choice (Hoeffler & Keller, 2003). A successful or strong brand could therefore also be described as having strong brand equity which is defined as the added value endowed by the brand's name and symbol to its products or brand (Aaker & Keller, 1990; Farquhar, 1989). Strong, positive brand equity will, according to Keller (1993), make consumers react more favorably to the product, price, promotion, and distribution of the brand compared to the same marketing mix elements when it's attributed to a fictitiously named or unnamed version of the product or service. Working on increasing brand equity is therefore a core focus throughout almost all companies. In line with society’s ever-changing focus, needs, and preferences, a company’s strategy toward building its brand equity also changes. Roll (2006) points out this by stating that trends and society’s big lines will both influence and be influenced by brands.

2.2 Sustainability

One of the biggest trends in today's society is the focus on sustainability. In 1987, The Brundtland Commission defined sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (UN, n.d.). This definition has however met critique as it mainly addresses sustainable development (Farley & Smith, 2014; Lunde, 2018). Lunde (2018) therefore suggests a new definition of sustainability from a more holistic perspective to be used in marketing research;

> *"Sustainable marketing is the strategic creation, communication, delivery, and exchange of offerings that produce value through consumption behaviors, business practices, and the marketplace while lowering harm to the environment and ethically and equitably increasing the quality of life and well-being of consumers and global stakeholders, presently and for future generations". (Lunde, 2018, p. 94).*

Aligned with the increasing sustainability trend, the expectations towards companies and corporations to contribute to the global effort on sustainability are rising. Key stakeholders such as consumers, employees, and investors are increasingly likely to take action to reward good corporate citizens and punish bad ones (Du et al., 2010). The same findings are found in research conducted in the United States, where respondents across generations expect retailers and brands to become more sustainable (First Insight & Baker Retailing Center, 2021). This study also found that younger generations have an increased preference to shop sustainable brands and a higher willingness to pay for sustainable products, which implies that this effect will be amplified over time.

Because of this shifted focus, companies are now more willing to accept their environmental responsibility while they seek to benefit from the potential opportunities it might create (Chen, 2010). Pursuing different sustainability strategies and communicating these to stakeholders has thus become the new normal for companies. However, how green marketing should be done most effectively to successfully increase the company's brand equity has been widely discussed and is still a topic within development.

2.3 Corporate Social Responsibility

To meet the sustainability expectations of stakeholders, more and more companies pursue corporate social responsibility efforts and report these to the public. Many companies use the terms sustainability and corporate social responsibility (CSR) interchangeably. CSR is broadly defined as "a commitment to improve societal well-being through discretionary business practices and contributions of corporate resources" (Du et al., 2010; Kotler & Lee, 2005). Similarly, sustainability concerns societal well-being (Lunde, 2018), but also more specific factors such as the UN's 17 SDGs'. In the definition from Kotler and Lee (2005), CSR is specific about how corporations can make a positive difference in society, and it could therefore be argued that sustainability is an issue within CSR that corporations focus on.

2.3.1 Positioning on CSR

A critical factor to succeed in integrating sustainability into a brand is through brand positioning. Keller and Swaminathan (2020) define brand positioning as "the act of designing the company's offer and image so that it occupies a distinct and valued place in the target customer's mind". This is, in other terms, the target image that describes the desired perception in the target group's consciousness (Keller & Swimanathan, 2020; Supphellen, 2020). In addition, CSR positioning refers to "the extent to which a company relies on its CSR activities to position itself, relative to the competition, in the minds of consumers" (Du et al., 2007, Du et al., 2010).

To create a positioning, Keller and Swaminathan (2020) state that companies must identify the target market and its competitors, as well as the optimal points-of-parity (POP) and points-of-difference (POD) brand associations. Points-of-parity (POP) are associations that may not be unique for the brand but are shared with other brands. These are, to a large extent, what consumers feel the brand must deliver sufficiently well on, as the lack of these attributes could be considered negative (Keller & Swaminathan, 2020). While points-of-differences (POD) are defined as attributes or benefits that consumers strongly associate with a brand, positively evaluate, and which they believe they can't find to the same extent with a competitive brand. The PODs, therefore, highlight the uniqueness of the brand associations and are what could determine consumers' choices (Keller & Swaminathan, 2020). This implies that when deciding on which role sustainability should play in the brand positioning,

the company should look for interactions with other associations, as the interactions could give the sustainability dimension more meaning, distinctiveness, and relevance (Cho & Baskin, 2018; Supphellen, 2020).

2.3.2 Benefits of CSR

It is argued that when sustainability gets a clear and credible role in the brand positioning, in line with the brand's distinctiveness and unique resources, the possibility of differentiating the brand positively in the consumer's consciousness is strengthened, leading to an increased brand equity (Gupta et al., 2013; Supphellen, 2020; Wang, 2017). In contrast to brands that engage in CSR, but are positioned on other traditional, product-specific dimensions such as quality, it is found that several advantages accrue to brands that are successfully positioned on CSR (Du et al., 2007). Findings imply that consumers become more aware of what the brand that positions itself on CSR is doing in terms of social and environmental initiatives, but also make more favorable inferences about why the brand is doing so (Du et al., 2007). This gives stronger beliefs that the brand is socially responsible, but it can also give positive spill-over-effects on consumers' beliefs about the brand's performance on dimensions unrelated to CSR (Brown & Dacin, 1997, Du et al., 2007). For instance, could sustainability amplify the beliefs about the corporate ability or the degree of how healthy a product is perceived, which in turn influences choice and evaluation (Brown & Dacin, 1997; Cho & Baskin, 2018; Supphellen, 2020).

Using CSR in a brand positioning will also humanize the brand and encourage consumers to identify with it (Bhattacharya & Sen, 2003; Du et al., 2007). The benefits of such identification are strong, multiple, and lasting (Du et al., 2007; Lichtenstein et al., 2004, Sen & Bhattacharya, 2001). Brands can achieve consumer loyalty and grow consumers into ambassadors who engage in advocacy behaviors such as positive word-of-mouth, willingness to pay a price premium, and resilience to negative company news (Du et al., 2007, Du et al., 2010). Other business rewards include stakeholders buying more products, seeking employment, and investing in the company (Du et al., 2010; Sen et al., 2006). In other words, CSR efforts contribute to growing the company's brand equity, but to extract these paybacks of CSR efforts, Du et al. (2010) contend that it's crucial to communicate these effectively to attract the optimal awareness of stakeholders.

2.3.3 Communication of CSR

How a brand should position itself, and reap and utilize the benefits that could follow from the CSR positioning are determined by the communication of these CSR efforts. Yet, communication of sustainability could be viewed as a double-edged sword. On one hand, it may improve the corporate reputation or, on the other hand, lead to accusations of greenwashing (Personal communication, Magne Supphellen, 10th February 2022). Greenwashing occurs when a company, or another organization, that is designed to influence customers' perceptions, falsely promotes, or embellishes its good's eco-friendly attributes rather than implementing policies to reduce the product's environmental impact (Delmas & Burbano, 2011). Lyon and Maxwell (2011) add to this by stating that greenwashing could also result from the fact that essential information is not conveyed to the consumer but kept hidden. They, therefore, recommend companies to be honest in their CSR communication and integrate it as a natural part of the marketing mix to prevent greenwashing accusations.

Du et al. (2010) present four factors that companies can emphasize in their CSR communication and message: commitment, impacts, CSR motives, and CSR fit. The different aspects of commitment are described as the amount of input, the durability of the association, and the consistency of input (Du et al., 2010). Long term-commitment is more likely to be seen as driven by genuine concern for increasing societal/community welfare, while short-term campaigns were more likely to be viewed as a way of exploiting the cause for the sake of profit (Du et al., 2010; Mohr & Webb, 2005). Du et al. (2010) also suggest focusing on the output side of the CSR initiatives, in other terms, the social impact on the cause from the company's involvement and the actual benefits that have occurred. The third aspect that communicators could emphasize on is CSR motives. Du et al. (2010) emphasize that stakeholders perceive multiple motives and understand that brands seek to achieve certain business goals through their CSR initiatives, as well as intrinsic motives. By using both intrinsic and extrinsic motives in a firm's CSR communication, they can impair stakeholder skepticism, increase the credibility of its CSR message, and generate goodwill (Du et al., 2010). The last aspect, CSR fit, is described as the perceived congruence between a social issue and the company's business (Du et al., 2010). Stakeholders often expect companies to sponsor only those social issues that have a good fit with their corporate activities (Du et al., 2010; Haley, 1996). By fit, it could be that the company shares common associations with the cause (Du et al., 2010). Yet, under some special circumstances,

communication of low fit could create differentiation for the company, and thereby lead to more favorable stakeholder reactions and increase the effectiveness of the CSR communication (Du et al., 2010; Menon & Kahn, 2003).

In addition, the nature of the industry the company operates in will moderate the effectiveness of the sustainability communication, and consequently affect the company's perceived degree of sustainability (Bhattacharya & Sen, 2004; Du et al., 2010; Yoon et al., 2006). This means that if the company is in an unquestionably unsustainable, or "dirty" industry, the credibility of the CSR communication would be weak, and the communication will according to Yoon et al. (2006) be dampened or could even backfire. Moreover, a company that operates within an undoubtedly "clean" industry will have high credibility in its CSR communication and it will find the positive effects of its CSR communications to be amplified. However, companies with good sustainability reputations won't see a big effect of CSR communication, because it will only reinforce their position, and not change anything in the stakeholder's perception (Strahilevitz, 2003) Strahilevitz (2003) therefore suggests that companies with a neutral ethical reputation are likely to reap the greatest business benefits from CSR communication.

2.4 Green Brand Equity

One of the business benefits that reap from CRS communication is as mentioned strengthened brand equity, but more specifically this could improve the company's green brand equity. Green brand equity differs from brand equity by being rooted in CSR and sustainable efforts, reputation, and image. It could be understood as a set of consumer perceptions related to the brand's environmental commitment, influencing the value and utility of a product or service (Chen, 2010; Mehdikhani & Valmohammadi, 2021). These perceptions are rooted in the company's CSR actions and their communication of it. It is argued that high green brand equity, and in particular high levels of customer trust regarding CSR efforts, positively influence brand loyalty (Park et al., 2017). In addition, Bekk et al. (2016) argue that green brand equity has a positive effect on overall brand attitudes. Furthermore, sales of "green products" have greatly increased, and evidence shows that consumers are willing to pay higher prices for "green products" (Chen, 2008). Hence, improving a company's green brand image and green brand equity has the potential to increase the company's competitive advantages.

2.5 Export Marketing

Simultaneously as the worldwide sustainability focus is increasing, Dandolov (2021) proclaims that companies operating in export markets now experience a harder and tougher international market space than ever before. This is based on the fact that there has been a growing resistance to globalization in recent years, which has led to the emergence of the concept of deglobalization (Dinnie, 2022). This is reflected in a reduced interdependence between countries and a reduction in the flow of people and goods. Studies looking at how one can optimize a company's position abroad have shown that effectively implementing export marketing strategies to drive venture performance requires two things; the realization of the intended export marketing strategy as well as achieving the reactions as anticipated in the export marketplace. Together, these are vital to accomplish the desired export venture goals (Madsen, 1989; Morgan et al., 2012). Successfully implementing a green marketing strategy and achieving the desired reactions to building green brand equity abroad could therefore be a way of increasing the company's competitive advantages in export markets (Chen, 2008; Madsen, 1989; Morgan et al., 2012)

Further on, several studies have found that operating in export markets is easier for already well-established companies with strong and well-known brands (Gnoth, 2002; Hoeffler & Keller, 2003, Keller, 2013). Moreover, it is shown that a strong brand, or even only a recognizable label, as evidenced in Mueller and Szolnoki's (2010) study, influences decision-making and drives consumer purchase intentions. Some companies, that do not have a very recognizable brand or label themself, might try to gain the same competitive advantages through third-party labeling (Alexander & Nicholls, 2006). These labels are widely used and therefore highly recognizable and well-known for consumers and are especially common in the food industry. These labels could for instance be fair trade labels, vegan labels, or eco-labels. This sort of third-party labeling and green marketing often requires production standards, set by non-governmental organizations, government agencies, or industry associations, regarding emission levels, ingredients, or materials and declaration of this on the packaging (Gingerich & Karaatli, 2015). Thus, such labels also give credibility to the product and increase the quality beliefs, which enhances the marketing effects (Muller & Szolonki, 2010).

2.5.1 National Branding

In export markets, the same mechanisms of third-party labeling are now rapidly increasing, by labeling the products with their country of origin (Dinnie, 2022). This kind of labeling is a part of the national branding efforts and refers to a network of meanings in people's minds based on the visual, verbal, and behavioral expressions of a nation (Steenkamp, 2021).

The application of branding techniques for nations is a relatively new phenomenon, one which is growing in frequency given the increasingly global competition (Dinnie, 2022). It has been argued that successfully thoughtful brand positioning gives a country a competitive advantage (Anholt, 2007; Gilmore, 2002; Yousaf, 2014) and that active repositioning of a country through branding holds great potential for countries, particularly in cases where a country's stereotype lags behind reality. Indexes ranking different nation brands have therefore been well established, and the Aholt-Ipsos Nation Brands Index is one of the leading ones (Ipsos, 2022). Cull and Anholt (2021) explain that a country's ranking itself does not make a difference in the country's image, but having a good image makes a difference in a country's performance. The realm of competitive advantages due to a strong national brand encompasses many sectors, including attracting tourists, investors, entrepreneurs, and selling products and services abroad. Exported products using national branding may therefore leverage and benefit from the differentiations from associations connected to the country of origin (Anholt, 2007, Cull & Anholt, 2021; Dinnie, 2022). Which associations that are associated with the specific country are therefore crucial for this sort of marketing.

National Associations

A country's associations are made upon a mix of impressions, including what is referred to in the national identity literature as the macro-collective level, and more specifically "the content of collective identity", which addresses the particular contents that are used to characterize the nation (David & Bar-Tal, 2009). This can also be referred to as the national identity which is made up of core features such as flags, language, literature, music, sport, architecture, landscape, social and political situation, and culture in the widest sense. However, the associations are also made upon the individual's references, and these will vary from person to person and are influenced by factors such as previous experiences, upbringing, and general knowledge about the specific origin (Dinnie, 2022).

A nation that executes active national branding seeks to influence these associations by promoting specific attributes and characteristics while at the same time positioning the national brand in a desirable way (Dinnie, 2022). This is normally done through slogans, sayings, and campaigns, and they can vary for different motives. Further on, in recent years there has been an increasing interest in applying the concept of brand equity to places (Jacobsen, 2012; Lucarelli, 2012; Mariutti & Giraldi, 2019; Zenker, 2014), and by communicating the country of origin, one, therefore, embeds the nation equity onto commercial brands (He et al., 2021).

2.5.2 Country-of-Origin Labels

Country-of-origin (hereby referred to as COO) communication lets companies take advantage of national equity as well as link their brand to national associations to differentiate themselves from their competitors (Dinnie, 2022). The thought behind this approach is that it reminds decision-makers in export markets of the origin of the product or business. COO cues are often presented through labels on the packaging or used in communication messages, which could be used as a POD in the brand positioning. The assumption in this stream of research is that it may add leverage to the brand through origin effects and increase customers' assessment of the brand or product (Koschate-Fischer et al., 2012; Supphellen, 2022). For this reminder to have any leverage in evaluation and choice, the COO cues must trigger positive associations that make the product more attractive with the COO cues than without it (Johansson, 1989). In addition, Dinnie (2022) states that if a nation has strong associations, these will spill over or amplify associations connected to a brand or a product if connected through COO communication.

Furthermore, research has found that COO marketing interprets the degree of quality of unknown products (Han, 1989; Huber & McCann, 1982). However, the COO-related associations may vary across product categories, as the perception of the quality of products made in a given country is typically specific to product categories (Han, 1989). In addition, previous research has found that COO marketing affects the rating of product attributes (Erickson et al., 1984; Han, 1989). This indicates that consumers may draw correlations between COO-related associations as well as other drivers of choice in the product evaluation. Han (1989) explains this as a halo effect as the COO associations directly affect

consumers' beliefs about product attributes and indirectly affect the overall evaluation of products. This effect means that country-related associations affect product beliefs which again affects the brand attitude (Han, 1989).

Further on, as consumers become familiar with a country's products, the COO-related associations could be used to summarize consumers' beliefs about product attributes and directly affect their brand attitude. This suggests that there are structural interrelationships between COO-related associations, beliefs about product attributes, and brand attitude (Han, 1989).

3. Hypothesis Development

As mentioned, this study aims to gain insights about the effect different sustainability communication techniques have on a company's perceived green brand equity. The literature has highlighted that integrating multiple drivers of choice could create positive effects for a brand. However, the literature lacks on how this could increasingly impact green brand equity. In addition, the broad use of COO cues and national branding has shown to be an effective branding technique to yield advantages. However, the theory misses research on how this in particular could create advantages for the perceived sustainability of a company. To closer examine the overall research question, this chapter will present hypotheses concerning these topics. This is to understand how integrating multiple drivers for choice and COO cues could affect and nuance the perceived green brand equity (hereby referred to as GBE). The connection between these factors is visualized in the research model (Figure 1).

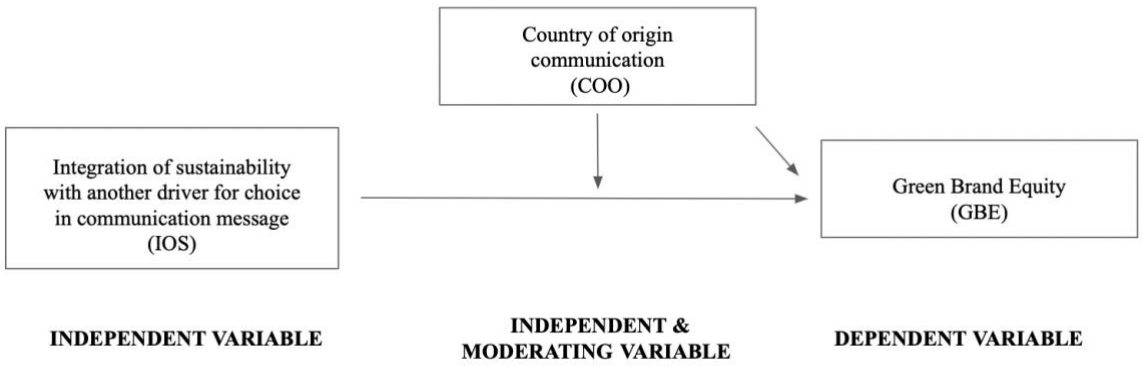

Figure 1: *Research model.*

3.1 Drivers for Choice

What determines a consumer's behavior is influenced by many factors, both internal and external. The internal are personal and psychological factors such as motivation, perception, learning, belief, values, customs, age, personality, economy, and stage in the life cycle. While external factors could be social factors such as family, friends, and reference groups, as well as consumer culture (Kumra, 2006). Influencing a consumer's decision is therefore perceived as a difficult exercise. However, this is the essence of almost all marketing. In general, a big part of this is to communicate the points-of-parity and points-of-difference of

the product or service to position the brand to both be as significant as its competitors and at the same time unique compared to them (Keller & Swaminathan, 2020).

3.1.1 Integration of Drivers

Further on, Keller and Swaminathan (2020) argue that when marketers draw correlations between associations this could be a successful strategy as two associations become mutually reinforcing. Supphellen (2020) also emphasizes the benefits of interplaying associations in the brand positioning. He highlights that when sustainability is interplaying with other drivers for choice this could generate extra effects. By connecting drivers, they will amplify each other and differentiate the brand from competitors (Supphellen, 2020). Bargh and Chartand (1999) state that if consumers experience various product attributes together over time, the associations between them may become automatic. This implies that given one attribute, a positive correlation on the other may be predicted (Cho & Baskin, 2018). This is exemplified through associations such as sustainability and perceived health, as Verain et al. (2016) found that sustainability has a positive rip-off effect on perceived health, especially for highly sustainability-conscious consumers (Cho & Baskin, 2018).

Research by Cho and Baskin (2018) further found that the higher degree of perceived label fit, the more favorable the product evaluations will be. They have especially researched the effect on sustainability labels and perceived healthiness. Their findings suggest that if a product is perceived as healthy, this could increase the efficacy of sustainability labels, as well as the interaction between health and sustainability, affects purchase intentions. This could indicate that product attributes that are perceived to have a high degree of fit with sustainability could have a positive effect on product evaluation. This could however be moderated by an individual's sustainability skepticism (Cho and Baskin, 2018).

Considering the reviewed aspects of integrating drivers of choice and label fit, it could seem that export brands will reap greater effects if the sustainability communication is related to other relevant product attributes in the product evaluation. Thus, the following hypothesis is developed:

H1: *Communicating sustainability integrated with another driver for choice, strengthens the positive effect on the brand's GBE.*

3.2 Sustainability in National Branding

The rising need for countries to commit to sustainable development is well-established. This has led to an increased urge for countries to communicate their sustainable initiatives as this is affecting the country's global position, reputation, and national brand (Dinnie, 2022). Through the efforts of various organizations, there now exist many sustainability indexes that allow the ranking of individual countries regarding the quality of their environmental stewardship.

Another way of receiving information about the perception of how other people around the world pursue a country is to examine the country's external impact. This was put into system by Anholt in 2014 in an index ranking called the Good Country Index (Dinnie, 2022). The Good Country Index does not measure what countries do at home, uniquely, it only looks at each country's positive and negative external impact. Cull and Anholt (2021) explain that having a good ranking in this index implies that the country will find it easier to attract investments, talent, and tourism or to export talented people, products, or services. This is parallel to companies with good images who find it easier to sell more products at a higher margin, and the companies without much of an image who find that everything is a struggle (Dinnie, 2022).

As mentioned, Dinnie (2022) argues that when connecting a brand to a nation through COO cues, the nation's associations could be transferred through spill-over effects. This implies that if a country has salient sustainability associations this could rub off on the brand, resulting in a higher perceived degree of sustainability, and thereby a strengthened GBE. In sum, this raises questions to what extent a country's sustainability associations affect export brands' perceived degree of sustainability when using COO cues. Both due to the increased recognition and awareness, but also because of the rub-off effects from the nation's associations. The following hypothesis is developed to examine this phenomenon closer:

H2: *Connecting a brand to a country with salient sustainability associations positively affects the brand's GBE.*

H3: *Including COO cues will moderate the effect on the perceived GBE of integrating sustainability with another driver of choice.*

3.3 Summary of Hypotheses

Based on the presented theories and previously found implications discussed above, this study's overall research question will be examined closer through these three hypotheses.

H1: *Communicating sustainability integrated with another driver for choice, strengthens the positive effect on the brand's GBE.*

H2: *Connecting a brand to a country with salient sustainability associations positively affects the brand's GBE.*

H3: *Including COO cues will moderate the effect on the perceived GBE of integrating sustainability with another driver of choice.*

4. Methodology

Based on the theoretical background and earlier research, the following chapter will elaborate on how the overall research question and hypotheses were investigated in terms of the research setting, design, data collection, and measurement. Following this, a descriptive summary of the collected data used to conduct the data analysis will be presented.

4.1 Research Setting

Based on Strahilevitz's (2003) suggestion stating that companies with a neutral ethical reputation are likely to reap the greatest benefits from CSR communication, the presented hypotheses and the overall research question will be researched based on a Norwegian farmed salmon company's perspective. In particular, the study will use the brand "SALMA" to test the hypotheses. According to several sustainability reports and indexes, the farmed salmon industry has a neutral sustainability score and reputation (PWC, 2022; SB Insight, 2022). Further on, Norway is considered a highly sustainable country in several international rankings (Shieler, 2020; SolAbility, 2021; Sustainable development report, n.d).

This study aims to explore the effects on GBE in export markets, but due to the length and budget of the study, the hypotheses are only explored in one export market. The presented hypotheses will be investigated in the United States as this is an export market where Norway is associated with sustainable production of salmon, as well as other sustainability associations (Personal communication, Norwegian Seafood Council, 7th of October 2022). This shows that there are already established associations for Norwegian sustainability in the United States. In addition, the United States represents a realistic export market for Norwegian salmon, as it already is one of the biggest export markets for this product category (Personal communication, Norwegian Seafood Council, 7th of October 2022), making the results of this study of higher practical value and interest.

In addition, Norway ranks as the 12th best nation brand in Anholt-Ipsos Nation Brands Index for 2022 (Ipsos, 2022). This implies that there is a high recognition, knowledge, brand value, and strong associations connected to the Norwegian nation brand. In sum, this setting will

potentially generate a positive effect on the farmed salmon company's GBE if connected to the Norwegian associations through COO cues.

4.2 Research Design and Strategy

This study's main research question and the developed hypotheses called for a quantitative study. As the primary goal of the research is to investigate relationships between variables in a particular context, an exploratory design is the most suitable (Saunders et al., 2019). By using accurate empirical measurements and manipulations the experimental design could increase the ability to find significant relationships (Bell, 2009). The choice of a quantitative and exploratory study incorporates control to ensure the validity of the data (Saunders et al., 2019). The research strategy for this study was an experiment, which allowed for analyzing how a change in an independent or moderating variable causes a change in a dependent variable (Saunders et al., 2019). The data acquisition was done through an online questionnaire, followed by statistical analysis.

4.2.1 The Experiment

To understand the effect on the dependent variable (GBE) at different levels of the independent and moderating variables (IOS & COO) while also testing for an interaction effect between these as visualized in the research model (see figure 1), an experiment with a 2x2 between-subject factorial design was appropriate (Malhotra et al., 2017). Such a design is particularly effective when presenting different manipulations (Saunders et al., 2019). Further on, by using this design the respondents are only presented to one of the four cells. This ensures that there are no unwanted carryover effects, which might occur in within-subjects designs, where the respondents are presented to all cells in the experiment (Saunders et al., 2019). This brought on manipulation of the two variables IOS and COO, resulting in four different treatments as seen in table 1. Two of the cells in the experiment included a message where sustainability was a separate driver of choice, and two cells included a message where sustainability was integrated with another driver. In two cells the message also appeared with COO cues, and in two cells the message had no COO cues. This made four cells that displayed how different treatments could affect the perceived GBE. All four ads consisted of both pictures and text as shown in table 1 and appendix 2.

Table 1: *The experiment design.*

	Sustainability as **integrated** driver of choice	Sustainability as **separate** driver of choice
COO cues	Cell 1: 	Cell 2: 
No COO cues	Cell 3: 	Cell 4: 

Throughout the rest of this study, the different treatments will be referred to as the cells in the experiment.

Cell 1: Sustainability as an **integrated** driver for choice and COO cues.

Cell 2: Sustainability as a separate driver for choice and COO cues.

Cell 3: Sustainability as an **integrated** driver for choice and **no** COO cues.

Cell 4: Sustainability as a separate driver for choice and **no** COO cues.

Treatments

Independent variable: IOS

The independent variable, IOS, was measured by testing how *sustainability* as a driver of choice got perceived, both when presented as a separate attribute and when presented as integrated with another driver. According to studies done by the Norwegian seafood council *taste* is one of the biggest drivers for choice for this product category in the United States market (Personal communication, Norwegian Seafood Council, 7th of October 2022). Thus, taste was included as the other driver in the ads. The integration and separation of these drivers were done through the text of the ads. The composition of the texts was changed in several places to give two clearly different impressions in the communication.

In cell 2 and cell 4 where sustainability was a separate driver of choice, the header stated "SALMA = Sustainable salmon", and the additional text informed that the salmon was sustainably farmed. These cells also had a stamp at the bottom of the ad stating the product had "great taste from Norway/Europe". Thus, in these cells, the sustainability and tasteful claims were not connected.

In cell 1 and cell 3 where sustainability communication was integrated with the driver concerning taste, the header stated that "SALMA = Tasteful salmon" and the additional text informed that SALMA salmon has great taste *because* it is farmed sustainably. Furthermore, these cells (1 and 3) had the same stamp at the bottom of the ad stating the product had "great taste from Norway/Europe". These cells, therefore, integrated the sustainability driver with the driver concerning taste.

Independent and moderating variable: COO

The independent and moderating variable, COO, was measured by testing the effect on perceived sustainability by including and excluding COO cues from the ad. This was done by both referring to Norway as the country of origin in the text of the ad, and by including a Norwegian flag and the saying that this is a product of Norway in the two cells that had national branding (cells 1 and 2). This mix of text integration and flags as part of the COO labeling is aligned with Dinnies (2022) recommendations regarding national branding. For the ads without COO cues, the origin in the text was switched to Europe, and there was no other COO labeling (cells 3 and 4).

4.3 Data Collection

4.3.1 The Questionnaire

As mentioned, the collection of the data was done through an online questionnaire (see appendix 1). Firstly, the respondents were informed about the purpose of the study and were guaranteed anonymity in their answers, fulfilling the ethical obligations of survey research. The participants were thereafter randomly assigned to one of the four cells in the experiments and were therefore only exposed to one of the four ads. The aim was to evenly distribute the participants in the four cells, resulting in 25% of the respondents in each cell.

The layout of the questionnaire was designed so that the respondents after seeing one of the four ads were only presented with one, or a small group of questions, at a time. Continuously the respondents could see their progress throughout the survey. According to Gaddis (1998) and Arsham (2005), such measures make the questionnaire process easier for the respondents, keep them engaged, and ensure that they read the questions thoroughly. Thus, these measures made the survey more manageable and ensured more accurate responses.

To obtain the data, a third-party online survey panel, SurveyMonkey, was used to distribute the questionnaire. This panel was used to facilitate the experiment in terms of the desired research design and setting. The choice of distributor enabled collection from the targeted audiences in the United States. By obtaining the data this way, it simplified the data collection process tremendously in terms of getting in contact with certified respondents and in terms of time consumption. In addition, the survey panel filtered the respondents according to age and a screening question regarding the consumption of seafood.

4.3.2 Manipulation and Attention Check

A manipulation check was used to determine the effectiveness of the manipulation in the experimental design (Hoewe, 2017). This was done through a question that allowed us to check if the participants perceived, comprehended, and reacted as expected to the portion of the manipulation which contained the COO cues. Such questions are in general geared toward understanding each participant's cognizance regarding the condition to which they were exposed and therefore assess the validity of the manipulation (Hoewe, 2017). In the questionnaire, the manipulation check was an open question that asked the respondents if

they could recall where the salmon in the ad originated from. The answer to this question concludes whether the participants correctly perceived, interpreted, or reacted to the stimulus that was given in the experiment, and makes for more accurate conclusions related to the relationship between the independent and dependent variables (Hoewe, 2017). The respondents that failed the manipulation check were removed from the final data set.

In addition, questions to measure the respondents' attitudes toward sustainability were included, and these aimed to serve as control variables. One of the questions in this section was reversed and therefore worked as an attention check for the questionnaire. The answer to this question was used to detect unmotivated respondents who did not read the actual question, but rather just gave the same answer to all questions when speeding through the survey (Silber et al., 2021). There were some instances of this behavior in all four cells of the experiment, and these respondents' answers got removed from the final data set.

4.3.3 Measurements of Variables

The questions in the survey were set up to measure the effects of the variables in the research model; IOS, COO, and GBE. This was done by measuring the responses from the different cells on the construct measuring GBE. In addition, constructs serving as control variables were measured, such as personal climate attitudes. Finally, other variables were included to test if COO and IOS could affect for example intention and perception of the seafood category.

Likert Scale

To analyze and elucidate the collected data, 21 out of the 24 questions in the questionnaire were to be answered using a 7-point Likert scale, ranging from (1) "totally disagree" to (7) "totally agree", which is considered a good way of measuring perceptions and attitudes according to Hair et al. (2014). The individual questions in the questionnaire can be viewed as Likert items, and the grouping of several items could further on be viewed as constructs and Likert scale variables. A Likert scale variable is the average mean of multiple Likert items (Hair et al., 2014).

Constructs

To create different constructs, the concepts from earlier literature and research were operationalized into questions that define these concepts (Saunders et al., 2019). These constructs were then used to determine the effects and the change in the research variables. As some of the chosen variables such as perceived GBE is based on prior work, these constructs were operationalized according to how this had been measured previously. For the operationalization of the other constructs, questions derived from previously conducted surveys by researchers who measured similar constructs were used, and for other constructs, questions were developed based on the literature review.

Table 2: *Overview of constructs.*

Construct	**Items**	**Reference**
Attitude towards the brand	Q1, Q2, Q3	Partly adapted from Spears and Singh (2004).
Intention	Q4, Q5	Partly adapted from Spears and Singh (2004).
Green brand equity (GBE)	Q6, Q7, Q8, Q9	Partly adopted from Chen (2010).
Perceived sustainability of Norwegian and European seafood	Q10, Q,11, Q12, Q13, Q14, Q15	Partly adapted from Hall (2010).
Personal climate attitude (PCA)	Q16, Q17, Q18, Q19, Q20	Partly adapted from Haws et al. (2014).
Perceived sustainability of seafood	Q21	
Consumption	Q22	
Demographics	Q23, Q24	

4.4 Descriptive Data Summary

In total, the survey obtained 260 respondents distributed through the four cells of the experiment. However, respondents who answered no to the screening question, did not pass the manipulation check, responses with missing values, careless responders, and outliers got removed from the final data set, resulting in 127 qualified answers. Surprisingly, only 54% of the respondents passed the manipulation check and recalled the origin of the salmon. Taking a closer look, this also differed depending on the treatment. The percentage who passed the manipulation check and remembered the origin of the salmon was higher for the group who got presented with COO cues from Norway (60%) (cells 1 & 2) compared to the ones who did not (48%) (cells 3 & 4).

The removal of insufficient answers created variation in the distribution of participants, making the cells somewhat uneven despite the effort of having 25% of the respondents in each of the cells. The distribution of the final data set was 33% of the respondents in cell 1, 25% in cell 2, 18% in cell 3, and 24% in cell 4. All further analysis will be based on this filtered data sample. Table 3 and figures 2 and 3 give an overview of the sample size and distribution in the four cells.

Table 3: *Sample size in treatment groups (cells).*

	Sustainability as **integrated** driver of choice	Sustainability as **separated** driver of choice	Total
COO communication	Cell 1: Obtained = 67 Excluded = 25 ***n = 42*** *Qualification % = 63*	Cell 2: Obtained = 56 Excluded = 24 ***n = 32*** *Qualification % = 57*	Obtained = 123 Excluded = 49 *n = 74* *Qualification % = 60*
No COO communication	Cell 3: Obtained = 52 Excluded = 29 ***n = 23*** *Qualification % = 44*	Cell 4: Obtained = 59 Excluded = 29 ***n = 30*** *Qualification % = 51*	Obtained = 111 Excluded = 58 *n = 53* *Qualification % = 48*
Total	Obtained = 119 Excluded = 54 *n = 65* *Qualification % = 55*	Obtained = 115 Excluded =53 *n = 62* *Qualification % = 54*	Obtained = 234 Excluded = 107 ***n = 127*** *Qualification % = 54*

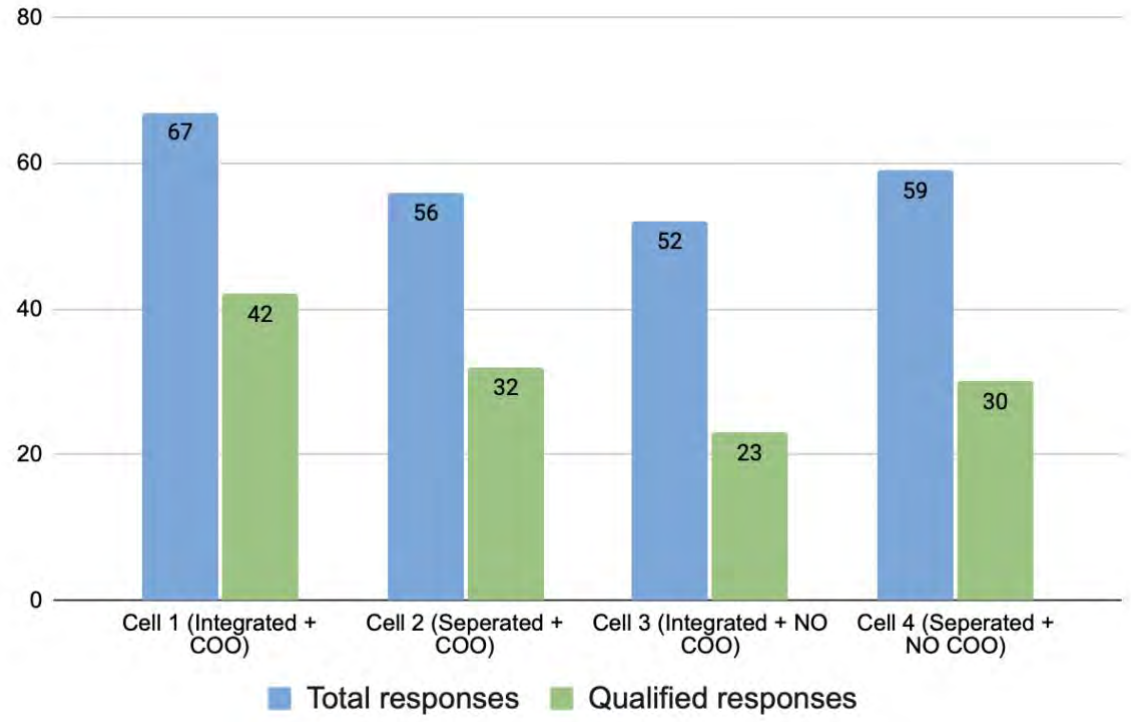

Figure 2: *Total obtained and qualified responses in each cell.*

Due to the removal of the unqualified responders, the distribution of respondents in the different cells was somewhat uneven. Figure 3 shows the percentage distribution of the final sample in each cell.

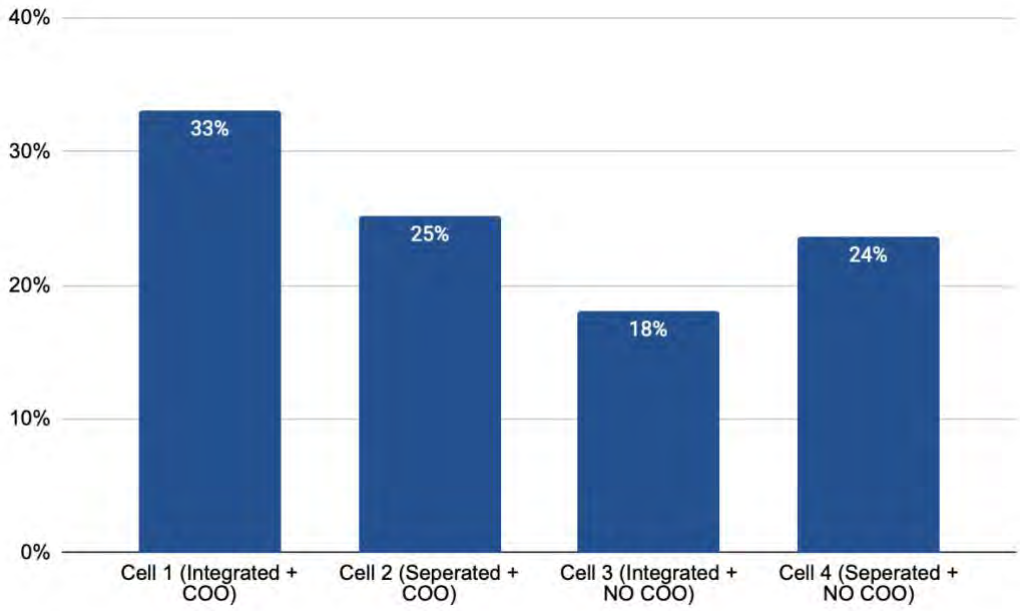

Figure 3: *Percentage distribution of the qualified answers in each cell.*

4.4.1 Respondent Demography

The final sample consisted of a mix of 69 females and 58 males. In particular, there was a quite noticeable gender asymmetry in cell 1 compared to the other cells, with 62% women and 38% men. According to Miller et al. (2008), this might influence the results from this respondent group since women are known to be more likely to give higher scores for GBE than men. Due to this imbalance, gender was used as a covariate in the following data analysis. Table 4 gives a more in-depth insight into the respondent's gender balance, and a visual overview is presented in figure 4.

Table 4: *Sample grouped by treatment and gender.*

Treatment group	Gender			
	Men		Women	
	Amount	Percentage	Amount	Percentage
Cell 1	16	38%	26	62%
Cell 2	15	47%	17	53%
Cell 3	12	52%	11	48%
Cell 4	15	50%	15	50%
Total n=127	58	46%	69	54%

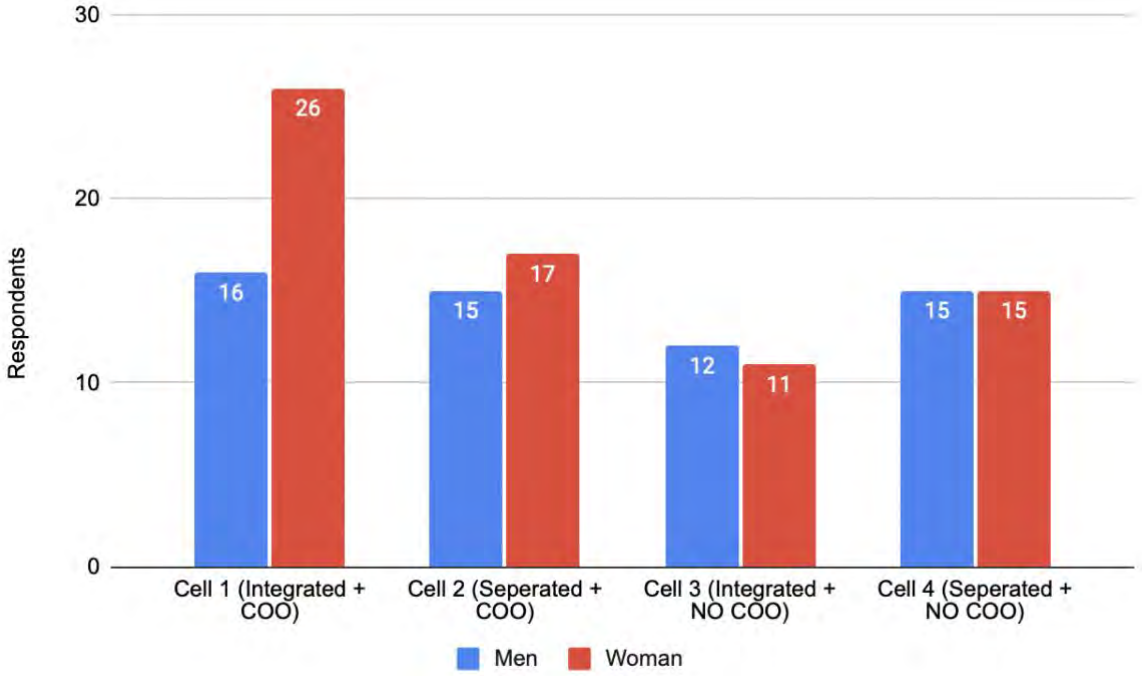

***Figure 4**: Gender balance in each cell.*

The age distribution of the sample group was more evenly in each of the four cells. Overall, the age of the respondents ranged from 25-85, and the biggest respondent group was between 36-45 years. Table 5, Figures 5 and 6 give an overview of the age distribution among the respondents.

***Table 5:** Sample grouped by treatment and age.*

Age group	25-35	36-45	46-55	56-65	66-75	76+	Total *n = 127*
Cell 1	8	10	11	4	7	2	42
Cell 2	8	8	5	5	6		32
Cell 3	5	7	5	2	3	1	23
Cell 4	5	12	5	3	5		30
Total n = 127	26	37	26	14	21	3	127

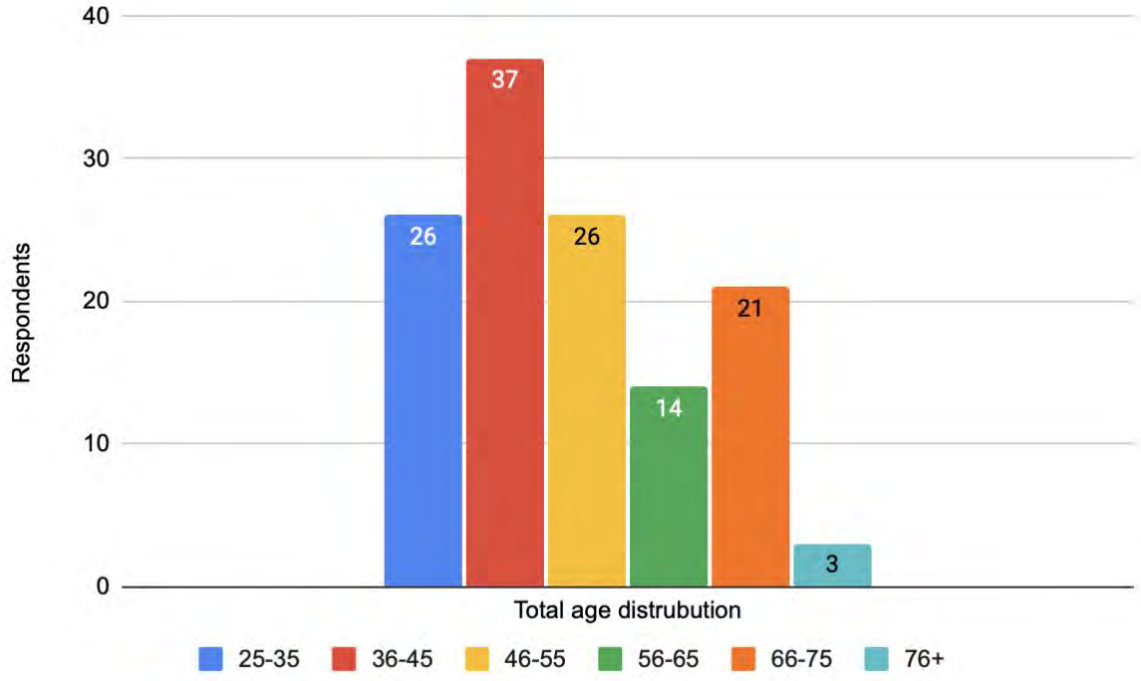

Figure 5: *Age distribution of the total respondent group.*

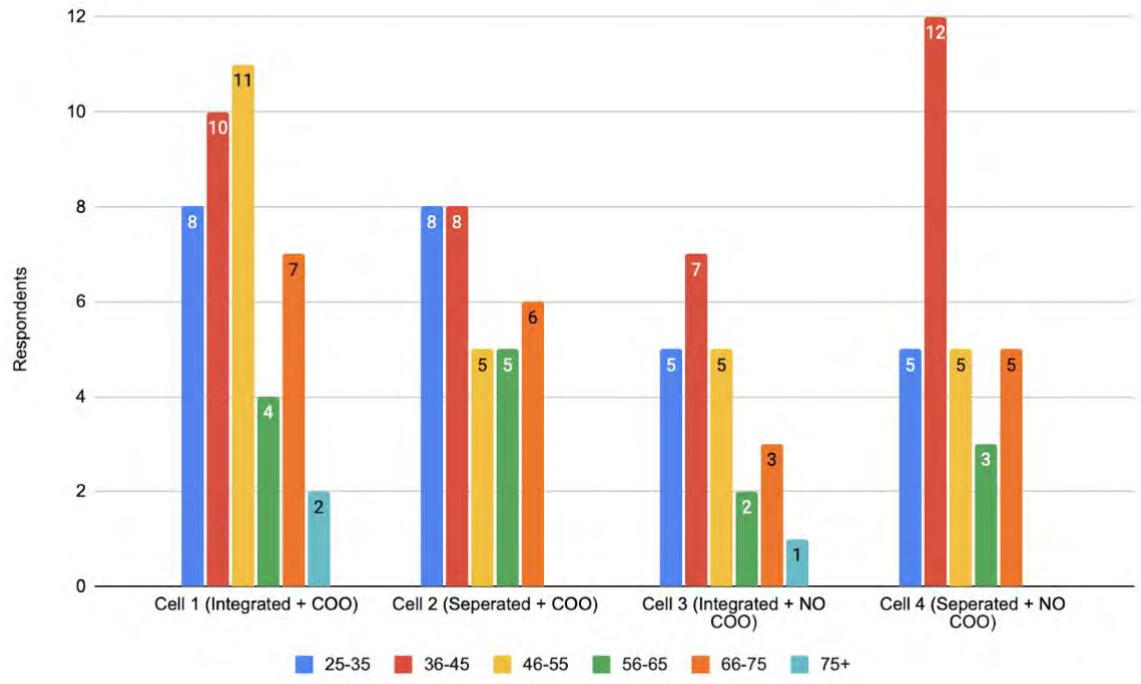

Figure 6: *Age distribution in each cell.*

4.4.2 Respondents' Personal Climate Attitude and Seafood Consumption

In addition to gender, the construct variable measuring the respondent's personal climate attitude (hereby referred to as PCA), as well as their consumption of seafood products, was used as covariates in the following data analysis. PCA was included since personal attitudes are shown to influence participants' responses according to Fazio (1986). In total, the distribution of the construct from each respondent varies considerably (figure 7). However, looking at the mean of this construct in each cell, the score only differs by 0.18 as shown in figure 8.

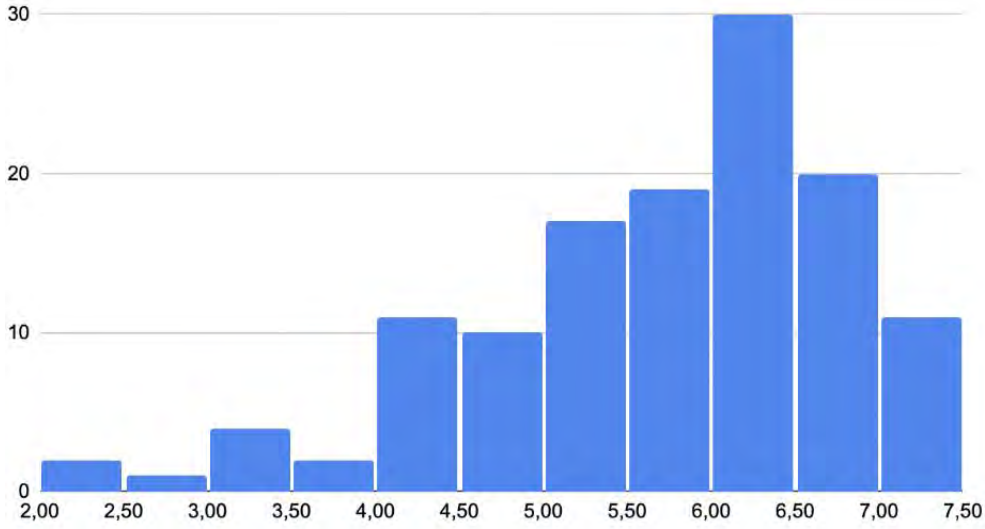

Figure 7: *Personal climate attitude (PCA) construct distribution for all responses.*

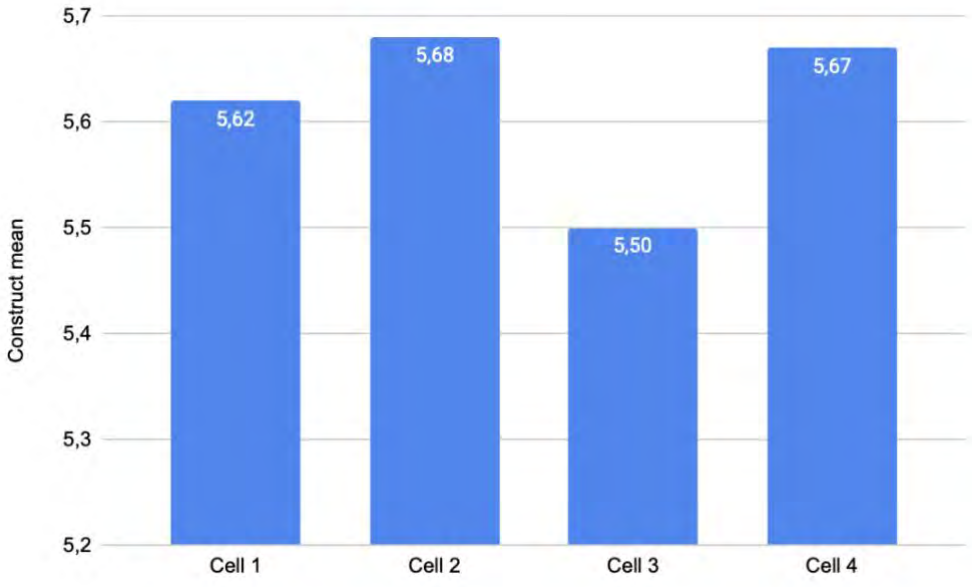

Figure 8: *Personal climate attitude (PCA) construct mean in each cell.*

As predicted by Fazio (1986), the construct measuring PCA did have a positive relationship with the dependent variable, GBE. Figure 9 shows the plot of PCA on the average score of all the GBE items, visualizing the positive relationship.

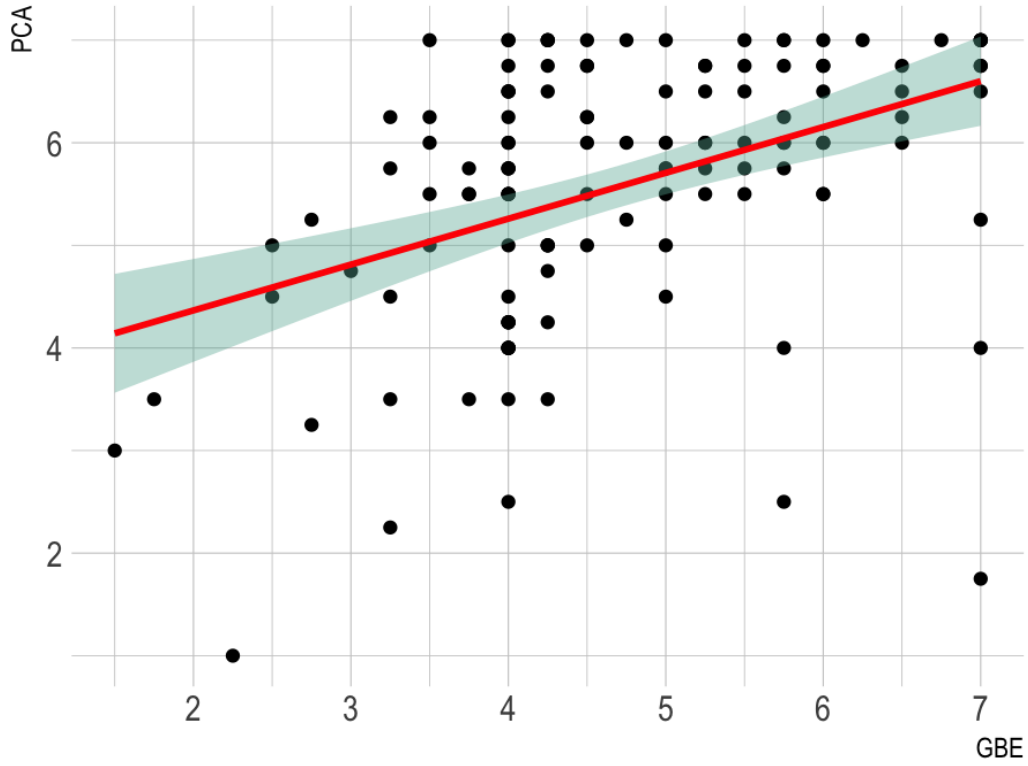

Figure 9: *Plot showing PCA and GBE.*

Further on, the total variation in the respondents' consumption of seafood products is shown in figure 10. As visualized, most of the respondents report that they eat seafood weekly and a couple of times a month. The distribution is quite indistinguishable in each of the four cells (figure 11). Regardless, consumption was used as a covariate as consumption behavior has in previous research shown to influence variables such as intention (He et al., 2019).

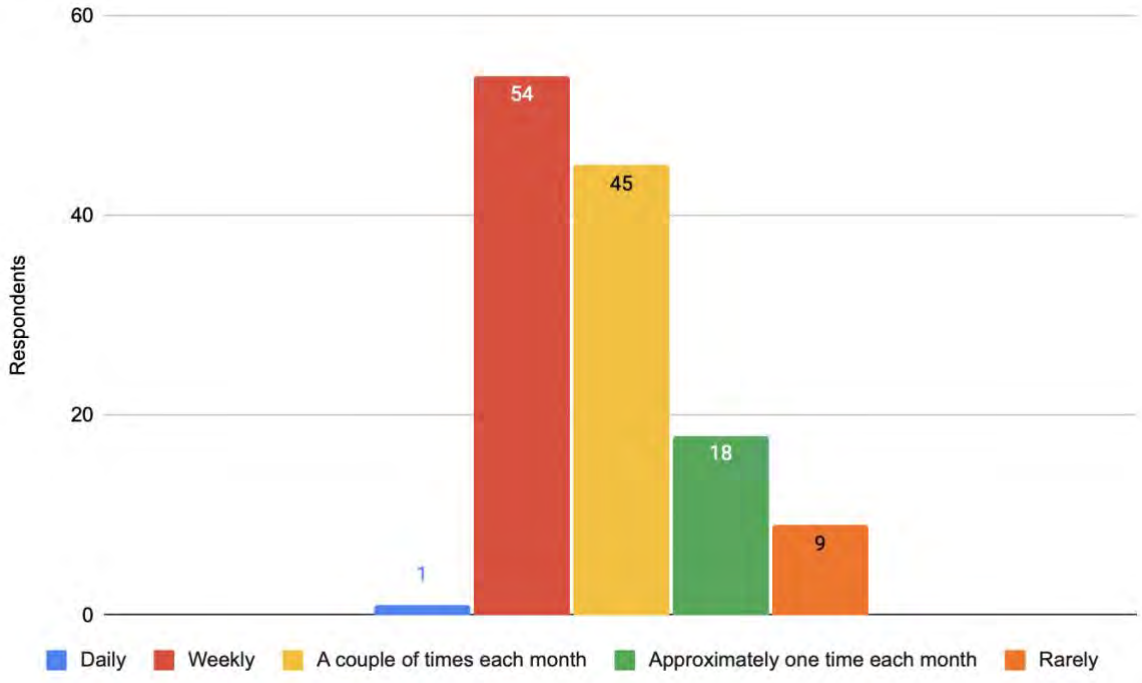

Figure 10: *Total variation in the respondents' consumption of seafood.*

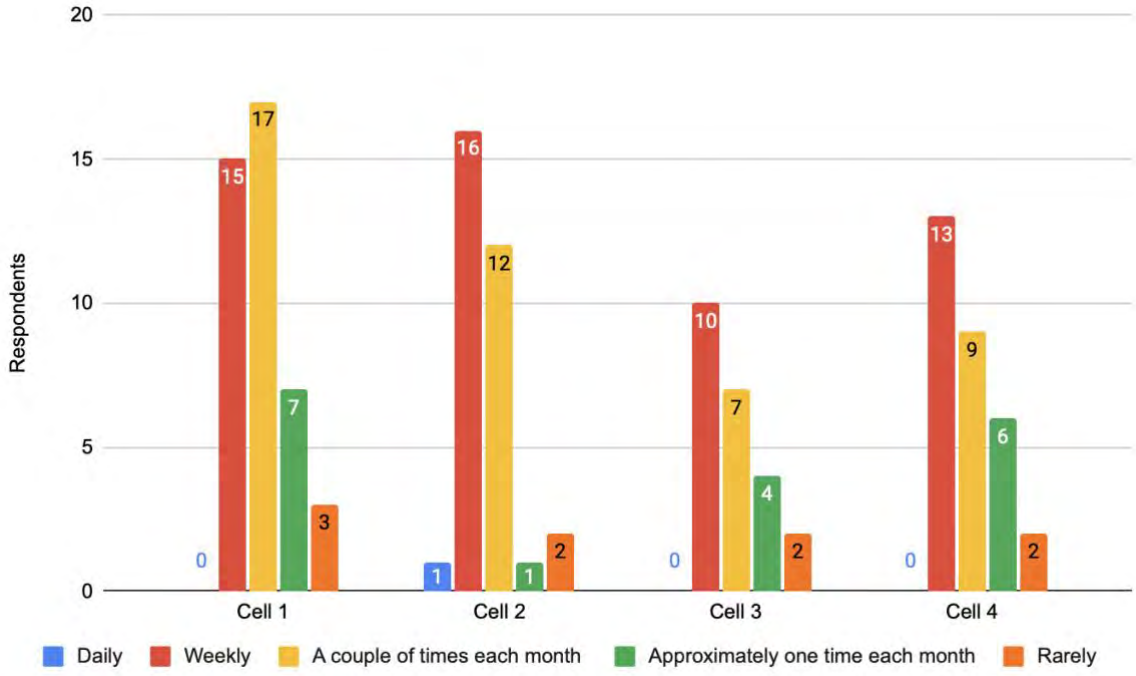

Figure 11: *Variation in the respondents' consumption of seafood in each cell.*

5. Data Analysis

5.1 Validity and Reliability of the Constructs

As stated, the questionnaire was developed with both established constructs, adapted items from earlier research, and some newly formulated items. The hypotheses consisted of the constructs, IOS, COO, and GBE. In addition, the analysis consisted of the covariates consumption, gender, and PCA. The variables IOS and COO were not measured through specific items, but rather through the four different treatment groups' responses on the GBE construct. The covariates gender and consumption were respectively measured with one item each. The GBE construct was measured through four different items, and PCA was measured with five items. As GBE and PCA are the only constructs with multiple items it is desired to measure the accuracy of these. Which leads to an evaluation of the validity and reliability of these constructs.

The validity of the constructs, in this case, refers to how well an item measures the construct intended to measure (Netemeyer et al., 2003). Firstly, validity which concerns systematic error was measured through a factor analysis (Hair et al., 2014). Further, reliability is the degree to which the observed variable is consistent in what it is intended to measure, which was assessed through internal consistency using Cronbach's alpha (Hair et al., 2014).

Prior to the analysis PCA item number 5 was reversed to match the scoring of the other variables, as PCA5 is negatively worded in contrast to all other items.

5.1.1 Confirmatory Factor Analysis

To assess convergent and discriminant validity, confirmatory- and exploratory factor analysis was used respectively (hereafter referred to as CFA and EFA). The level of measurement of the items within the constructs GBE and PCA were assessed by performing a CFA in R-studio using the lavaan package. The model showed a good fit regarding the unadjusted Chi-square value (χ^2 = 46.8, p <0.001 (p = 0.007), (χ^2/$d\mathcal{J}$ = 1.8 within the desired value of 2 or lower). Other fit measures, Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI), also suggested a good fit. With respectively 0.975 and 0.965, it was

higher than the desired value of 0.9 (Fan et al., 1999; Schumacker & Lomax, 2004). Further, the Root Mean Square Error of Approximation (RMSEA) of 0.079 and Standardized Root Mean Square Residual (SRMR) of 0.046 suggested a good fit, as they were lower than the desired value of 0.08 for an acceptance model fit. Based on these performance measurements, the model was accepted for evaluation of convergent and discriminant validity. However, PCA5 was removed from the PCA construct due to the lower threshold of 0.6 for standardized factor loadings, and PCA5 loading of only 0.292.

After removing PCA5 from the model, the model again showed a good fit regarding the unadjusted Chi-square value (χ^2 = 43.22, p = 0.001, (χ^2/$d\mathcal{J}$ = 2.2). Again, Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI), also suggested a good fit, with respectively 0.971 and 0.957. Further, the Root Mean Square Error of Approximation (RMSEA) of 0.1 showed a marginal fit, and the Standardized Root Mean Square Residual (SRMR) of 0.044 suggested a good fit. Based on this, the model which included PCA5 showed a greater fit considering all performance measures. To conclude on which model was the most appropriate an EFA was conducted as the next step of the validity analysis and for an evaluation of items that should be included in the final model.

5.1.2 Exploratory Factor Analysis

When evaluating the correlation matrix and applying the thumb rule of 0.3 for correlation between items, it showed a high correlation between items, indicating that there could be interrelations between them. Based on this a EFA was considered to be appropriate. In the EFA all items concerning GBE and PCA were used. The EFA was used to discover the number and nature of latent variables that explained the variation and covariation in the set of measured variables (Preacher & MacCallum, 2003).

Table 6: *Correlation Matrix of items within GBE and PCA.*

	GBE1	GBE2	GBE3	GBE4	PCA1	PCA2	PCA3	PCA4	PCA5
GBE1	1.00								
GBE2	0.64***	1.00							
GBE3	0.70***	0.69***	1.00						
GBE4	0.75***	0.76***	0.79***	1.00					
PCA1	0.22	0.34**	0.38***	0.26*	1.00				
PCA2	0.31**	0.35**	0.47***	0.33**	0.86***	1.00			
PCA3	0.30**	0.40***	0.44***	0.42***	0.78***	0.83***	1.00		
PCA4	0.28*	0.34**	0.34**	0.30**	0.65***	0.74***	0.72**	1.00	
PCA5	0.20	0.16	0.20	0.19	0.28*	0.27*	0.27*	0.18	1.00

Significance level: p< .001***, p<0.01**, p<0.5*

To further examine the adequacy of the dataset to perform an EFA a Bartlett's Test and a Kaiser-Meyer-Olkin (KMO) were performed. The correlation adequacy was assessed by Bartlett's Test for Sphericity, which measured if the correlations were strong enough to group them into meaningful factors. The results were significant (χ^2 = 2043.6, p <0.0001), implying that the sample did not produce an identity matrix, hence was approximately multivariate normal and sufficient for further EFA (Field, 2000; Hadi et al., 2016; Pallant, 2020).

Further, the KMO was applied to assess the sampling adequacy. The results can be found in table 7. Field (2000) states that the sampling is adequate if the KMO is larger than 0.5. The overall MSA = 0.88, and the sampling was sufficient. Kaiser (1974) describes values between 0.5 and 0.7 to be mediocre, between 0.7 and 0.8 are good, while values between 0.8 and 9 are great, and above 0.9 are superb (Sofroniou & Hutcheson, 1999). According to this classification, there were two good, five great, and two superb values.

Table 7: *Kaiser-Meyer-Olkin factor adequacy (GBE and PCA).*

GBE1	*GBE2*	*GBE3*	*GBE4*	*PCA1*	*PCA2*	*PCA3*	*PCA4*	*PCA5*
0.88	0.88	0.87	0.79	0.83	0.79	0.87	0.91	0.93

In addition, a parallel analysis and scree plot was conducted to determine the number of factors. This analysis suggested two factors, and a two-factor model was therefore tested.

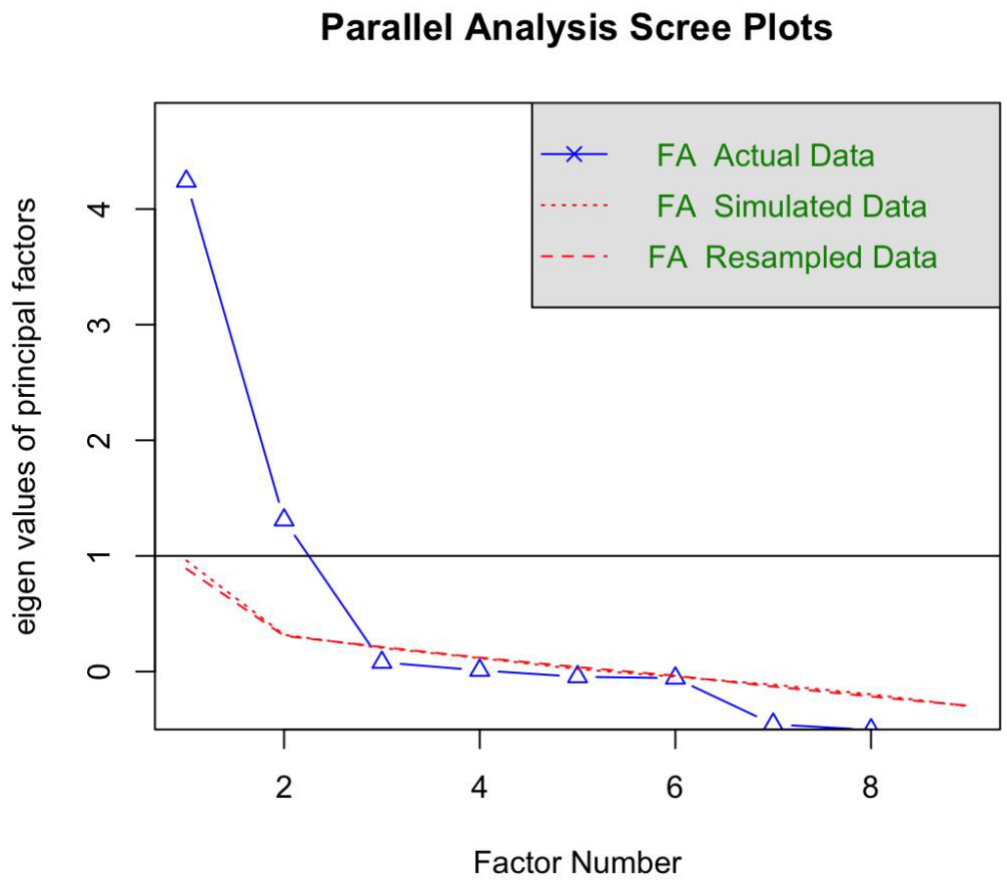

Figure 12: *Parallel Analysis Scree Plot.*

After testing all nine items regarding GBE and PCA, the items loaded on only one factor each and split into the factors GBE and PCA as assumed. Using the criterion of loadings greater than 0.3, PCA 5 was removed for further analysis as it scored 0.24. The model, including PCA5, showed a good fit with RMSEA (0.052), TLI (0.984), RMSR (0.02), and

CFI (0.992). After removing PCA5, the model also has a good fit, due to the performance measures. RMSEA (0.078), TLI (0.972), RMSR (0.02), and CFI (0.992).

Table 8: *Factor loadings EFA (GBE and PCA).*

	Factor 1	**Factor 2**
GBE1	0.81	
GBE2	0.79	
GBE3	0.79	
GBE4	0.97	
PCA1		0.92
PCA2		0.97
PCA3		0.83
PCA4		0.75
PCA5		0.24 (removed)

5.1.3 Summary of Factor Analysis

As PCA5 had insufficient factor loading using EFA, therefore the CFA model without this item was used for further analysis. This model showed less fit regarding the unadjusted Chi-square value and RMSEA, but a good fit using CMI, TLI, and SRMR. To evaluate the internal consistency of the factors derived from the factor analyses, Cronbach's alpha was used to measure the reliability. Hair et al. (2014) suggested that Cronbach's alpha should be above 0.7, hence the values of 0.91 and 0.93 are satisfactory.

Table 9: *CFA loadings, means, and standard deviation for constructs GBE and PCA.*

Variable	St. Factor Loading	St. Error Variance
GBE (Cronbach's alpha = 0.91, Mean = 4.72, Std = 1.21)		
GBE1	0.806	0.350
GBE2	0.814	0.338
GBE3	0.863	0.256
GBE4	0.921	0.151
PCA (Cronbach's alpha = 0.93, Mean = 5.58, Std = 1.28)		
PCA1	0.889	0.209
PCA2	0.956	0.086
PCA3	0.878	0.229
PCA4	0.774	0.401

5.2 Two-way ANCOVA with GBE as the Dependent Variable

The respondents were measured through four different cells focusing on the independent and moderating variables, IOS and COO. The two-way ANCOVA is conducted to investigate the effect of communicating IOS and COO in an ad in export markets on GBE. By using ANCOVA in contrast to ANOVA it allowed for possible covariates which could affect GBE. As mentioned in section 4.4, gender, consumption, and PCA are included as covariates.

5.2.1 Assumptions Check

As previously mentioned, the analyses were conducted based on the cleaned data sample where 133 respondents were removed as they did not pass the manipulation check, were careless responders, and outliers. However, when testing with all responses included in the

ANCOVA analysis it gave similar results as with the cleaned data set. Even though it would give a greater sample to include all responses, the outliers and failures of the manipulation remained removed as the understanding of the manipulations is of great importance for the credibility of the answers. There was some skew to the distribution after removing outliers and failures of the manipulation as illustrated in figure 13, however since the sample includes over 30 responses it was sufficiently large, and the central limit theorem could be disregarded. The linearity is illustrated in figure 14. Some values stood out on the tails, but mostly the data were on the line and were acceptable for further use.

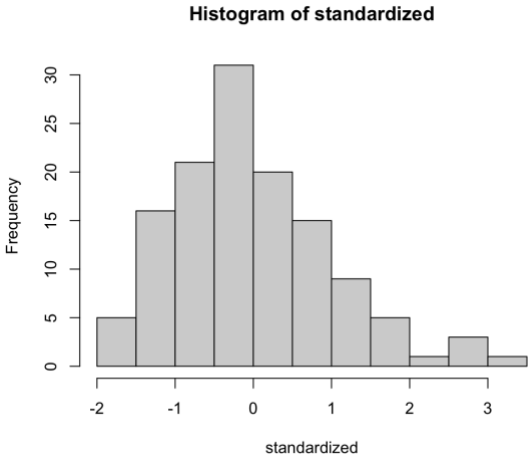

Figure 13: *Normality histogram.*

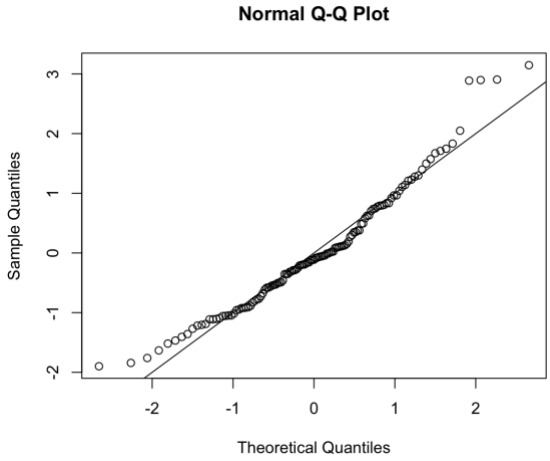

Figure 14: *Linearity visualization.*

A Levene's test for homogeneity of variance was run using GBE as the dependent variable, and COO and IOS as independent variables. The homogeneity of variance was confirmed as it was not significant ($p>0.05$).

5.2.2 Testing Hypotheses with GBE as the Dependent Variable

The three hypotheses were tested with respectively IOS and COO, and how they affect the dependent variable GBE. All hypotheses with the independent and moderating variables were hypothesized to positively affect the GBE.

H1: *Communicating sustainability integrated with another driver for choice, strengthens the positive effect on the brand's GBE.*

H2: *Connecting a brand to a country with salient sustainability associations positively affects the brand's GBE.*

H3: *Including COO cues will moderate the effect on the perceived GBE of integrating sustainability with another driver of choice.*

The four different treatment group's overall score on GBE is visualized with a boxplot in figure 15. The visualization of the distribution shows that the groups receiving COO cues reported slightly higher and wider scores of GBE.

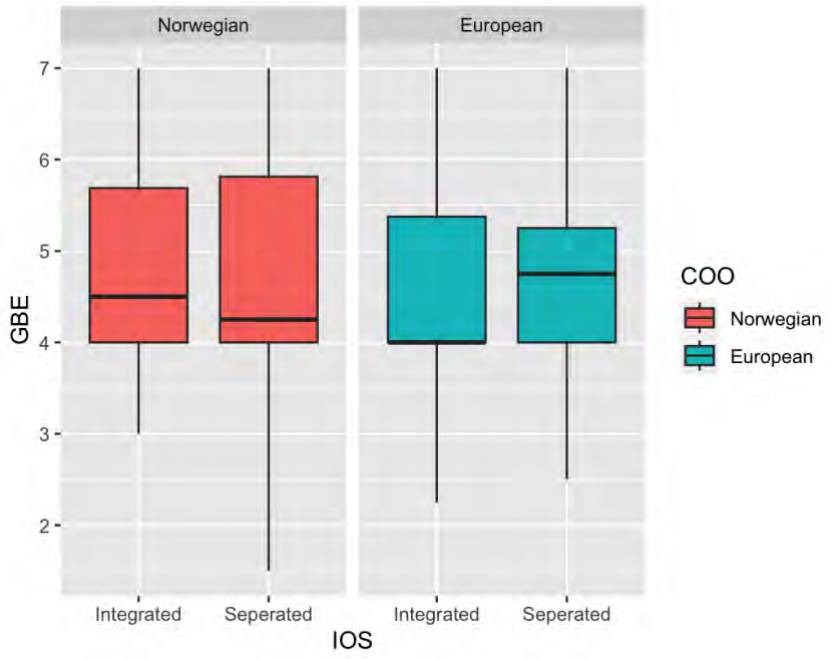

Figure 15: *Box plot with GBE, COO, and IOS.*

As mentioned, the covariates gender, consumption, and the participant's personal climate attitude (PCA) are included as covariates to control these effects on GBE. The results of the two-way ANCOVA suggest that there is no significant total effect on GBE of IOS ($F(1,117) = 0.12$, $p = .73$, $\eta p2 = .001$), nor COO ($F(1,117) = 0.68$, $p = .410$, $\eta p2 = .007$). There is also no significant effect of the moderating effect of COO on IOS and GBE, ($F(1,117) = 0.55$, $p = .81$, $\eta p2 = .0006$). This signifies that the null hypothesis is accepted, and all hypotheses are rejected.

Table 10: *Summary of ANCOVA results with GBE as the dependent variable.*

Effect	**F**	**Pr(>F)**
COO	0.683	0.410
IOS	0.118	0.732
COO:IOS	0.55	0.8142
Consumption	0.871	0.483
Gender	6.310	0.013
PCA	24.059	3.04e-06

5.2.3 Additional Findings

There is observed a significant effect of the covariates gender (F (1, 117) = 6.31, p= .0134, ηp2 = .07) and PCA (F(1, 117) = 24.06, p= 3.04e-06, ηp2 = .25) on GBE. These results show that the covariates, gender, and PCA, are significantly related to GBE, and are significant adjusters of GBE as assumed. The last covariate, consumption, was not observed as a significant adjuster of GBE.

5.3 Summary of Analysis

Table 11: *Summary of the analysis.*

Hypothesis	***p*-value**	**Result**	**Explanation**
H1: Communicating sustainability integrated with another driver for choice, strengthens the positive effect on the brand's GBE.	>0.05	Rejected	No evidence is found for a relationship between IOS and GBE.
H2: Connecting a brand to a country with salient sustainability associations positively affects the brand's GBE.	>0.05	Rejected	No evidence is found for a relationship between COO cues and GBE.
H3: Including COO cues will moderate the effect on the perceived GBE of integrating sustainability with another driver of choice.	>0.05	Rejected	No evidence is found for a moderating effect of COO cues between IOS and GBE.

6. Discussion

This study aimed to investigate how different treatments of sustainability communication affected a company's GBE. Specifically, it was hypothesized that integrating sustainability communication with other drivers of choice as well as connecting a brand to a country with salient sustainability cues would have a positive effect on the brand's GBE. This was examined by looking at a Norwegian farmed salmon brand's perceived GBE when respondents got exposed to four different ads. This chapter will focus on gaining more understanding of the rejected hypotheses, elaborate on the other findings that were observed, as well as present theoretical and practical implications.

6.1 Main Findings

For further discussion of the findings, the overall research question of the study will make the foundation, as we elaborate on the hypotheses used for answering this.

"How may messages integrating sustainability and a main driver of choice, and cues to a country with salient sustainability associations affect green brand equity?"

6.1.1 Hypothesis 1

H1: *Communicating sustainability integrated with another driver for choice, strengthens the positive effect on the brand's GBE.*

The ANCOVA analysis found no support for H1 as there was no significant relationship between IOS and GBE in this study. This is contrary to the literature which suggests that connecting sustainability with other drivers could generate extra effects (Supphellen, 2020). However, it could be questioned if the respondents perceived the separation of the drivers.

The questionnaire did only contain a manipulation check for COO, and therefore we lack confirmation that the integration and separation of drivers were perceived. It could be questioned if the separation and integration were communicated clearly and distinctly enough, as both proposed drivers of choice (sustainability and taste) were presented in all the cells. Even if only two of the cells contained the manipulation with integration, the receivers

of the cells with separated drivers had the material to process and integrate both drivers themself. This could indicate that the manipulations were not developed appropriately and that there could be a positive effect of IOS on GBE if manipulated accurately.

Another aspect to take into consideration is the perceived fit between the drivers' *sustainability* and *taste.* Cho and Baskin (2018) found that the higher degree of perceived label fit, the more favorable the product evaluations will be. The degree of fit between sustainability and great taste was not tested in a pretest as the Norwegian Seafood Council presented "tasty" as one of the top functional benefits for Norwegian salmon in the United States (Personal communication, Norwegian Seafood Council, 7th of October 2022). However, as the perceived fit between the presented drivers was not tested, it cannot be stated that there is a perceived fit between these drivers.

To further aim to explain the lack of support for this hypothesis, another aspect to consider is the respondent's lack of knowledge of the presented brand "SALMA", as they only had the presented ad as a reference to use for evaluation. This might be too little information to give a well-thought and evaluated response when answering questions about the brand's GBE. This could impact the relationship between IOS and GBE, as it could be confusing and complicated to evaluate the GBE of an unfamiliar brand. To summarize, multiple aspects, such as poor manipulation in regards to the separated and integrated drivers, lack of pretest looking at the fit between sustainability and great taste, and an unfamiliar brand, could have influenced the lack of effect of IOS on GBE.

6.1.2 Hypothesis 2

H2: *Connecting a brand to a country with salient sustainability associations positively affects the brand's GBE.*

There was no support for H2 as the conducted analysis found no significant relationship between COO and GBE. The literature used as the foundation for this hypothesis, states that for COO cues to have additional leverage in evaluation and choice, the cues must trigger associations that make the product more attractive with the COO than without it (Johansson, 1989). This implies for this hypothesis that the Norwegian cues must trigger associations

that make the product perceived as more sustainable to show a positive effect on the GBE. In addition, Dinnie (2022) explains that if a nation has strong associations, these will spill over to a brand or a product if connected through COO cues. As mentioned, Norway is considered a highly sustainable country in several international rankings (Shieler, 2020; SolAbility, 2021). In addition, 43% associate Norwegian salmon with sustainable production, and other sustainability associations in the United States (Personal communication, Norwegian Seafood Council, 7th of October 2022). These salient associations should therefore be transmitted to the brand when presenting COO cues and create effects according to Dinnie (2022). However, this study did not find any evidence that the Norwegian sustainability associations were transmitted and gave a positive effect on the perceived GBE.

When providing a possible explanation for the lacking relationship between COO and GBE, it could be questioned if Norway is a country highly associated with sustainability in the United States. Despite Norway being ranked as highly sustainable, sustainability is not one of the top-of-mind associations for Norway according to FutureBrand (2020). Due to sustainability associations for Norwegian salmon provided by the Norwegian Seafood Council, a pretest was not conducted to test if the nation itself (Norway) is associated with sustainability. The pretest could have detected if the COO did trigger salient sustainability associations in the United States or not.

Further on, the lack of support for this hypothesis could be resonated by the fact that the manipulation of the COO was poorly developed. It might be that the respondents in the cells without COO cues associate Europe with some of the same associations as Norway and that the results, therefore, do not show the full effect of including COO cues from a salient sustainable origin. A finding that substantiates that there was a poor manipulation of the COO cues is that only 54% of the respondents recalled the origin in the manipulation check.

Overall, the lack of a significant relationship between COO and GBE could be explained by what may be missing sustainability associations for Norway in the United States, or by insufficient manipulations, not allowing the study to obtain the full effect of the Norwegian cues.

6.1.3 Hypothesis 3

H3: *Including COO cues will moderate the effect on the perceived GBE of integrating sustainability with another driver of choice.*

The analysis found no support for H3 as there was not a moderating effect between COO and IOS on GBE. Han's (1989) findings indicate that consumers may draw correlations between COO-related associations as well as other drivers of choice in product evaluation. Han (1989) explains this as a halo effect as the COO associations directly affect consumers' beliefs about product attributes and indirectly affect the overall evaluation of products. In addition, Dinnie (2022) states that including COO cues could amplify associations, resulting in strengthened evaluations. For this hypothesis, that would imply that the effects of H1 would be amplified and strengthened when including COO cues. This is because spill-over of origin effects would strengthen the evaluation of sustainability and great taste, and again generate an additional positive effect as suggested by Supphellen (2020). As this was not observed in the analysis these theories and statements were therefore not supported in this study.

6.1.4 Impact of Significant Control Variables

Interpretations of the two-way ANCOVA show that there is a significant relationship between the dependent variable, GBE, and the two covariates, gender, and PCA. Hence, gender and PCA are significant adjusters of GBE. This means that the treatment effects vary across different genders and levels of PCA.

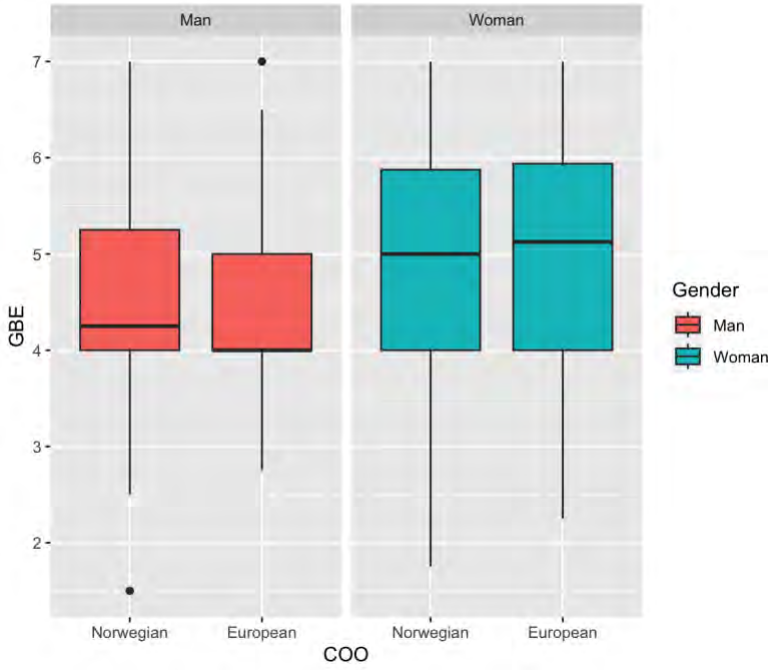

Figure 16: *Box plots with GBE scores by gender divided by COO*

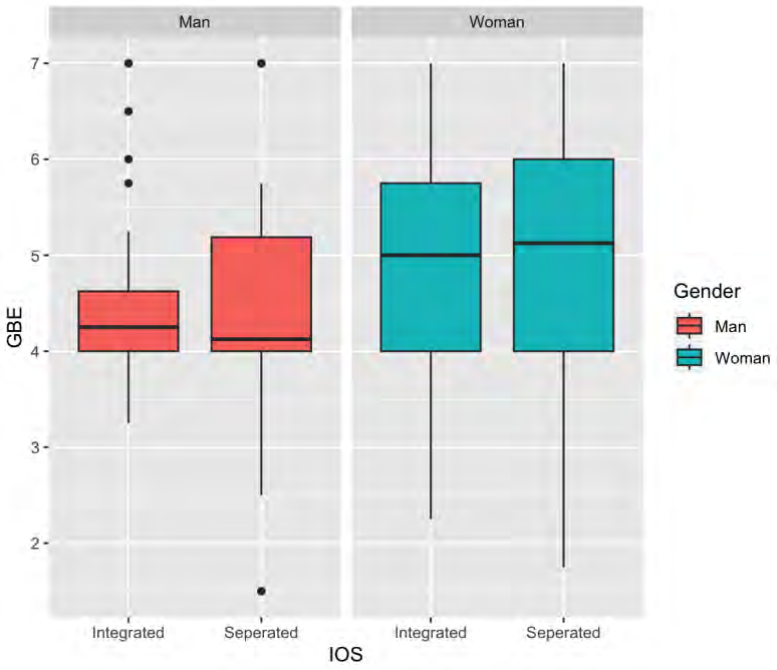

Figure 17*: Box plots with GBE scores by gender divided by IOS.*

The visualization of GBE scores by gender divided by COO and IOS, clearly shows that women sign higher scores for GBE. This was not surprising, as Miller et al. (2008) state that women are more likely to sign a higher score for this construct.

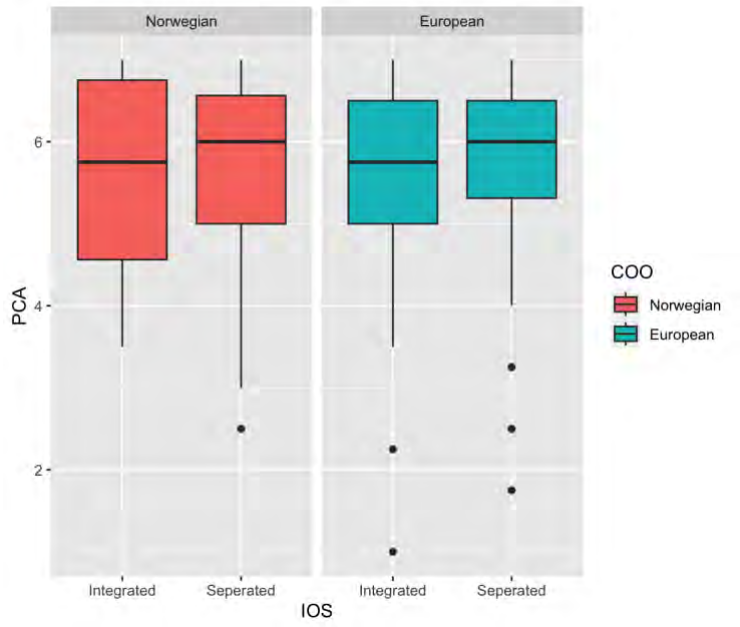

Figure 18: *Box plots with PCA divided by COO and IOS.*

The personal climate attitude of the participants was also a significant adjuster of GBE. This was predicted as it is known that attitude guides behaviors (Fazio, 1986).

6.1.5 Summary of Main Findings

As mentioned, the findings do not support any of the presented hypotheses. This might be reasoned by a lack of sustainability associations connected to the Norwegian origin, as well as poor manipulations of IOS and COO, resulting in the data not showing the full effects of these variables. Therefore, the hypotheses might still be correct and aligned with the presented theory, but due to insufficient manipulations, the study was unable to obtain these effects.

6.2 Additional Findings

In addition to testing IOS and COO on the dependent variable GBE, the study explored the effects the independent variables could have on other variables. In particular, IOS and COO were tested on the perceived sustainability of the seafood category and brand attitude. It was also observed interesting findings in the data sample which will be addressed.

6.2.1 Significant Relationship Between COO and Seafood Category

One of the additional findings was that the COO had a significant relationship with Q21: "In general seafood is a sustainable category". In the following analysis, this variable is referred to as "SSC" (sustainable seafood category). The results of the two-way ANCOVA with SSC as the dependent variable suggested that there was a significant total effect on SSC of COO ($F(1,117) = 8.055$, $p = .005$, $\eta p2 = .15$). This signifies that the null hypothesis was rejected. These results suggested that changing the origin would significantly impact the mean perceived sustainability of seafood. Also, for this variable, the covariate PCA was a significant adjuster.

Table 12: *Summary of ANCOVA results with SSC as the dependent variable.*

Effect	**F**	**Pr(>F)**
COO	8.055	0.005
IOS	0.006	0.937
COO:IOS	1.936	0.167
Consumption	0.470	0.758
Gender	0.000	0.999
PCA	8.292	0.005

In figure 19 the overall score on SSC divided by the four treatment groups is visualized. The distribution suggested that including COO cues had a greater effect on the overall score of perceived SSC. The groups who received the ad without COO cues (European) had a more similar mean, but scores below the two other groups (see table 13). The group that perceives seafood as most sustainable is cell 2: *COO + separate driver of choice.*

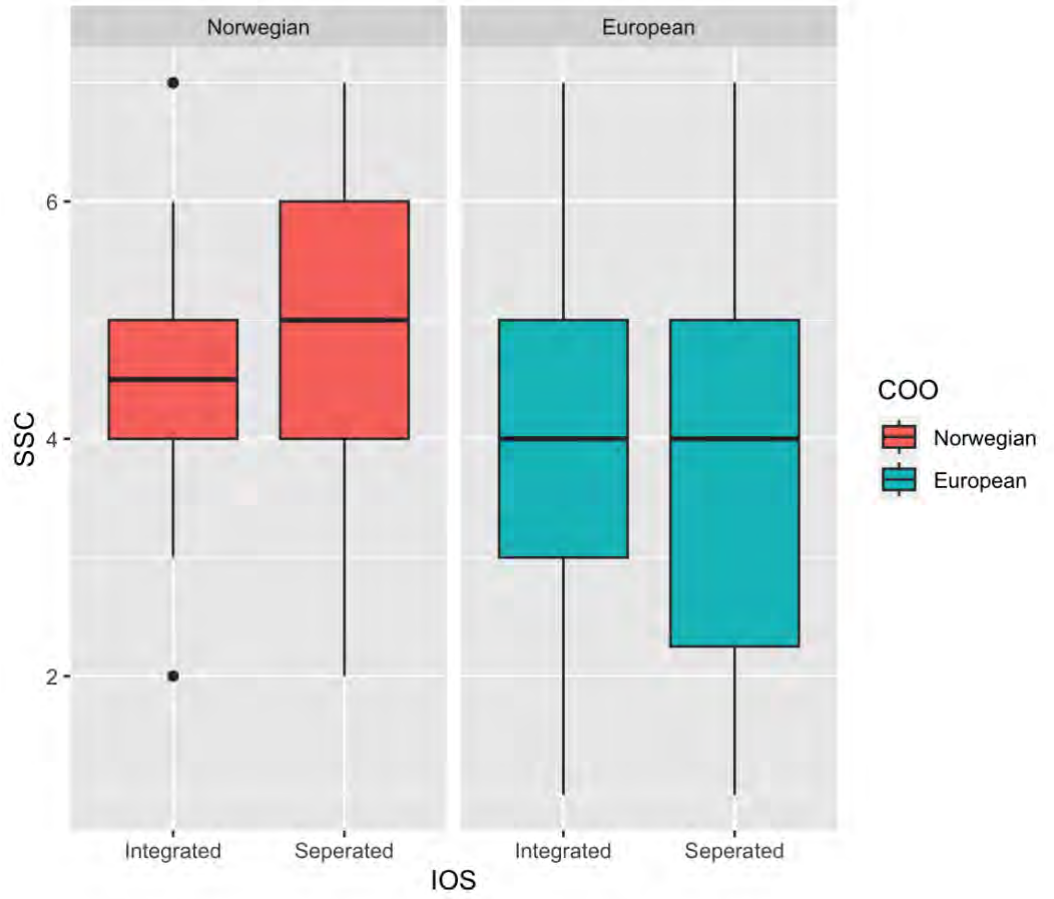

Figure 19: *Box plot with SSC, COO, and IOS.*

Table 13: *Summary of mean and standard deviation for SSC.*

Perceived sustainability of seafood category (SSC)		
Treatment group	Mean	Std
Cell 1: COO + Integrated	4.57	1.23
Cell 2: COO + Separated	4.88	1.29
Cell 3: No COO + Integrated	4.17	1.64
Cell 4: No COO + Separated	3.80	1.81

6.2.2 Marginal Effect Between COO and Brand Attitude

In addition, the findings showed a marginal effect of COO on brand attitude. This factor consisted of items 1, 2, and 3. The reliability of this factor was assessed through internal consistency using Cronbach's alpha. As mentioned, a Cronbach's alpha above 0.7 is satisfactory (Hair et al., 2014). For brand attitude, the $\alpha = 0.89$, and therefore acceptable. The results of the two-way ANCOVA with brand attitude as the dependent variable suggested that there was not a significant total effect on the brand attitude of COO ($F(1,117) = 3.374$, $p = .069$, $\eta p2 = .04$), but there was a marginal effect as it was 93,1% significant. These results, therefore, suggest that changing the origin could marginally impact the mean perceived brand attitude. As there was only a marginal effect, this was not analyzed further.

Table 14: *Summary of ANCOVA results with brand attitude as the dependent variable.*

Effect	**F**	**Pr(>F)**
COO	3.374	0.069
IOS	1.014	0.316
COO:IOS	0.005	0.942
Consumption	1.399	0.239
Gender	0.129	0.720
PCA	2.944	0.089

6.2.3 Associations Between Norway and Salmon in the United States

When assessing the manipulation check of the COO cues, it was observed interesting responses from the participants. Out of the 260 obtained responses, only 54% of the respondents passed the manipulation check. The manipulation check was an open question where the respondents were asked about the origin of the salmon. Out of the unqualified answers, the answers varied from Alaska, Switzerland, Earth, Canada, China, Finland,

Australia, the UK, Sweden, and France. There were also many that did not recall an origin, as well as careless responders passing through without answering. One observation was that the respondents in cells 1 and 2 (receivers of COO cues) remembered the origin better, resulting in more responders in the final data set with an origin of Norway than Europe. This could indicate that people remember the ad better when a specific country of origin is presented. In addition, 4 respondents answered "Norway" when the ad with Europe was presented, which could indicate that there is an association between Norway and farmed salmon. This is supported by FutureBrand (2019) which presents salmon as one of the top-of-mind associations with Norway. Another frequent response in the manipulation check was Alaska, accounting for 9% of the total responses. This response was most frequent for those exposed to the ads without COO cues (8 responses), while 2 responded Alaska when exposed to the ads with COO cues. This is not surprising as Alaska is the most known origin of catching salmon in the United States (Personal communication, Norwegian Seafood Council, 7th of October 2022).

6.2.4 Summary of Additional Findings

Overall, there are some supplementary findings beyond the scope of the research question and hypotheses of this study. It is of interest to highlight these findings as they could be used for future research. The most essential additional findings were the significant relationship between COO and SSC, which could imply that the COO cues of Norway had a positive effect on how sustainable the seafood category is perceived. In addition, there was a marginal effect between COO and brand attitude, which suggest that changing the origin could marginally impact the mean perceived brand attitude, and hence the brand equity. Lastly, there were observed answers with "Norway" in the question about origin within the cells presented without COO cues (Europe), implying that there is an association between salmon and Norway within the United States.

6.3 Implications

6.3.1 Theoretical Implications

One of this study's main aims was to contribute to research on the topic of sustainability communication and enrich the literature on this matter, as this is getting more and more vital in overall marketing. Specifically, this study looked at how companies could improve their position in export markets through increased GBE. This was done through a mix of integrating sustainability as a driver of choice with another major driver and by communicating the brand's COO, as these are factors which indicated by Anholt (2021), Dinnie (2022), Keller and Swaminathan (2020) and Supphellen (2020) could lead to an improved GBE.

The lack of support for the presented hypothesis suggests that this study was not able to find significant results aligned with what these theories propose. Either way, the results might nuance the literature as the additional findings contribute to a wider perspective on the implications of integrating drivers and COO cues. Firstly, there was no evidence showing how the integration of drivers led to correlations between associations that were mutually reinforcing each other and thereby leading to a positive effect on the GBE as indicated by Keller and Swaminathan (2020). However, the lack of significant results in this study should not deny that interactions between drivers could give the sustainability dimension more meaning as Cho and Baskin (2018) suggest. It might just be that this study failed to measure these effects.

Furthermore, Supphellen (2020) states that integrating drivers could result in differentiating the company from its competitors. However, if the manipulation check is used as a measurement of differentiation, it is surprising to see that the cells with the highest and the cell with the lowest number of respondents passing the manipulation check were the cells with the integration of drivers (cell 1 and 3). Meaning that the integration itself did not affect whether the respondents recalled the details in the ad or not. Although, whether this is a good measurement to detect differentiation is uncertain. On the contrary, the COO cues seemed to make the respondents remember the ad better as this led to more respondents passing the manipulation check. This implies that the COO cues indeed affected the respondent's ability to remember the ad, supporting Dinnie's (2022) theories stating that using national branding

could increase differentiation. This furthermore aligns with Hoeffler and Keller's (2003) statement concerning strong brands yielding marketing advantages such as getting easily recognized, as well as Anholt's (2007) statement concerning companies leveraging and benefiting from the differentiations from associations connected to the country of origin.

In addition, this study found marginal effects on the overall brand attitude when including COO cues, but no noticeable effect on the GBE as proposed by Anholdt (2021) and Dinnie (2022). This is surprising as Bekk et al. (2016) argue that these factors are connected with a positive relationship between GBE and brand attitude. This could imply that the COO cues did not solely affect the sustainable associations, but rather a mix of attributes that altogether increased the brand equity of the presented brand. In that case, this has nuanced theoretical implications as to what the effect of connecting the COO through marketing communications will have, adding on to Erickson et al., (1984) and Han's (1989) findings which concluded that COO marketing affects the rating of product attributes. Regardless of the lack of effect in the GBE, the observed marginal effect on brand attitude will nonetheless have a positive effect for the company as it could be said to improve brand equity (Du et al., 2010).

6.3.2 Practical Implications

For Norwegian companies operating in export markets who want to increase their GBE, the findings of this study suggest that there is no direct or moderating effect by integrating sustainability communication or using COO cues. However, the findings show that when communicating COO cues, there was a marginally positive effect on the brand attitude as well as the entire seafood product category is perceived as more sustainable. This has implications for Norwegian seafood export companies as this might increase the preference for the product category. This could be highly important since sustainability concern among the public is constantly increasing (Du et al., 2010; First Insight & Baker Retailing Center, 2021; Supphellen, 2020). The fact that the overall perception of how sustainable the product category is increased, and not only the brand that was presented, implies that their competitors probably also will benefit from these communication efforts. However, one can still argue that increased preference for a product category as a result of COO cues will benefit the company that communicates since increased preference probably leads to more overall sales.

Further on, the results of this study show that when including COO cues more people remember details about the ad. This was visible when looking at who passed the manipulation check and who did not. 60% of the ones who were shown Norwegian COO cues remembered the origin of the salmon, but only 48% of the ones who were exposed to the European ads could recall the origin. This implies that by including COO cues, the ad is more unique and easily remembered. This has practical implications, as Norwegian companies could use COO cues in their marketing to improve their brand equity by differentiating themself, increasing recognition, and becoming a more top-of-mind brand (Hoeffler & Keller, 2003).

The results further showed that gender has a significant effect on the perceived GBE. For companies selling seafood, or similar food products, this has a practical implication as previous research has shown that females are the primary grocery shoppers in households in the United States (Schaeffer, 2019). Combined with the fact that women are known to place more value on a company's sustainability efforts, as well as give higher scores for GBE (Miller et al., 2008), this insight could be useful for advertising sustainable products to female customers.

7. Validity and Reliability

The quality of the findings relies on the validity and reliability of the study. In this section, the steps which have been taken to attempt to establish high validity and reliability will be explained, as well as factors that might weaken these will be highlighted.

7.1 Internal Validity

Internal validity explains if the study is measuring what it intends to measure accurately. Examining the validity of the study contributes to a critical view of the quality of the collected data (Jacobsen, 2005).

Thereby, in this study, internal validity refers to whether the questionnaire measures what it intended to measure. Internal validity can furthermore be divided into content validity, criterion validity, and construct validity (Saunders et al., 2019). Content validity is whether the questionnaire covers the topics it needs to, to provide meaningful answers. For instance, including questions covering the main constructs and variables in the research model. By partly adopting questions from previous research measuring similar constructs, the content validity of the constructs is sufficient. However, as it was not conducted a proper pretest it was not possible to state if the designed questionnaire would give the desired data outcome before the actual conduction. Further, a pretest could help identify and determine the optimal manipulation, which would have improved the internal validity of this study (Hair et al., 2014). However, the questionnaire was tested on some known respondents and the supervisor before it was distributed to the intended target group. This resulted in minor changes to the layout of the questionnaire. A proper pretest would, however, require more respondents, and an analysis of the results to ensure that the questionnaire measured what the study intended to. Looking back, this should have been done regardless, as it might have given valuable insight and improved the internal validity of the questionnaire.

Further on, criterion validity refers to whether the independent variables are designed in such a way that they predict the effect on the dependent variable (Saunders et al., 2019). Considering the partial adaptation of constructs and the usage of already established scales

of measurement, this was not a big concern in this study. A pretest could however also give valuable insight into this topic, improving these validity claims.

Construct validity, on the other hand, refers to whether items combined as a construct measure what was intended. This is checked by conducting factor analyses as explained in sections 5.1.1 to 5.1.3.

Another threat to any study's internal validity is whether there are other factors than the independent variables, which are not detected or accounted for, that influence the dependent variable (Jacobsen, 2005). Normally such factors are caused by selection biases, maturation, testing effects, instrumentation, or poorly developed questionnaires. The questionnaire used in this study did cover more variables than presented in the research model, such as brand attitude and purchase intention. This enabled a wider analysis and several explanations for the observed effects. In addition, assembling all the data at once minimized the risk of changes occurring within the population sample, and thereby minimized such factors to influence the perceived GBE.

Selection bias could further influence the internal validity if the participants are improperly assigned to treatment groups, causing the groups to differ on the dependent variable prior to the treatment (Malhotra et al., 2017). To address this threat a third-party (SurveyMonkey) was used to sample the respondents, in addition to randomly assigning each respondent to one of the four cells of the experiment. This aligns with Malhotra et al's. (2017) recommendations for minimizing extraneous variables.

Further, using a company's name (SALMA) in the experiment might affect the internal validity badly as it could evoke brand perceptions and influence the participants' responses (Friese et al., 2006). But on the other hand, presenting a company that is perceived as fake by the respondents, by not having a name, a logo, or other attributes, has been shown to make the respondents put less credibility, interest, and attention to the survey (Gupta & Pirsch, 2006).

Also, the treatment design might influence the validity of the findings, as the difference in the treatments might not be distinct enough. In the experiment, this concerns whether there is a distinct difference in the manipulation of sustainability as an integrated or separated driver

for choice and whether the origin Norway has distinct different associations than the origin Europe. It might be that there was not a distinct difference in terms of integrating and separating the sustainability claims, which led to respondents integrating the drivers themselves, and the results not showing any significant effect of this treatment. Further on, Europe could have some of the same associations as Norway when it comes to sustainability. This could therefore cause the results to not show the full effect of applying COO cues, as the cells without this reap some of the same effects. Further on, it is not certain that the effects in the cells with COO cues are based on the origin's sustainability associations, it might just be that the results stem from the respondents seeing attributes that they are familiar with, such as the Norwegian flag. According to Hoeffler and Keller (2003), familiarity will indeed lead to a more favorable attitude towards what is presented, which again might influence the rest of their responses.

Lastly, it is necessary to mention that the uneven distribution in the different cells might have implications for the internal validity of the results of this study. After cleaning the dataset, which included removing the respondents who failed the manipulation check, outliers, and careless respondents, the initial attempt to have an even distribution of respondents in the four cells of the experiment was not met. The distribution varied from only 18% of the final sample size in cell 3 to 33% of the final sample size in cell 1. This unbalance might have affected the analysis, and thus the results of this study as an uneven sample distribution weaken the overall quality and validity of the data (Saunders et al., 2019).

7.2 External Validity

External validity differs from internal validity as it concerns whether the findings could be transferable or allow for generalization to a larger population, setting, or situation (Gripsrud et al., 2016; Saunders et al., 2019). Consequently, the external validity depends on the sample, and whether it could be said to be representative of the population as a whole. The sample in this study was limited since it only consisted of respondents from the United States. The findings could therefore only be generalized to populations sharing the same characteristics as the US.

Furthermore, the small sample size of this study affects the external validity negatively as it is not certain that the respondents' responses are aligned with a bigger population. However, the small variance within the respondents' responses suggests that these constructs are something most people agree upon and that there would be little division in a bigger population. This might stem from society's overall increasing environmental and sustainability concerns (Chen, 2008).

In addition, this study utilized convenience sampling, which is described by Malhotra et al. (2017) as the least time-consuming and least expensive sampling technique, by acquiring a third-party (SurveyMonkey) to obtain the data. This could however lower the external validity as it implied that all the respondents are members of SurveyMonkey's panel base. Individuals who are members of such panel bases may have certain characteristics which are not relevant to the population as a whole, hence Malhotra et al. (2017) argue that results gathered from convenience sampling are not representative of any definable population. In the aim of tackling this threat, an as accurate representation of the overall population as possible was targeted, by having a few sorting criteria, including all genders, and having a wide age span in the sample. Therefore, it is believed that the findings of the study should be viewed as representative of a bigger population than the sample.

7.3 Reliability

Reliability is meanwhile a measurement of consistency, as it concerns whether the same study would produce consistent findings under different circumstances (Saunders et al., 2019). For instance, if the study was conducted by other researchers, with a different participant sample, or at a different time. The fewer measurement errors a study has, the more reliable it is. Gripsrud et al. (2016) divide measurement errors between systematic and random measurement errors. Systematic errors concern how the data collection was structured and conducted (Gripsrud et al., 2016). This study attempted to tackle systematic errors by using a questionnaire, which minimizes the variance in the data collection process. Another systematic error that might have affected the reliability of this study was the fact that all the data was collected at once. Thus, it is not possible to secure causal inference. This could have been avoided by using a cross-sectional design for data collection (Saunders et al., 2019). However, it is believed that the participant's responses to the questionnaire are

quite independent regardless of the time of sampling, as the topics of the study do not concern anything sensible or something that is variated frequently.

Random measurement errors are on the contrary caused by factors the researchers cannot control (Gripsrud et al., 2016). These are factors that concern the participant, such as if the respondents for any reason do not want to respond honestly to the questions, or just rush through the questionnaire as fast as possible (Saunders et al., 2019). In an attempt to increase the chance of receiving honest responses, the participants were guaranteed anonymity. By cleaning the dataset for careless responders, and respondents who failed the attention check, or manipulation check, it was attempted to ensure that random measurement errors did not affect the findings.

8. Conclusion

To summarize, the analysis found no support for any of the three presented hypotheses. This gives the foundation to evaluate and conclude the overall research question.

"How may messages integrating sustainability and a main driver of choice, and cues to a country with salient sustainability associations affect green brand equity?"

The rejection of the hypotheses shows that there were no effects of integrating sustainability nor including COO cues to generate positive effects on the perceived GBE, in this study. As mentioned, the lack of support for the hypotheses could be explained by multiple aspects. Some of which could have been detected in a pretest. This is taken self-criticism for. In addition, it is believed that parts of the explanation for the rejected hypotheses are caused by insufficiently developed manipulations for IOS and COO. However, there was found a positive significant effect between the covariates gender and PCA for GBE, indicating that these factors are significant adjusters of GBE. To conclude, it is believed that there still could be effects between IOS, COO, and GBE due to the presented theory and previous researchers' findings, even though these were not observed in this study.

8.1 Limitations and Future Research

There are several limitations to this study that should be acknowledged. One of them is that this study was conducted with limited time and financial resources. This led to sending out the questionnaire without conducting a proper pretest, and it also resulted in limited sample size, as more responses would have exceeded our budget.

In addition, only the effects of applying COO cues from the origin of Norway were examined and it was only collected responses from participants in the United States, which limits the research as to drawing conclusions for companies from other countries or operating in other export markets. It would be interesting to examine whether companies from a different region, with different sustainability reputations or operating in different export markets would generate significant effects of IOS or COO on the GBE. Another

finding in this study that would be of interest for future research is the marginal effect the COO cues had on the overall brand attitude, implying that communicating the COO of an origin with positive national brand equity could marginally impact the perceived brand attitude, and hence the company's brand equity.

Further on, a limiting factor for our study is that the sample size is quite small, making it difficult to draw reliable conclusions. A future study looking at a similar phenomenon on a greater scale will therefore have a better basis for finding more accurate and applicable results. In addition, it would be recommended for other studies looking into the same variables, to create more distinct manipulations for both IOS and COO to obtain potential positive effects of these variables on GBE.

It should also be stated that this study is one of many in a line of research looking at sustainability communication for BrandNova. Although the results of this study did not give significant support for the presented hypotheses, it is still believed that these factors could have a positive effect on GBE as stated by various theories and previous researchers' findings. Therefore, it is suggested that future research should pursue testing these hypotheses in a different experiment. This study could therefore be used by future researchers as a source of learning and inspiration.

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9. Appendix

9.1 Appendix 1: The questionnaire

Table 15: *The questionnaire.*

Introduction		
This is a questionnaire developed for research purposes for a master thesis. In the following section you will be presented with an ad from the website of a salmon brand called SALMA. Thereafter you will be asked to answer various questions regarding the ad, which will take approximately 5 minutes. The answers will be anonymous.		
Screening question (Yes/No)		
Do you sometimes eat seafood?		
Exposure of the ad		
Brand Attitude (1) Strongly disagree - (7) Strongly agree *To what extent do you agree with these statements about the brand in the ad?*		
Q1	BA1	I like this brand
Q2	BA2	This is a good brand
Q3	BA3	This brand is tempting
Intention (1) Strongly disagree - (7) Strongly agree *How is your intention to buy a product from SALMA?*		
Q4	I1	I would consider buying this brand if it was available
Q5	12	I would buy this brand if it was made available
Green brand equity (1) Strongly disagree - (7) Strongly agree) *To what extent do you agree with these statements about SALMA?*		
Q6	GBE1	This brand is good for the environment

Q7	GBE2	This brand makes contribution in the fight against climate change
Q8	GBE3	This brand contributes to social sustainability
Q9	GBE4	This brand is socially responsible
Manipulation Check (Open answer)		
Previously in this survey you saw an ad for a salmon brand. What origin did the salmon come from?		
Perceived sustainability of European Seafood (1) Strongly disagree - (7) Strongly agree *To what extent do you think European seafood is…*		
Q10	PSE1	Sustainable
Q11	PSE2	Tasteful
Q12	PSE3	Environmentally friendly
Perceived sustainability of Norwegian Seafood (1) Strongly disagree - (7) Strongly agree *To what extent do you think Norwegian seafood is…*		
Q13	PSN1	Sustainable
Q14	PSN2	Tasteful
Q15	PSN3	Environmentally friendly
Personal Climate Attitude (1) Strongly disagree - (7) Strongly agree *To what extent do you agree with the following statements?*		
Q16	PCA1	Climate and environment is important to me
Q17	PCA2	The sustainability goals are important to me
Q18	PCA3	I prefer companies that takes sustainability seriously
Q19	PCA4	I try to live as sustainable as possible

Q20	PCA5	There is too much focus on sustainability
Perceived sustainability of seafood category (1) Strongly disagree - (7) Strongly agree		
Q21	SSC	In general seafood is a sustainable product category
Consumption of seafood (1) Daily (2) Weekly (3) A couple of times each month (4) Approximately one time each month (5) Rarely (6) Never		
Q22	CS1	How often do you eat seafood?
Demographics		
Q23	DE1	What age are you?
Q24	DE2	What gender are you?

9.2 Appendix 2: The treatments

Cell 1:

Cell 2:


SALMA = SUSTAINABLE SALMON
SALMA salmon is farmed
sustainably in the cold and pure fjords of Norway.
GREAT TASTE
FROM NORWAY

Cell 3:

SALMA = TASTEFUL SALMON

SALMA salmon has great taste because it is farmed sustainably in Europe.

GREAT TASTE FROM EUROPE

Cell 4:

SALMA = SUSTAINABLE SALMON

SALMA salmon is farmed sustainably in Europe.

GREAT TASTE FROM EUROPE