

Worth It?



**A quantitative study on the value for discount
retailers to communicate sustainability**

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Abstract

Sustainability and discount retailing are two fields growing in parallel in the Swedish market. A debate on whether sustainability and low prices are a possible combination or a trade-off has emerged among stakeholders including business leaders, consumers and trade organisations. This debate creates uncertainties of whether there is a value, or a risk, for discount retailers to communicate their sustainability work. The results of this quantitative consumer study indicates that communicating sustainability initiatives generates a perception of the discounter as being more sustainable, as well as more favourable brand attitudes. However, no significant differences could be identified in terms of purchase intentions or price perceptions between communicating sustainability actions or not as a discount retailer. Furthermore, consumers with a stronger price-sustainability schema demonstrated more favourable attitudes and higher purchase intentions towards the discount retailer in comparison to those with a weaker schema. Concluding, these findings together indicate that it is of value for discount retailers to communicate sustainability initiatives, and that fears of changed price perceptions and greenwashing are to some extent unjustified.

Keywords: Discount retailer, discounter, sustainability, purchase intention, brand attitude, price perception, sustainability perception, greenwashing, product involvement

Foreword

This thesis could not have been written without the wonderful people around us, contributing to the finished report with their patience, knowledge and time. We would like to dedicate a big thank you to our supervisor Sara Rosengren and her co-supervisor Maja Fors for teaching us all about the do's and don'ts in the scientific world. Additionally, we would like to thank Erik Tageson and Zara Johansson at Norstat for providing us with valuable tips on the construction of our questionnaire as well as with a large and diverse sample for the study. Furthermore, thank you to Jesper Bondesson, Johan Larsson and Fredrik Rosenholm for allowing us to interview you, for showing interest in our thesis subject, as well as providing us with perspectives on how sustainability and price are related in practice. Last, but not least, we would like to thank our friends and families for proofreading and support along the way to the finished thesis.

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1. Introduction

“Is there a value for discount retailers to communicate their sustainability work?”

This thesis intends to provide an answer to this increasingly common question arising as sustainability and discount retailing emerge in parallel. Unlike previous research having examined these phenomena separately, this thesis explores the intersection between discount retailing and sustainability by conducting a quantitative study with consumers on the Swedish market. In this thesis, the term *sustainability* is used to describe the environmental sustainability efforts taken by companies (Elkington, 2004). A *discount retailer/discounter* is defined as a retailer competing mainly on price while offering a broad assortment and limited service (Carpenter & Moore, 2009). Value is defined as a ratio or trade-off of total benefits received to total sacrifices (Boksberger & Melsen, 2011). In this thesis, the variables tested in relation to value are sustainability perception, price perception, brand attitude and purchase intention.

1.1 Background

According to a survey conducted on over 500 experts from 32 European countries, the importance of sustainability in business will increase in the upcoming years (Kudlak et al., 2018). Due to this, companies experience pressure from various stakeholders, including customers and global organizations (Dabija & Pop, 2013; Lehner, 2015; Vadakkepatt et al., 2021). As an example of the latter, the United Nations have set up 17 Sustainable Development Goals to be achieved by 2030 (United Nations, 2015).

Sustainability can be defined in many ways but the first and most accepted definition is found in the UN Brundtland Report (1987) where it is described as “meeting the needs of the present without compromising the ability of future generations to meet their own needs”.

Further, sustainability is usually described in terms of the *Triple bottom line (TBL)*, dividing sustainability into financial, social, and environmental aspects (Elkington, 2004). This thesis is solely focused on the environmental aspects of sustainability, as stakeholders consider environmental sustainability to be the most important aspect of a company’s sustainability efforts (Kassinis & Vafeas, 2006). This might further be one reason why eight out of ten of Swedish retailers today engage in sustainability initiatives (Swedish Trade Federation, 2021).

While the interest in sustainability is emerging, so is the growth of discount retailing. The discount retailing sector amounts to 15% of the Swedish market and has grown at double the pace compared to retail in general in Sweden the past four years (Swedish Trade Federation, 2020). The sector holds a wide customer base as discounters offer consumer products that everyone needs (Larsson, 2021), but competition is fierce as customers are faced with low switching barriers (Carpenter, 2008). Further, the Swedish discount retail landscape is about to change as global competitors with low prices such as Costco and Amazon are entering the market (Nikel, 2020; Östgren, 2021). This results in a need for Swedish discount retailers to find new ways to remain competitive, such as strong performance within sustainability. The grocery chain Lidl and the discounter Rusta are examples of two actors on the Swedish market that wish to use sustainability as a competitive factor, even though their main means of competition is price. The vision of Rusta is to become the most sustainable discount retailer in the Nordics (Rusta, 2019), while Lidl has set the goal to become the most sustainable actor in the Swedish grocery industry (Lidl, 2020).

As customers engage more and more in sustainability, the demand for so-called *green products* increases. Such green products fulfill the same functions as the equivalent conventional product but cause less environmental damage throughout the life cycle (Braga Junior et al., 2019). In addition, the desire to communicate sustainability initiatives grows among companies. The Swedish market in particular is skeptical towards sustainability communication as the customer base is knowledgeable and considered the “sustainability frontrunners” in Europe - especially within environmental sustainability and climate issues (Sustainable Brand Index, 2021). As more firms begin to communicate their sustainability initiatives, claims of the communication being exaggerated, misleading or vague have arisen (Konsumentverket, 2021). Consumers doubt that large mainstream retailers can be sustainable (Bälan, 2021) and this has been shown to especially hold for discount retailers as the discounters Jysk, Rusta and Dollarstore are ranked in the bottom of their categories of the Swedish version of the Sustainable Brand Index 2021, a multinational brand study among consumers (Sustainable Brand Index, 2021).

1.2 Problem area

Retailers in particular hold a crucial sustainability position, as they have the ability to influence the behaviour both upstream and downstream in the supply chain (Dabija & Pop, 2013; Saber & Weber, 2019; Vadakkepatt et al., 2021). Sustainability research on retail companies can therefore be concluded to be of high interest to both researchers and practitioners. While prior research has focused on establishing general knowledge within retailing, it has been shown that the unique circumstances of discount retailing makes prior research in other areas non-applicable in certain cases. Namely, the behaviour when shopping at discounters differs from when shopping at other retail formats, as customers anticipate low prices and do not require high levels of service (Powers, Jack & Choi, 2018). Hence, it is of high importance to examine discount retailing separately from general retailing and other sectors.

There are diverse opinions among consumers and industry representatives whether sustainability and low prices are a possible combination or not. While some retailers are convinced that the two attributes are a good fit, others have expressed challenges with obtaining low prices while at the same time practising sustainability (Swedish Trade Federation, 2016). Rosenholm (2021), Sustainability Specialist at the management consultancy firm LynxEye, agrees with the latter as he believes that sustainability practices are an investment which often is costly from a financial perspective. This claim is further strengthened in the minds of the consumer as Bondesson (2021), Quality and Sustainability Manager at Rusta, expresses a struggle with the customer assumption that low prices are equal to low sustainability. This might be one of the reasons why it has been shown that customers rarely seek sustainable products at discount retailers (Braga Junior et al, 2019; Larsson, 2021). However, many sustainability actions undertaken by firms, for example optimized packaging and reduced product material, are cost-saving (Bondesson, 2021; Dabija & Pop, 2013), which makes it a possible business opportunity and competitive advantage even for discount retailers to adopt sustainability initiatives.

Although sustainability actions are possible and provide many benefits, such as economic profit and strengthened corporate reputation (Naidoo & Gasparatos, 2018; Elg, Hultman & Welinder, 2020), it is not given that communication about sustainability actions provide discount retailers with positive effects. Consumers have demonstrated scepticism towards

sustainability advertisements and it has been debated whether customers are willing to reward retailers for their sustainability efforts (Auger & Devinney, 2007; Elg & Hultman, 2016; Gatersleben, Steg, & Vlek 2002). The latter could be problematic, as discount retailers are dependent on high volume sales (Swedish Trade Federation, 2020). In addition, Rosenholm (2021) believes that there are higher risks of greenwashing accusations for discount retailers, which further questions the positive aspects of sustainability communication in the sector. Moreover, green products are assumed to be more expensive (Wiederhold & Martinez 2018), which could be a problem for discount retailers, as it is of high importance for them to obtain their low-price image (Jesper Bondesson, 2021).

1.3 Purpose and research questions

So far, the areas of sustainability and discount retailing have been researched in isolation, providing vast knowledge of each area respectively and in relation to other fields.

For example, Grewal et al (1998) demonstrated that prices are an indicator of quality, and Burton et al. (1994) stated that low prices in particular have a negative influence on perceived quality. Further, Dabija and Pop (2013) states that customers have demonstrated higher willingness to pay for sustainable products, indicating a relationship between price and sustainability. Additionally, Saber and Weber (2019) found that discounters communicate less about sustainability compared to supermarkets, indicating that discounters identify risks with sustainability communication related to their pricing strategy. One risk could be customers believing that there is a trade-off between sustainability and price (Ross and Milne, 2020), resulting in schema incongruity.

The current research in the intersecting and growing area of sustainability and discount retailing is scarce. While there are multiple reasons why discount retailers would want to communicate their sustainability initiatives, there are also possible risks. As the field of discount retailing has been proven to be unique (Powers, Jack & Choi, 2018), separate research is required in order to evaluate to what extent it is of value for discount retailers to communicate about sustainability. The purpose of this thesis is to extend the current research in the intersecting and growing areas of sustainability and discount retailing and to answer the research questions:

Is there a value for discount retailers to communicate their sustainability work and how does the level of sustainability communication affect the sustainability perception, price perception, brand attitude and purchase intention? In addition, are the effects influenced by consumers' price-sustainability schema and level of product-involvement?

If beneficial effects are shown on the variables tested in the study, it is considered to be of value for discount retailers to communicate sustainability.

1.4 Expected research contribution

Sustainability and the discount retailing sector are two growing fields in the retail landscape. While the research on sustainability is extensive, the research in the field of discount retailing is limited, in particular in relation to sustainability. This creates a research gap in the intersection between the two fields and the study intends to further develop this research area.

This thesis intends to make theoretical contributions in the following ways. Firstly, the study aims to further extend the marketing research within the field of sustainability communication. Secondly, to the knowledge of the authors, no research has been done on sustainability communication in the Swedish discount retailing market. By examining how sustainability communication affects sustainability perception, price perception, brand attitude and purchase intention in the discount retailing market, novel insights will be expected to be presented.

In addition, the study aims to provide relevant insights for practitioners in the field of discount retailing. The thesis intends to deliver further understanding of the effects that sustainability communication may have. As there are uncertainties to whether communication of the sustainability initiatives are of value, this study provides guidelines for practitioners in the sector as well as indications of how sustainability perception, price perception, brand attitude and purchase intention may be affected based on the level of sustainability communication.

1.5 Disposition

The thesis is organized as follows: In the next section, the theoretical framework and the hypotheses derived from the research are presented. Further, the methodology of the thesis is described in detail, followed by a results section where the hypotheses are tested.

A discussion and conclusions of the results is thereafter presented, including limitations of the thesis and suggestions for further research.

2. Theoretical framework and hypothesis development

2.1 Sustainability perception

Retailers frequently communicate their sustainability efforts in different channels, where different communication channels fill different functions. Whereas reports are central in providing control and monitoring of sustainability performance (Simoes & Sebastiani, 2017), in-store communication can instead directly influence customers' perceptions and purchase decisions (Bezençon & Etemad-Sajadi, 2015; Schramm-Klein, Morschett & Swoboda, 2015). A common tool of communication for discount retailers are flyers, as such appeal to price-sensitive customers and contribute to the low-price image of stores (Luceri et al., 2014).

There are multiple aspects to why retailers would like to perform and communicate sustainability initiatives, such as economic profit and pressure from stakeholders and media (Naidoo & Gasparatos, 2018). Environmental actions can also be a tool to gain legitimacy or strengthen the corporate reputation (De Vries, Eline & Duque, 2018; Elg, Hultman & Welinder, 2020). In addition, it can be an important competitive factor in the retail landscape (Kahraman & Kazançoğlu, 2019).

According to Schramm-Klein, Morschett & Swoboda (2015), the more retailers engage in sustainability activities, the more they also communicate about them. When retailers are marketing green products and sustainability initiatives, value can be created for customers whereas the retailers build a strong brand image (Anselmsson & Johansson, 2007). Focusing on green attributes in advertisement is hence a way for retailers to support sustainability and, at the same time, maintain good relations with customers.

A downside with communicating sustainability initiatives is the risk of greenwashing accusations. *Greenwashing* in the literature is defined as “the act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service” (Budinsky & Bryant 2013; Parguel, Benoît-Moreau, & Larceneux, 2011; Schmuck et al., 2018). If consumers are sceptical about the truthfulness in the communication, consumers' attitude may be negatively affected and the company image might be damaged (De Jong, Harkink, & Barth, 2018; Chen & Chang, 2013).

It is clear that sustainability can be a competitive factor for actors choosing to communicate about it. It can therefore be assumed that sustainability communication leads to several benefits. In terms of sustainability perception, it can however not be assumed that the communication leads to the perception of the retailer as being more sustainable, due to eventual greenwashing accusations. Nor can it be assumed to apply to discount retailers, as the sector has been shown to have distinct characteristics due to customers valuing price above other aspects. As the purpose of communication is to reach the customer with the message, it is important to examine whether the retailer will be perceived as more sustainable if more sustainability is communicated. Thus, the following hypotheses are formulated:

H1a) The presence of sustainability communication on all products (vs no presence of sustainability communication) make customers perceive the discount retailer as more (vs less) sustainable

H1b) The presence of sustainability communication on all products (vs high-involvement products) make customers perceive the discount retailer as more (vs less) sustainable

H1c) The presence of sustainability communication on high-involvement products (vs low-involvement products) make customers perceive the discount retailer as more (vs less) sustainable

H1d) The presence of sustainability communication on low-involvement products (vs no presence of sustainability communication) make customers perceive the discount retailer as more (vs less) sustainable.

2.2 Price perception

Consumer decisions are influenced not only by the actual prices in store, but also by consumers' price perceptions of the store (Hamilton & Chernev, 2013). As previously shown by Brown and Dacin (1997), consumers evaluate companies with active sustainability work more favorably than other companies as well as their products being more valuable in monetary terms. Thereby, companies with active sustainability work can be perceived as having higher prices than competitors. Similar views have also been adopted by Grewal, Monroe, and Krishnan (1998) and Harris (2007) indicating that consumers may perceive

green products as more expensive in comparison to alternative products. Relating to this, sustainable products in the fashion industry tend to have a higher price point in comparison to equivalents due to differences in raw materials or labour costs (Jacobs et al., 2018).

Customers have demonstrated higher willingness to pay for sustainable products (Dabija & Pop, 2013). However, for some customers, this behaviour is conditional as they have expressed a need for information and only show higher willingness to pay for products if they are certain that they are truly environmentally friendly (Zver & Vukasović, 2021).

As discount retailers communicate less about sustainability initiatives in-store compared to supermarkets, it can be assumed that they are less willing to risk their price perceptions while promoting sustainability (Saber & Weber, 2019).

Price perceptions are affected by multiple aspects, and sustainability has been proven to be one of them. Namely, informing consumers of environmental sustainability is reflected in perceptions of higher prices, but also higher willingness to pay. As discount retailers are dependent on low-price perceptions, the impact of sustainability communication on prices is highly relevant. Thus, following hypotheses are to be examined:

H2a) The presence of sustainability communication on all products (vs no presence of sustainability communication) make customers perceive the price level of the discount retailer as higher (vs lower)

H2b) The presence of sustainability communication on all products (vs high-involvement products) make customers perceive the price level of the discount retailer as higher (vs lower)

H2c) The presence of sustainability communication on high- involvement products (vs low-involvement products) make customers perceive the price level of the discount retailer as higher (vs lower)

H2d) The presence of sustainability communication on low-involvement products (vs no presence of sustainability communication) make customers perceive the price level of the discount retailer as higher (vs lower)

2.3 Brand attitude

Braga Junior et al. (2019) define attitude as a positive or negative assessment of an object, action, issue, or person whereas Teng (2009) describe the concept of brand attitude as a consumer's preference towards an overall evaluation of the brand.

Previous literature in the service industry suggests that sustainability communication is one way for companies to generate positive attitudes in the minds of consumers, as positive attitudes are formed when consumer awareness rises (Line, Hanks & Zhang, 2016).

Literature on sustainability communication suggests that consumer awareness and knowledge of sustainable initiatives can increase through marketing interventions such as information about product sustainability and usage of third-party certifications. Bălan (2021) and Mohr and Webb (2005) further highlight the aspect of visible information as crucial for the development of a green and favourable image for retailers.

In a consumer study of sustainability in the food industry, Yeonsoo (2017) identifies firms as either passive or proactive depending on their level of sustainability engagement, where a proactive categorization indicates that the retailer exceeds legal demands. When the sustainability initiatives are proactive compared to passive, more favourable attitudes are shown (Yeonsoo, 2017). Previous research further indicates that implementation of sustainable business practices is an opportunity to attain consumer corporate identification, as many consumers desire the identity of being environmentally friendly. Hence, if a company communicates its efforts relating to sustainability, the consumers wish to be associated with the company and attitudes towards the company will be more favourable (Bhattacharya & Sen, 2003; Brown & Dacin 1997).

Research in the field of sustainability strongly indicates that sustainability communication has positive effects for brand attitude. As a strong brand image is desirable for discount retailers, it is of high importance to examine whether the benefits of a more favourable brand attitude also holds for discount retailers. If brand image was to improve when communicating about sustainability, it could be valuable for discount retailers to communicate their sustainability efforts. Therefore, the following hypotheses are proposed:

H3a) The presence of sustainability communication on all products (vs no presence of sustainability communication) results in a more (vs less) favourable brand attitude towards discount retailers

H3b) The presence of sustainability communication on all products (vs high-involvement products) results in a more (vs less) favourable brand attitude towards discount retailers

H3c) The presence of sustainability communication on high-involvement products (vs low-involvement products) results in a more (vs less) favourable brand attitude towards discount retailers

H3d) The presence of sustainability communication on low-involvement products (vs no presence of sustainability communication) results in a more (vs less) favourable brand attitude towards discount retailers

2.4 Purchase intention

Research by Mohr and Webb (2005) on the influence of sustainability and price on consumers, demonstrates that different levels of sustainability communication affect the purchase intention, defined as a consumer's willingness to purchase a specific product (Dodds, Monroe & Grewal 1991). More specifically, the study finds that a high level of sustainability has a positive impact on the purchase intent. Similar findings, demonstrating a positive relationship between sustainability and purchase intention have been found by Lichtenstein, Drumwright and Braig (2004) and Stall-Meadows and Hebert (2011).

In a sustainability communication study on German supermarkets and discounters, the results evidently demonstrate that the link between sustainability communication and financial performance is stronger than the actual impact of the sustainability activities. The study further suggests that the communicational aspect of sustainability possesses a potential to become a success factor, and not merely a function of fulfilling legal requirements (Saber & Weber, 2019).

Experimental research in a low-price context has further revealed that a high level of sustainability combined with a low-price strategy leads to an increase in consumers'

commitment, satisfaction, and loyalty (Tascioglu et al., 2019). An increase in these variables have further been proven to be reflected in purchase intention (Lee & Wong, 2021). Building onto that, and additionally supporting the value of sustainability initiatives in a discount retailing setting, consumers' interest for sustainability increases considerably if money can be saved by purchasing, using, or consuming environmentally friendly products. (Dabija & Pop, 2013).

An important aspect when discussing purchase intention in relation to sustainability communication is the ongoing debate of whether consumers are actually willing to reward sustainability efforts (Auger & Devinney 2007; Elg & Hultman, 2016; Gatersleben, Steg, & Vlek 2002). Many consumers react positively towards sustainability initiatives, however, this is seldom reflected in actual behavior, i.e. purchase of green products, resulting in an *attitude-behaviour gap* (Thøgersen, 2010; White, Habib, & Hardisty, 2019). This gap in turn leads retailers to being vulnerable to investing in costly sustainability implementations which may possibly not be monetarily rewarded by customers (Gunn & Mont, 2014; Lehner, 2015). Concerns by practitioners that consumers do not “walk their talk” are further justified as research has shown that 65% of consumers said they wanted to buy from purpose-driven brands that advocate sustainability, yet only about 26% of the consumers actually did (White, Habib, & Hardisty 2019). Instead, consumers often prioritize price over sustainability (Gleim et al, 2013).

Previous research highlights the fact that sustainability communication generally has a positive impact on purchase intention, but the discrepancy between what consumers say and do is a major challenge for companies and other organizations striving to promote sustainable consumption. As discount retailers are volume driven and offer limited service, it is of high importance to expand the literature on the sustainability communication's effect on purchase intention for discount retailers in the Swedish market. The following hypotheses are to be investigated:

H4a) The presence of sustainability communication on all products (vs no presence of sustainability communication) results in higher (vs lower) purchase intention for the discount retailer

H4b) The presence of sustainability communication on all products (vs high-involvement products) results in higher (vs lower) purchase intention for the discount retailer

H4c) The presence of sustainability communication on high-involvement products (vs low-involvement products) results in higher (vs lower) purchase intention for the discount retailer

H4d) The presence of sustainability communication on low-involvement products (vs no presence of sustainability communication) results in higher (vs lower) purchase intention for the discount retailer

2.5 Price-sustainability schema

Schema processing has emerged as an important framework to explain consumer behaviour (e.g. Sujan & Bettman, 1989; Meyers-Levy & Tybout, 1989) as *schemas* illustrate how knowledge about the market is represented in consumers' minds. Consumers thus form cognitive structures from past experiences, and create future expectations based on these structures (Halkias, 2015). Research in the retail field on brand schemas have shown that external cues, such as advertising or price information can be part of forming brand judgement (Akhter, Andrews & Durvasula, 1994). But it is not always the case that the schema holds and when expectations and predictions are interrupted, this results in *schema incongruity* (Akhter, Andrews & Durvasula, 1994). Schema incongruity often leads to unfavorable judgements (Akhter, Andrews & Durvasula, 1994) but studies on advertisement schemas have shown that schema incongruity can also produce surprise (Meyer, Rudolph & Schutzwohl, 1991), increase the awareness of product-issue compatibility (Schmidt & Hitchon, 1999) as well as influence excitement and emotional response to specific retail environments (Babin & Babin, 2001; Ward, Bitner & Barnes, 1992).

Exploring schemas for price-sustainability, research states that consumers trade off price, sustainability and quality when making purchase decisions (Berens et al, 2007; Ross & Milne 2020). Building on this, Vadakkepatt et al. (2021) raise the question of whether it is possible for retailers to focus on sustainability without it being at the expense of other traits such as price and convenience. This provides evidence that consumers assume a connection between the attributes of price and sustainability, and research in different fields has shown that they are often considered related. Mohr and Webb (2005) argue that consumers expect to pay a higher price for sustainable products. Similar findings were made by Harris (2007) and Pelsmacker,

Driesen and Rayp (2005) when studying sustainability in the category of consumables. Furthermore, research has suggested that high prices can be a barrier towards buying green products, as there is a perception that they often cost more and are of lower quality (Ying-Ching Lin & Chiu-chi, 2012). The assumed higher prices are also mentioned by Tjärnemo and Södahl (2015) as a reason for the attitude-behaviour gap.

The connection between the attributes of price and sustainability has further been demonstrated by customers in a qualitative study conducted by Wiederhold and Martinez (2018) in the fashion industry. The study found that customers do not even recognize sustainable products as an alternative when shopping for clothing, as they believe that the price level will be higher. “Expensive” is the first word that comes to mind for the respondents when asked about the green products (Wiederhold & Martinez, 2018).

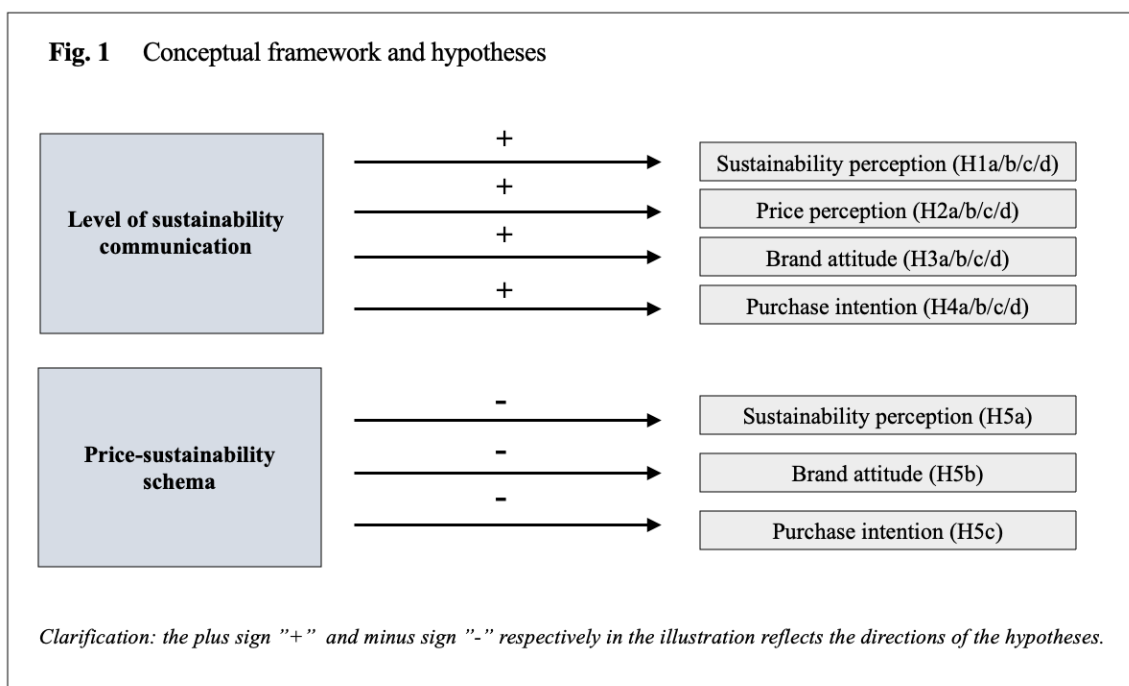
As customers assume that the attributes of sustainability and price are a trade-off, thus having a strong price-sustainability schema, consumers may become sceptical to advertisement of low prices and sustainability combined. As previously addressed, the accusations of greenwashing are becoming an increased problem among companies today (Chen & Chang, 2013), and claims of the advertisements being misleading, doubtful, and ambiguous are common (Kangun, Carlson, & Grove 1991; Ginder, Kwon, & Byun, 2019). As a reaction to greenwashing, *greenhushing* has become an increasingly common phenomenon as large companies choose to withhold information or remain strategically silent about their environmental claims (Carlos & Lewis, 2018).

It is clear that customers in several industries and contexts assume that price and sustainability are a trade-off, hence hold a strong price-sustainability schema. At the same time, sustainability communication can be received with doubtfulness and scepticism. The greenwashing accusations become a risk, and therefore it is important to know how the price-sustainability schema may affect the perceived sustainability level, brand attitude and purchase intentions of a discounter. Hence, we hypothesise the following:

H5 A stronger (vs weaker) price-sustainability schema will result in a) lower (vs higher) perceived sustainability level b) less (vs more) favorable brand attitude c) lower (vs higher) purchase intention

2.6 Conceptual framework and hypotheses

In the presented sections, different levels of sustainability communication and their effects on sustainability perception, price perception, brand attitude and purchase intention have been hypothesised. Higher levels of communication have been expected to generate more beneficial effects, based on previous research presented (e.g. Anselmsson & Johansson, 2007; Bălan, 2021; Mohr & Webb, 2005). Further, when comparing communication on low-involvement products and high-involvement products, sustainability communication on high-involvement products have been expected to generate more beneficial effects, based on research that the involvement level of the purchase affects the decision process (Bodini, Richter & Felder, 2009; Ferreira & Coelho, 2015). Additionally, customers with high-involvement levels process more information and dedicate more time and effort to their decisions than customers with low involvement levels (Li & Yuan, 2018; Yang & Shih, 2019). In difference to a high-involvement process, customers with a low-involvement process consider price a more important factor when shopping (Bodini, Richter & Felder, 2009; Yang & Shih, 2019), and therefore the sustainability communication on low-involvement products will be expected to be less acknowledged compared to the communication on high-involvement products. Lastly, it is hypothesised that a stronger price-sustainability schema will lead to a lower level of perceived sustainability, a less favourable brand attitude and a lower purchase intention. A conceptual framework of the hypotheses is pictured below (Fig.1).



3. Methodology

3.1 Research method and approach

The study is based on a quantitative method. This method allows the researchers to make generalizations of the findings and make the study itself easy to replicate. However, there is also criticism against this method. Criticism includes assumptions that people interpret questions similarly and that the analysis only provides a static view of life (Bryman & Bell, 2015 p.174-179). As the advantages of the method were considered to outweigh the disadvantages, based on the purpose of this thesis, the quantitative method was found suitable.

The thesis applies a deductive approach, rather than an inductive approach, meaning that the hypotheses have been based on previous theory and research relating to the subject.

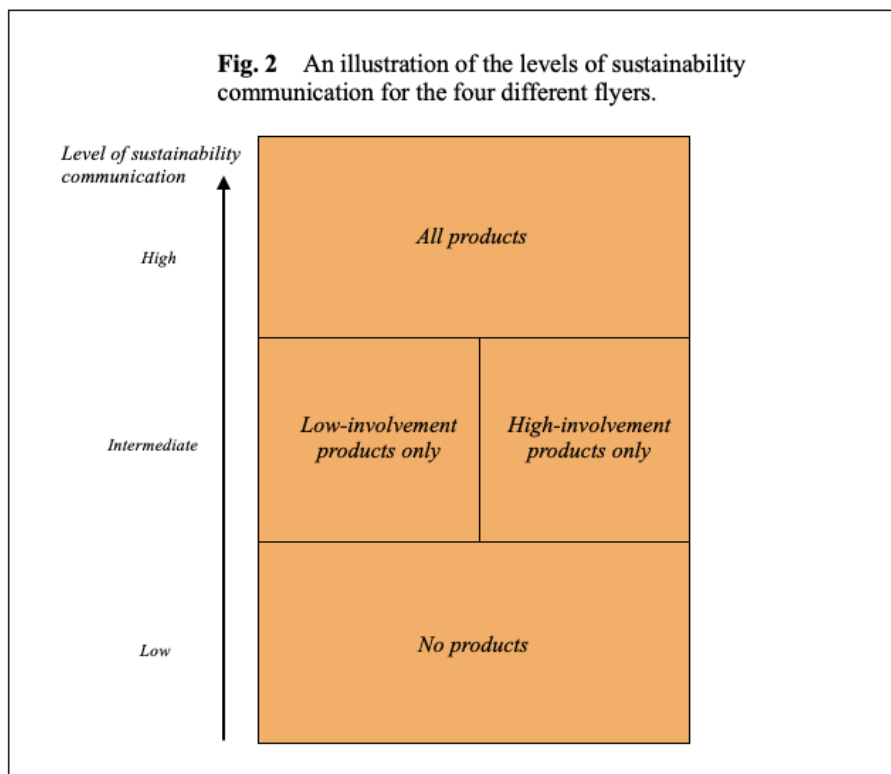
The approach is closely linked to the quantitative method and the experimental study design, which further explains the choice of approach (Bryman & Bell, 2015 p.23-25).

3.2 Study design

To test the hypotheses, a scenario-based experiment with a 1 x 4 between subject design was conducted. The advantage of experiments is that it allows you to test causal claims in a rigorous manner (Söderlund, 2018 p.16). As this thesis intends to test the effects caused by the level of sustainability communication, an experiment was considered appropriate. More specifically, the effects of different levels of sustainability communication were examined in relation to sustainability perception, price perception, brand attitude and purchase intention.

The cause variable, a flyer, included manipulations of sustainability communication.

The flyers communicated sustainability on a low level, a high level and on two intermediate levels (Fig. 2). The communication appeared in terms of eco labels, and in the descriptive text of the products.



3.3 Development of stimuli

As experiences with a brand can affect attitudes and beliefs about the company (Brown & Dacin, 1997), a fictitious company was made up for this experiment: Mer för Mindre (More for Less). Using fictitious companies is a method previously applied by other researchers (e.g., Swaen & Vanhamme, 2005), enabling the results to be unbiased as no previous associations with existing brands will be applicable.

The stimuli was a flyer (Fig.3 and Appendix 1-4 for full size flyer), which is a communications tool with a highly strategic role for discount retailers (Luceri et al., 2014). Thus, the scope of this thesis is limited to one media of communication to isolate the effects of the manipulation. The fictitious flyer was developed for the purpose of this study and created based on current assortments and offers from large discounters on the Swedish market. This method was used in order for the flyer to be as realistic as possible. In addition, industry practice in terms of colours was adopted in order to emphasize the low price point of the fictitious company (Wilkens, 2019). Feedback was given from a sustainability representative of one of Sweden's largest discount retailers to further strengthen the realism of the flyer.

Fig. 3 The four versions of the flyer



The products in the flyer were chosen based on involvement level in the purchase of the products (Ferreira & Coelho, 2015; Rosengren et al., 2017 p.56-57). The products were evenly distributed between the different involvement levels, but as only six products were displayed on the flyer, product delimitations were put to place in this study.

As it is of high importance to keep factors other than studied constant (Söderlund, 2018 p.59), no changes despite the ones on level of communication were made in the stimuli. For example, all products were at a discount and an equal amount of well known eco labels was used to promote the high and low-involvement products. All products in the flyer were green products. However, the green attributes of the products were not communicated in all scenarios. Hence, the fictitious company is not greenwashing as the products in fact are green products.

3.4 Pre-study

The main purpose of the pre-study was to ensure that the categorization of involvement of the products was correct, as well as ensure that the manipulation was significant. 70 respondents participated in the pre-study. Each respondent was randomly assigned one out of four treatment groups, making the size of the subgroups range between 15-19 respondents.

3.4.1 Sample and data collection

The pre-study was conducted through an online questionnaire and distributed on social media

platforms between 9-12 March 2021. The sample method used was convenience sampling, where the respondents are selected based on convenient distribution. In a pre-study, this method is acceptable (Bryman & Bell, 2015 p. 200).

3.4.2 Survey design

Initially, the respondents were informed of the purpose of the study. Continuing, the respondents were asked about their involvement-level when purchasing different products and their previous knowledge of different eco labels. Further, the respondents were randomly exposed to one out of the four flyers, and were requested to answer questions following the flyer regarding perceived sustainability level, perceived price level, whether they perceived the flyer as realistic and if they recognized the company name from previous experiences.

3.4.3 Results

A mean value analysis was conducted on the product involvement questions, where it was confirmed that the products in the flyers were categorized correctly. In addition, the majority of the labels had a knowledge rate above 80% (Appendix 5). The flyers were perceived as realistic ($M_{\text{Realism}} = 5.34$) and none of the respondents recognized the company name “Mer för Mindre”. The majority of the respondents perceived the price range of “Mer för Mindre” as low.

A manipulation check was performed in the pre-study in order for problems associated with the treatment to be discovered in an early research stage and for participants in the main study to not be affected by the check (Söderlund, 2018 p.87). To investigate whether there was a significant difference in perceived sustainability between the groups (Appendix 6), a non-parametric Kruskal-Wallis test was conducted. The test results confirmed that there was a significant difference between the groups ($p = 0.005$). (Appendix 7)

Based on the results, minor changes were made in the study design. Labels with knowledge rate below 80% were replaced and additional manipulation checks were added in the main study.

3.5 Main study

3.5.1 Sample and data collection

Data was collected through an online questionnaire, as it was considered the best alternative in regards to cost and speed (Wenemark, 2017 p. 23). The online questionnaire was distributed between 22-26 March 2021. The survey distribution, and hence the scope of this study, was limited to targeting consumers above 18 years old on the Swedish market.

The survey was distributed to 400 respondents in an online panel handled by Norstat, where the respondents' participation was rewarded through Norstats incentive program (Norstat, 2021).

3.5.2 Survey design

On the first page of the survey, all respondents were informed of the purpose of the study and that their answers would be anonymous and analysed at an aggregated level. The respondents were also provided with contact details to the authors if they had questions about the survey or their participation. Further, the respondents were given a brief background about the fictitious company Mer för Mindre. Thereafter, the respondents were randomly assigned one of the four treatment groups and were shown one out of the four fictitious flyers.

The survey continued with questions about the retailer after having seen the flyer. Here, the dependent variables of sustainability perception, price perception, brand attitude, and purchase intention were tested. The next section of the questionnaire consisted of general questions regarding the price-sustainability schema as well as the respondents own purchase behaviours. Demographic questions about gender and age were asked last in the survey as recommended by Bell and Waters (2014, p.165). Inclusiveness was taken into consideration in the formulation of the question about respondents' sex, following guidelines provided by Statistics Sweden (2020).

Throughout the survey, instructional manipulation checks were performed. The respondents were asked about the perceived price level of Mer för Mindre, as it was of high importance for the study that the respondents understood that the questionnaire was about a discount retailer. In the middle of the survey, the respondents were asked to mark the number 7 among different numbers to test their attention. Lastly, a question regarding the subject of the survey was asked to the respondents.

The questionnaire was developed in Swedish, with the purpose to avoid language barriers in the sample of Swedish customers. Translation procedures similar to previous researchers (Green & White, 1976) were applied to ensure equivalent meaning between the two languages. The questionnaires are available in their entirety in Swedish (Appendix 8) and English (Appendix 9).

3.5.3 Measures

In order to investigate the hypotheses, established measures from existing research literature were used. All measures used in the questionnaire were identified in existing research and, when necessary, minor adaptations of formulations were made to better fit the context of this study, an approach previously adopted by for example Skarmeas & Leonidou (2013).

Indices were created for below measures as the Cronbach's alpha exceeded 0.7.

Attitude towards the retailer

The overall attitude towards the retailer was measured at a 7-point Likert scale (1 = bad, negative, dislike, 7 = good, positive, like). This way of measuring attitude has previously been used by, for example, Groza, Pronschinske and Walker (2011), Nyilasy, Gangadharbatla and Paladino (2014) and Kozup, Creyer and Burton (2003).

Purchase intention at the retailer

Purchase intention was measured based on the condition that it would be possible to shop at Mer för Mindre, as it is a fictitious company. A 7-point Likert scale (1 = do not agree, 7 = completely agree) was adopted for the questions "I would consider shopping at Mer för Mindre", "I would purchase at Mer för Mindre in the future" and "Given the opportunity, I intend to purchase from Mer för Mindre". Similar measures have for example been used by Kim & Park (2013), Grewal et al. (1998) and Chang & Chen (2008).

Price perception of the retailer

Price perception was measured at a 7-point Likert scale (1 = do not agree, 7 = completely agree) for the questions "Mer för Mindre provides low prices", "Mer för Mindre provides fair prices" and "I can buy products for less at Mer för Mindre, compared to other retailers". Similar measures have for example been used by Chowdhury, Reardon and Srivastava (1998) and Yasri et al. (2020).

Sustainability perception of the retailer

Sustainability perception was measured at a 7-point Likert scale (1 = do not agree, 7 = completely agree) for the questions “Mer för Mindre is environmentally sustainable”, “Mer för Mindre wants to contribute to a better environment” and “Mer för Mindre cares about the environment”. Similar measures have for example been used by Leonidou & Skarmas (2017).

The relationship between price and environmental sustainability

The relationship between price and environmental sustainability was measured at a 7-point Likert scale (1 = do not agree, 7 = completely agree) for the questions “The level of environmental sustainability varies with price level”, “The price of the products is a good indication of their environmental sustainability” and “You need to pay a bit more for environmentally sustainable products”. Similar measures have, for example, been used by Lichtenstein, Ridgway and Netemeyer (1993), Sinha & Batra (1999) and Campbell, DiPietro and Remar (2014).

Environmental sustainability consciousness

Environmental sustainability consciousness was measured at a 7-point Likert scale (1 = do not agree, 7 = completely agree) for the questions “I only purchase from companies that are committed to environmentally sustainable business practices”, “I would be more likely to buy from a company if I knew it was involved with environmentally sustainable business practices” and “I would be more likely to buy from a company if I knew it was more committed to environmentally sustainable business practices than competitors”.

Similar measures have, for example, been used by Peterson et al. (2021).

Price consciousness

Price consciousness was measured at a 7-point Likert scale (1 = do not agree, 7 = completely agree) for the questions “I would consider visiting multiple companies to find lower prices”, “I am willing to invest more energy and time in order to find lower prices” and “The time it takes to find lower prices is usually worth the effort”. Similar measures have, for example, been used by Lichtenstein, Ridgway and Netemeyer (1993), Gabler, Myles Landers and Reynolds (2017) and Peterson et al. (2021).

3.6 Assessment of validity and reliability

The credibility of the thesis is of high importance. Thus, validity and reliability of the report is examined in the following section.

3.6.1 Validity

Internal validity measures the accuracy of an experiment. It refers to the extent to which the manipulation of the independent variables, or treatments, actually cause the effects on the dependent variables (Malhotra, 2010 p.254; Söderlund, 2018 p.172). As a first step to ensure internal validity, statistical tests were conducted (Söderlund, 2018, p.173).

A threat to internal validity in experiments is *selection effects*, referring to participants in the treatment groups being different from each other already from the outset (Söderlund 2018, p.173). To improve the internal validity in this aspect, randomized allocation of participants to treatment groups was used and demographic variables were tested to further eliminate the possibility of systematic differences in the sample. These variables included age, gender, price consciousness and sustainability consciousness. With above measures, the internal validity is considered established.

The external validity concerns to what extent the results can be valid in other situations and how they can be generalized (Malhotra, 2010 p.255). Threats to the external validity include a non-representative sample, and participants being exposed to more than one treatment (Söderlund, 2018, p.174). To improve the external validity on this aspect, the participants were randomly assigned one treatment with no knowledge of whether there were other treatment groups. Further, the sampling method used was quota sampling, where the aim is to produce a sample that reflects the population (Bryman & Bell, 2015 p. 202). This was achieved as the questionnaire was distributed through Norstat, a market research company with presence in 12 markets in Europe (Norstat, 2021). Respondents with repeatedly abnormal respondent times were discarded from the panels of Norstat, which further strengthens the external validity. This distribution method provided the thesis with a representative sample in regards to gender, age and geography within the target group of consumers above 18 years old in the Swedish market. With above measures considered, the external validity is established.

The ecological validity is concerned with whether findings are applicable to people's everyday lives (Bryman & Bell, 2015 p.51). Due to the unusualness of answering a questionnaire, this study is limited in terms of its ecological validity (Bryman & Bell 2015 , p.41). However, the manipulation was developed based on current flyers on the Swedish market together with a representative from one of Sweden's largest discount chains, to ensure as realistic a situation as possible. Further, looking at flyers on a computer or smartphone is common in today's digital world. Due to these measures, the unnaturalness of the scenario was substantially decreased.

Another important aspect to consider is that a natural environment is full of uncontrolled variables making identification of causal factors difficult and generalization impossible (Söderlund, 2018, p.182). Hence, the ecological validity in this study is acceptable considering the prioritized importance of isolating the effects of the manipulation.

3.6.2 Reliability

The reliability of a study is concerned with whether the results in the study are repeatable (Bryman & Bell, 2015 p.49). To strengthen the internal reliability of the study, multiple-item measures were asked in the questionnaire, and indices were created for the measures where Cronbach's alpha exceeded 0.7. This is a common approach to ensure reliability in experiments (Söderlund, 2018, 2018 p.136). In addition, established measures have been used for all variables tested in the thesis and solely one open end question was used in the questionnaire (age). With above measures considered, the reliability is deemed established.

4. Results

A total of 400 respondents completed the questionnaire. After excluding responses where the respondents did not answer the instructional manipulation checks correctly, the number of respondents were reduced to 291 in the final dataset. There was an unequal number of respondents in each group ($N_{\text{All}} = 78$, $N_{\text{None}} = 70$, $N_{\text{High-involve.}} = 69$, $N_{\text{Low-involve.}} = 74$). However, this does not cause any obstacles in the statistical testing in this study (Söderlund, 2018, p.49). For the purpose of clarity, abbreviations are used in the results section (Table 1).

Table 1 Abbreviations for mean values in the results section

Full word	Abbreviation in results for mean value (M)
All products (high level of sustainability communication)	All
No products (low level of sustainability communication)	None
High-involvement products only (intermediate level of sustainability communication)	High involve.
Low-involvement products only (intermediate level of sustainability communication)	Low involve.
Stronger schema	Stronger
Weaker schema	Weaker

4.1 Characteristics of the respondents

Among the respondents in the final dataset, the average age was 47 years and the age range of the respondents was 18 to 85 years. The broad age distribution is important in the context of discount retailing as it has been shown that price sensitivity differs by age (Stolz & Bautista, 2015). Further, the gender distribution was 47.8% males and 52.2% females. All counties of Sweden were represented in the sample. As the average age in Sweden is 41 years (SCB, 2020) and the gender distribution in Sweden is 50.3% males and 49.7% females (SCB, 2020), the sample can be considered to be relatively representative for the population (Appendix 10).

Tests were conducted to ensure that there were no systematic differences between the treatment groups in terms of age, gender, price consciousness or sustainability consciousness. After a Pearson Chi-Square test was performed, it confirmed that there were no significant differences in gender between the four treatment groups ($p = 0.850$) (Appendix 11). Moreover, a Kruskal Wallis test was conducted showing no significant differences in age between the four treatment groups ($p = 0.701$) (Appendix 12). Further, one-way ANOVA

tests were performed where the results demonstrated no significant differences in neither price consciousness ($p=0.140$) (Appendix 13) nor sustainability consciousness ($p=0.605$) between the four test groups (Appendix 14).

4.2 Hypothesis testing

In H1-H4, the dependent variables of sustainability perception, price perception, brand attitude and purchase intention were tested in relation to the independent variable of level of sustainability communication. In H5, the effect of a price-sustainability schema on the dependent variables in H1 and H3-H4 was tested.

To test H1-H4, parametric one-way analysis of variance (ANOVA) tests were conducted. If significant differences at an overall group level were shown, planned comparisons were further conducted to reveal differences between particular groups. A significance level of 5% was used throughout the results section as an acceptance level for support of hypotheses.

4.2.1 Sustainability perception

At an overall group level, the results from the one-way ANOVA test reveals that there are significant differences in sustainability perception depending on what level of sustainability communication the respondents had been exposed to ($p < 0.001$). This enabled further testing of the hypotheses with planned comparisons (Table 2).

Table 2 Analysis of variance for sustainability perception (H1)

Level of sustainability communication	SS	df	Mean Square	F	p-value
Between groups	50.080	3	16.693	9.712	< 0.001
Within groups	493.314	287	1.719	*	*
Total	543.394	290	*	*	*

Dependent variable: sustainability perception

*, Not reported.

H1a suggests that the presence of sustainability communication results in the perception of a more sustainable discount retailer. The results of the independent t-test confirmed that the presence of sustainability communication generates a perception of a more sustainable retailer in comparison to no presence of sustainability communication ($M_{All} = 4.158$, $M_{None} = 3.067$, $p < 0.001$). Thus, H1a is supported (Table 3).

Table 3 Independent t-tests on sustainability perception (H1a)

Level of sustainability communication	All products M (SD)	No products M (SD)	Mean difference (SE)	p-value
Sustainability perception	4.158 (1.420)	3.067 (1.180)	1.091 (0.216)	< 0.001

H1b proposes that the presence of sustainability communication by discount retailers on all products results in the perception of a more sustainable retailer compared to if the communication was merely on high-involvement products. The results of the independent t-test confirmed that the presence of sustainability communication on all products generates the perception of a more sustainable retailer in comparison to presence of sustainability communication on only the high-involvement products ($M_{All} = 4.158$, $M_{High\ involve.} = 3.289$, $p < 0.001$). Thus, H1b is supported (Table 4).

Table 4 Independent t-tests on sustainability perception (H1b)

Level of sustainability communication	All products M (SD)	High-involvement products M (SD)	Mean difference (SE)	p-value
Sustainability perception	4.158 (1.420)	3.289 (1.353)	0.868 (0.230)	< 0.001

H1c proposes that the presence of sustainability communication by discount retailers on high-involvement products will result in the perception of a more sustainable retailer compared to when communication is solely on low-involvement products. Results from the independent t-test evidently reveal that there are no significant differences in consumers' sustainability perception depending on if the sustainability communication is allocated to products characterised by high or low involvement ($M_{High\ involve.} = 3.289$, $M_{Low\ involve.} = 3.604$, $p = 0.078$). Therefore, H1c is rejected (Table 5).

Table 5 Independent t-tests on sustainability perception (H1c)

Level of sustainability communication	High-involvement products M (SD)	Low-involvement products M (SD)	Mean difference (SE)	p-value
Sustainability perception	3.289 (1.353)	3.604 (1.269)	-0.314 (0.219)	0.078

H1d, the final hypothesis on sustainability perception suggests that the presence of sustainability communication by discount retailers on low-involvement products will result in the perception of a more sustainable retailer compared to no sustainability communication on any products at all. Significant differences in sustainability perception between the different

levels of sustainability communication are identified, with mean differences aligning with the hypothesis ($M_{\text{Low involve}} = 3.604$, $M_{\text{None}} = 3.067$, $p = 0.005$). Therefore, H1d is supported (Table 6).

Table 6 Independent t-tests on sustainability perception (H1d)

Level of sustainability communication	Low-involvement products M (SD)	No products M (SD)	Mean difference (SE)	p-value
Sustainability perception	3.604 (1.269)	3.067 (1.180)	0.537 (0.205)	0.005

4.2.2 Price perception

At an overall group level, the results from the one-way ANOVA test reveals that there are no significant differences in price perception depending on what level of sustainability communication the respondents had been exposed to ($p = 0.799$). Hence, we do not proceed with planned comparisons and H2a-d is rejected (Table 7).

Table 7 Analysis of variance for price perception (H2)

Level of sustainability communication	SS	df	Mean Square	F	p-value
Between groups	1.095	3	0.365	0.337	0.799
Within groups	311.054	287	1.084	*	*
Total	312.149	290	*	*	*

Dependent variable: price perception

*, Not reported.

4.2.3 Brand attitude

At an overall group level, the results from the one-way ANOVA test reveals that there are significant differences in brand attitude depending on what level of sustainability communication the respondents had been exposed to ($p = 0.020$). This enabled us to further test the hypotheses with planned comparisons (Table 8).

Table 8 Analysis of variance for brand attitude (H3)

Level of sustainability communication	SS	df	Mean Square	F	p-value
Between groups	13.780	3	4.593	3.316	0.020
Within groups	397.571	287	1.385	*	*
Total	411.350	290	*	*	*

Dependent variable: brand attitude

*, Not reported.

H3a suggests that the presence of sustainability communication results in more favorable brand attitudes towards the discount retailer. The results of the independent t-test confirmed that the presence of sustainability communication generates a more favorable brand attitude in comparison to no presence of sustainability communication ($M_{All} = 4.821$, $M_{None} = 4.362$, $p = 0.008$). Thus, H3a is supported (Table 9).

Table 9 Independent t-tests on brand attitude (H3a)

Level of sustainability communication	All products M (SD)	No products M (SD)	Mean difference (SE)	p-value
Brand attitude	4.821 (1.194)	4.362 (1.090)	0.459 (0.189)	0.008

H3b implies that the presence of sustainability communication by discount retailers on all products results in a more favorable brand attitude than if the communication was merely on high-involvement products. The results of the independent t-test confirmed that the presence of sustainability communication on all products generates a more favorable brand attitude in comparison to sustainability communication solely on high-involvement products ($M_{All} = 4.821$, $M_{High\ involve.} = 4.391$, $p = 0.014$). Thus, H3b is supported (Table 10).

Table 10 Independent t-tests on brand attitude (H3b)

Level of sustainability communication	All products M (SD)	High-involvement products M (SD)	Mean difference (SE)	p-value
Brand attitude	4.821 (1.194)	4.391 (1.142)	0.429 (0.193)	0.014

H3c proposes that the presence of sustainability communication by discount retailers on high-involvement products will generate a more favorable brand attitude than communication on low-involvement products. Results from independent t-test evidently reveal that there are no significant differences in consumers' brand attitude depending on if the sustainability communication is allocated to products characterised by high or low involvement ($M_{High\ involve.} = 4.391$, $M_{Low\ involve.} = 4.270$, $p = 0.275$). Therefore, H3c is rejected (Table 11).

Table 11 Independent t-tests on brand attitude (H3c)

Level of sustainability communication	High-involvement products M (SD)	Low-involvement products M (SD)	Mean difference (SE)	p-value
Brand attitude	4.391 (1.142)	4.270 (1.267)	0.121 (0.202)	0.275

H3d, the final hypothesis on brand attitude suggests that the presence of sustainability communication by discount retailers on low-involvement products will result in a more

favorable brand attitude than no sustainability communication on any products. Also, this time, no significant differences in brand attitude between the different levels of sustainability communication is demonstrated ($M_{\text{Low involve.}} = 4.270$, $M_{\text{None}} = 4.362$, $p = 0.322$). Therefore, as for the previous hypotheses on brand attitude, H3d is rejected (Table 12).

Table 12 Independent t-tests on brand attitude (H3d)

Level of sustainability communication	Low-involvement products M (SD)	No products M (SD)	Mean difference (SE)	p-value
Brand attitude	4.270 (1.267)	4.362 (1.090)	-0.092 (0.197)	0.322

4.2.4 Purchase intention

At an overall group level, the results from the one-way ANOVA test reveals that there are no significant differences in purchase intention depending on what level of sustainability communication the respondents had been exposed to ($p = 0.304$). Hence, we do not proceed with planned comparisons and H4a-d is rejected (Table 13).

Table 13 Analysis of variance for purchase intention (H4)

Level of sustainability communication	SS	df	Mean Square	F	p-value
Between groups	8.478	3	2.286	1.216	0.304
Within groups	666.905	287	2.324	*	*
Total	675.384	290	*	*	*

Dependent variable: purchase intention

*, Not reported.

4.2.5 Price-sustainability schema

To test this hypothesis, the total sample was divided into two groups (stronger schema; weaker schema) based on the median (4.667) for the dependent variable price-sustainability schema. Further, planned comparisons were carried out.

H5a proposes that a stronger price-sustainability schema will result in the perception of the retailer being less sustainable. The independent t-test reveals no significant differences between the two groups ($M_{\text{Stronger}} = 3.667$, $M_{\text{Weaker}} = 3.467$, $p = 0.123$). Hence, H5a is rejected (Table 14).

Table 14 Independent t-tests on sustainability perception (H5a)

Schema	Stronger schema M (SD)	Weaker schema M (SD)	Mean difference (SE)	p-value
Sustainability perception	3.667 (1.583)	3.467 (1.20)	0.201(0.171)	0.123

H5b proposes that a stronger price-sustainability schema will result in less favorable brand attitudes. The independent t-test reveals significant differences in brand attitude ($M_{\text{Stronger}}=4.647$, $M_{\text{Weaker}}=4.345$, $p = 0.020$), but respondents with a stronger schema had a more favorable brand attitude, contrasting the hypothesis. Hence, H5b is rejected (Table 15).

Table 15 Independent t-tests on brand attitude (H5b)

Schema	Stronger schema M (SD)	Weaker schema M (SD)	Mean difference (SE)	p-value
Brand attitude	4.647 (1.215)	4.345 (1.162)	0.302 (0.141)	0.020

Hypotheses 5c propose that a stronger price-sustainability schema will result in lower purchase intentions. The independent t-test reveals significant differences in purchase intention between the two groups ($M_{\text{Stronger}}=4.768$, $M_{\text{Weaker}}=4.439$, $p = 0.036$). The group with stronger schema had higher purchase intentions compared to the group with weaker schema, contrasting the hypothesis. Hence, hypothesis 5c is rejected (Table 16).

Table 16 Independent t-tests on purchase intention (H5c)

Schema	Stronger schema M (SD)	Weaker schema M (SD)	Mean difference (SE)	p-value
Purchase intention	4.768 (1.538)	4.439 (1.507)	0.328 (0.181)	0.036

As new groups were formed for the purpose of testing H5, tests of differences between the two groups were performed to get a further understanding of the results. After a Pearson Chi-square test was conducted it was confirmed that there were no significant differences in gender between the two schema groups ($p = 0.061$) (Appendix 15). Moreover, a Mann-Whitney U test was conducted showing no significant differences in age between the two schema groups ($p = 0.190$) (Appendix 16). Further, two t-tests were performed where the results demonstrated significant differences in price consciousness ($M_{\text{Weaker}}=4.576$, $M_{\text{Stronger}}=4.927$, $p=0.028$) (Appendix 17) and sustainability consciousness ($M_{\text{Weaker}}=3.766$, $M_{\text{Stronger}}=4.493$, $p < 0.001$) between the two groups (Appendix 18).

4.3 Summary of results

To summarise the results, five hypotheses were supported whereas 14 hypotheses were rejected (Table 17). An elaboration on the results is found in the upcoming discussion section.

Table 17 Summary of hypotheses results

Hypotheses	Supported	Rejected
H1 – Sustainability perception		
H1a	X	
H1b	X	
H1c		X
H1d	X	
H2 – Price perception		
H2a		X
H2b		X
H2c		X
H2d		X
H3 – Brand attitude		
H3a	X	
H3b	X	
H3c		X
H3d		X
H4 – Purchase intention		
H4a		X
H4b		X
H4c		X
H4d		X
H4 – Price-sustainability schema		
H5a		X
H5b		X
H5c		X
Total	5	14

5. Discussion

Due to an increased consumer interest in sustainability, it is highly valuable for discount retailers to know what effects their sustainability communication might have. By investigating whether there is a value for discount retailers to communicate their sustainability work and whether the reception of the communication can be affected by consumers' price-sustainability schema or the involvement level of the purchase, knowledge in a relatively unexplored field can be extended. Various research studies in the past have explored sustainability communication in the retailing sector (e.g. Bodini, Richter & Felder, 2009; Parguel, Benoît-Moreau, & Larceneux, 2011; Saber & Weber, 2019). However, research on discount retailing is scarce, in particular in intersection with sustainability communication. The findings of this study can therefore be important contributors to extending the knowledge in this intersection, providing an answer to the question of the value of sustainability communication in the discount retailing sector.

5.1 Sustainability communication generates a perception of being sustainable

The results demonstrated that there are significant differences in the extent to which respondents perceived sustainability at the retailer, depending on the level of sustainability communication that the respondent group was exposed to. Support for H1a-b and H1d could be found, implying that the more sustainability communication, the stronger is the perception of the retailer being sustainable.

Sustainability is an emerging competitive factor in retailing, and retailers that mainly compete on price also want to make use of sustainability as a means of competition (Lidl, 2020; Rusta, 2020). The results imply that if the goal is to be perceived as sustainable, communication can indeed be an important tool for discount retailers. This could indicate that there is a possibility even for discount retailers to take part of all the benefits that comes with a perception of being sustainable. Further, it confirms previous research stating that sustainability communication can lead to positive effects (Naidoo & Gasparatos, 2018). However, the results demonstrated that even though sustainability communication was expressed on all products possible in the flyer, relatively low levels of sustainability was perceived ($M_{\text{all}} = 4.158$). A plausible explanation for this, although not tested in this study, could be that previous literature have found that consumers are sceptical and hold doubts that mainstream retailers can be

sustainable (Bălan, 2021). The sceptical view could further be related to the increased number of greenwashing accusations facing companies today (Chen and Chang, 2013). This suggests that even though sustainability communication contributes to the perception of the discounter as more sustainable, consumers may hold an assumption that sustainability and price is a trade-off, which is further elaborated on in section 5.4.

The findings from H1 indicates that there indeed could be a value for discount retailers to communicate sustainability, as the customers perceive the communication and translate it into thinking that the retailer is more sustainable. However, it is important to be cautious with environmental claims as accusations of greenwashing is an increasing issue in retail today.

5.2 Unjustified fear of changed price perception

Previous research in the field of discount retailing has proven that price is the most important criteria for customers (Powers, Jack & Choi, 2018). Practitioners in the field have also expressed the value of their low-price image and a fear of losing this image (Bondesson, 2021). When wishing to combine the attributes of low prices and an active sustainability work, there could be risks as previous research and customer assumptions has shown that these two typically do not go hand in hand (Bondesson, 2021; Vadakkepatt et al., 2021). Instead, many researchers (Grewal, Monroe & Krishnan, 1998; Harris, 2007) have demonstrated that higher prices are expected for green products. Our findings contradicts the previous studies as the results leading to a rejection of H2a-b and H2d suggests that the price perception among customers was not significantly affected by the level of sustainability communicated.

For practitioners, this finding is important. It indicates that for discount retailers wishing to practice and communicate sustainability, there should be no fear of losing the low-price image. This, as the relationship between price perception and sustainability communication does not seem to hold in this field. A plausible explanation to why the price perception was not affected in this study, could be the strong association to low prices in the discount retailing sector. However, as price is the main competitive factor for discounters and as price perceptions are a subject of change (Bondesson, 2021), sustainability should be performed with caution while closely monitoring how it affects the prices. Initiatives that are both sustainable and cost-saving at the same time are encouraged for discounters, but eventually,

according to Rosenholm (2021), Gunn and Mont (2014) and Lehner (2015), sustainability requires financial investments. When the cost-saving actions already have been made, and other actions are required, the balancing act between price and sustainability will be more challenging. However, the fear of a perception of increased price levels when communicating sustainability is indicated by the results of this study to be unjustified.

5.3 The attitude-behaviour gap

The results from H3 demonstrated significant differences in brand attitude depending on the level of sustainability communication the treatment groups had been exposed to. Support was found for H3a-b, that the presence of sustainability communication on all products generates a more favourable brand attitude in comparison to communication on none of the products or high-involvement products respectively. Contrastingly, H3d was rejected as no significant differences in consumers' brand attitude could be found depending on if sustainability communication was allocated to low-involvement products versus no products at all.

Further, considering that H4a-b and H4d were rejected, no significant differences in purchase intention depending on what level of sustainability communication the respondents had been exposed to could be found.

Connecting the findings from H3 and H4 to previous studies demonstrating an attitude-behaviour gap (White, Habib, & Hardisty, 2019), the results from this study suggest that an attitude-behaviour gap may also apply in discount retailing. This is indicated as significant differences in brand attitude, but not purchase intention, were identified depending on level of communication, confirming previous literature on the attitude-behaviour gap.

The finding of an attitude-behaviour gap in discount retailing could question the value of sustainability communication as only brand attitude is impacted, whereas the differences in purchase intention were insignificant. However, research by Hernández and Küster (2012) suggests that brand attitude has a significant impact on the purchase intention.

Further, purchase intention may be impacted also by other aspects than sustainability, not tested in this study. Therefore, it may still be of value for a discount retailer to communicate sustainability to improve brand attitude, and hopefully in the long-run, purchase intention.

5.4 The influence of a price-sustainability schema

When exploring the differences in impact that a stronger versus weaker price-sustainability schema can have on the dependent variables tested in H1 and H3-4, the results of the planned comparisons led to rejection of hypotheses H5a-c. The test of H5a was insignificant.

However, as the tests on H5b-c were significant, conclusions can still be drawn that customers with a stronger price-sustainability schema generate more favourable brand attitudes and higher purchase intentions compared to customers with weaker price-sustainability schemas.

As the total sample was divided across the median of 4.667 to test H5, where stronger schema is the higher range and weaker schema the lower, it can be concluded that some customers indeed have a stronger price-sustainability schema, thereby assuming that sustainability and price is a trade-off. As the groups differed in terms of price and sustainability consciousness, it can be concluded that the customers that are concerned with both prices and sustainability more strongly believe that it is not possible to combine them both.

An implication to be drawn from H5b-c is that the customers with strong schemas were disconfirmed when low prices and sustainability in fact appeared in combination on the flyer. As shown in the test of differences between the schema groups, the group with a stronger schema was more concerned about the environment and therefore they can be assumed to have reacted positively to the combination of low price and sustainability, rather than to act with scepticism. This reaction confirms previous research by Meyer, Rudolph and Schutzwahl (1991) and Schmidt and Hitchon (1999) stating that reactions from schema incongruity also can be positive. The combination of lower prices and sustainability can thus be concluded to be welcomed by the customers, and the negative effects of greenwashing, can be assumed not to be reflected in the results in this study. A practical implication could therefore be to continue to target the customers with a stronger price-sustainability schema as they seemed to be receptive to the sustainability communication and acted in a favourable manner.

5.5 The non-existing effect of involvement level

Sustainability communication on high-involvement products was expected to generate more favourable effects on sustainability perception, price perception, brand attitude and purchase intention compared to sustainability communication on low-involvement products. This was hypothesised as the literature demonstrated that customers in general have a more extensive

decision processes when making a high-involvement purchase (Bodini et al, 2009; Li & Yuan, 2018; Yang & Shih, 2019). None of the hypotheses that compared communication on high-involvement products and low-involvement products (H1c, H2c, H3c, H4c) were significant. This could imply that it is not of importance in the minds of the consumers whether the sustainability communication is on high-or low involvement products specifically, which, in a way, contradicts previous research. However, as the results were insignificant, no definite conclusions can be drawn.

Further, as there is no significant difference in the perception of sustainability between communicating it on low-involvement products versus high-involvement products (H1c), when the number of products are the same, it implies that quantity is key when wanting to achieve higher perceived sustainability levels, based on findings from H1.

5.6 The rejection of hypotheses

Previous research has shown that unique circumstances hold for the discount retailing sector and that the behaviour when shopping in this context is different from other retailing sectors (Powers, Jack & Choi, 2018). In addition, consumers do not look for ecological products at retailers where they do not expect to find them, such as at discount retailers (Braga Junior et al., 2014). Outside of the academic world, industry experts have expressed similar views (Larsson, 2021). The findings by previous researchers could be one part of the explanation to why no support was found for some of the hypotheses. Especially the finding that discount retailing has unique characteristics is confirmed by our study as several hypotheses, based on findings in other retail sectors, were rejected. Further, the finding by Braga Junior et al. (2014) could indicate that even when customers perceive the different levels of sustainability communication, they do not care for it as much, as they do not expect discount retailers to be sustainable in the first place. Other attributes, such as price, may be more important to customers and therefore sustainability communication might be ignored to a larger extent in order for the more important attributes to gain full attention.

Rejecting hypotheses was something that we were aware of could happen due to the previous findings, and this further emphasizes the importance of our research contributions, as not all previous research can be assumed to apply also for the discount retailing sector. In addition, it cannot be excluded that rejections of the hypotheses are derived from the manipulation.

As a manipulation check solely was conducted in a pre-study, on a convenience sample, it cannot be guaranteed that the manipulation was significant in the main study. Therefore the rejected hypotheses could be either due to flaws in the manipulation or due to no actual effects. Another plausible explanation that may have affected the results is that participation in the study was rewarded. Hence, there are incentives to finish the study quickly to receive the reward. However, as Norstat discarded these respondents from the panels after repeated misbehaviour, this concern can be considered moderate.

6. Conclusion

The purpose of this study was to extend the current research in the intersecting and growing areas of sustainability and discount retailing and to answer the research questions:

Is there a value for discount retailers to communicate their sustainability work and how does the level of sustainability communication affect the sustainability perception, price perception, brand attitude and purchase intention? In addition, are the effects influenced by consumers' price-sustainability schema and level of product-involvement?

This study has shown that there is no harm to communicate sustainability for discount retailers in terms of a changed price perception. Instead, positive effects of a more favourable brand attitude are identified and the results also show that the customers perceive the discounter as more sustainable when communicating more about sustainability. As purchase intention was not significantly affected, no benefits from that variable could be derived in this study. However, one should consider that purchase intention and brand attitude are developed over time, and that greater brand attitude in turn can lead to greater purchase intention.

This study indicates that the risks of communicating sustainability for discount retailers, in terms of changed price perception and greenwashing, are lower than expected. Greenhushing can therefore be considered a greater risk than communicating sustainability, based on the variables examined in this study. However, there is a balance between risk and reward, as sustainability initiatives and communication in many cases require additional resources.

It can be concluded that there is value for discount retailers to communicate about sustainability, and that this value is not negatively affected by consumers' price-sustainability schema. Further, no weight in terms of high-or low involvement products should be attached to which type of products to communicate sustainability on, as the involvement-level of the products did not have a significant effect.

7. Limitations and further research

The experiment and thesis has limitations, which is natural due to limited time and resources. Therefore, limitations as well as suggestions of improvements and ideas for future research are hereby presented.

Initially, this study is focused solely on one of the sustainability aspects of the Triple bottom line (TBL), the environmental one. Further studies could examine the relationship of sustainability communication in other sustainability aspects in the discount retailing sector, to further understand the unique circumstances in the field. Relating to the literature on the Triple bottom line (TBL), it should be mentioned that the sources for this concept as well as several other sources used in the thesis were written in the early 2000s, respectively 1990s. It could naturally, as sustainability and discount retailing have gained increased attention in the last years, be assumed that certain research may no longer be as relevant. However, to account for this, the information has been confirmed against other literature to ensure accuracy of the information. To the greatest extent, as new literature as possible has been used for the conduction of theory and hypotheses in this thesis.

Continuing, the study is limited to one media of communication, a flyer. This limitation was made in order to isolate the effects of the manipulation, and because this media of communication is important to discount retailers in particular. However, other means of communication could be of interest to investigate, either in combination with the flyer or separated from it. One example of an interesting communications channel is in-store communication, as it has been proven to influence customers' perceptions and purchase decisions (Bezençon & Etemad-Sajadi, 2015; Schramm-Klein, Morschett & Swoboda, 2015).

Dependent variables other than sustainability perception, price perception, brand attitude and purchase intention could also be important to consider to establish a full picture of the value for discount retailers to communicate sustainability. In future research, it would be interesting to look further at the variable of trust, to investigate the greenwashing aspect more in depth. To gain a deeper understanding of what may affect the reception of the sustainability communication, other factors than involvement level in the purchase and the price-

sustainability schema could be tested. Tests could also be done with an inductive approach and a qualitative method to dig deeper into the research subject.

Continuing, the survey was limited in regards to the geographical market. As the Swedish consumers have been concerned about sustainability for a long time, while the discount retailing market in Sweden is on the rise, a study on the Swedish market probably generates different results than in other markets with other relationships between sustainability and discount retailing. Thus, investigating the research questions in other markets could be of interest. In addition, the research questions could be investigated together with other fields, in order for the results to be compared with the discount retailing market in an easier manner. This could be done in the furniture, DIY or grocery sector where parts of the assortment overlap with the discount retailing assortment. Further, the study could be replicated with other products, in order to see if the results would be different with a different set of products.

It should also be mentioned that previous studies on sustainability have found that consumers often tend to overreport their attitudinal preferences and purchase intention towards socially responsible behaviour when answering questions about environmental issues due to social desirability bias (Johnstone & Lay, 2014). This is a limitation which cannot be ruled out from the current study and it could implicate certain skewness in the results. It is further difficult to control social desirability bias. However, using an increased number of measures and ensuring anonymity to a greater extent (avoiding questions about age, gender and location) in a future study may, to some extent, combat the issue.

Looking into the future, it can be assumed that customers will continue to increase their interest in, and demand for, sustainable products and sustainability communication. Therefore, it can be forecasted that customers will acknowledge the communication and more in the coming years and a replicate of this particular study could therefore be of interest in the future.

Finally, it is important to state that this report examines sustainability communication from a *business perspective*. As the climate crisis is an important issue, it is encouraged to practice sustainability regardless of the results in this report.

8. References

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9. Appendices

9.1 Appendix 1: Stimuli (high level, all products)

Sustainability communication on all products on the stimuli, the flyer.

MER FÖR MINDRE

Väggfärg. 2,5 liter. Högkvalitativ vattenbaserad PVA/latexfärg. Finns i flera kulörer. Miljömärkt med Svanen.

129:-
(169 :-)

Hemmafix!

Kanonpris!

499:-
(649 :-)

Vårt hållbara val!

Matta. Handvävd. 160x230 cm. B62 x L62 x H74 cm. Tillverkad i naturmaterial som är biologiskt nedbrytbart och återvinningsbart.

Minst 50% återvunnen plast!

9:90
(13:90)

Toalettborste. Olika färger. Handtag i återvunnen polypropylenplast.

Invig våren!

29:90
(37:90)

Strumpor 3-pack. Stl. 36-41. Finns i flera färger. Fairtrade-certifierad bomull.

Max 2 per hushåll

19:90
(29:90)

Värmeljus. 50-pack. Vit. Brinntid ca 5 timmar. Miljömärkt med Svanen. Biologiskt nedbrytbar kopp. 100% växtolja, innehåller ej palmolja.

799:-
(999 :-)

Uteset. Bord + 2 stolar. Oljat FSC hårdträ. Hopfällbart. B62 x L62 x H74 cm. Tillverkade i Tyskland.

FYNDPRISER VARJE VECKA!

Priserna gäller fr.o.m. 22/3 t.o.m. 28/3 2021 med reservation för tryckfel och slutförsäljning.

9.2 Appendix 2: Stimuli (intermediate level, high-involvement products only)
Sustainability communication on high-involvement products on the stimuli, the flyer.

MER FÖR MINDRE

Väggfärg. 2,5 liter. Högkvalitativ vattenbaserad PVA/latexfärg. Finns i flera kulörer. Miljömärkt med Svanen.

129 :-
(169 :-)

Hemmafix!

Kanonpris!

499 :-
(649 :-)

Vårt hållbara val!

Matta. Handvävd. 160x230 cm. B62 x L62 x H74 cm. Tillverkad i naturmaterial som är biologiskt nedbrytbart och återvinningsbart.

Toalettborste. Olika färger. Handtag i polypropylenplast.

9:90
(13:90)

Strumpor 3-pack. Stil. 36-41. Finns i flera färger.

29:90
(37:90)

Invig våren!

Max 2 per hushåll

19:90
(29:90)

Värmeljus. 50-pack. Vit. Brinntid ca 5 timmar.

799 :-
(999 :-)

Uteset. Bord + 2 stolar. Oljat FSC hårdträ. Hopfällbart. B62 x L62 x H74 cm. Tillverkade i Tyskland.

FSC

FYNDPRISER VARJE VECKA!

Priserna gäller fr.o.m. 22/3 t.o.m. 28/3 2021 med reservation för tryckfel och slutförsäljning.

9.3 Appendix 3: Stimuli (intermediate level, low-involvement products only)
Sustainability communication on low-involvement products on the stimuli, the flyer.

MER FÖR MINDRE

Väggfärg. 2,5 liter. Högkvalitativ vattenbaserad PVA/latexfärg. Finns i flera kulörer. **129:-** (169:-)

Hemmafix!

Kanonpris!
499:- (649:-)

Matta. Handvävd. 160x230 cm. B62 x L62 x H74 cm. Tillverkad i naturmaterial.

Minst 50% återvunnen plast!
9:90 (13:90)

Toalettbörste. Olika färger. Handtag i återvunnen polypropylenplast.

Invig våren!

29:90 (37:90)

Strumpor 3-pack. Stl. 36-41. Finns i flera färger. Fairtrade-certifierad bomull.

Max 2 per hushåll
19:90 (29:90)

Värmeljus. 50-pack. Vit. Brinntid ca 5 timmar. Miljömärkt med Svanen. Biologiskt nedbrytbar kopp. 100% växtolja, innehåller ej palmolja.

799:- (999:-)

Uteset. Bord + 2 stolar. Oljat hårdträ. Hopfällbart. B62 x L62 x H74 cm.

FYNDPRISER VARJE VECKA!

Priserna gäller fr.o.m. 22/3 t.o.m. 28/3 2021 med reservation för tryckfel och slutförsäljning.

9.4 Appendix 4: Stimuli (low level, no products)

Sustainability communication on none of the products on the stimuli, the flyer.

MER FÖR MINDRE

Väggfärg. 2,5 liter. Högkvalitativ vattenbaserad PVA/latexfärg. Finns i flera kulörer.

129:-
(169 :-)

Hemmafix!

Kanonpris!

499:-
(649 :-)

Matta. Handvävd. 160x230 cm. B62 x L62 x H74 cm. Tillverkad i naturmaterial.

Toalettborste. Olika färger. Handtag i polypropylenplast.

9:90
(13:90)

Strumpor 3-pack. Stl. 36-41. Finns i flera färger.

29:90
(37:90)

Invig varen!

Max 2 per hushåll

19:90
(29:90)

Uteset. Bord + 2 stolar. Oljat hårdträ. Hopfällbart. B62 x L62 x H74 cm..

799:-
(999 :-)

FYNDPRISER VARJE VECKA!

Priserna gäller fr.o.m. 22/3 t.o.m. 28/3 2021 med reservation för tryckfel och slutförsäljning.

9.5 Appendix 5: Knowledge rate of sustainability labels (pre-study)

Sustainability labels	Frequency	Share of respondents in total familiar with the label
BCI (Better Cotton Initiative)	22	31%
Svanen (The Nordic Swan ecolabel)	68	97%
Fairtrade	69	99%
FSC (Forest Stewardship Council)	56	80%
RSPO (Roundtable on Sustainable Palm Oil)	10	14%

9.6 Appendix 6: Descriptive statistics for perceived sustainability (pre-study)

Descriptive statistics for perceived sustainability

Level of sustainability communication	N	Mean (SD)
High level (all products)	18	3.890 (1.779)
Intermediate level (high-involvement products only)	15	3.730 (1.751)
Intermediate level (low-involvement products only)	18	2.500 (1.654)
Low level (no products)	19	2.110 (1.150)

Perceived sustainability in pre-study measured through Q2a (Appendix 5 and 6)

9.7 Appendix 7: Kruskal-Wallis test for perceived sustainability

Level of sustainability communication	N	Mean Rank
High level (all products)	18	45.47
Intermediate level (high-involvement products only)	15	43.20
Intermediate level (low-involvement products only)	18	29.42
Low level (no products)	19	25.74
Total	70	*

Test Statistics	Kruskal-Wallis H	df	p-value
Perceived sustainability	13.003	3	0.005

Perceived sustainability in pre-study measured through Q2a (Appendix 5 and 6)

*. Not reported.

9.8 Appendix 8: Questionnaire (main study) - Swedish version (original)

Hej och stort tack för att du deltar i undersökningen som kommer att utgöra underlaget till vår kandidatexamensuppsats vid Handelshögskolan i Stockholm!

I studien kommer du att exponeras för **ett annonsblad från ett fiktivt lågprisföretag: Mer för Mindre**. Mer för Mindre är ett företag med stora butiksytor, ett brett sortiment och pris som främsta konkurrensmedel. Du hittar deras butiker belägna vid handelsplatser utanför städer runtom i Sverige, ofta i närheten av deras största konkurrenter Rusta, Dollarstore och ÖoB.

Alla svar är anonyma och kommer att hanteras på aggregerad nivå. Inga svar är rätt eller fel, utan enkäten besvaras helt baserat på din individuella uppfattning. Enkäten tar ca 5-7 minuter att fylla i.

Hör gärna av dig till oss om du har några frågor!

Med vänliga hälsningar

Linnea Kaveryd (50572@student.hhs.se) och Emma Söderberg (50576@student.hhs.se)

-----Sidbrytning-----

Nedan ser du ett annonsblad för Mer för Mindre. De frågor som följer kommer att vara kopplade till detta annonsblad, så vänligen studera det noga. Du kommer endast att få se annonsbladet en gång, och när du besvarat frågorna kommer du inte ha möjlighet att gå tillbaka och ändra dina svar.

Annonsbladet visas (slumpvald version av annonsbladet)

-----Sidbrytning-----

Fråga 1. I vilken prisklass befinner sig Mer för Mindre?

- Lågpris
- Mellanpris
- Premiumpris

Fråga 2. Vad är din generella attityd till Mer för Mindre?

- a) 1-7: Dålig/Bra
- b) 1-7: Negativ/Positiv
- c) 1-7: Ogillar/Gillar

Fråga 3. Förutsatt att möjligheten fanns att handla hos Mer för Mindre, i vilken utsträckning instämmer du med följande påståenden? (7-likert skala där 1=instämmer inte alls och 7=instämmer helt)

- a) 1-7: Jag skulle kunna tänka mig att handla hos Mer för Mindre.
- b) 1-7: Jag skulle handla hos Mer för Mindre i framtiden.
- c) 1-7: Om jag fick möjligheten hade jag genomfört ett köp hos Mer för Mindre.

-----Sidbrytning-----

Fråga 4. Föreställ dig att du ska handla en **toalettborste** hos Mer för Mindre. I vilken utsträckning är följande faktorer viktiga i ditt köpbeslut? (7-likert skala där 1=inte alls viktigt och 7= väldigt viktigt):

- a) 1-7: Pris
- b) 1-7: Kvalitet
- c) 1-7: Miljömässig hållbarhet
- d) 1-7: Produktutseende
- e) 1-7: Antalet varianter av produkten att välja på

Fråga 5. Föreställ dig att du ska handla en **vardagsrumsmatta** hos Mer för Mindre. I vilken utsträckning är följande faktorer viktiga i ditt köpbeslut? (7-likert skala där 1=inte alls viktigt och 7= väldigt viktigt):

- a) 1-7: Pris
- b) 1-7: Kvalitet
- c) 1-7: Miljömässig hållbarhet
- d) 1-7: Produktutseende
- e) 1-7: Antalet varianter av produkten att välja på

-----Sidbrytning-----

Fråga 6. Markera nummer 7

- 7
- 1
- 4

Fråga 7. Hur uppfattar du Mer för Mindre på följande aspekter? (7-likert skala där 1=instämmer inte alls och 7= instämmer helt)

- a) 1-7: Mer för Mindre har låga priser.
- b) 1-7: Mer för Mindre har rimliga priser.
- c) 1-7: Jag kan köpa produkter till ett lägre pris hos Mer för Mindre jämfört med andra butiker.

- d) 1-7: Mer för Mindre säljer produkter med hög kvalitet.
- e) 1-7: Mer för Mindre säljer pålitliga produkter.
- f) 1-7: Mer för Mindre säljer produkter med högre kvalitet än andra butiker.

- g) 1-7: Mer för Mindre är miljömässigt hållbara.
- h) 1-7: Mer för Mindre vill bidra till en bättre miljö.
- i) 1-7: Mer för Mindre bryr sig om miljön.

-----Sidbrytning-----

Nu följer några generella frågor kring din syn på hållbarhet i relation till pris, samt kring dina egna köpbeteenden.

Fråga 8. I vilken utsträckning instämmer du med följande påståenden? (7-likert skala där 1=instämmer inte alls och 7= instämmer helt)

- a) 1-7: "Nivån av miljömässig hållbarhet i produkter varierar med prisnivå."
- b) 1-7: "Priset på produkter är en bra indikation på dess miljömässiga hållbarhet."
- c) 1-7: "Du behöver betala lite mer för miljömässigt hållbara produkter."

- d) 1-7: "Jag handlar enbart från företag där hållbarhet är en del av företagets verksamhet."
- e) 1-7: "Jag skulle vara mer benägen att handla från ett företag om jag kände till att företaget arbetar med hållbarhet."
- f) 1-7: "Jag skulle vara mer benägen att handla från ett företag om jag kände till att företaget arbetar mer med hållbarhet i sin verksamhet än företagets konkurrenter."

- g) 1-7: "Jag kan tänka mig att undersöka flera aktörer för att hitta lägre priser."
- h) 1-7: "Jag är villig att lägga ned extra energi och tid för att hitta lägre priser."
- i) 1-7: "Tiden som det tar att hitta lägre priser är vanligtvis värt ansträngningen."

-----Sidbrytning-----

Fråga 9. Hur definierar du din könsidentitet?

- Man
- Kvinna
- Jag föredrar att inte uppge kön
- Annat: _____

Fråga 10. Hur gammal är du?

Ålder: _____

Fråga 11. Vad handlade undersökningen om?

- Ett annonsblad från ett lågprisföretag
- Influencer marketing för en dagligvarukedja
- Reklam för ett lyxvarumärke

-----Sidbrytning-----

Nu är enkäten slut. Tack för dina svar! Syftet med studien är att undersöka om det finns ett värde för lågprisföretag att kommunicera sitt hållbarhetsarbete. Vi undersöker även om mottagandet av kommunikationen kan påverkas av kundernas förutfattade meningar kring lågprisföretags hållbarhetsarbete eller av graden av engagemang för produkterna som annonseras. Vi önskar återigen understryka att aktören är fiktiv och att dessa erbjudanden inte finns på riktigt.

Om du har frågor eller feedback är du välkommen att kontakta oss:

Linnea Kaveryd (50572@student.hhs.se) och Emma Söderberg (50576@student.hhs.se)

9.9 Appendix 9 : Questionnaire (main study) - English version (translation)

Hello and thank you very much for participating in the survey that will form the basis of our bachelor thesis at the Stockholm School of Economics!

In this study, you will be exposed to a **flyer from a fictitious discount retailer: Mer för Mindre (More for Less)**. Mer för Mindre is a retailer with large stores, a wide assortment and with price as their main competitive advantage. The stores are located in trafficked suburban areas, often close to their competitors Rusta, Dollarstore and ÖoB.

All responses will be treated anonymously and on an aggregated level. No answers are right or wrong, so please respond to the questions based on your own opinions. The questionnaire will take approximately 5-7 minutes to fill in.

Please do not hesitate to reach out to us in case you have any questions!

Best regards

Linnea Kaveryd (50572@student.hhs.se) and Emma Söderberg (50576@student.hhs.se)

-----Page break -----

Below you will find a flyer by Mer för Mindre. The following questions will be connected to this flyer, so please have a close look at it. You will only be exposed to the flyer once, and when you have answered the questions, you will not be able to return to amend your answers.

(A randomized flyer is shown to the respondent.)

-----Page break -----

Q1. What price range are Mer för Mindre in?

- Low-price
- Medium price
- Premium price

Q2. What is your overall attitude of Mer för Mindre?

- a) 1-7: Bad/Good
- b) 1-7: Negative/Positive
- c) 1-7: Dislike/Like

Q3. Given that it was possible to shop at Mer för Mindre, to what extent do you agree with the following statements? (1 = do not agree, 7 = completely agree)

- a) 1-7: I would consider shopping at Mer för Mindre
- b) 1-7: I would purchase at Mer för Mindre in the future
- c) 1-7: Given the opportunity, I intend to purchase from Mer för Mindre

-----Page break -----

Q4. Imagine that you are to shop a **toilet brush** at Mer för Mindre. To what extent are the following factors important in your purchase decision? (1 = do not agree, 7 = completely agree)

- a) 1-7: Price
- b) 1-7: Quality
- c) 1-7: Environmental sustainability
- d) 1-7: Product design
- e) 1-7: The variety of products to choose from

Q5. Imagine that you are to shop a **living room carpet** at Mer för Mindre. To what extent are the following factors important in your purchase decision? (1 = do not agree, 7 = completely agree)

- a) 1-7: Price
- b) 1-7: Quality
- c) 1-7: Environmental sustainability
- d) 1-7: Product design
- e) 1-7: The variety of products to choose from

-----Page break -----

Q6. Please mark number 7

- 7
- 1
- 4

Q7. How do you perceive Mer för Mindre in the following aspects? (1 = do not agree, 7 = completely agree)

- a) 1-7: Mer för Mindre provides low prices
- b) 1-7: Mer för Mindre provides fair prices
- c) 1-7: I can buy products for less at Mer för Mindre, compared to other retailers

- d) 1-7: Mer för Mindre sells products of high quality
- e) 1-7: Mer för Mindre sells reliable products
- f) 1-7: Mer för Mindre sells superior products compared to other retailers

- g) 1-7: Mer för Mindre is environmentally sustainable
- h) 1-7: Mer för Mindre wants to contribute to a better environment
- i) 1-7: Mer för Mindre cares about the environment

-----Page break -----

Following questions are regarding your general perception of sustainability in relation to price, and regarding your own purchase behaviour.

Q8. To what extent do you agree with the following statements? (1 = do not agree, 7 = completely agree)

- a) 1-7: The level of environmental sustainability varies with price level
- b) 1-7: The price of the products is a good indication of their environmental sustainability
- c) 1-7: You need to pay a bit more for environmentally sustainable products

- d) 1-7: I only purchase from companies that are committed to environmentally sustainable business practices
- e) 1-7: I would be more likely to buy from a company if I knew it was involved with environmentally sustainable business practices.
- f) 1-7: I would be more likely to buy from a company if I knew it was more committed to environmentally sustainable business practices than competitors.

- g) 1-7: I would consider visiting multiple companies to find lower prices
- h) 1-7: I am willing to invest more energy and time in order to find lower prices
- i) 1-7: The time it takes to find lower prices is usually worth the effort

-----Page break -----

Q9. How do you define your gender?

- Male
- Female
- I prefer not to answer
- Other: _____

Q10. How old are you?

Age: _____

Q11. What was the survey about?

- A flyer from a discount retailer
- Influencer marketing for a grocery retailer
- Marketing for a premium brand

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This was the end of the survey. Thank you for your responses! The purpose of this questionnaire was to examine whether there is a value for low-price retailers to communicate their sustainability work. We also investigate whether the reception of the communication can be affected by the customers general perception of low-price retailers sustainability work, or the involvement level of the products in the flyer. We wish to underline once again that the company in the flyer is fictitious and that these offers do not exist in reality.

If you have any questions or feedback, you are welcome to contact us:

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9.10 Appendix 10: Characteristics of respondents

Characteristics of respondents	Total respondent group (N=291)	Sweden in total
Average age	47 years (total range from 18 to 85 years)	41 years
Gender distribution	Males: 47.8% Females: 52.2%	Males: 50.3% Females: 49.7%
Counties of Sweden represented	21/21	21/21

9.11 Appendix 11: Test for systematic differences - gender (H1-H4)

Pearson Chi-Square (crosstabulation) on gender for the different levels of sustainability communication.

Crosstabulation on gender		High level (all products)	Intermediate level (high-involvement products only)	Intermediate level (low-involvement products only)	Low level (no products)	Total
Male	Count	35	34	34	36	139
	Expected Count	37.3	33.0	35.3	33.4	139.0
Female	Count	43	35	40	34	152
	Expected Count	40.7	36.0	38.7	36.6	152.0
Total	Count	78	69	74	70	291
	Expected Count	78.0	69.0	74.0	70.0	291.0

Chi-Square test	Value	df	<i>p-value</i>
Pearson Chi-Square	0.799	3	0.850

9.12 Appendix 12: Test for systematic differences - age (H1-H4)

Kruskal-Wallis test on age for the different levels of sustainability communication.

Level of sustainability communication	N	Mean Rank
High level (all products)	78	139.28
Intermediate level (high-involvement products only)	69	144.37
Intermediate level (low-involvement products only)	74	155.24
Low level (no products)	70	145.32
Total	291	*

Test Statistics	Kruskal-Wallis H	df	<i>p-value</i>
Age	1.421	3	0.701

*. Not reported.

9.13 Appendix 13: Test for systematic differences - price consciousness (H1-H4)

One way-ANOVA on price consciousness for the different levels of sustainability communication.

Level of sustainability communication	SS	df	Mean Square	F	p-value
Between groups	12.992	3	4.331	1.837	0.140
Within groups	676.422	287	2.357	*	*
Total	689.414	290	*	*	*

Dependent variable: price consciousness
*. Not reported.

9.14 Appendix 14: Test for systematic differences - sustainability consciousness (H1-H4)

ANOVA-test on sustainability consciousness for the different levels of sustainability communication.

Level of sustainability communication	SS	df	Mean Square	F	p-value
Between groups	4.282	3	1.427	0.617	0.605
Within groups	664.007	287	2.314	*	*
Total	668.289	290	*	*	*

Dependent variable: sustainability consciousness
*. Not reported.

9.15 Appendix 15: Test for systematic differences - gender (H5)

Pearson Chi-Square (crosstabulation) on gender for the different schemas.

Crosstabulation on gender		Weaker schema	Stronger schema	Total
Male	Count	90	49	139
	Expected Count	82.2	56.8	139.0
Female	Count	82	70	152
	Expected Count	89.8	62.2	152.0
Total	Count	172	119	291
	Expected Count	172.0	119.0	291.0

Chi-Square test	Value	df	p-value
Pearson Chi-Square	3.504	1	0.061

9.16 Appendix 16: Test for systematic differences - age (H5)

Mann-Whitney U test for systematic differences in age for the different schemas.

Price-sustainability schema	N	Mean Rank	Sum of Ranks
Weaker schema	172	151.38	26036.50
Stronger schema	119	138.23	16449.50
Total	291	*	*
Test Statistics		Mann-Whitney U	p-value
Age	9309.500	0.190	

*. Not reported.

9.17 Appendix 17: Test for systematic differences - price consciousness (H5)

Independent samples t-test for systematic differences in price consciousness for the different schemas.

Schema	Stronger schema M (SD)	Weaker schema M (SD)	Mean difference (SE)	p-value
Price consciousness	4.927 (1.572)	4.576 (1.509)	0.352 (0.183)	0.028

9.18 Appendix 18: Test for systematic differences - sustainability consciousness (H5)

Independent samples t-test for systematic differences in sustainability consciousness for the different schemas.

Schema	Stronger schema M (SD)	Weaker schema M (SD)	Mean difference (SE)	p-value
Sustainability consciousness	4.493 (1.447)	3.766 (1.500)	0.727 (0.176)	<0.001