

Corporate Supply Chain Responsibility: Drivers and Barriers for Sustainable Food Retailing

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ABSTRACT

The paper aims to provide a systematic overview of the drivers and barriers for food retailers to implement corporate supply chain responsibility. The research is based on a literature analysis and semi-structured interviews with food retailers, with primary focus on Swedish conventional supermarket chains. The paper contributes to the existing body of research by providing the food retailers' own perspective on the factors that trigger addressing sustainability concerns in their supply chain and by providing a taxonomy of drivers and barriers. As a result, a number of additional factors that influence the launch of responsible supply chain practices have been identified. Interestingly some of these factors are beyond the trivial driver-barrier dichotomy. This paper is of interest to food retailers who aim to design sustainable supply chain strategies and justify associated investments, and for policymakers who aim to support retailers in their transition towards sustainable practices. Copyright © 2012 John Wiley & Sons, Ltd and ERP Environment.

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Introduction

IN RECENT YEARS, THE ROLE OF RETAILERS IN THE SUSTAINABLE DEVELOPMENT DEBATE HAS BEEN WIDELY DISCUSSED. RETAILERS ARE seen as a vital change agent towards sustainable food systems. Due to their size, consolidation of the bargaining power and strategic placement at the intersection between different supply chain actors food retailers are in a position to enforce the sustainability agenda both in production and consumption practices (Ytterhus *et al.*, 1999; Jones *et al.*, 2005b; CIAA, 2009). Lately retailers have revealed the signs of 'agency' towards responsible supply chain practices by launching a diversity of sustainability initiatives (ERRT and EuroCommerce, 2010).

Despite retailers' efforts to curb sustainability impacts in their supply chain operations, the retail sector faces a number of challenges in bringing about positive changes towards higher level of sustainability (Hall, 2001; Johnson, 2004). Recent reports on monitoring European retailers' environmental commitments revealed that sustainability initiatives are still marginal, fragmented, and unsystematic (BIO Intelligence Service, 2009; European Commission, 2010).

In order to assist the retail business in successful implementation of sustainability in their supply chain operations, the important question to be understood is what motivates and hinders corporate practitioners in launching a variety of environmentally and socially responsible practices. Providing a comprehensive overview of these factors would raise

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awareness, justify sustainability investments, and advise both retailers and policymakers on effective implementation of sustainability in supply chains.

Various studies have analysed roots of corporate environmentalism (Hoffman, 2000; Whitehouse, 2006; Welford *et al.*, 2008; Babiak and Trendafilova, 2011; Ditlev-Simonsen and Midttun, 2011), including corporate drivers and barriers to supply chain responsibility (SCR) (Carter and Rogers, 2008; Mont and Leire, 2008; Gold *et al.*, 2010; Leire and Mont, 2010; Heikkurinen and Forsman-Hugg, 2011). However, academic research on the SCR factors in food retail is lacking (Ytterhus *et al.*, 1999; Piacentini *et al.*, 2000; Hall, 2001; Jones *et al.*, 2005a). Most of the aforementioned literature is conceptual in its nature, for example, lacks empirical evidence from food retailers themselves regarding factors that influence launching of sustainability initiatives. Among existing academic literature that provides such empirical evidence, only two papers have been identified (Hall, 2001; Jones *et al.*, 2005a) which focus on the British food retailing sector.

This paper aims to fill this gap by providing a systematic overview of factors that affect the willingness and ability of food retailers to launch sustainable supply chain initiatives, with particular focus on large supermarket chains in Sweden. The paper is structured as follows. First, a taxonomy of drivers and barriers accounted for in the literature is provided. Then, empirical evidence from interviews with food retailers is presented. As a result, the paper outlines a number of additional factors identified empirically but not mentioned in the literature and discusses their relative importance for upstream, in-store, and downstream sustainability initiatives. Additionally, the paper reflects on the factor attributes that affect the launch of sustainability initiatives thereby going beyond the driver-barrier dichotomy. The paper concludes with a summary of the main findings, policy implications, and suggestions for further research.

Methodology

The research was designed in two steps. First, a desktop literature review was conducted. In total only nine articles were identified that touch upon the food retailer's motives and constraints in engaging with corporate sustainability strategies (Ytterhus *et al.*, 1999; Dijk, 2000; Piacentini *et al.*, 2000; Hall, 2001; Johnson, 2004; Jones *et al.*, 2005a; 2005b; 2008; Smith, 2007). While academic research on sustainable retail is relatively limited, a number of relevant reports have been recently produced as stakeholder interests in retailer's sustainability practices is growing. These include information sources available at the website of the European Commission (BIO Intelligence Service, 2009; European Commission, 2010; 2011b), working documents from the project on Green Nordic Retail (Danish EPA, 2010), issue papers and press-releases on sustainability from European Retail Forum (ERRT, 2009, 2010a; ERRT and EuroCommerce, 2010), and reports prepared by UNEP/Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production (Tunçer *et al.*, 2007), by European Topic Centre on Sustainable Consumption and Production (ETC./SCP, 2010) and by Dutch Sustainable Trade Initiatives (Anstey, 2009).

To collect the empirical evidence regarding retailers' own perspectives on motives for engaging with sustainable supply chain strategies, 20 semi-structured interviews with representatives of retail organisations were conducted. Particular focus was on conventional supermarket chains in Sweden, such as ICA, COOP, and Axfood, as supermarkets account for 83.7% of the grocery market (Axel Johnson AB, 2009). The interviewed respondents include CSR and purchasing managers, as well as individual store managers/owners. To gain complementary insights, additional interviews were conducted with representatives of British (Waitrose) and Danish (IRMA) retailers, both selected due to their proactive strategies in dealing with sustainability issues.

Analytical Framework

Factors that influence corporate willingness and ability to engage in supply chain responsibility, can be explained from different perspectives, for example, organisational (De Bakker and Nihof, 2002; Lawrence *et al.*, 2002), management (Dutta *et al.*, 2012), stakeholder (Fineman and Clarke, 1996) and network (Vurro *et al.*, 2009) perspectives. Organisational, management, and network theories help explain how and to what extent companies are capable of

implementing sustainability, rather than why they are implementing it. While the stakeholder literature offers useful insights as to why companies attend to stakeholder interests, Campbell (2006, p: 928) argues that it rather focuses on identifying the relevant stakeholders and suggesting stakeholder management practices without analysing ‘the conditions under which corporations are likely to act in socially responsible ways vis-à-vis their stakeholders’.

In order to understand the very roots of corporate environmentalism and social responsibility, the analysis of institutional context was found to be of particular relevance (Hoffman, 2000; Campbell, 2006). Taking an institutional stance Hoffman (2000) argues that the supply chain sustainability agenda is not objectively defined by the company, but is rather socially constructed by the corporate external environment, for example, the institutional field in which firms operate.

Drawing on the categorisation of a firm’s institutional environment proposed by Hoffman (2000) we distinguish between four major groups of factors that shape the sustainability agenda in the retail industry: regulatory, resource, market, and social forces (Figure 1). Each group is distinct according to ‘the type of pressure exerted’ (Hoffman, 2000, p.24), namely national and international governments, institutions associated with input of financial and material resources critical to the firm’s core business activities, market actors, and community groups.

The proposed classification of the institutional field that exerts sustainability demands on the company explicitly accounts neither for the corporate practitioners nor for corporate mind-sets and values. According to the institutional perspective, environmental values of managers and employees are socially constructed by a firm’s external environment and rather originate from group of external factors, for example, social and market forces. Corporate practitioners, for instance, get motivation and inspiration for sustainability actions ‘by absorbing the messages that are transmitted to them’ at academia, industry and community forums (Campbell, 2006, p. 932).

In the next section, this classification of drivers and barriers is used to provide a structured overview of these factors identified from the literature.

Classification of Drivers and Barriers

This section outlines drivers and barriers for retailers in implementing sustainability initiatives in their supply chains that were identified during the literature analysis of both academic and industry-relevant sources. Sustainability initiatives in the supply chain are defined as a broad range of practices undertaken by retailers with the aim of improving sustainability performance of supply chain processes from ‘farm to fork’, including food production, transportation, consumption, and the store’s internal operations (Tunçer *et al.*, 2007; ETC./SCP, 2010).

Regulatory Factors

Regulatory factors derive from national and international government pressure. They include both coercive and voluntary policy instruments.

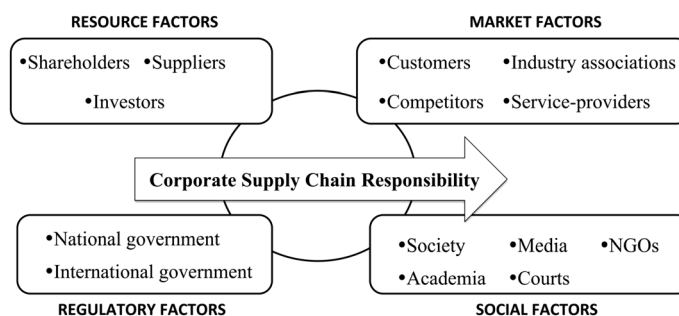


Figure 1. Drivers and barriers for corporate supply chain responsibility. Based on taxonomy of institutional factors suggested by Hoffman (2000)

Drivers

One of the main drivers for retailers to develop and implement sustainability strategies is pressure from governments. Such pressure is realised either in the form of legislation, for example, energy and waste directives (Hall, 2001; BIO Intelligence Service, 2009), international regulations, for example, the UN Declaration of Human rights and International Labour Organization conventions (Johnson, 2004), or in the form of soft policy instruments (Danish EPA, 2010), for example, the EU's Sustainable Consumption, Production and Sustainable Industrial Policy Action Plan (European Commission, 2008). The Action Plan facilitated the establishment of the European Retail Roundtable¹ in 2009 and led to the development of the Retailers Environmental Action Programme (ERRT and EuroCommerce, 2010).

Another driver identified in the literature is the desire of food retailers 'to pre-empt what... would be unwelcome statutory regulation' (Jones *et al.*, 2008, p. 996). For example, actions to reduce greenhouse gas emissions among British food retailers are largely affected by expectations of carbon management regulation (Forum for the Future, 2009).

Barriers

Lack of governmental leadership to support retailers in the sustainability transition has been identified as important obstacle (Jones *et al.*, 2008), specifically mixed and unclear messages from policymakers on the retailer's responsibility, lack of clear vision for sustainability in the retail sector, and absence of an action plan developed in collaboration with businesses. Additionally, the lack of harmonisation of regulation between different countries, for example, regarding food safety and labelling requirements, imposes further challenges to implementing sustainability in food supply chains (Danish EPA, 2010).

Governmental leadership, however, is constrained by international provisions of free trade. According to the World Trade Organization (WTO) rules, countries are not allowed to set requirements on non-product-related processes and production methods (Vorley *et al.*, 2002) as it is feared that environmental and social reasoning could be used 'to serve protectionist ends, allowing domestic firms to protect their dominant market positions, and gain strategic trade advantages over foreign competitors' (Vorley *et al.*, 2002, p. 3). For example, 'eco-smart food choices' guidelines developed by the Swedish Food Authority that aim to reduce environmental impacts of food by advocating local food sourcing have been forbidden by the European Commission as impeding free market trade (Naturskyddsforeningen, 2011).

On the other hand, governmental leadership through coercive instruments, for example, legislation, is also restrained by retailers who perceive them to be too strict and/or costly (BIO Intelligence Service, 2009; Danish EPA, 2010), and impeding retailers' innovation (Forum for the Future, 2009).

Resource Factors

Resource factors derive from shareholder, supplier, and investor pressure. They include both tangible resources (financial, material) and intangible assets (reputation, knowledge) critical to a firm's business activities.

Drivers

For many retailers, engaging with sustainability strategies such as eco-efficiency improvements is driven by stakeholder demands for increasing financial returns and the possibility of cutting operational costs (Ytterhus *et al.*, 1999; Piacentini *et al.*, 2000; Jones *et al.*, 2005a; BIO Intelligence Service, 2009; Danish EPA, 2010). For instance, British supermarket Asda projected to deliver an £800 million cumulative savings by 2020 compared to 2005 by implementing a number of sustainability initiatives in its supply chain, for example, reducing product packaging, food miles, and waste of fresh food from 'farm to folk' (Walmart Corporate, 2010).

Increased investor appeal is another reason for food retailers to initiate and maintain sustainability strategies in supply chains (Dijk, 2000). For example, the Triodos bank that solely invests in sustainable businesses screened 20 listed supermarkets against various sustainability criteria that included a range of sustainable product offerings, compliance with minimum animal welfare standards, etc. (Triodos Bank, 2010).

And important driver for many retailers in working with sustainability in supply chains is the possibility of strengthening their reputation and brand name (Dijk, 2000; Smith, 2007; Tunçer *et al.*, 2007) which result in

¹European Retail Roundtable (ERRT) represents a voluntary forum for European retailers to share best practices in sustainability work in supply chains and discuss associated challenges work in food supply chains and discuss associated challenges

increased competitive advantage and profitability (Girod and Michael, 2003). For instance, trusted brands have been one of the key drivers for British retailer M&S to develop sustainable practices in supply chain (Johnson, 2004).

Barriers

Several barriers for food retailers to engaging with sustainability strategies in supply chains have been identified in the literature. Costs are obviously the most often mentioned barrier and therefore retailers generally tend to address sustainability aspects that require lower investment costs and lead to economic savings or other financial benefits (BIO Intelligence Service, 2009). Addressing more profound impacts upstream in supply chains is usually more costly, which makes retailers reluctant to invest in sustainability strategies (Dijk, 2000; Smith, 2007; Danish EPA, 2010).

Along with a lack of financial resources, food retailers might also lack a sufficient degree of expertise required for developing and implementing sustainability strategies upstream in the food supply chain. Hall (2001, p. 112) identified a need for 'high levels of non-retailing technical competences' in addressing supply chain sustainability issues. For example, to successfully influence the environmental performance of own brand suppliers, Sainsbury's had to understand its production processes and practices (Hall, 2001). Such engagement typically requires development of collaborative relationships with suppliers (Hall, 2001; Johnson, 2004; Gold *et al.*, 2010), which implies considerable costs (Seuring and Muller, 2008).

Market Factors

Market factors derive from customer, competitor, industrial association, and service-provider pressure. They include demands, competition, and norms set by these market actors.

Drivers

One of the drivers to engage with sustainability strategies in supply chains is consumer demand for greener and healthier food what creates the market opportunity to increase sales through green product differentiation (Smith, 2007).

For products where green market demand is relatively steady, retailers might see the opportunity to gain competitive advantage by entering green markets (Tunçer *et al.*, 2007; Danish EPA, 2010), while failure to benchmark with sustainability leaders might result in loss of markets share (Anstey, 2009).

Another driver is industrial norms. Indeed, various voluntary industry agreements and certification schemes contribute to the formation of sustainability norms, according to which actors involved in food supply chains are expected to behave (Hoffman, 2000; Anstey, 2009; Danish EPA, 2010; IDH, 2011). Food retailers can either get directly involved in agreements by signing them or following the standards, or indirectly in cases when their suppliers engage in sustainable industry initiatives (Danish EPA, 2010).

Sustainability awards from third-party organisations, although not mentioned as a driver *per se*, could stimulate retailers engagement with sustainability issues in supply chains (BIO Intelligence Service, 2009; Danish EPA, 2010).

Barriers

Globalisation and the complexity of food supply chains resulted from the search for cheap food demanded by consumers; increased competition in the retail sector makes it difficult for supermarkets to introduce, implement, and monitor sustainability improvements in the food supply chains (Smith, 2007). For example, M&S has referred to introducing Global Sourcing Principles as 'an unprecedented challenge: [as the company has to work] with a geographically dispersed network of suppliers and subcontractors in developing countries – where ... insufficient government enforcement of local labour and environmental legislation are prevalent' (Johnson, 2004, p. 5).

In addition, 'consumer interests in "product quality attributes" or "extended product quality" derived from more sustainable production is insufficient to justify the higher supply chain costs' (Smith, 2007, p. 851) especially as consumers' willingness to pay the extra price for eco-labelled products is low. When faced with the choice between environmental quality and price, the latter appears to be a somewhat more important factor (European Commission, 2009). Furthermore, the proliferation of eco-labels on the market leads to consumers' confusion and hence inability to 'easily recognize quality goods' (Canavari *et al.*, 2009, p.8) which reduces their willingness to pay a price premium and to make a purchase (BIO Intelligence Service, 2009; ACR, 2010).

Social Factors

Social factors derive from society, NGO, media, academia, and court pressure. They include values and expectations of these community actors.

Drivers

Studies of political consumerism demonstrate the emergence of the 'ethical' consumers who view their shopping choices as an exercise of political power and moral responsibility (Boström *et al.*, 2005). Critical consumer pressure in the form of food scares and product boycotts is an important driver for retailers to address sustainability issues (Ytterhus *et al.*, 1999; Piacentini *et al.*, 2000; Smith, 2007). In Germany, a number of food scandals, for example BSE (Bovine spongiform encephalopathy) and pesticide residues in fruit and vegetables, led to the introduction of green products in the assortment and development of private eco-brands among mainstream supermarkets (Knickel *et al.*, 2005).

Another driver for sustainability in retailing is active NGO movements. For instance, Hall (2001, p. 114) has concluded that Sainsbury's sustainability strategy focuses on 'high-profile issues that drew the attention of environmental advocacy groups'. Furthermore, development of evaluation and ranking schemes for supermarkets by Greenpeace and Marine Conservation Society resulted in removing certain species of fish from retailer shelves (Roheim and Sutinen, 2006).

Negative publicity in media, for example, documentary films such as the *Dark side of chocolate*, and *Pineapples: Luxury fruit at what price* (The Danish Consumer Council, 2010) and NGO's press, for example, 'The story behind the pineapples sold on our supermarket shelves: A case study of Costa Rica' (Banana Link, 2011), drives retailers to bring the social impacts of food production in developing countries on to their agenda.

The most extreme civic driver for retailers to account for social concerns in food supply chains is their fear that they will be brought to court due to socially irresponsible behaviour. For instance, in 2002 some international retail chains in developing countries were brought to court due to exploitive, abusive, and unfair treating of suppliers in Thailand (Just-Food, 2002).

Another driver for food retailers to further develop sustainable supply chains is scientific alerts as they assist retailers in prioritising and designing sustainability strategies (Jones *et al.*, 2008). For instance, British retailer M&S has employed fisheries scientists to elaborate on seafood procurement policies (Greenpeace, 2006).

Barriers

Obviously, the implementation of sustainability initiatives in the retail industry 'depends largely on the response and participation of consumers' (ACR, 2010, p.6). One of the main barriers for retailers is insufficient consumer interest and awareness of sustainability issues (SDC, 2005). In this time of economic recession even ethical consumers are lacking commitment (Anstey, 2009).

In addition to insufficient consumer interest in sustainable products, there are also concerns among the public that sustainability issues might be a socially constructed phenomenon rather than a reality. These concerns arise as NGO campaigns often target issues that are not necessarily the most environmentally or socially problematic, but that are likely to resonate with people thereby gaining their support (Hall, 2001).

The lack of a scientific evidence base and an agreed methodology on how to balance various environmental and social aspects and prioritise among sustainability improvements represents another barrier for retailers to engage with sustainability strategies in supply chain (Jones *et al.*, 2008; Danish EPA, 2010; ETC./SCP, 2010). To overcome this challenge, the European Retail Round Table (ERRT) was established in 2009 with the aim of facilitating the development of a common approach and framework to support decision-making in the retail industry (ERRT, 2010a).

Empirical Evidence from Food Retailers

In the previous section, drivers and barriers for retailers to initiate sustainability work in supply chains reported in the literature have been outlined following a typology. This section presents empirical evidence on drivers and barriers collected from food retailers, with a primary focus on Swedish supermarkets.

Regulatory Factors

Drivers

The majority of the interviewed food retailers confirmed that legislation, for example, food safety standards, waste and energy regulation, the Restriction of Hazardous Substances Directive (RoHS), and the Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), drive the development of waste and energy management schemes and delisting of certain ingredients and chemicals from products (pers. comms: Domej, 2011; Manager, 2011a²; Robertsson, 2011). Existing EU labelling rules place responsibility on food retailers to ensure that food labels are used correctly, i.e. do not mislead consumers by claiming characteristics that food products do not possess. In Sweden, national labelling provisions have triggered retailers to engage in discussion with the government and service-providers to verify food claims and ensure that product labelling is awarded in accordance with regulatory provisions of sourcing countries, in particular for private brand products (Smith, 2011, pers. comm.).

Although, the expectation of carbon management regulation was not mentioned by retailers during interviews, Swedish supermarket ICA has clearly expressed this concern in its annual Group's report (ICA Group, 2010, p. 17): 'Society's growing awareness of climate change is likely to result in new laws and regulations, which in turn affect our operations financially and physically. We continuously monitor these issues so that we are ready to quickly adapt.'

Barriers

The majority of interviewed retailers mentioned legislation as a clear signal from authority for sustainability action. However, one of the respondents saw legislation rather as a 'must' than a driver and an 'opportunity' to innovate (Smith, 2011, pers. comm.). This confirms data from the literature that coercive legislation is perceived or may indeed potentially decrease market competitiveness and the desire of retail industry to eco-innovate (Forum for the Future, 2009).

At the same time, a lack of governmental initiatives to harmonise existing labelling requirements has been highlighted as an important constraint to implementing sustainability in supply chains and to effectively communicating the sustainability qualities to consumers (pers. comms: Smith, 2011, Nilsson, 2012).

The barrier to addressing sustainability issues in the supply chain associated with the conflict of interests between product sustainability policies and free trade provisions was also mentioned in the interviews. One of the respondents confirmed that collaborative retailer effort to place higher sustainability requirements on suppliers could clash with the interests of national anti-competition policy (Clark, 2011, pers. comm.).

Resource Factors

Drivers

The interviewed retailers confirmed that cost savings are considered as one of the most effective drivers to implement the sustainability strategies in supply chains. Specifically, cost savings from a number of sustainability initiatives underpinned by operational and resource efficiency rationale were mentioned: logistic improvements, material, water and energy efficiency, and reduction of waste and packaging volumes (pers. comms: Domej, 2011, Robertsson, 2011, Smith, 2011). Even when a sustainability initiative is not purely driven by resource optimisation, finding a 'business-case' argument was of particular importance in order to justify sustainability policies to shareholders and gain top management support (pers comms: Clark, 2011, Smith, 2011).

The majority of interviewed retailers also mentioned the maintenance of private brand value and reputation among customers and employees as a driver to engage with sustainability issues in supply chains. Supermarkets introduce private eco-brands, for example, 'I love eco' (ICA) and 'Änglamark' (Coop), 'Garant' and 'Aware' (Axfood), as a means of building brand image, gaining customer confidence, and providing cheaper eco-products (pers. comms: Clark, 2011; Domej, 2011; Manager, 2011a; Robertsson, 2011; Smith, 2011). 'Our customers would like us to have a more sustainable profile, so it is good for our brands. Also, it is good for employer branding: people working for the company feel proud to work for such an organization, and it is easier to recruit new people if the company has a good reputation' (Domej, 2011, pers. comm.).

²Reference to Manager because respondent preferred to stay anonymous

An additional important driver – securing long-term product supply – was mentioned by the Ahold Group, which the ICA supermarket is part of. Ahold claimed that its engagement in sustainable fish sourcing policies is driven by the desire to maintain and secure a long-term seafood supply (Ahold, 2011).

Barriers

The substantial investments required to address a number of sustainability concerns in the supply chain represent one of the bottlenecks for retail businesses, especially the significant input of time and financial resources during environmental audits (Smith, 2011, pers. comm.), when developing environmental evaluations of different product categories (Domej, 2011, pers. comm.), and when high-level engagement with suppliers is required to address production-related sustainability impacts (Clark, 2011, pers. comm.). A higher level of engagement was mentioned in relation to suppliers of own brand rather than other brand producers. One of the reasons for exerting more control over the sustainability performance of own brands was the shared ownership rights over the eventual product: 'There is more control over private brands as we put our label on the product' (Manager, 2011b, pers. comm.).

In some cases retailers might lack not only financial resources, but also the power to influence their suppliers' practices. Lack of power was highlighted both in relation to large national brand suppliers and suppliers for whom trade with a particular retailer represents only few percent of their total business volume (pers. comms: Dahlberg, 2011, Domej, 2011, Nilsson, 2011, Smith, 2011). For instance, Waitrose sources only sustainable tuna for its own brand, but does not 'stop purchasing products of national brands if they fall short of standards developed by Waitrose's CSR department' (Clark, 2011, pers. comm.).

Along with financial and power issues, the availability of sustainable products on the supplier market was mentioned by some Swedish and British retailers as one of the challenges to further expanding sustainable sourcing with regard to particular products, for example, fair-trade coffee and sustainably certified farmed salmon (pers. comms: Domej, 2011, Nilsson, 2011). Supply availability is typically linked to price, i.e. low availability is followed by higher prices.

In addition to availability issues, a few supermarkets referred to the quality of sustainable supply as one of the challenges in sustainable sourcing. One supermarket explicitly mentioned the lack of top quality organic and fair-trade products, highlighting the importance of aligning quality with sustainability issues to further promote sustainable food (Clark, 2011, pers. comm.). Another retailer mentioned the challenge of shorter shelf life and higher levels of exposure to any external mechanical damage, for example, during transportation of organic fruits and vegetables (Manager, 2011b, pers. comm.).

Additionally, lack of technical competences such as in-depth knowledge about food production processes and food recipes was highlighted as one of the barriers for retailers to develop sustainable supply chain initiatives (Robertsson, 2011, pers. comm.).

Market Factors

Drivers

Market demand was mentioned as one of the main drivers to develop sustainability strategies in food supply chains and provide assortment of eco-products (pers. comms: Dahlberg, 2011; Domej, 2011; Galliano, 2011; Robertsson, 2011). In the case of COOP, the supermarket chain owned by a consumer cooperative, 'launching sustainability policies is very much consumer-driven' (Dahlberg, 2011, pers. comm.).

Established third-party certification schemes, such as KRAV (Swedish organic), MSC (Marine Stewardship Council), and Fair Trade, help retailers outsource the critical tasks of ensuring and verifying compliance with sustainability standards in supply chains and help communicate sustainability qualities to the end-consumers through familiar labelling schemes (pers. comms: Dahlberg, 2011, Domej, 2011, Smith, 2011). Third-party certification is of particular relevance for small shops that lack the resources to develop supplier screening and auditing competences internally (pers. comms: Bergenholtz, 2011; Galliano, 2011).

Some retailers additionally acknowledged that joining various multistakeholder initiatives, for example the Roundtable on Sustainable Palm and Responsible Soy, helps develop markets for sustainable products and assists in setting the standards for sustainable sourcing in areas where these standards are currently missing (Dahlberg, 2011, pers. comm.).

Changing supplier's expectations towards more responsible production practices also influences retailers. For instance, some purchasing managers in Sweden and the UK referred to situations where supermarkets had to accept

the supplier's sustainability code of conduct of even higher standards than those outlined in the retailer's own sustainability policies (pers. comms: Clark, 2011, Domej, 2011).

Barriers

Higher prices for some sustainable products, for example, organic and Fair Trade, result in insufficient levels of consumer demand for 'green' food and were mentioned by retailers interviewed as one of the major constraints to expanding the assortment of sustainable products (pers. comms: Dahlberg, 2011; Domej, 2011; Manager, 2011b; Nilsson, 2011; Robertsson, 2011). For instance, one of the respondents highlighted: 'As long as consumers are not interested in buying organic, we are not going to sell it' (Manager, 2011b, pers. comm.). The price issue is a particular challenge for the discount store to increase the range of sustainable assortment since its customer base is predominantly concerned with the value of money rather than food sustainability (pers. comms: Domej, 2011; Manager, 2011a).

The risk of losing the customer base and therefore income prevents retailers undertaking certain sustainability strategies, such as removal of unsustainable products from the retailer assortment. Axfood stated that removal of certain products might lead to weakened competitive position on the market as customers might start buying missing products at the competitor's store (Domej, 2011, pers. comm.).

Another market constraint highlighted by the interviewed retailers is that established business relationships may slow down the implementation of sustainable initiatives. For instance, it took Coop about 10 years to change supplier practices in order to be able to source only free-range eggs. 'We have responsibility to producers with whom we have worked for a long time. They are good and reliable producers, delivering high quality goods. We cannot just drop them because they cannot immediately provide the desired sustainable products' (Robertsson, 2011, pers. comm.).

The lack of a harmonised approach to labelling was confirmed as an additional market barrier to promoting sales of sustainable food products. In this regard retailers referred to the customer's confusion about the high number of diverse certification schemes, addressing various distinct rather than aggregate sustainability impacts (Smith, 2011, pers. comm.).

Social Factors

Drivers

Food scares regarding pesticide residues and various unhealthy ingredients have resulted in cautious measures by some Swedish and British retailers to phase out a number of artificial colours and flavours in products and to control the amount of pesticides used in production. In the case of chemical residues in fruit and vegetables, the high level of customer awareness has resulted in active measures by some food retailers to exceed the regulatory requirements in order to gain customer trust, confidence, and loyalty (pers. comms: Robertsson, 2011; Manager, 2011b).

With sustainable fish being a topic of hot public debate and NGO attention, the majority of interviewed food retailers are now actively engaged in the development and implementation of sustainable fishing policies (pers. comms: Smith, 2011, Dahlberg, 2011, Domej, 2011). Swedish retailers put higher requirements on the fish industry regarding sourcing practices and origins of the fish and remove red-listed species from their assortment. Collaboration with NGOs, for example Nature Protection Organization (Naturskyddsforeningen), WWF, and Greenpeace, on developing sustainable fish sourcing was identified as an important driver (pers. comms: Smith, 2011, Domej, 2011).

Increased media attention to environmental and social aspects of production practices, especially when it comes to sourcing fruit from developing countries, also triggered retailers to address a number of issues, such as the health of local ecosystems and communities, labour conditions, fair wages, etc. Bananas have been topic of wide public debate, and recent media attention, for example, the 'Bananas' documentary, has further contributed to retailers' sustainability action. ICA has brought the sustainability concerns of sourcing tropical fruit from South Africa onto the agenda of the annual stakeholder meeting in 2010 (ICA Group, 2010).

The role of scientific alerts has also been acknowledged by Swedish and British retailers. For example, scientific evidences on life-cycle impacts of food products provide guidance for retailers' sustainability actions in supply chains (pers. comms: Domej, 2011, Smith, 2011, Clark, 2011).

Barriers

Two social barriers for retailers to developing sustainability strategies in supply chains were identified by the interviewed companies. The first one highlights the fact that not all consumers are interested in or aware of the environmental and social impacts of food (pers. comms: Robertsson, 2011, Dahlberg, 2011, Domej, 2011).

The second challenge is associated with the difficulty of defining what a sustainable strategy or a sustainable product is: 'On the one hand, there is organic issue, but on the other hand when you are talking about carbon footprint agenda, the organic is carbon intensive. The challenge is to define what is sustainable, how relevant and urgent the issue is, and whether it is just a fashionable fact or true sustainability' (Clark, 2011, pers. comm.).

Analysis and Discussion

Confirmed and New Factors

Our empirical findings have confirmed the majority of drivers and barriers for retailer's sustainable supply chain initiatives accounted for in the literature (Table 1). From the literature review and interviews with food retailers it became clear that external institutional demands would likely transcend into corporate engagement with sustainable supply chain strategies once these demands become either critical for the retail operations – for example presence or threat of legislation, consumer food scares and NGOs attention – or would be perceived by retailers as a business case of generating tangible (cost-savings and increased sales) and intangible (brand image and reputation) benefits. Therefore, food retail sustainability initiatives in supply chains could be largely explained as an approach to manage corporate risks and thereby retain competitive position, i.e. compliance strategy, or an opportunity-driven approach to gaining additional competitive advantage on the market.

At the same time, the following barriers have been mentioned in literature and interviews with food retailers as major challenges to implementing supply chain sustainability: higher prices for sustainable products, lack of financial resources and knowledge about sustainability issues, and customer confusion due to the high number of labelling schemes along with a lack of governmental leadership to harmonise labelling requirements.

A number of additional drivers and barriers have also been identified (Table 1). Among the additional drivers for Swedish and British food retailers is increasing sustainability expectations among suppliers (industry forerunners), implying that pressure for greening agri-food systems might also occur upstream in supply chains. Some retailers have also explained sustainability initiatives as a strategic approach to managing high risk supply, for example fish resources, thereby ensuring a stable supply in the future. Additionally, the reputation of being 'good employer' has been highlighted as one of the reasons for sustainability initiatives.

When it comes to barriers, the lack of availability and the inadequate quality of sustainable supply with regard to some product categories, the risk of weakened competitive position in case of removing unsustainable products from the assortment, the tradition of established supplier relationships, and the lack of power to influence the production practices of national brand suppliers have been identified as additional challenges for Swedish and British retailers in realising sustainable food supply chains.

A number of factors accounted for in the literature have not been confirmed by the empirical evidence from the interviewed food retailers (Table 1). Among the unconfirmed drivers are increased investor appeal and retail awards, which were perceived by the interviewed companies as an outcome rather than an incentive to launch sustainability initiatives. Additionally, competitors' strategies and fear being brought to court for some violation or poor conduct were not mentioned in interviews.

Among the unconfirmed barriers is the lack of governmental leadership to set up a framework that would outline the responsibility of retailers and provide clear guidance on how sustainability initiatives may be initiated and implemented. Another barrier, namely the complex configuration of supply chains, was not mentioned in interviews.

Relative Importance of Drivers and Barriers for Supply Chain Sustainability Initiatives

The reviewed drivers and barriers have various implications for supply chain responsibility since they influence performance in different parts of the supply chain. The importance of various factors in relation to upstream, in-store, or downstream sustainability initiatives is discussed in this section and the main issues are summarised in Table 2.

Driver/barrier	Confirmed	Additionally identified	Not confirmed
Regulatory drivers	- Existing national and international regulations (15) - Expectation of new regulations (2)		
Regulatory barriers	- Lack of governmental initiative to harmonize labeling requirements (10) - Regulation per se as a hinder to innovate (1) - Conflict of interests between product sustainability policy and free trade provisions (1) - Cost savings associated with operational & material efficiencies (20) - Brand and reputation (16) - Lack of financial resources (14) - Lack of knowledge and expertise (10)	- Managing high risk product supply, e.g. depleting fish stocks (2) - Reputation as good employer (1) - Lack of power over suppliers (8) - Lack of availability of sustainable supply (8) - Lack of high quality sustainable supply (5) - Supplier sustainability values (5)	Lack of governmental leadership in outlining the vision for sustainability and responsibilities of food retailers
Resource drivers		Managing high risk product supply, e.g. depleting fish stocks (2)	Increased investor appeal
Resource barriers	- Customer demand and expectations (20) - Industrial norms (standards and voluntary industry agreements) (9) - Higher prices for sustainable products (20)	Tradition of established supplier relationships (2)	- Retail awards by third-party organizations - Competitors' strategies
Market drivers	Customer confusions due to high number of labeling schemes (13)	Risk of weakened competitive position due to losing customers in case of removal of unsustainable products (1)	
Market barriers	- Food scares regarding GMOs, pesticide use etc. (14) - NGOs campaigns (7) - Risk of negative publicity (4) - Scientific alerts (4) - Lack of consumer awareness & interest about sustainability (7) - Lack of scientific framework to identify the most profound sustainability impacts (5)		Bringing retail company to court
Social drivers			
Social barriers			

Table 1. Drivers and barriers to implement sustainability initiatives by supermarkets

^aNumber in brackets indicates number of interviews during which the listed drivers and barriers have been confirmed.

Sustainability initiatives	Drivers	Barriers
IN-STORE -improving internal operational efficiencies	<i>Regulatory:</i> • Waste, energy legislation <i>Resource:</i> • Cost-savings associated with operational efficiencies • Reputation as good employer	<i>Resource:</i> • Lack of financial resources
UPSTREAM -developing sustainable supply	<i>Regulatory:</i> • Food safety and labeling requirements • Expectation of new regulation, e.g. carbon labeling <i>Resource:</i> • Cost-saving associated with material efficiencies, e.g. in regards to packaging and eco-design initiatives • Managing high risk product supply, e.g. depleting fish stocks • Brand and reputation • Increased investor appeal <i>Market:</i> • Supplier sustainability values • Industrial norms (standards and voluntary industry agreements) <i>Social:</i> • NGOs campaigns • Risk of negative publicity • Scientific alerts on what issues in supply chain should be prioritized • Bringing retail company to court, e.g. due to abusive practices of treating suppliers	<i>Regulatory:</i> • Conflict of interests between product sustainability policy and free trade provisions • Lack of governmental leadership in outlining the vision for sustainability and responsibilities of food retailers • Lack of governmental initiative to harmonize labeling requirements <i>Resource:</i> • Lack of financial resources • Lack of knowledge and expertise • Lack of power over suppliers <i>Market:</i> • Complexity of supply chain configuration • Higher prices for sustainable products • Tradition of established supplier relationships <i>Social:</i> • Lack of scientific framework to identify the most profound sustainability impacts
DOWNSTREAM -provision of sustainable alternative and removal of unsustainable products from assortment	<i>Market:</i> • Customer demand and expectations • Competitors' strategies <i>Social:</i> • Food scares regarding GMOs, pesticide use etc.	<i>Market:</i> • Higher prices for sustainable products • Customer confusions due to high number of labeling schemes • Risk of weakened competitive position due to losing customers in case of removal of unsustainable products <i>Resource:</i> • Lack of availability of sustainable supply • Lack of high quality sustainable supply <i>Social:</i> • Lack of consumer awareness & interest about sustainability

Table 2. Relative importance of drivers and barriers for supply chain sustainability initiatives

Factors for In-store Sustainability

Nowadays most retailers focus on addressing direct environmental impacts by improving efficiency of internal operations, including energy and water efficiency measures, logistics, and waste management activities. These efforts are mainly driven by resource factors (financial savings and material efficiency) and regulatory requirements (waste and energy legislation). At the same time, lack of financial resources might prevent retailers from installing costly green technologies, for example, PV panels (BIO Intelligence Service, 2009).

Factors for Upstream Sustainability

Upstream sustainability initiatives are driven by multiple regulatory, resource, market, and social factors. Regulations that place responsibility on retailers for upstream supply chains are rather exceptional, for example food labelling requirements. There is an opportunity for better governmental engagement in stimulating more sustainable supply chains. For example, policy changes are needed to resolve the conflict between product sustainability policy and free trade provisions.

In terms of resource factors, the cost-saving potential associated with material efficiency influences sustainability improvements in the upstream supply chain primarily with regard to decreasing the product packaging. Managing resource availability in the future has been mentioned as a reason to implement sustainable fishing policies. Brand reputation and corporate image have influenced the development of private eco-brands. At the same time, a lack of resources such as financial assets, knowledge of manufacturing processes, and expertise in sustainability issues inhibits upstream sustainability efforts such as incentivising and monitoring the supplier sustainability performance. Furthermore, some retailers have referred to the limited power to encourage suppliers to provide sustainable products.

The role of market factors in influencing retailers to address sustainability in upstream supply chains is also important. Multi-industrial forums and industry associations serve as arenas for discussing sustainability challenges, harmonising sourcing requirements, and sharing best practices. Established sustainability standards and certification organisations are also important market institutions that facilitate verification and compliance assurance in complex and geographically dispersed supply chain networks. Among the major challenges for retailers investing in the development of sustainable supply is the insufficient level of consumer demand due to high prices for eco-labelled products.

Social pressure in the form of NGOs and media attention to retail sourcing practices and hence the risk of negative publicity have created a case for supermarkets to develop responsible sourcing codes, invest in local community programmes, ensure fair treatment of suppliers, and monitor compliance particularly in high-risk regions in developing countries. Among the social factors that inhibit the retail sustainability action in upstream supply chains is a lack of commonly accepted methodologies for quantifying and prioritising sustainability impacts.

Factors for Downstream Sustainability

Market and social factors are of primary importance in triggering retail downstream initiatives, such as inclusion of sustainable alternatives in the product assortment and removal of unsustainable products from the retailers' shelves. The major market driver for such initiatives is customer demand and thereby the potential of increased sales due to green product differentiation. At the same time, higher prices for sustainable products, lack of availability, and insufficient quality of some green products are examples of barriers to increasing the share of sustainable products in the overall assortment. Applying price correction schemes for sustainable products was mentioned only by one retailer (COOP) but it is not applied systematically in every product category and generally perceived as an undesirable practice by the rest of the retailers interviewed.

Proactive downstream strategies in the form of removing unsustainable products, i.e. choice editing, are applied only to certain products or product ingredients – for example, red-listed fish species, GMOs, artificial flavours and colours – and are triggered by a number of critical social factors such as consumer food scares or extreme cases of NGO pressure, for example sustainable fish campaigns launched by the WWF. At the same time, phasing out unsustainable products in other product categories is perceived as problematic as customers may switch to other retailers in search of the traditional products.

Beyond the Driver-barrier Dichotomy: The Implications of 'Saliency' for Supply Chain Responsibility

Empirical findings illustrated the diversity of the institutional factors that shape a sustainability agenda in the retail industry making the prioritisation of various initiatives a challenging task.

However, not every institutional demand would be a sufficient motivator for sustainability initiatives (pers. comms: Clark, 2011; Robertsson, 2011). Three attributes of institutional factors define the criticality of sustainability demands and therefore the likelihood of implementing sustainability initiatives. These include validity of claims, degree of pressure, and degree of power that describe the nature of relationships between retailers and those actors that exert sustainability demands on retail organisation (pers. comms: Clark, 2011, Robertsson, 2011; Domej, 2011).

The identified attributes resonate well with three aspects of salience – legitimacy, urgency, and power – that were identified in stakeholder theory (Mitchell *et al.*, 1997). The application of the stakeholder theory to the field of supply chain management is new, especially for understanding the roots of corporate supply chain responsibility. This brings a new perspective to understanding the factors that trigger the adoption of sustainability initiatives by retailers. Interestingly, these factors are beyond the trivial driver-barrier dichotomy and hence we propose an update to the framework of drivers and barriers introduced in Figure 1. An updated framework (Figure 2) accounts for additional perspectives – salience characteristics of institutional factors – namely legitimacy, power, and urgency, which influence retailers' decisions to respond to institutional pressure and engage with sustainability strategies in supply chains.

Future research is needed to further assess the power, urgency, and legitimacy of identified institutional demands from the perspective of the food retail industry, as well as other actors involved in the functioning of supply chain networks. This would bring new perspectives on understanding the motives and constraints that underpin retail actions to implement supply chain sustainability.

Conclusions and Recommendations

This paper provides a systematised overview of drivers and barriers for food retailers, with a primary focus on Swedish supermarkets, to launch sustainable supply chain initiatives. It contributes to the existing body of academic literature by:

- Developing a taxonomy of drivers and barriers drawing on Hoffman's framework (regulatory, resource, market and social) and analysing their relative importance for upstream, in-store and down-stream sustainability initiatives.
- Filling the gap created by the lack of empirical evidence on drivers and barriers from the food retailer's own perspective.
- Identifying a number of additional drivers and barriers not yet mentioned in the literature.
- Outlining the 'salience' attributes of institutional factors that define the criticality of sustainability demands and therefore the likelihood of implementing sustainability initiatives in supply chains. These findings are beyond the driver-barrier dichotomy and imply that institutional pressure as such is not a strong motivator for sustainability action, unless it is accompanied by the attributes of legitimacy, power, and urgency.

Recent research revealed that provision and promotion of more sustainable products is likely to influence more sustainable consumer's choices (Koos, 2011; European Commission, 2011a). Moreover, consumers themselves report that they expect retailers to direct their choices by stocking the 'right' products on the shelves (Ipsos MORI, 2008). Therefore, the primary challenge to facilitating more sustainable food supply chains might lie not only in passive measures of raising consumer awareness, but in proactive strategies to increase the availability of sustainable products.

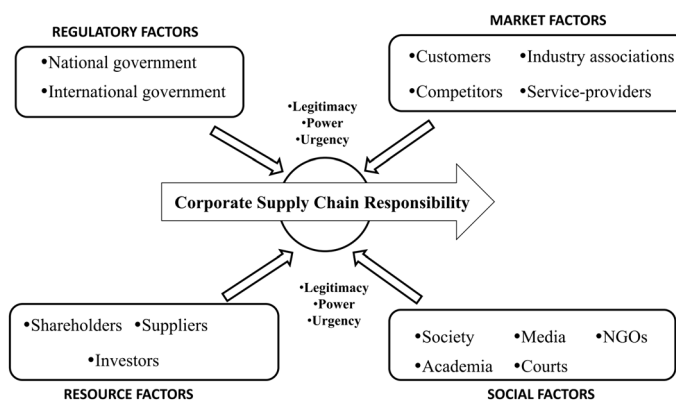


Figure 2. Roots of corporate supply chain responsibility in food retail sector: beyond the driver-barrier dichotomy

The overview provided of factors that influence the launch of sustainability initiatives illustrates that retailers face a number of structural challenges to greening their products and associated manufacturing processes. The complexity of supply chains and the lack of power, knowledge and resources at the disposal of individual retail companies represent significant challenges to encouraging the production of more sustainable products. Hence, retailers' unilateral actions are unlikely to achieve supply chain sustainability; the support of policymakers is needed to increase retailers' legitimacy and power to exercise influence over supply chains.

The following recommendations are suggested to overcome the major barriers and stimulate implementation of supply chain responsibility:

- *Provision of financial incentives for green products by retailers and governments.* Reducing the price difference between sustainable and conventional products would stimulate consumer demand for 'green' food and therefore help overcome the barrier associated with a lack of business case for retailers to invest in greening a supplier's products and operations. Retailers might subsidise 'green' products – a practice that is rather exceptional and unsystematic among the Swedish supermarkets – while governmental support might be realised in the form of adjusting VAT rates depending on environmental performance of products or applying tax exemptions for eco-labelled products (Danish EPA, 2010).
- *Governmental initiatives to support sustainable production.* The overview of barriers provided – for example, lack of power over suppliers and lack of resources to engage with suppliers to improve their sustainability performance – implies that in some cases retailers possess limited capability to influence the sustainability of supplier practices. Support of national and global government is required in the institutionalisation of conditions for sustainable production, for example by establishing National Action Plans (Danish EPA, 2010) and facilitating multistakeholder dialogue to scale up global production and trade in sustainable commodities (UNDP, 2009). Green Commodity Facility was launched in 2009 by the United Nations Development Programme. It aims to connect multiple actors in global supply chains with the purpose of incentivizing and enabling countries 'to institutionalize sustainable standards, service delivery systems and policies required for long-term, mainstream and sustainable commodity production' (UNDP, 2009).
- *Collaboration and strategic alliances among retailers on sustainability matters.* Development of sustainable agri-food chains by the efforts of individual organisations is highly unlikely, but collaborative opportunities have not yet been realised among Swedish retailers and are perceived rather as a threat to competitive advantage. At the same time, collaboration between retailers on a number of sustainability matters could offer many potential advantages – for example, discussion of implementation challenges, unifying the sustainability requirements to gain cumulative power and enforce higher levels of sustainability compliance over large players in processing industry, and lobbying the sustainability agenda in political forums and hence helping to overcome the conflict of interests between sustainability and political goals.
- *Provision of complementary services such as an information database on life-cycle sustainability impacts and suppliers sustainability performance.* Developing assessment methodologies for ranking products regarding sustainability impacts and auditing suppliers to monitor their sustainability compliance are important actions for implementing supply chain responsibility. At the same time, Swedish retailers have often referred to a lack of organisational resources and competences to conduct these activities systematically. Creating information databases supported by unified methodology and scientific evidence could reduce the costs associated with greening food supply chains. Some steps have already been taken by policymakers in this direction. For instance, the SEDEX³ platform was created for sharing ethical supply chain data and the International Reference Life Cycle Data system was officially launched in 2010 (although some relevant data on food product sustainability impacts are still missing) (ERRT, 2010a).
- *Support in establishing sustainability standards and benchmarks by policymakers.* Sustainability standards play an important role in the implementation of supply chain sustainability, not only by increasing transparency of information to end-consumers, but also by supporting the legitimacy and enhancing the power of retailers to exert sustainability requirements on suppliers. Furthermore, sustainable standards relieve retail organisations of investing in the development of sustainability criteria and the further policing of compliance, which allows the overcoming of

³Supplier Ethical Data Exchange

resource barriers – for example, the high costs associated with greening the upstream supply chain. While diversity of labels in terms of the stringency of sustainability standards might have positive implications since it allows the enhancing of sustainability to the extent possible by retail organisations (at minimum or beyond the minimum level of compliance), divergence in national sustainability requirements and hence labelling schemes, impose implementation difficulties on global supply chains (ERRT, 2010b). In this regard policymakers might help to overcome these difficulties by establishing minimum sustainability benchmarks and a unified logo, as in the case with EU organic legislation and the ‘Euro Leaf’ label.

- *Further research on issues of retail supply chain responsibility.* Further research is required to understand the relative importance of drivers and barriers and their implications for sustainable supply chain strategies, which would likely differ for various types of retail organisations, depending on the types of retail business model. Additionally, thorough research on sustainability initiatives implemented by leading food retailers in Europe is needed. While existing academic literature draws on some examples of retailer sustainability initiatives in food supply chains (Johnson, 2004; Jones *et al.*, 2005b), the broad landscape of these initiatives has not yet been systematised and analysed on the basis of the level of their implementation. Research on how various sustainability initiatives are widespread among European food retailers would provide important empirical insights into retailers sustainability work and allow assessment of where the actual challenges to developing more sustainable food supply chains lie.

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