Sustainability in the Spotlight

A Dual-Method Study of Retailers' Initiatives, their Visibility and the Drivers, Challenges and Tensions Associated with Encouraging Sustainable Consumption in Swedish Grocery Stores

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Abstract

Sustainability has become an increasingly important issue in retailing, driven by factors such as an increased consumer demand, legal considerations, and an increased focus on sustainability overall in the retail sector and in society. Sustainable consumption is regarded as a key dimension of sustainability, a notion underscored by Sustainable Development Goal 12: Responsible consumption and production. This dual-method study aims to understand what types of initiatives Swedish grocery retailers employ to encourage sustainable consumption in stores, as well as examine the underlying drivers, associated challenges and tensions, and the visibility and application of the initiatives in stores. The topic is examined through semi-structured interviews with industry actors, and semi-structured store observations, applying triangulation. A general conclusion is that all examined retail chains work with encouraging sustainable consumption in stores to varying degrees and in different ways, and those efforts are translated to a certain visibility in store. The results consist of an empirical typology of eight types of strategies and initiatives employed in the Swedish grocery industry. Additionally, the results show drivers, challenges and tensions categorized into market-level, company-level, and customer-level. Lastly, the study established the level of visibility of the initiatives in stores and examples of their applications. All parts of the study are summarized in a conceptual model. For practitioners, the findings can act as a handbook, serving as inspiration for efforts within the field. Future research could for example make use of the typology to connect the initiatives found in this study to previous research that investigated the effectiveness of initiatives.

Key Words

Sustainability, Sustainable Consumption, Grocery Retailing, Encouraging, Initiatives, Drivers, Challenges, Tensions, Visibility, SDG 12

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1. Introduction

1.1 Background

The Earth's climate is changing, and the magnitude of climate change will depend primarily on the amount of global greenhouse gas emissions (World Bank Climate Change Knowledge Portal, n.d.). The global food-system is a major contributor to those greenhouse gas-emissions, and researchers have estimated the impact of the food-system to amount to 30% of the global emissions (European Commission, 2023). In 2015, all member states of the United Nations agreed to the 17 Sustainable Development Goals (SDGs). The SDGs outline a framework for how to reach sustainable development in partnership, aiming to fight climate change, social injustice, and other sustainability-related challenges (United Nations, n.d.a). SDG 12, an underlying driver of this study, addressing responsible consumption and production, includes subgoal 12.3: Halve the global food waste and subgoal 12.8: Increase public awareness of sustainable lifestyles (United Nations, n.d.b). Thus, sustainable consumption is a priority for all member states of the United Nations. Many view sustainable consumption as a fundamental driver of sustainable development (Barth et al., 2014; Bulut et al., 2017), further underscoring the importance of this study.

Furthermore, sustainability has in recent years become a top priority for retailers (Batista et al., 2022), driven by various factors. Firstly, consumers are increasingly interested in ethics, ecology, and social responsibility, leading to a higher demand for sustainable products (Handelsrådet, n.d.). It can therefore be crucial for retailers to offer eco-friendly options to meet customer preferences. Secondly, unsustainable consumption has significant negative effects on the environment (Handelsrådet, n.d.), and retailers could help mitigate these impacts by promoting sustainable products. Thirdly, sustainability can make existing products even more appealing and attract customers (Gelebo, 2024), contributing to their competitive edge.

To conclude, the importance of sustainability in society and retail is increasing, and reaching the SDGs requires collective action within and across industries. To reach SDG 12, actions within the retail sector are critical. This thesis addresses these issues by investigating how and why the Swedish grocery industry encourages sustainable consumption in stores.

1.2 Purpose and Contribution

This study aims to explore what strategies and initiatives Swedish grocery retailers employ to encourage sustainable consumption in stores, while also investigating the drivers, challenges, and tensions associated with these initiatives, and how visible they are in stores. The rationale behind the topic stems from the growing demand for sustainable products and the rising priority of sustainability for retailers in recent years, as explained in section 1.1 Background. The retailers' potential role in contributing to the pursuit of SDG 12 further underscores this study's importance. For practitioners, this study could offer inspiration on how to approach the topic of promoting sustainable consumption in stores for the actors currently lagging behind. Moreover, the study is expected to contribute to previous literature by providing a comprehensive view of the topic of encouraging sustainable consumption, through different lenses including the nature of the initiatives, as well as drivers, challenges, tensions and their visibility. It contributes to each of those parts individually, offering novel insights into initiatives, drivers and visibility, and extending on previous literature about challenges and tensions. Combined, the two parts of the study aim to capture the efforts described by retailers (interview study), as well as if and how that actually translates to stores (store observation) within the industry, not retailer specific.

The results will be obtained through a dual-method approach, consisting of semi-structured interviews with industry representatives and semi-structured store observations in grocery stores. Ultimately, the study will result in a typology of the strategies and initiatives employed, as well as drivers, challenges and tensions divided into three levels, and how visible the detected initiatives are in stores all of which is summarized in a conceptual model.

1.3 Research Questions

RQ1: What strategies and initiatives are employed in the Swedish grocery industry to promote sustainable consumption in physical stores, and what associated drivers, challenges, and tensions exist?

RQ2: How visible are the strategies and initiatives employed in the physical stores?

1.4 Delimitations

The present study is delimited to the grocery sector, recognizing its significant environmental impact within the food industry and acknowledging the pivotal role that retailers have in shaping sustainable consumption, as highlighted by previous literature. The study is focused on initiatives in physical stores, as the total sales in physical stores account for 96% of the total grocery market in Sweden (Svensk Dagligvaruhandel, 2023), thereby covering a vast majority of the market. It is delimited geographically to grocery retailers in Sweden and focuses on initiatives in physical stores, not online stores, ensuring a reasonable scope. The information gathered from the semi-structured interviews as well as store observations are delimited in time from 26/02/2024 to 02/04/2024. The study is also delimited in scope, only including initiatives aimed at affecting consumer behavior, therefore excluding initiatives such as sustainability regarding electricity, transportation etc. Lastly, there is no time limitation for the literature review, aiming to collect cumulative knowledge of this topic.

1.5 Disposition

The report consists of 5 chapters, starting with a background to the subject, explaining the growing interest and importance of sustainable consumption for both the industry and consumers. Thereafter, the purpose and contribution is presented, leading into the research questions that the study aims to answer. The delimitations taken are presented, explaining choices regarding the scope of the thesis, followed by a literature review exploring previous research to establish the background knowledge and related research necessary for contextualizing the findings of the present study as well as identifying the research gap. Furthermore, the methodology is discussed, motivating the method used, followed by the findings of the study, including both empirical results and continuous analysis. Lastly, there is a discussion section consisting of a conclusion, a section connecting the results to previous literature, theoretical and managerial implications, limitations, and future research.

2. Literature Review

The following section will outline prior research conducted on the topic along with background information. The purpose of the literature review is threefold: firstly, to provide necessary background knowledge. Secondly, it presents the results of previous research about initiatives, as well as studies on drivers, challenges, and tensions. Lastly, those findings

motivate why it is relevant and important to work with encouraging sustainable consumption. When analyzing the past research, the contribution of this thesis becomes evident, as it differs from the nature of previous studies. Nevertheless, the previous research and the results of the present study can complement each other effectively.

2.1 Sustainable Consumption

Sustainability, despite its complexity, is commonly conceptualized through the threefold lens of environmental, social, and economic dimensions, regarded as the foundational pillars of sustainable development (Aksoy et al., 2022). The relative importance of the three cornerstones differs between customers (Carrington et al., 2014). This diversity in perspectives complicates the definition of sustainability. Mentioned briefly in the section 1.1 Background, a key component of sustainability is sustainable consumption, as outlined in the Sustainable Development Goals. Similarly to sustainability, there is no universally agreed upon definition of sustainable consumption (Jones et al., 2011; Quoquab and Mohammad; 2020; Wiese et al., 2012), thereby necessitating the establishment of a clear definition within the context of this study.

Historical definitions of sustainable consumption have predominantly focused on environmental facets. Nevertheless, it is crucial to acknowledge that sustainable consumption, similarly to sustainability, encompasses dimensions beyond the environmental aspect. This inspired the authors to develop their own definition of sustainable consumption, detailed in section 3.1 Research Design.

2.2 Retailers Engagement in Sustainable Consumption

2.2.1 The Role of Retailers in Promoting Sustainability

Food systems contribute to a third of global greenhouse gas emissions (Crippa et al., 2021), highlighting the substantial potential for industry stakeholders to contribute to mitigating the emissions. By holding a position in-between consumers and suppliers in the value chain, the retailers have a unique ability to encourage sustainable practices (Vadakkepatt et al., 2021).
They can be regarded as ‘gatekeepers’ in the value chain, with a strong potential to impact consumers’ shopping behaviors (Guyader et al., 2017). In fact, retailers can have an even stronger impact than peers in shaping consumers’ environmentally conscious choices

(Tsarenko et al., 2013), further highlighting their impactful role. This places them in a potentially influential role in the pursuit of the United Nations' SDG 12, introduced in section 1.1 Background. The shift towards more sustainable consumption requires organizational change (Gravely and Fraser, 2018), and despite the opportunity they have in encouraging sustainable consumption, many retailers overlook this potential (Gravely and Fraser, 2018; Lehner, 2015c). This study can provide an understanding about how this potential can be utilized, contextualizing how sustainable consumption is encouraged. The insights can inspire industry actors to seize the opportunity of encouraging sustainable consumption, thus facilitating the pursuit of Sustainable Development Goal 12.

2.2.2 Drivers of Sustainable Consumption Encouragement

In addition to defining the role and potential of retailers in promoting sustainable consumption, investigating the motivations driving their engagement in these efforts is valuable to obtain an enhanced comprehension of the topic. Previous literature on drivers for encouraging sustainable consumption is scarce, where the dominant contribution consists of exploring motivations underlying sustainability efforts in general. Such motivations include pressure from stakeholders, responding to competitors, cost savings, good publicity, financial gain, competitive advantage, and attracting potential employees (Saha and Darnton, 2005). Moreover, growing consumer demand might prompt action from retailers, such as engaging in Corporate Environmental Sustainability (CES) activities. The main motive behind such engagement typically revolves around anticipated economic benefits, including cost savings and effective use of resources (Naidoo and Gasparatos, 2018). Apart from this literature addressing motivations for "green" practices in general, and a study by Tjärnemo and Södahl (2015) identifying consumer demand as one driver for promoting sustainable consumption explicitly, there appears to be a notable gap in research on this topic. This gap is underscored by Blom et al. (2023), who highlights the need for exploring possible drivers and enablers. The present study aims to address this gap while also expanding upon the insights obtained by Tjärnemo and Södahl (2015) by providing first-hand data on drivers, studied in conjunction with the related initiatives, challenges, tensions, and their translation into practice.

2.3 Strategies and Initiatives to Encourage Sustainable Consumption

2.3.1 Initiatives Found by Previous Research

A main purpose of the present study is to formulate a typology summarizing the initiatives that Swedish grocery retailers employ to encourage sustainable consumption. Lehner (2015c) found that eco-labels as well as food waste used in meals sold in the stores are initiatives employed by retailers. Similar research performed previously by other scholars consists of a study investigating how Swedish food retailers promote climate smart food choices, both in general and with an explicit focus on meat consumption (Tjärnemo and Södahl, 2015). The findings include initiatives such as offering a wide range of organic food products and highlighting these products with signs, shelf labels, and on customer receipts. They also found initiatives such as promoting organic food products in flyers, in special campaigns, and arranging in-store events with an environmental focus. Lastly, they found that retailers work with offering recipes with sustainability focus and securing sustainable sourcing of fish (Tjärnemo and Södahl, 2015). Although investigating similar research questions, the current study develops a typology that categorizes the initiatives to allow for easier understanding, as well as not focusing on meat consumption but rather taking a broad approach to sustainable consumption. Tjärnemo and Södahl (2015) underscore the fruitfulness of a study on everyday practises in food retailing, related to areas such as in-store product placement and promotion, all of which the present study contributes with, both with the typology and the visibility and application of the initiatives. Those perspectives are further connected to drivers and challenges in the present study, offering a comprehensive view.

Further studies related to initiatives to encourage sustainable consumption exist, but not with the main purpose of uncovering what initiatives that exist. Instead, previous research is mainly focused on understanding consumers' responses to sustainability initiatives (e,g., Trudel, 2018; White et al., 2019). These types of studies have evaluated the effectiveness of certain initiatives, showcasing their potential to impact customer behavior. Those findings motivate why retailers should employ such initiatives and thereby highlights the relevance of this study. However, investigating the effectiveness of initiatives in greater detail falls outside the scope of the present study, and is therefore proposed as an area for future research. The initiatives found in the present study can serve as a foundation and framework for future

studies, examining the initiatives employed combined with their respective effectiveness. Although there is a possibility of deriving information of initiatives from those studies, their main purpose is not to investigate the initiatives employed, which is the purpose of the present study. For the curious reader, examples of results from effectiveness-studies are attached in Appendix 4, especially related to the categories of initiatives that were found most common by the present study.

2.4 Visibility of Initiatives Aimed at Encouraging Sustainable Consumption

Previous research on the visibility of sustainable consumption encouragement initiatives is scarce. Jones et al. (2007) explored how UK retailers used Corporate Social Responsibility to communicate with consumers in stores, especially regarding information provided, revealing limited use of CSR themes at the point of purchase. Moreover, Saber and Weber (2019) conducted a comparative study, partly through store observations, on sustainability communication in sustainability reports and in stores, focusing on supermarkets and discount stores in the German market. The present study however, differs due to the specific focus on sustainable consumption, as well as looking at the grocery retailers in the Swedish industry as a whole. Lastly, Lehner, (2015c) explored the topic of sustainability in retail stores, mainly focusing on how retailers operationalize their sustainability ambitions and how they cope with pressure from stakeholders. Moreover, the data dates back to 2011 and 2012 (Lehner, 2015c), potentially not reflecting current practices. As noted in section 1.1 Background, sustainability has gained significant prominence in retailing in recent years, further motivating the potential differences. Moreover, Lehner (2015c) made comparisons between retailers, while the present study aims to capture the industry at large, ignoring differences between actors.

Additionally, similar to the effectiveness of initiatives discussed in section 2.3.1 Initiatives Found by Previous Research, studies have explored the customer reactions to visible initiatives. Examining the effectiveness of visibility is not the purpose of the study, but helps motivate why it is important for retailers to focus on it, thus underscoring the relevance of the present study. Literature supporting the importance of visibility overall will be presented below, whereas examples on effectiveness regarding the visibility of specific initiatives will be presented in Appendix 4, similar to the effectiveness of initiatives discussed earlier.

Research has shown that the visibility of sustainable practices can contribute to improved consumer perceptions towards a brand, increased brand loyalty, as well as building positive relationships between consumers and brands (Khandai et al., 2022).

To conclude, previous research on visibility often covers effectiveness, however, research such as the studies conducted by Jones et al. (2007), Saber and Weber (2019), and Lehner (2015c) also exist. The present study contributes with an explicit focus on visibility of initiatives connected to sustainable consumption, conducted on Swedish grocery retailers. It thereby mostly extends on the research by Lehner (2015c), however, investigating visibility based on the typology created and in combination with drivers, challenges, and barriers, thus providing novel insights.

2.5 Identification of Challenges and Tensions

While retailers may be motivated to promote sustainable consumption, they might encounter challenges and tensions in the pursuit of this objective. The initiatives found in this study can also serve as inspiration for overcoming some of these challenges.

A key study within this field was conducted by Blom et al. (2023) where barriers and tensions were studied and composed into a framework called 'The organizational sustainability ambition-action gap model', proposing four ambition-action gaps within retail organizations; knowledge gap, delivery gap, communication gap, and standards gap. Examples of barriers found include complexity in communicating sustainability, uncertainty regarding what is acceptable to say, both according to customers and law, and lack of ability to offer a sustainable assortment (Blom et al., 2023). Further challenges were revealed by Tjärnemo and Södahl (2015), including the difficulty in cutting through existing information clutter and lack of knowledge among employees and customers. They also explicitly addressed challenges associated with reducing meat consumption, including the strategic significance of the category for retailers and the prevalent consumer demand for unsustainable products, such as meat (Tjärnemo and Södahl, 2015). Moreover, a UK study revealed that although retailers provide consumers with information on sustainable consumption, the majority of their marketing communication efforts in the stores revolved around encouraging consumption in general (Jones et al., 2011; Jones et al., 2014), highlighting a tension. Further challenges derive from the potential of negative reactions to

retailer attempts of intervention in their behavior. One scholar found that consumers have to be “on board” for sustainable consumption to be viable in the long term (Lehner, 2015b). Several studies have highlighted the attitude-behavior gap of consumers as a challenge when it comes to trying to affect consumer behavior (Röös and Tjärnemo, 2011; Lehner, 2015a). Reasons explaining this gap are for example perceived higher prices, strong habits, perceived low availability and lack of trust in the labeling scheme (Röös and Tjärnemo, 2011).

Other challenges involve that individuals often reprieve sustainable consumption actions as requiring increased efforts and costs, as well as the products having inferior quality and aesthetics. The authors further explain that the long time horizon for realizing outcomes poses a challenge, and that sustainable behavior often necessitates collective action rather than individual efforts alone. Moreover, they acknowledge the need to modify automatic behavioral responses to affect sustainable behavior. Lastly, actions aimed at promoting sustainable consumptions are frequently perceived as abstract and therefore challenging for consumers to comprehend (White et al., 2019).

The present study will expand the understanding of challenges and tensions, thereby contributing to the frameworks and insights provided by the above-mentioned studies. It will also facilitate a deeper understanding of the overall topic and enable the industry to address them, ultimately contributing to simplifying the efforts of encouraging sustainable consumption.

2.6 The Identified Research Gap

When examining previous literature, a research gap was detected with regards to the limited scope of previous studies, as well as within the individual components; initiatives, drivers, challenges and tensions, and visibility. The present study addresses these research gaps within each section individually and extends the scope by integrating components previously studied in isolation, thus enriching the overall understanding of the subject matter.

Previous studies examining drivers have predominantly taken a broad approach to sustainability, underscoring the necessity for more explicit examination of drivers specifically related to promoting sustainable consumption, a need also emphasized by Blom et al. (2023). Studies exploring the strategies and initiatives that Swedish grocery retailers employ are

limited, with the notable exception of the contribution by Tjärnemo and Södahl (2015), which specifically focused on meat consumption, and Lehner (2015c) mostly finding eco-labels and reducing food waste through preparing meals as initiatives employed. The retail efforts within sustainability have evolved over the recent years, as described in section 1.1 Background, pointing towards the need to update this research and trying to capture a broader range of initiatives. Further, Tjärnemo and Södahl (2015) suggest future research avenues focused on everyday practices in food retailing, particularly emphasizing in-store product placement and promotion. Regarding visibility, Jones et al. (2007) performed a store observation on CSR initiatives in store, Saber and Weber (2019) studied sustainability communication in stores in Germany, and Lehner (2015c) studied how retailers cope with the stakeholder pressure regarding sustainability. The present research contributes with a new angle of visibility, and aims to strengthen the extended understanding of the relationship between how retailers describe their efforts (interview study) with how it actually translates to stores (store observations) within the industry, not retailer specific.

Additionally, existing research has often concentrated on understanding consumers' responses to sustainability initiatives (e.g., Trudel, 2018; White et al., 2019), and many studies on sustainable consumption have focused on the production and sourcing side (Vadakkepatt et al., 2021). This emphasizes the feasibility of implementing initiatives to promote sustainable consumption and highlights the gap that this study fills. Consumer responses could include studies such as the SHIFT-framework (White et al., 2019), or studies on effectiveness of initiatives. The present study complements these by offering more insights from the retailers perspective and could act as a base for expanding on that research since it summarizes the initiatives existing in the industry. Lastly, the framework for challenges created by Blom et al. (2023), as well as additional studies about challenges are subject to extension in this study.

3. Methodology

3.1 Research Design

The Swedish retailers' strategies and initiatives for encouraging sustainable consumption and the associated drivers, challenges and tensions, and visibility were studied through a two-step sequential study consisting of semi-structured interviews and semi-structured store

observations. The interviews offered a retailer perspective aiming to understand what, why, and how they are working to encourage sustainable consumption whereas the store observations contribute with more precise and tangible outcomes, understanding how the findings from the interviews translated into the physical stores. The study was based on the six largest Swedish grocery retailers: ICA, Coop, Willys, Hemköp, City Gross, and Lidl, aiming to cover the majority of the market.

A qualitative approach for the interviews was chosen because of its potential to provide an in-depth understanding of the subject matter and offer nuanced insights of the studied topic (Saunders et al., 2019, p. 639). The study was both a descriptive and exploratory study, as it aimed to both gain an accurate understanding of the current state and characteristics of the subject matter, as well as gain valuable insights into the underlying behaviors and relationships (Saunders et al., 2019, p. 186-187). The approach was inductive, aiming to collect data to explore the area of sustainable consumption, data that was later analyzed to identify patterns (Saunders et al., 2019, p. 51). The aim of the inductive approach was to explore the topic right now, requiring new data collection. The study's sequential design was considered appropriate to complement the knowledge gained from the interviews and facilitate the integration of interview findings with real-world scenarios of the in-store observations. This approach aimed to yield more precise and tangible outcomes, overcoming potential biases that can arise when only conducting semi-structured interviews. Utilizing different sources of information and thereby employing a triangulation approach can mitigate potential research biases (Saunders et al., 2019, p. 450). This use of triangulation allowed for validity, reliability, and authenticity checks of the interviews which benefited the study since sole use of the interviews could result in concerns regarding the accuracy of the mentioned initiatives (Saunders et al., 2019, p. 251). In investigating the topic, the authors refined existing definitions of sustainable consumption, and set a new definition, specifically tailored to the grocery retail sector. This clarification was undertaken to offer both participants and readers a clear understanding of what the study aimed to capture. The two pillars included in the definition are environmental sustainability and social sustainability. Economic sustainability was disregarded as the perspective is not as relevant in this aspect, and to make the definition more concrete. The authors' definition of sustainable consumption is the following:

"Sustainable consumption entails making consumer choices that minimize social and environmental harm, including but not limited to locally produced, organic, fairtrade and soon-to-expire products".

3.2 Data Collection

3.2.1 Semi-Structured Interviews

To study the topic of encouragement of sustainable consumption as well as the associated drivers, challenge and tensions, and thereby contributing to RQ1, interviews with representatives from Swedish retailers were conducted as the main source of information.

A semi-structured approach was chosen as it offers several advantages to the study. Firstly, this method enabled the facilitation of an in-depth understanding of the underlying motivations and rationales (Saunders et al., 2019, p. 438-439) behind the adoption of the strategies and initiatives, as well as the challenges and tensions inherent in encouraging sustainable consumption. Additionally, the possibility to 'probe' the responses enhanced the depth of the data collected. By allowing for follow-up questions and deeper exploration of particular topics, this approach fostered nuanced and insightful responses, thus contributing to the robustness of the study findings. The establishment of personal contact through interviews can be important in cultivating trust and encouraging participants to share their perspectives. The flexibility of semi-structured interviews allowed for adaptation of the questions based on the participants' previous answers, and opened up for further exploration (Saunders et al., 2019, p. 438-439). By adjusting the sequencing and logic of questions based on participant roles and the trajectory of the conversation, this method ensured relevance and responsiveness in data collection, thus enhancing the study's overall validity and reliability (Saunders et al., 2019, pp. 444-445).

The interview guide, which can be found in Appendix 2, consists of broad topics of questions, given the semi-structured nature of the study. During the interviews, these questions were complemented by follow-up questions tailored to each interview and interviewee, facilitating further elaboration on answers. The authors' definition of sustainable consumption was shared with the interviewees at the beginning of the session. The questions were structured into sections, starting with introductory questions to learn about the

interviewee and their role, followed by questions to unveil the drivers of working with encouraging sustainable consumption. Thereafter, the majority of the questions were included in a section about sustainable consumption initiatives. Lastly, challenges and tensions were discussed.

The interview process started with a pilot interview, aimed at testing the interview format and interview guide. As the pilot interview successfully aligned with the purpose, its data was included in the overall data collection process. Furthermore, the choice of participants was based on several selection criteria, shown in Figure 1. First of all, participants were required to be employed at one of Sweden's six largest grocery retail chains. Smaller grocery retail chains were not actively targeted. Nevertheless, any chances to engage with their representatives would have been embraced if the opportunity arose. Prioritization of larger chains was driven by time and scope constraints in combination with an aim to capture the largest possible share of the market. The chosen grocery retailers together account for a vast majority of the Swedish grocery retail market (Axfood, n.d), allowing for sufficient coverage. Additionally, participants were required to hold a position offering insight into the company's sustainability initiatives. To ensure a comprehensive understanding, both store managers and headquarter staff were included in the study. Regarding headquarter staff, only individuals holding sustainability-, marketing- or strategy-related roles were specifically targeted. This approach aimed to target individuals with firsthand insight into sustainability initiatives. With regards to the store managers, the geographical diversity was considered crucial, aiming to include store managers working in different parts of Sweden and in areas with various socio-economic statuses, recognizing the differences in customer groups. It was, however, found that many of the decisions related to encouraging sustainable consumption are made on a central level, implying that the geographical dimension might not have the substantial impact initially assumed, leading to less focus on geographical spread of the store observation study. Lastly, all participants had to be aged 18 or above.

Inclusion criteria
Works at a grocery retail company that has physical stores
Insight into the company’s sustainability initiatives
Store manager or role within strategy, sustainability, or marketing
Aged 18 or above

Figure 1: Inclusion criteria for being considered for interview

A total of 12 interviews were conducted, 11 of which were held digitally on Microsoft Teams and one in person. Although a preference for in-person interviews, travel limitations as well as increased availability of participants when offering online interviews led to the higher proportion of online interviews. Both authors were present and participated during all interviews. The number of interviews was determined by the uniqueness and valuable insights gathered from the foregoing interviews. Towards the end, no new findings were revealed during the interviews and they did no longer add value other than confirming previous results. Thus, the results seemed to reach saturation, which they usually tend to do at that sample size (Guest et al. 2006; Hennink and Kaiser, 2022). While the sample aimed to capture the most common initiatives and perspectives among the largest grocery retail chains in Sweden, it is not guaranteed that it encompassed every single initiative in the industry. Nonetheless, it was supposed to cover the majority of the market. All interviews were recorded with the participants' consent. The decision to record all interviews was made as it could offer advantages for the analysis. Firstly, to enable transcription of the interviews, recording was necessary. Secondly, it provided the ability to retrieve exact quotes from the participants. Lastly, the recordings could provide a deeper understanding of the participants' nuances of expression, acknowledging the significance of both verbal content and delivery style.

Potential issues with semi-structured interviews include concerns related to data quality. Interviewer bias is a risk with conducting such interviews, where the tone, comments, and non-verbal behavior of the interviewer impacts and creates a bias in how the interviewee responds to the questions. Moreover, the risk of interviewee bias, a bias caused by interviewees' perception of the interviewer, is inherent in semi-structured interviews. Further, generalizing while only conducting a small number of interviews can be problematic, as the findings from the interviews might not guarantee applicability for the market at large. To overcome these biases, the questions asked during the interviews were open and broad, to not impose the interviewers own beliefs and frame of reference through the questions asked (Saunders et al., 2019, p. 447). Interviews were conducted until the study appeared to reach theoretical saturation, potentially overcoming the generalization issue. In addition, the store observation study could contribute to overcoming the effect of such biases by not relying on personal contact.

3.2.2 Semi-Structured Store Observations

The semi-structured interviews were complemented with semi-structured in-store observations in order to investigate which initiatives were visible and easily detected in the stores and what that might look like, contributing to answering RQ2. One aim was to add an element of objectivity to the findings of the interviews, that were potentially more aspirational in nature, since not all interviewees were directly involved in the implementation of all initiatives. In addition, they also aimed to complement the interview findings with insights into how the initiatives can translate to the store environment. The importance of visibility was addressed in the literature review, motivating its relevance in the study.

The observations were conducted in six different stores located in different parts of Stockholm, one for each retail chain studied in this thesis, and were conducted using a semi-structured approach. The observations were not conducted in the stores where the interviewed store managers worked. The first reason for that is that store managers were located in many parts of Sweden, making it hard to conduct store observations there. Moreover, the interview study revealed that the majority of decisions regarding strategies and initiatives are centralized, leading to assumed minimal variation between individual stores, thereby motivating the choice of visiting one store per retailer. However, it is important to note that this study was not intended to align specific retail chains in terms of pairing interviews with corresponding store observations. Instead, all observations were guided by a standardized list of initiatives derived from the interviews, therefore including all six retail chains. Furthermore, not all initiatives from the typology were incorporated into the store observation study due to their limited observability in that context. Consequently, the list in Figure 5 is shorter in comparison to the list in Figure 4. In addition to the coding schedule, there was a possibility of finding initiatives other than the ones found in the interview study, thereby the semi-structured approach. Notes were made on examples of how the initiatives were applied. The observations were conducted by inspecting all parts of the stores, looking for initiatives to encourage sustainable consumption.

The structured element was incorporated to answer ‘what’ rather than ‘why’, compared to other types of observations (Saunders et al., 2019, p. 380). The store observations complemented the interviews as they did not depend on ‘second-hand’ accounts of phenomena from informants (Saunders et al., 2019, p. 403), making them more objective than

the interviews. They also enabled the application of triangulation (Saunders et al., 2019, p. 251), as previously discussed. Furthermore, the semi-structured observations could secure data that the interviewees might have ignored because they see it as too mundane or irrelevant (Saunders et al., 2019, p. 403), enabling the possibility to capture more than what was revealed in the interviews. However, some disadvantages include that the research setting during which the observations were conducted may not be fully representative of how these stores might look on a regular basis, meaning that there could be a time error (Saunders et al., 2019, p. 407). On its own, observations are only of limited value (Saunders et al., 2019, p. 403), however, combined with the interviews they are believed to create valuable insights.

3.3 Data Analysis

After conducting the interviews, they were transcribed using an AI tool and the transcriptions were corrected manually to detect any errors and ensure accuracy. This procedure was done in Swedish, aligning with the language used in the interviews, and because of the advantage of analyzing in the authors' first language. Quotes were later translated for the purpose of using them in the results.

To arrive at the categorization of the initiatives, a thematic analysis method was applied. This method searches for themes and patterns in the observed data set (Saunder et al., 2019, p. 651), contributing to answering RQ1. Using thematic analysis on an inductive study, the themes emerge from the data, and the procedure is fairly straightforward, allowing for more focus on the quality of the analysis (Saunders et al., 2019, p. 652). Although thematic analysis offers flexibility, it bears the risk of leading to inconsistency in the analysis (Nowell et al., 2017), which was kept in mind during the process. During the analysis process, the transcripts were analyzed and coded, where similarities in initiatives or activities gave them the same code. Since no similar typology existed before, the codes emerged primarily from the actual data. The decision to categorize according to 'types' of initiatives is rooted in the ability to link these categories directly to managerial activities within the store. After arriving at a coding schedule, each code and transcript were revised and codes altered, making the process iterative. To allow for clarity in the typology, individual initiatives without similarities to existing ones were merged into a category called Other Initiatives. The drivers, as well as challenges and tensions were coded in a similar way. The transcripts were analyzed, and it became apparent that the drivers, as well as challenges and tensions had

themes connected to the market as a whole, the company, and the customers. Therefore, those themes were used and the transcripts coded accordingly. The understanding of the origins of challenges and tensions allows for the ability to address the right perspective or stakeholder when attempting to overcome challenges and tensions, such as working with customer-facing messages. Understanding drivers can help motivate why certain initiatives are chosen for specific purposes. The idea is that market-level drivers, as well as challenges and tensions concern industry trends and pressures, company-level derives from internal motivations or obstacles within the organization, and customer-level concerns factors originating from customers. Together, this facilitates an understanding of the dynamics in which retailers operate when encouraging sustainable consumption, providing an extensive contribution to the research questions.

The decision to maintain anonymity for both participants and their respective companies throughout the thesis was driven by the understanding that such disclosure did not serve the study's objectives. Participants expressed a willingness to share insights while also expressing reservations about direct comparisons with other companies. Although anonymous, the participants' roles can be found in Appendix 1. This can contribute with insights about how people in various roles in the organizations view the issue, and the different challenges and drivers they see based on their roles and their perspectives.

The analysis of the store observations mainly consisted of compiling the share of stores that had a certain initiative visible and dividing them into three categories based on frequency of visibility: ‘Never’ (seen in 0% of the stores), ‘Sometimes’ (seen in 1%-50% of the stores), and ‘Often’ (seen in 51%-100% of the stores), as well as noting examples of what the initiatives looked like. ‘Often’ includes initiatives found in a majority of stores, while ‘Sometimes’ includes initiatives found, but in a minority of the stores. The categorization was done to avoid excessive quantification that does not fit the purpose or general method of the study. In addition, due to the small sample size of stores, the categories seemed more suitable than displaying percentages. When presenting the results from the store observations in the findings, they were divided into visible and non-visible initiatives, contributing to answering RQ2.

The results from both parts of the study are presented under section 4. Findings, where results and analysis are intertwined, rather than separated, in order to avoid repetition and allow for the integration of empirical data and insightful interpretation.

4. Findings

The data gathered from this dual-method study is displayed in the conceptual model in section 4.1, which provides a holistic view of the study and how the parts relate to one another. Thereafter, the results from the interviews are presented consisting of the drivers, a typology of the strategies and initiatives to encourage sustainable consumption employed by the Swedish grocery retailers, and the associated challenges and tensions. Lastly, the results from the store observations will be presented where the main focus was to pinpoint which initiatives are visible in stores, and how they are displayed. Some quotes supporting the results are presented directly in the findings. Additional quotes supporting our results are presented in Appendix 3.

4.1 Encouraging Sustainable Consumption - A Conceptual Model

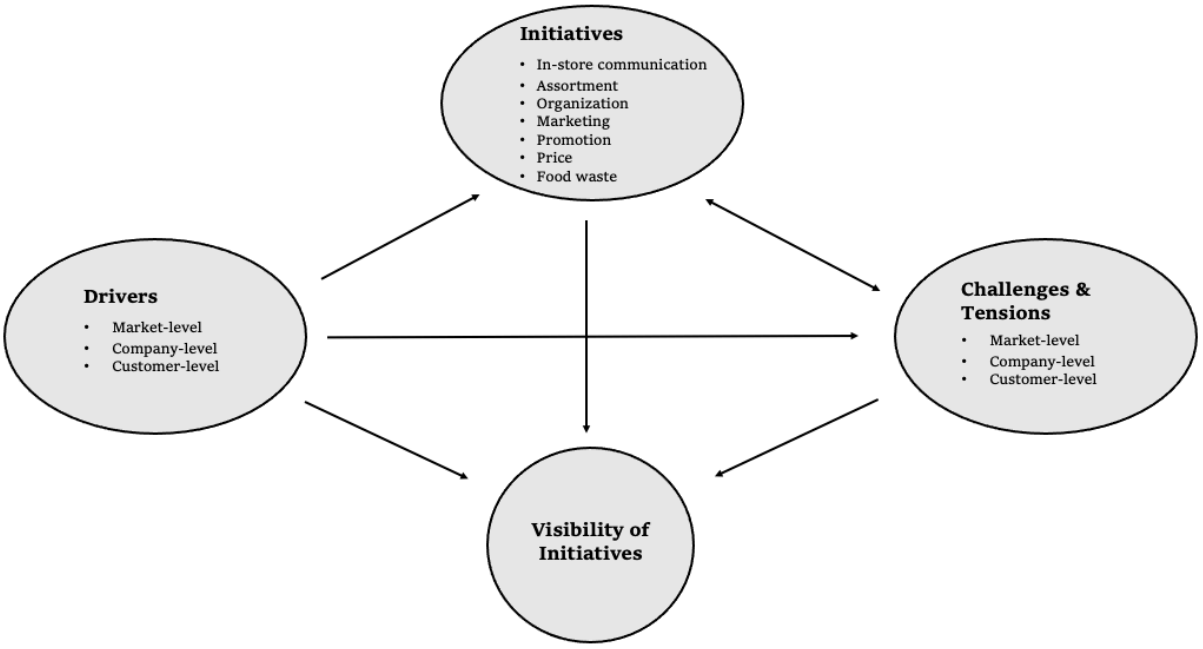

Figure 2: The phenomenon of encouraging sustainable consumption. Showing all parts of the study and how they relate to each other.

The conceptual model explains how the parts of the study and the findings relate to each other, summarizing the findings of both RQ1 and RQ2, showcasing the total contribution of the study. The arrows illustrate the potential interplay among the factors influencing sustainable consumption, deriving from findings of the study.

The arrow between drivers and initiatives signifies the direct linkage from drivers and the motivation behind the initiative, to the specific initiatives, illustrating how the drivers lead to the initiatives. The drivers are directly connected to the challenges and tensions, indicating that a factor such as the current economic climate can disrupt the intentions. These challenges and tensions can arise both before and after their implementation, as depicted by the double-sided arrow. Derived from the interviews and potentially more aspirational in nature, the initiatives are linked to the visibility-factor and their prominence within the store. The connection between the drivers and the visibility of the strategies and initiatives, is associated with the overarching motivation of retailers to be perceived as sustainable, a primary driver observed across all participating retailers. For the included retailers, the visibility of their sustainability initiatives holds significant importance, as they perceive it to greatly enhance their image as a sustainable brand, thus the link between drivers and visibility of initiatives.

4.2 What are the Drivers of Encouraging Sustainable Consumption?

As previously stated, the drivers of encouraging sustainable consumption were analyzed using a thematic analysis method and resulted in three levels of drivers, contributing to answering RQ1, and offering novel insights to previous literature.

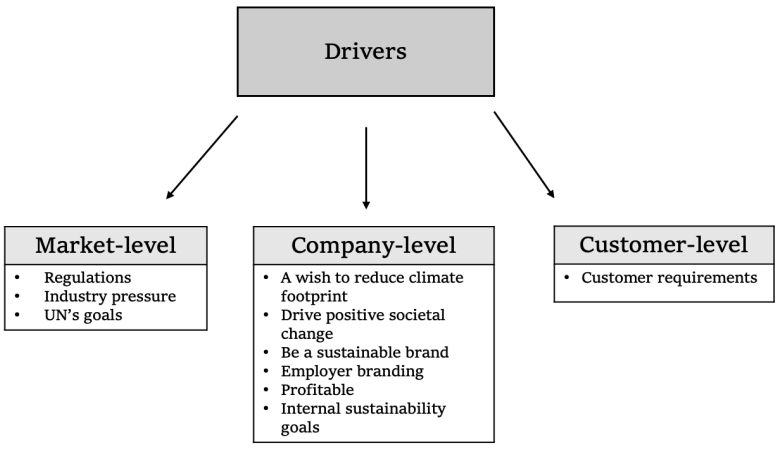

Figure 3: Results from interview study. Drivers of encouraging sustainable consumption

4.2.1 Market-Level Drivers

The interviews revealed that pressure originating from the market is a major motivator for the retailers to engage in sustainable consumption encouragement, thus resulting in a separate category; market-level drivers. This stems from customer demand and can therefore also be categorized as customer-level drivers. Customer-level drivers are limited to drivers originating from individual customer groups, but will be discussed further in a separate section. Given the widespread emphasis on sustainability, these individual factors collectively contribute to a broader market-level driver.

The significant emphasis on sustainability in the retail sector and in society at large was mentioned as a driver and motivation for working with sustainable consumption. Additionally, it was found that the focus on sustainability by legislators further heightens the attention on sustainability in general, serving as a motivator to encourage sustainable consumption. Numerous participants mentioned the United Nations' Sustainable Development Goals and their dedication to these goals as a motivating factor for promoting sustainable consumption. According to Participant B, they "*Adhere to all climate goals set within the United Nations".* The combination of these factors makes it hard for companies to ignore the importance of sustainability, resulting in pressure across the industry - customers want it, laws require it, and global goals emphasize it. Several retailers participating in the study also aspire to contribute to positive societal change and to hold a significant role as sustainability advocates. Moreover, the grocery retailers perceive the increased sustainability efforts of their competitors as driving factors. They recognize that they are competing for customers who are increasingly prioritizing sustainability.

4.2.2 Company-Level Drivers

The company-level drivers are internal factors within a company related to the culture, mission, and strategy of the firm, brought up in the interviews. These drivers stem from internal motivations and future aspirations. This is linked to the market-level drivers in the way that if many grocery retailers experience similar internal motivations, a large share of the market would be working in the same direction, resulting in a broader pressure from the market.

ple participants acknowledged the necessity of addressing the climate impact of food production and consumption. As prominent figures in the retail sector, they recognize their substantial responsibility in promoting sustainable development and striving for sustainable consumption. As Participant G explained it "*We are part of a larger movement, so we must do our part. We are in the grocery retail industry, and regardless of which actor you talk about, we are together large players in the field (...). We, together, account for a significant portion of emissions and energy globally. It is clear that we must do what we can in that regard*". Hence, retailers are proactively integrating sustainability into their business strategies to fulfill their social responsibility and contribute positively to the environment.

Furthermore, many retailers have set internal sustainability targets to motivate their organizations internally, providing additional incentives to prioritize the encouragement of sustainable consumption. Such targets include having a certain percentage of sales from sustainable products. The sustainability targets serve as an internal motivator, inspiring employees to contribute towards the overarching goals of the organization. Additionally, it was found that the financial implications and cost considerations associated with sustainability, particularly in addressing food waste, serve as significant driving factors. *"The harsh reality is that working with sustainability is profitable. It incurs costs to throw away a lot of food"* (Participant G).

The study found that encouraging sustainable consumption serves as a tool for enhancing the sustainability image of the brand, even towards the customers not looking to buy sustainable products or that cannot afford them. *"We want to show that we are good at sustainability to strengthen the brand (...). Customers stand there at the meat counter and see, well, here. "Look, there's organic meat. It is good that the store has it. But right now, I can't afford it. But maybe I will be able to afford it later." (...) So it matters"* (Participant L). Furthermore, Participant L highlighted the motivation associated with employer branding, stating that *"There are more people who want to apply if they feel that the company has a good reputation"*.

4.2.3 Customer-Level Drivers

The customer level drivers are closely linked to the market-level drivers, however, the pressure from individual customer groups on a more local level is important to address. The study revealed that the methods retailers use to promote sustainable consumption may differ

depending on local demand, customer groups, and demographic factors. Thus, it is important to distinguish between customer-level drivers and market-level drivers to fully comprehend the origins of the strategies and initiatives employed.

A primary motivator for engaging in sustainability initiatives and encouraging sustainable consumption was found to be the increasing demand from customers for sustainable products and practices, as highlighted by all participating retailers in the study. They emphasized that they have little choice in the matter, attributing this to the significance of sustainability to customers. As Participant I explained *"Our customers simply demand it. We have no choice"*. The retailers believe that failing to prioritize sustainability would result in a significant loss of sales.

4.3 What Strategies and Initiatives Were Found?

The following categories of initiatives were found using a thematic analysis of the interviews and the results, contributing to answering RQ1.

In-store communication-related initiatives	Assortment-related initiatives	In-store organization-related initiatives	Marketing-related initiatives
• Usage of the color green to highlight sustainability • Signs for the sustainable assortment • Labels on price tags (organic, local etc.) • Using supplier-created material/signs • Create and use sign templates for sustainable products • Information/inspiration on shopping bags	• Having a balanced assortment • Creating sustainable private label products • Policies to ensure a wide assortment of sustainable products • Develop sustainable innovations centrally within the company • Have a certain share of sustainability labelled products • Having sales targets in % for sustainability labelled products • Excluding products from assortment	• Gather sustainable products by the cash register • Gather sustainable products • Strategic placement of sustainable products to increase exposure • Offering sustainable products at the same place as conventional • Attractive placement of new sustainable products • Having the sustainable products to the right in the shelf	• Recording and publishing content with sustainable suppliers • Marketing of sustainable products, events and inspiration • Marketing of local suppliers (local media channels e.g. Instagram) • Label the sustainable assortment in marketing
Promotion-related initiatives	**Price-related initiatives**	**Food-waste related initiatives**	**Other initiatives**
• Discount sustainable products • Themed campaigns (e.g. organic week, fair-trade week etc.) • Having a certain share of sustainable products in campaigns • Always providing a matching offer for a sustainable/conventional product • Focusing on campaigns for sustainable "everyday-products"	• Avoid significant price discrepancies between sustainable and conventional assortment • Lower margins for sustainable products to push down prices	• "Eat soon-area" in the store, gathering soon-to-expire products • Create "bundles" with soon-to-expire products to a lower price • Discount soon-to-expire products • Make use of soon-to-expire products in production kitchen/restaurant in the store • Communicate the results of food-waste initiatives • Highlight the discounted soon-to-expire products with signs	• Recipes on the website/magazine using sustainable products to inspire • Events such as local days where suppliers visit the stores • Initiatives within loyalty programs, such as doubled points on sustainable products • Providing easy-access sustainability information about the products, such as in the app

Figure 4: Interview results. Categories of initiatives used to encourage sustainable consumption.

4.3.1 In-Store Communication-Related Initiatives

These initiatives refer to any marketing or communication activities conducted within a retail store aimed at encouraging sustainable consumption. The interviews revealed that retailers commonly promote sustainable products in-store through various forms of communication.

These initiatives are designed to attract attention to the products and thereby potentially increase the likelihood of their selection. One approach found involves adjusting the color scheme of the store interior, such as creating a green aisle marked with signs indicating that only organic products are available there. It can also be about making signs green to draw attention *"(..) the gaze can get caught on the green, because it stands out, more or less, in different shelves"* (Participant J). The practice of using signs to emphasize sustainable products, highlighting attributes such as organic and locally sourced, is widespread among the participating retailers. In addition, many participants mentioned that they make use of communication materials provided by suppliers of sustainable products, which helps them avoid the need to create their own materials. Moreover, the study revealed that shopping bags can be used to convey messages pertaining to sustainability.

4.3.2 Marketing-Related Initiatives

Another established category within this field of work, according to the results, are marketing-related initiatives which refers to marketing initiatives outside the store, using channels such as social media or flyers. Although these are not bound physically to the stores, they are aimed at affecting the behavior of consumers when making in-store decisions. The marketing efforts aim to increase the visibility of initiatives and specific products, as mentioned by participants. One such initiative involves leveraging social media to highlight suppliers and producers of sustainable products. As Participant I elaborated *"We visited a local supplier and filmed the process of how they make their product to demonstrate the work behind the price tag. This not only highlights the efforts involved but also supports these local suppliers".* Marketing of local suppliers is also done on individual, local social media accounts. *"For example, the spices are from the Stockholm area or the tulips are grown in Vallentuna. We highlight those things in our own social media and the marketing channels run by the stores"* (Participant B). Encouraging sustainable consumption can also be achieved through the use of flyers, whether in digital or physical formats. Participant D exemplified this by stating *"We sometimes have "organic pages", meaning that we dedicate a page in our flyer to organic products to boost sales".*

4.3.3 Assortment-Related Initiatives

Assortment-related initiatives involve activities aimed at making the assortment more sustainable and increasing the focus on sustainable products. Regarding product assortment,

the most common initiative found is fairly overarching, namely to carry a balanced assortment, including sustainable alternatives across all product categories. Furthermore, some retail chains implement policies to ensure a wide assortment of sustainable products or set specific targets for the proportion of sales generated from sustainable items, to ensure that all stores in the chain work towards this, as found by the study. Other strategies and initiatives found involve focusing heavily on the retailers' more sustainable private labels, alongside the centralized development of innovative and sustainable products. Several retailers have introduced hybrid meat products, blending a percentage of vegetables into the mix. This innovation aims to mitigate the environmental impact of the product while simultaneously offering an affordable alternative, as the vegetables included lowers the production cost. The explained objective of the newly developed products is to expand the accessibility of sustainable options, ensuring affordability for customers with limited financial means. Moreover, Participant L mentioned that they have identified specific "high-risk products", such as coffee, tea, and cacao, in terms of environmental and social risks in the production. As a strategic response, they have decided to only develop sustainability-labeled items within their private labels, discontinuing the inclusion of any conventional products under those labels and in those product categories.

Apart from selecting products to include in their assortments, another strategy found involves removing products deemed unsustainable. Some retailers have eliminated specific items that do not align with their sustainability criteria as part of their efforts to promote sustainable consumption. Multiple retailers have made an active choice to not carry conventional bananas *"We have made an active choice to only have organic bananas and fair trade bananas and not offer conventional bananas at the moment"* (Participant F). This trend was uncovered in the study, as the majority of participating retailers have opted for this approach. However, certain retailers mentioned that customers find organic bananas comparatively expensive compared to conventional ones. Consequently, they have reintroduced conventional bananas in their assortment, enabling customers with limited financial means to afford bananas.

4.3.4 In-Store Organization-Related Initiatives

These initiatives include the placement and display of products, hoping to highlight the more sustainable ones. Several participants mentioned that the placement of products is vital in retail stores, making it a suitable tool for highlighting the sustainable assortment. Various

approaches are applied in this regard; some indicate that they have gathered sustainable products, such as organic items, in one location, thereby creating a sustainable destination. In contrast, Participant G argues that *"When you have come a bit longer with this journey (...) the customer expects that when they go to any shelf, they will find a full spectrum of the assortment"*. In that way, there are two ways in which the in-store placement can be planned. An argument for keeping the sustainable products at the same places as the conventional is that *"If you don't know that you should go to a Fair trade-shelf or organic shelf, then you miss out on all of it. By keeping it in the regular shelves, among the rest of the assortment, we hope that the customer will get 'aha-experiences'"* (Participant G). This facilitates the ability to make a sustainable choice.

It was explained that there are strategic placements in the store, such as in the natural shopping route. Using these spots for sustainable products has been identified as an additional strategy for promoting sustainable consumption. An example includes positioning sustainable products near the cash register to heighten the probability of impulse purchases. Additionally, the relative placement on the shelves is another illustrative example. *"In general, the organic products are usually placed to the right, partly to make them visible for the customers, but also because those who just happen to take one are more likely to pick the one to the right"* (Participant B). However, Participant C explained that "*The layout is very centrally decided. We get templates on how we should have it on our shelves"*. Although the placement can be a useful tool, using this strategy sometimes has to be decided on a central level.

4.3.5 Promotion-Related Initiatives

This category encompasses promotions that are visible in the physical store environment, as opposed to marketing-related initiatives conducted through other channels. Nonetheless, promotion-related initiatives within the store may also be emphasized through marketing efforts. An identified strategy involves including a specific portion of sustainable products into the campaigns. One participant explained that they have a separate approach exclusively for the sustainable assortment regarding campaigns, diverging from the approach used for conventional products. *"Considering that we are working with a certain amount of price points each week we also need to generate a certain volume for it to be effective. (...) But you could say that organic products are the exceptions where we disregard those principles"* (Participant D). It was mentioned that including sustainable products in campaigns can

enhance the diversity of offerings. Another strategy revealed by the retailers is to pair discounts on conventional products with discounts on sustainable products. The reasoning is that *"Even if you cannot match it exactly in regards to price, you can still (...) find a comparable product and the customer can see that there is a discount on the organic one, even if it is a bit more expensive"* (Participant J). Finally, the last initiative mentioned involved themed campaigns aimed at showcasing the sustainable assortment, such as having a Fair Trade week, highlighting fair-trade farmers and products.

4.3.6 Price-Related Initiatives

This category involves adjustments to price with the aim of making sustainable products more attractive. The following findings illustrate actions taken by participating retailers to promote sustainable consumption regarding the regular price of a product, distinct from initiatives related to price promotions. Avoiding significant price disparities between sustainable and conventional product ranges is a crucial consideration according to the retailers. They explained that the goal is to encourage consumers not to perceive sustainable products as excessively priced compared to their conventional counterparts. Furthermore, Participant B emphasized the collective responsibility retailers have in purchasing the sustainable products, so that the volumes purchased from suppliers increase, resulting in a lower price. *"The basic idea is that if all stores work in this way, the volume of organic and sustainable products will increase. And this will decrease the price in the long term"* (Participant B). The participant emphasized the importance of ensuring the availability of sustainable products to all consumers, which involves proactively managing the price of these products. *"We work a lot with being able to offer affordable and sustainable options so that it is not a luxury or premium thing to be able to buy sustainably, but rather that you should have a feeling that you can make these sustainable choices regardless of your wallet"* (Participant E).

4.3.7 Food-Waste-Related Initiatives

These initiatives include activities aimed at reducing food waste such as trying to sell soon-to-expire products. While initiatives targeting food waste may overlap with those in other categories, they were extensively discussed, resulting in their classification as a separate category.

A consensus regarding how to handle soon-to-expire products was found among the retailers, where all participating retailers discount soon-to-expire products, presenting customers with a sustainable solution to reduce food waste while offering more budget-friendly options. Two strategies regarding the placement of the soon-to-expire products were found. The first one is placing them in their normal spot in their stores, and the second one is gathering all soon-to-expire products in one spot. Some retailers mentioned that they create bundles with fruits and vegetables nearing expiration, selling them at a discounted price. The food-waste initiatives are communicated through various methods. One approach found involves using signage in the designated section to attract attention and inform customers. However, it was revealed that some retailers opt not to use signage and instead rely on customers to locate the section independently, hoping to foster a habit among those interested in purchasing the products. Additionally, one retailer mentioned signs indicating the amount of food waste saved through their soon-to-expire discounts. *"We put up signs showing how many tonnes we had saved. So now we want to thank the customers for helping us with sustainable choices"* (Participant I).

Another initiative found related to food-waste is to use products that are about to expire, or cannot be sold for other reasons, in the store's restaurant or kitchen. Some of the retailers cook lunches that they sell, made from soon-to-expire products or products that for other reasons cannot be sold. Furthermore, it was found that stores offering catering services can utilize these products in these services, preventing food from being thrown away.

4.3.8 "Other" Initiatives

All initiatives that do not fall under any of the aforementioned categories are listed in this section. One described approach involves developing recipes for the website, social media and promotion campaigns, to inspire and encourage customers to use sustainable ingredients, thereby promoting sustainable consumption practices. Furthermore, as a component of their long-term strategy to foster sustainable purchasing behaviors, one retailer described their implementation of an initiative that provides double points to members for buying products categorized as sustainable. The initiative is integrated into the retailer's loyalty program, wherein members accrue points for all their purchases. *"It is a clear incentive for what we want, in which direction we want to steer consumption"* (Participant J). Another initiative explained involves organizing events such as "local days", where local suppliers showcase

their products directly to customers. *"We sometimes have local days. Local suppliers come here to showcase their products, demonstrating and selling their products and talking about their value"* (Participant I). Lastly, a participant described the development of an app designed for scanning products in-store, providing information about the sustainability of the product across various dimensions, such working conditions in the production and the amount of water used in the production.

4.4 What are the Associated Challenges and Tensions with Encouraging Sustainable Consumption?

Thematic analysis of the interviews resulted in the following three levels of challenges and tensions in regards to encouraging sustainable consumption. This contributes to RQ1, and extends the findings of previous literature.

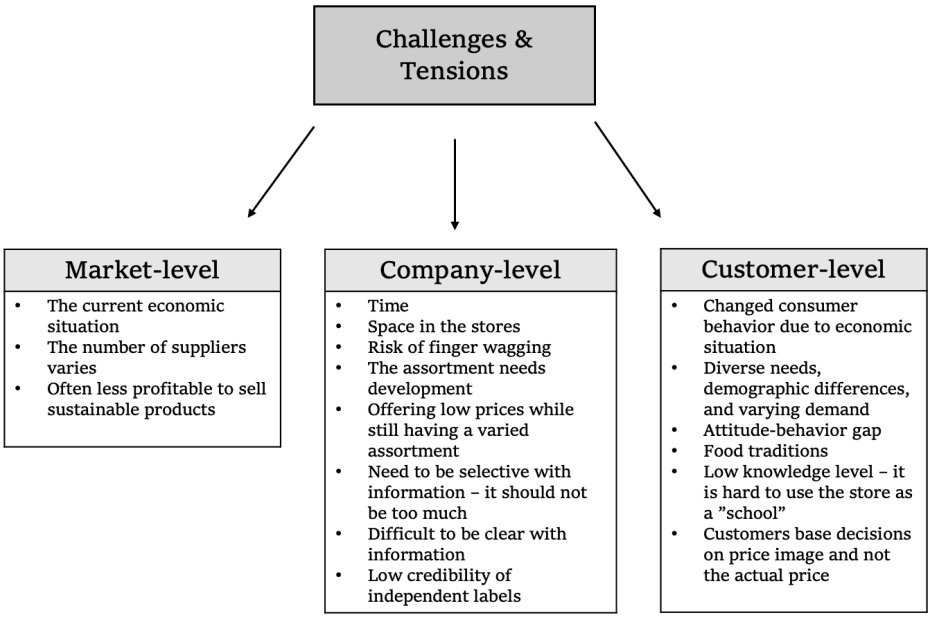

Figure 5: Results from interview study. Challenges and Tensions related to encouraging sustainable consumption

4.4.1 Market-Level Challenges and Tensions

Market-level challenges and tensions are seen as arising from the overall market environment, reflecting the dynamics of the market rather than constraints specific to individual industry players.

A challenge found to impact all retailers is the economic difficulties faced by households in

Sweden. This has caused shifts in consumer behavior, resulting in changes to the product offerings, as noted by Participant F. *"For the moment, we have had to pause purchases on certain fruits and vegetables that are organic due to the price picture. We have seen that no one will buy organic asparagus for 119 kronor per bundle"* (Participant F). Furthermore, due to the current economic situation, they described that there has been a decrease in the number of suppliers, potentially making it more challenging to procure sustainable products. *"The number of suppliers is decreasing, and there are also fewer employees working for them. That's the threat. There is less purchasing power in the stores due to the economic situation"* (Participant I). Finally, it was mentioned that sustainable products, such as organic products, are often less profitable than conventional ones, partially related to the lower sales volumes, which can result in less emphasis on promoting them. The tension in balancing the profitability focus with sustainability is a trade-off grocery retailers must navigate carefully.

4.4.2 Company-Level Challenges and Tensions

The company-level challenges and tensions stem from various constraints that can vary between companies. These constraints may involve balancing the sustainability strategy with the overall strategy of the company and its desired image. Additionally, they encompass challenges related to executing initiatives, which depend on the competencies of the personnel involved.

A described tension arising from constraints within the company, particularly for smaller stores, is the demand on employees' time and energy to implement initiatives. Participant I described the trade-off between prioritizing sustainability efforts and managing their regular daily operations, exemplifying it by stating *"Should I write four recipe signs now or write why the customer should make a sustainable choice?"*. Another trade-off and tension mentioned is finding a balance between offering all desired products and working with limited space. In addition, Participant K highlighted the trade-off between offering a wide range of products and maintaining low prices, as adding more products in the store leads to higher costs. *"I think it is a tug of war between having low prices and being able to offer everything (...), the fewer items we have, the cheaper it becomes for the store" (Participant K)*. One participant noted the slow progress in the development of new sustainable products as a challenge, emphasizing the importance of the development of those products..

Another problem noticed is the danger of pushing customers too hard, telling them what they

should or should not do. Participant H talked about this and stated that *"The risk is that it becomes like finger-wagging (...) I believe more in highlighting the positive aspects of a sustainable range".* It was further highlighted that the company needs to be selective in their communication, since subjective statements, such as something being climate friendly may have low credibility among the customers. *"We will not be that credible to a customer if we say that "this is a sustainable product, greetings from [Company 1]". What we can say is that fruit and vegetables have a generally lower climate footprint and that The Swedish Food Agency believes we should eat 500 grams per day"* (Participant E).

In addition, it was described that it is difficult for the retailers to convey sustainability messages clearly and understandably to the consumers, given the complexity of the topic. "*It is very challenging to be clear. It is very complex how the food system is interconnected"* (Participant E). Participant E further elaborated on the challenging balance between providing sufficient information and overwhelming the recipient with excessive details, stating that "*There is a fine balance between overwhelming the consumers with information and making it clear about all the choices that exist".*

4.4.3 Customer-Level Challenges and Tensions

Customer-level challenges and tensions arise from the internal motivations and characteristics of the individual customers and customer groups. These challenges and tensions can differ largely between geographies and demographic groups, highlighting the importance of understanding challenges and tensions related to specific groups.

Representatives from all retail chains described how the strained household finances are decreasing the demand for sustainable products. Customers are prioritizing budget-friendly options over sustainable ones, making it harder to promote eco-friendly options. As Participant H explained *"What we see now with the economic situation is that organic products are generally losing sales. And one of the reasons customers give is that it is too expensive".* However, it was mentioned that customers are consuming the products they purchase to a greater extent due to rising living costs. "*Our customers throw away less of what they buy, which can lead to them buying fewer items overall. But I think society benefits from actually consuming what they purchase. So in a way, they may opt out of the organic, but on the other hand, they consume what they buy to a greater extent. So there's a win, I think, in that"* (Participant G).

Several participants highlighted the challenge of demographic disparities among customer groups, resulting in varying levels of interest in sustainable products and differing financial capacities. Encouraging sustainable consumption is further complicated by worries about being perceived as a costly retailer. Participant E elaborated on the difficulties regarding the price image of products by saying *“We know based on consumer surveys (...) that it is one thing the actual price something has (...) whereas some base it more on price image. This price image is affected by if the label says organic or climate or sustainability”.*

Retailers mentioned that they must navigate the diverse needs of different customers, striving to meet as many of these demands as possible. *"We have perhaps 4,000 customers every day, and that's 4,000 unique opinions and preferences that we have to live up to. It is a very broad spectrum that we need to cater to"* (Participant F). Moreover, Participant C explained that there is a general decrease in demand for sustainable products. *"There has been a slight decline in both organic and vegetarian products (...) It appears that people may be shifting back towards meat-based protein"* (Participant C).. Participant D brought up that the demand for locally produced products is fluctuating by explaining that *"The production of Swedish food is fluctuating. Sometimes the demand is too high and there is too little"*. Related to the fluctuating consumer interest, Participant E highlighted the attitude-behavior gap, stating that *“One challenge is definitely that what the customers say and what they do are two completely different things”.*

The low knowledge level is another challenge identified by Participant L, describing that *"Many probably don't really know what sustainability labels are"*. Participant E shares the same opinion and adds that *“There is a good balance between making the sustainable choices for the customers that everyone says they want - by just removing the bad products. And at the same time, to be transparent and slowly but surely raise the level of knowledge”*. Lastly, food traditions and the inherent difficulty in changing food habits is a tension identified by a participant, emphasizing that food traditions change very slowly, and time is required to be able to change customers' shopping choices.

4.5 Visibility of Initiatives in Stores

The following section will present the results from the in-store observations, answering RQ2. The results will be presented as the initiatives that were visible in the stores observed, either labeled as 'Sometimes' or 'Often', and the ones that were not visible, as well as providing some examples and how they were present. The results are summarized in Figure 5. Certain types of initiatives are difficult to check for in stores and were consequently excluded from the observation study. Those include marketing-related initiatives and certain price-related details, such as information pertaining to profit margins. As delineated in section 3.2.2 Semi-Structured Store Observations, the focus was solely on initiatives expected to be visible in the stores.

	Initiatives	Never observed	Sometimes observed	Often observed
In-store communication -related initiatives	Usage of the color green to highlight sustainability			●
	Signs for the sustainable assortment			●
	Labels on price tags (organic, local etc)			●
	Using supplier-created material/signs		●	
	Information or inspiration on shopping bags	●		
In-store organization-related initiatives	Gather sustainable products by the cash register	●		
	Gather sustainable products	●		
	Strategic placement of sustainable products to increase exposure		●	
	Attractive placement of new sustainable products	●		
Promotion-related initiatives	Discount sustainable products			●
	Themed campaigns (e.g. organic week, fair-trade week etc.)		●	
	Always providing a matching offer to a conventional product	●		
Food-waste-related initiatives	"Eat soon-area" in the store, gathering soon-to-expire products			●
	Create "bundles" with soon-to-expire products to a lower price		●	
	Discount soon-to-expire products			●
	Communicate the results of food-waste initiatives	●		
	Highlight the discounted soon-to-expire products with signs			●
Other initiatives	Initiatives within loyalty programs		●	
	Providing easy-access sustainability information (e.g. in app)		●	

Figure 5: Results from store observations. Shows the visibility of certain initiatives in the store according to the frequencies described in section 3.3 Data Analysis.

4.5.1 Visible Initiatives

The most visible initiatives identified in the store observation study primarily revolved around in-store communications and efforts to address food-waste, which aligned with the conclusions drawn from the interview study. In general, initiatives focused on highlighting specific products, such as labels, as well as initiatives focused on highlighting other sustainability initiatives, such as the exclusion of certain products, were found.

Consistent with the results of the semi-structured interviews, several Swedish grocery retailers visibly employ in-store communication strategies to convey sustainability information, often utilizing the color green to signify sustainable products. A few of the observed stores used entirely green price tags to highlight organic and/or sustainability labeled products to draw attention to the product, while other stores only emphasized sustainability characteristics of a product by writing it on the label. Examples of other signs observed include signage promoting Swedish and local products, as well as fruits and vegetables currently in season in Sweden. Additionally, there were signs from suppliers, such as one advocating for Swedish meat with the message "Eat better meat. Not more". Furthermore, signs containing sustainability information were identified, such as those highlighting the retailer's decision to exclude conventional bananas and signs providing customers three with reasons to choose Swedish meat.

The majority of observed stores displayed initiatives concerning soon-to-expire products, consistent with the interview study's findings. The two strategies for organizing and highlighting soon-to-expire products, as described in section 4.3.7 Food-Waste-Related Initiatives, were found in the stores. Some of them combined the two approaches by both gathering products in a designated area and offering some soon-to-expire products in their normal spots. When combining the approaches, the items typically found in their usual location were commonly staple products, while those in a specific area tended to be less frequently purchased items. This pattern suggests a potential strategy for product placement based on the product characteristics and purchase frequency of the products. Therefore, it appears that the visibility of initiatives addressing food waste aligns well with the interview findings.

In terms of promotion-related efforts, all stores provided discounts on sustainable products, but the emphasis on sustainability on the discount-sign varied. Some stores highlighted the sustainable characteristics of the discounted products, or used the color green to highlight it, while others did not emphasize the sustainable aspects when promoting the discount with signage. This can also be connected to the aspiration of being able to offer sustainable choices at an affordable price. However, due to the limited visibility, some actors may overlook an opportunity to increase the availability of sustainable choices for all by emphasizing the sustainability aspects of discounts on such products.

Another promotional initiative observed was a sustainability-themed campaign. This campaign centered on products made in Sweden, which were all offered at a discounted price for a limited time. While most of the interviewed retailers mentioned occasionally hosting themed campaigns, this was only observed in one instance.

In the store observation study, a loyalty program initiative was identified and emphasized with signage, which aligns with the interview study findings. Additionally, a company's app that provides sustainability information through product scanning and QR codes was highlighted in the store using QR codes and information labels.

To conclude, these findings suggest that retailers are generally successful in showcasing the mentioned initiatives, with in-store communications and food-waste being the two most prominent areas.

4.5.2 Non-Visible Initiatives

In the observed stores, certain initiatives were not visible. These included information on shopping bags, sustainable products near the cash register, gathered displays of sustainable products, matching a discount on conventional products with a discount on sustainable products, and sharing the results of food waste initiatives.

Several factors could explain why these initiatives were absent in the observed stores. Firstly, the selection of stores in the sample could influence the findings, although all retailers from the interviews were included. It was revealed that most strategies and initiatives are decided on a central level, suggesting a degree of conformity across stores. Secondly, although it was already chosen not to look for all initiatives from the interviews, the nature of the initiatives selected in the observation study could have varying degrees of difficulty to observe. Lastly, the absence of an initiative could simply imply that none of the retailers are implementing it, suggesting the need for further efforts in that area.

All except for one of the in-store communication-related initiatives were found. This finding is logical as the main objective of strategies and initiatives in this category is to ensure visibility. Moreover, employing in-store communication-related initiatives was commonly

reported by the interviewees. The category of in-store organization had the highest number of non-visible initiatives, possibly because they are challenging to see or display. Moreover, these initiatives were not frequently mentioned in the interviews. The promotion-related initiative of offering a sustainable product alongside a conventional one was not observed, possibly due to the difficulty of detecting it since it requires searching the entire store and all discounts. However, for this initiative to be effective, it would be ideal to keep these products closely connected to each other to maximize impact by enabling direct comparison. Additionally, information about the results of food waste initiatives was not found, as found in the interview study.

Although certain initiatives may not be visible, they could still exist and affect customer choices even if customers do not actively notice them. Simply assessing the visibility of initiatives might not fully explain their existence. However, the visibility of certain initiatives can indicate whether stores are adequately emphasizing them.

5. Discussion

5.1 Conclusion

In conclusion, the thesis successfully fulfills its objective of offering a thorough examination of encouraging sustainable consumption in Swedish grocery stores through a dual-method study. This study explored various aspects including drivers, initiatives, challenges and tensions, and the visibility of initiatives in stores. Additionally, a conceptual model was developed to provide an overview of how these components interrelate, aiming to assist readers in comprehending the topic. A general conclusion that can be drawn from the results is that all participating retailers did indeed engage in encouraging sustainable consumption to varying degrees, and in different ways. Considering that the study investigated the six largest retail chains in Sweden, it could indicate that this holds for the majority of the industry in Sweden. Moreover, it can be concluded that, for the industry as a whole, initiatives described at the managerial level (interview study), are in fact also translated to a certain visibility in stores (store observations). More specific conclusions are presented below.

Firstly, it was found that Swedish grocery retailers are collectively employing eight categories of initiatives to encourage sustainable consumption; in-store communication,

assortment, in-store organization, marketing, promotion, price, food waste, and a category containing individual initiatives not fitting into any other category. Industry stakeholders can derive inspiration and insights into how their industry peers approach the topic, even without specific mentioning of individual retailers.

Secondly, three levels of drivers as well as challenges and tensions were identified from the interviews; market-level, company-level, and customer-level. By examining these drivers, challenges and tensions, alongside the strategies and initiatives, a comprehensive understanding of how Swedish grocery retailers approach sustainable consumption and its connection to their strategies and initiatives can be gained.
Thirdly, the most visible initiatives were in-store communication-related and food-waste-related initiatives. This insight can be crucial for retailers in identifying areas where further efforts are needed to establish a sustainable brand image. Examples of in-store initiatives were collected to provide a detailed understanding of their practical application and potential usage.

5.2 Relating Results to Previous Research

As previously mentioned, earlier studies on drivers predominantly focused on an overall sustainability perspective and not sustainable consumption. The present study found similar drivers, but confirmed their applicability to encouraging sustainable consumption specifically. On a market-level, industry pressure serves as a driver, as found by Saha and Darnton (2005). This is coherent with the current study, however, the present study further found that regulations and guidelines, especially UN's Sustainable Development Goals are major motivators. On a company-level, the aspect of good publicity and employer branding was found to be a motivator in the study by Saha and Darnton (2005), aligning with the findings of the current study. A previous study found cost-savings and financial gain as potential drivers (Naidoo and Gasparatos, 2018), similar to profitability drivers found in the present study. Moreover, this study further adds drivers such as a genuine internal desire to reduce climate footprint and drive societal change, which was not found in previous studies. Hence, it was claimed that the motivation for engaging in this work is not solely driven by commercial interests but also by a sincere intention to make a positive impact. This helps to clarify why certain retailers implement initiatives such as discontinuing products not aligning with their values and standards, even if there is a customer demand. Lastly, previous research

on sustainable consumption specifically identified consumer demand, a customer-level driver, as a key motivator (Tjärnemo and Södahl, 2015), aligning with the present study.

The study's findings regarding initiatives aimed at promoting sustainable consumption partially coincide with previous research, while also contributing with new insights. Previous research by Tjärnemo and Södahl (2015) found initiatives in the in-store communications category, such as the use of signage and labels, as well as assortment-related initiatives, such as offering a broad sustainable assortment. Furthermore, their research identified marketing-related initiatives including promoting products through flyers, and initiatives involving in-store events promoting sustainable products, and developing recipes with a focus on sustainability (Tjärnemo and Södahl, 2015). Lastly, Lehner (2015c), found initiatives including eco-labels and the use of soon-to-expire products in meals sold in the stores. All of those initiatives were found in the present study as well. Moreover, the current study discovered several initiatives not previously documented and organized them into a typology. However, one initiative identified in previous research but not found in the present study is the use of sustainability messages on receipts (Tjärnemo and Södahl, 2015). As mentioned, many other studies have focused on consumer responses to sustainability initiatives (e,g., Trudel, 2018; White et al., 2019). Those studies support the importance of initiatives, but will not be connected explicitly in this study.

At the market level, findings of the current study offer mostly novel insights on challenges previously unexplored in academia, except for the cost implications of encouraging sustainable consumption, which aligns with existing literature by White et al. (2019). At the company level, previous research found risks associated with finger-wagging (Blom et al., 2023), challenges in communicating sustainability messages effectively and clearly (Blom et al., 2023; Tjärnemo and Södahl, 2015; White et al., 2019), the inability of offering sustainable assortments (Blom et al., 2023), and the skepticism toward independent labels (Röös and Tjärnemo, 2011), all of which were found in the present study as well. In addition, previous literature found unique challenges in regards to the important strategic relevance of certain unsustainable products (Tjärnemo and Södahl, 2015), and the tension present in the tendency to promote consumption in general rather than sustainable consumption specifically (Jones et al., 2011; Jones et al., 2014), challenges not found in the present study. Lastly, existing research on customer-level challenges includes gaps in consumer knowledge (Tjärnemo and Södahl, 2015), the attitude-behavior gap, perceptions of high prices on

sustainable products, and the resistance or difficulty in changing habits (Röös and Tjärnemo, 2011), aligning with the findings of the present study. Additionally, the present study contributes with novel insights into emerging challenges, including shifts in consumer demand specifically due to the current economic conditions and the diverse needs and demographic variations among customers. Notably, certain customer-level challenges identified in previous research, such as concerns about perceived inferior quality and aesthetics of sustainable products (White et al., 2019), were not salient in the present study's findings. Nonetheless, this discrepancy might be explained by this study's retailer perspective.

Except for extending on findings from somewhat similar visibility-studies by Jones et al. (2007), Saber and Weber (2019), and Lehner (2015c), the results of this study can be connected to previous research on the importance and effects of visible sustainability efforts as a concept. Previous studies showed a relationship between visibility in-store and brand loyalty as well as sustainable brand image (Khandai et al., 2022).

5.3 Theoretical Implications

This study offers three significant theoretical contributions; 1) a typology of strategies and initiatives employed by Swedish grocery retailers to encourage sustainable consumption, 2) drivers, challenges and tensions categorized into three levels, and 3) an examination of the visibility of initiatives in the retail stores. Thus, as explained in section 2.5 The Identified Research Gap, the study expands on previous research, addresses research gaps highlighted explicitly by Tjärnemo and Södahl (2015) and Blom et al. (2023), and complements previous research of other nature, such as studies evaluating effectiveness of initiatives. Tjärnemo and Södahl (2015) states that a future study should focus on the everyday practices in food retail to more practically understand how encouragement of sustainable consumption can be done. Blom et al. (2023) studies barriers and tensions connected to encouraging sustainable consumption and highlights the need for studies investigating the drivers, which this study contributes with. This may allow for better understanding of the interrelationships between the drivers and challenges.

The existing research on effectiveness benefits from the typology provided by the present study due to its ability to provide an overview of initiatives to enable extension of that

research. In addition, effectiveness studies underscore the importance and potential impact of engaging in this type of work. Furthemore, the examination of visibility in this study provides novel insights to academia, contributing with a broader scope of initiatives as well as a link between initiatives described by retailers and the translation to stores on an industry-level, rather than retailer specific. The significance of this investigation is also motivated by the findings of previous research. Although initiatives can be derived from these effectiveness-studies, the present study examines them as a main purpose and collects the data at the same point in time, with a focus on the practical implementations of these initiatives, covered by the store observation study.

In addition to its explicit contributions, the results of the present study can facilitate a more effective exploration of the topic of encouraging sustainable consumption, as the developed typology and categories serve as an overview. As the study adopts a retailer perspective and utilizes first-hand data, this study indirectly shows the knowledge and involvement levels of Swedish grocery retailers regarding sustainable consumption. This allows for comparison with present or future studies from other countries and industries. Lastly, the study complements the previous focus on consumer responses (e.g., Trudel, 2018; White et al., 2019) within this field.

5.4 Managerial Implications

This study offers valuable insights for practitioners interested in promoting sustainable consumption. It presents a typology of initiatives along with practical examples that can serve as a handbook or guide for grocery retailers currently far behind in this field, looking to initiate or enhance their efforts in this area. It can also serve as inspiration for other industries. Many of the interviewed retailers expressed a motivation to be a catalyst for positive societal change, with a strong emphasis on sustainability. The study can support retailers in pursuing this goal.

Furthermore, the store observation study offers insights into which initiatives are visible from an in-store standpoint, a factor crucial for purchase intention and brand image as highlighted in the literature review. The study identified a key driver: the desire to be perceived as a sustainable brand, underscoring the significance of initiative visibility. While not explicitly

detailing specific retailer actions, the store observations can aid retailers in comprehending which initiatives are effectively visible in-store and which may go unnoticed.

The study suggests a need for policymakers and non-governmental organizations (e.g. Naturskyddsföreningen) to intervene with regulations, guidelines, and classifications. The customer-level challenges imply the difficulties with preceding the consumers by pushing rather than following and adapting to consumer demand, which can result in a slow change in attitudes towards sustainable consumption. With regulations as support, individual retailers will not bear the commercial risk of implementing changes not aligned with consumer demand. However, policy makers should be cautious of their degree of intervention.

The study further revealed that the demographics of customer groups often influence their level of sustainable consumption, highlighting the importance of understanding the specific customers of a store and tailoring strategies and initiatives accordingly to maximize effectiveness. Moreover, an overarching challenge that the study found was the financial aspect. Sustainable products are by some perceived as always being more expensive. While not universally true, organic products are often higher in price than their conventional counterparts. As a result, the current financial hardships faced by many Swedish households make encouragement of sustainable consumption harder than usual. This challenge is overarching, included in market-, company- and customer-level challenges, making it a central and ever-present issue. One aspiration of the retailers is to make sustainable consumption available for everyone. This insight is crucial for the industry, and going forward, retailers should focus on mitigating this challenge to democratize sustainability. Examples of initiatives employed to achieve this include the development of hybrid meat products to lower the cost of consuming sustainably, and offer soon-to-expire products at a discounted price. Additionally, the general perception that sustainable consumption is always pricey, is an area in need of revision, in order for sustainable consumption to become the norm. Making sustainability accessible to everyone is crucial, as the realization of Sustainable Development Goal 12 relies on collective efforts of individuals, organizations, and policymakers working together.

5.5 Limitations

The study is subject to a number of limitations which should be considered when adopting the results. The study is limited geographically to Sweden which could limit the transmission of the results to other markets. The store observations are also limited geographically to the Stockholm area due to time constraints and convenience, which might raise concerns regarding the applicability of those results to other parts within or outside of Sweden. However, as found in the results, the strategies and initiatives are often set centrally within the organization, thereby mitigating the significance of this limitation. A related limitation is that some of Sweden's largest grocery retailers operate partially or entirely with a franchise business model. Nevertheless, it was revealed in the interviews that these stores often still adhere to the central guidelines and recommendations. Moreover, due to the possible subjectivity of the interviews, revealed initiatives could be aspirational rather than factual. However, that is complemented by the objectivity offered by the store observations and it therefore does not substantially affect the results of the study in regards to the purpose, but should be considered when drawing conclusions of the reality of this topic. Furthermore, the interview results could be skewed due to the nature of the interviewees roles since not everyone has insights into all parts of the in-store strategy. In addition, the study is aimed at and limited to the grocery retail industry, making it questionable to apply the same conclusions to other industries. Lastly, the study was also limited in time which affects the initiatives pursued at that specific time. All initiatives might not be applied in-store simultaneously, making the time-aspect a potential limitation. This can result in the observations not detecting all initiatives employed.

5.6 Future Research

Regarding future research, the authors encourage further exploration of the topic of encouraging sustainable consumption, given its pronounced relevance in the industry, as explained in section 1.1 Background. Instead of categorizing initiatives according to their type or nature, like the present study, future research could draw upon theories such as the SHIFT framework (White et al., 2019) to find initiatives aligned with each of those principles. Moreover, since the current study focused on physical stores, replicating the study based on an online format could be interesting to see if there are any differences.

As mentioned in the literature review, previous literature has explored the effectiveness of certain initiatives. For future research purposes, the typology presented in this study could be used as guidance to further investigate the effectiveness or consumer response to those initiatives. It would be interesting to test the initiatives both in isolation, but also measure the effect of applying several initiatives simultaneously. This might facilitate an understanding of what the optimal tactics might be. Lastly, when analyzing the results, a tendency of the interviewees to associate sustainable consumption primarily with organic products were found. This falls outside the scope of this thesis but could be interesting to investigate since the implications might indicate a need to change perceptions.

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7. Appendix

Appendix 1: Interview Information

Date	Participant	Title	Setting	Length
26 feb	A	Concept- and Store Development Manager	Online (Teams)	17:43
28 feb	B	Store Manager	Online (Teams)	33:34
29 feb	C	Store Manager	Online (Teams)	14:19
1 mar	D	Campaign Manager	Online (Teams)	36:09
12 mar	E	Concept Development Manager	Online (Teams)	45:46
21 mar	F	Store Manager	Online (Teams)	36:11
21 mar	G	Head of Strategy & Development	Online (Teams)	27:10
25 mar	H	Sustainability-related Role	Online (Teams)	24:25
26 mar	I	Store Manager	In person	20:03
27 mars	J	Sustainability Manager	Online (Teams)	33:53
27 mar	K	District Manager	Online (Teams)	17:56
2 apr	L	Sustainability Manager	Online (Teams)	52:31

Appendix 2: Interview Guide

Question
INTRODUCTORY QUESTIONS
Tell us a bit about your role and responsibilities
Are you trying to encourage sustainable consumption in your physical stores? (in general)
DRIVERS
Why are you/are you not working to encourage sustainable consumption in your stores? What drives/motivates the company to do these initiatives?
SUSTAINABLE CONSUMPTION INITIATIVES
In what ways are you trying to encourage sustainable consumption in the physical stores? (also including activities outside the store aimed at affecting behavior in the store)
CHALLENGES AND TENSIONS
What challenges and tensions in regards to trying to encourage more sustainable consumption (in the physical stores) do you experience?
How do you balance certain trade-offs such as encouraging more environmentally sustainable options and at the same time maintaining price sustainability?
What do you think the consequences would be if you did not encourage sustainable consumption?
Do you experience more difficulty in encouraging sustainable consumption (in the physical stores) in the current economic times? Why/why not?

Appendix 3: Quotes From Participants - Support For Results

Category	Quotes
In-store communication	"We have done a few such tests about what happens if you put up a sign more connected to that this is healthier or this is more sustainable" (Participant A) "But some inspiration signs and simpler texts" (Participant H) "It is partly about signs on shelves. If it is only on the shelf, the sign can be a labeling, such as that it says local on the label. If it is on a larger space in the stores it can have a larger sign. And sometimes even work with the suppliers printed material" (Participant F)
Marketing	"We highlight [local products] in our own social media and in joint marketing that is run by the stores and not centrally" (Participant B) "A lot of things are done on social media today. And there we conduct all sorts of things such as having collaborations with chefs on social media. That you do some kind of collaboration and where it is often very important with a mix, and there you mauve do everything from internationally inspired dishes to that it can be organic, vegetarian or vegan" (Participant F)
Assortment	"Then we have some vegan and vegetarian, so [sustainability labeled]. That we try to think about the balance of the assortment" (Participant I) "Due to raw material shortages and customers demanding it, we removed conventional bananas. Even if we were a bit reluctant, we did it" (Participant B) "Then we have also made an active choice as a chain to only work with organic bananas and for example fair trade-bananas and then not offer conventional bananas right now" (Participant F)
In-store organization	"There is always a natural shopping route. In this store 80% of our customers walk along the walls. So if we put things in the middle or furthest away, then we will not promote them since the customer will not see it" (Participant I) "If you are buying lemons you are maybe not actively looking for organic lemons. But if they would have been next to each other you could have made that decision actively or spontaneously. But the layout is also very centrally decided. We get templates on how we should have it in our shelves" (Participant C) "But in some stores we have tried organic shelves too" Participant K) "It can be that we put the products by the cash register. Is it candy or is it something else more healthy but also sustainable" (Participant H) "We have elaborated a lot in stores and in general. Some things have succeeded, and some have not. But today you want to keep products together with their category or product group" (Participant F)
Promotion	"Campaigns are important to communicate about organic products. It is not just that you buy the product a certain week but that the concept organic is visible then" (Participant L) "Then it is also important for us to push the organic products as well as local products. So we also need to communicate that we have a mix in order to attract as many customer groups as possible" (Participant F)

Price	“The thing with the volumes is important, high volume products. They can be purchased for a lower price. What came first? If you can get the volumes up on the organic assortment you can also offer better prices” (Participant L) “But most often we reduce the price on the sustainable alternative already from the start” (Participant B) “Everything is decided centrally regarding the assortment and prices” (Participant C)
Food-waste	“Another way is that we talked a lot about how much food waste we saved (...) So we made signs about how many tones we had saved, and said that we want to thank the customers for helping us with sustainable choices. Or thank you for helping us reduce our food waste” (Participant I) “You can choose the products that otherwise would have been thrown out and then they would have been causing emission all thought the value chain and then not have been useful” (Participant L) “The focus will be on; save a product, low price for you, and we do not have to throw it” (Participant E) “We also have a dedicated place where we have the discounted products” (Participant B) “Then you label them and have specific places where you put them so that the customers learn to go there” (Participant C) “I think they find their way there on their own. It is not very heavily displayed with signs” (Participant C)
“Other”	“We also have our recipes on [our website] that are climate labeled” (Participant H) “Or that you let the suppliers come and talk about their products and promote them in the store. This is us, we produce this nearby and have been around for very long” (Participant F)
Market-level drivers	“At large it is based on the UN’s SDGs” (Participant D) “So I would say that it is a given to do what you can and preferably be even more ambitious than the regulations. Because the policies in Sweden right now is not very pushy, but it is rather us in the industry that are pushing it”(Participant E) “We are following WWFs recommendations regarding fish and seafood for example and things like that” (Participant H) “Partly because the customers demand it, but we also have to do it for the future. We need to transition to more sustainable consumption. And then we also have regulations that demand it. And one part in our sustainability goals is that we want to contribute to lowering the customers climate footprint” (Participant H)
Company-level drivers	"I believe it's long-term beneficial both for our country and also for Sweden's food consumption" (Participant I) "We always want to do what drives the development in the right direction" (Participant E) "We have specific goals for organic sales, for example, that we should aim for a certain percentage of sales there" (Participant J)

	"We want to be such a societal actor, to drive such societal impact because we can influence development in that direction. So it's not necessarily for us to make more money, because I'm not sure if we do that, but it's a way for us to take responsibility and do what's right" (Participant J) "The most important thing for us is to be a positive force in society and to contribute in every possible way" (Participant D) "We are an important actor in society, and we should contribute in every way we can. So, our sustainability work is very important" (Participant D)
Customer-level drivers	"We also believe that consumers want us to take that responsibility, and we ourselves have also committed to taking responsibility" (Participant B) “I think you have to get on board eventually. So the consequence of not working with sustainability could ultimately be poor performance. That's what I believe" (Participant I)
Market-level challenges	The production of Swedish food is fluctuating. Sometimes demand is too high and there's too little supply. That can also be a barrier right now, that there's too little supply" (Participant I) "[Specific organic product] is not something we actually make money on; it's really just because I want to have it in the product range" (Participant B)
Company-level challenges	"It usually comes down to a lack of space being the problem in the end" (Participant B) "It's about the product range, I would say. It needs to be developed. Even though there are many new products coming out, the progress is a bit too slow. Unfortunately" (Participant H)
Customer-level challenges	“One challenge can be price. And when it comes to food traditions, they change very slowly" (Participant L) "If you conduct a survey and ask how many people would like to buy sustainable food, the answer is overwhelmingly positive. However, when presenting two options side by side, even at the same price, it's not certain that people will choose the sustainable option" (Participant E) "But I would say that customers tend to compromise a bit more on whether products are locally produced or organic" (Participant B) "The reason isn't that consumers don't care, but rather that a large portion of the population has struggled with their finances” (Participant J)

Appendix 4: Previous Research on the Effectiveness of Initiatives

As described in the literature review, many scholars have investigated how effective certain initiatives are in encouraging sustainable consumption. This is not a main purpose of the present study, and thereby direct links between the initiatives found in the study and their potential effectiveness was not made. It is rather considered a future research path to use the present study's typology as a guide to make those connections. However, for the curious reader, and as support for the claim that research of this nature exists. Some examples regarding the effectiveness of in-store communication-related initiatives, promotion-related initiatives and food-waste-related initiatives will therefore be presented here, also in terms of how effective the visibility of those kinds of initiatives are. Those categories were chosen as examples since they were found as the most common initiatives in the present study, and a limited scope of the description of this study is motivated by the fact that it is not the main purpose of this study.

Interventions with social-norm messaging, targeting customers through signs in shopping carts and on the shelves have shown to lead to small increases in sales (Bauer et al., 2022), highlighting the potential of these actions. Moreover, eco-labels can have an effect on consumer choices as it leads to more sustainable purchases (Testa et al., 2015). Further studies also conclude that using easy-to-understand environmental labels increase eco-friendly food consumption (Vlaeminck et al., 2014; White et al., 2019). However, many retailers seem to miss out on the opportunity of using sustainable communication messages (Ekelund et al., 2014). Moreover, emphasizing both the reduced price and sustainability benefits of purchasing soon-to-expire products has proven to be an effective method to increase the sale of those products (Chkanikova and Lehner, 2015). Pricing significantly influences customer decision-making in grocery retail settings (Hanaysha et al., 2021), underscoring the potential impact of both promotion-related and price-related initiatives. The preference for environmentally friendly products increases when it is the cheapest option (Vanclay et al., 2011), potentially a direct consequence of price being a key determinant. Another study revealed increased organic product sales through the reduction in price and increase in price promotions (Bezawada and Pauwels, 2013).

To achieve increased visibility, green labels can be added to the products and to the display of the products (Barbarossa and Pastore, 2015). The visibility of sustainability labels is

generally low, with limited understanding among consumers, except for organic labels. One study highlights a correlation between label visibility and consumer comprehension, indicating that increased visibility might positively impact the understanding of the labels (Annunziata, 2019).

Appendix 5: Use of Artificial Intelligence

AI was used to transcribe the interviews using an online transcription tool. However, afterwards the interviews were listened to and corrected any mistakes made by the tool in order to ensure that the transcriptions were accurate.

Furthermore, AI has been used with regards to grammar, language, and rephrasing. An example of this is to find synonyms to certain words or ask an AI-tool for grammar help. AI has not been used to generate any original ideas, but rather as a source of information and inspiration regarding language improvements. AI-tools were also used as a source of inspiration when translating quotes from participants.