

**RETAIL CHAINS' CORPORATE SOCIAL RESPONSIBILITY
COMMUNICATION**

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Abstract: This study examines determinants of retail chains' corporate social responsibility (CSR) communication on their web pages. The theoretical foundation for the study is signaling theory, which suggests that firms will communicate about their CSR efforts when this is profitable for them and when such communication makes it possible for outsiders to distinguish good from bad performers. Based on this theory I develop hypotheses about retail chains' CSR signaling. The hypotheses are tested in a sample of 208 retail chains in the Norwegian market. As hypothesized, I find that foreign chains, chains using private brands, and vertically integrated chains are more likely to signal, but I find no relationship between pricing and signaling. In further analysis using chains' CSR memberships and certifications as the measure of signals, only the relationship between organizational form and signaling is replicated. In total, the findings give partial support to signaling theory.

Keywords: Corporate social responsibility, communication, retail, web pages, signaling theory, franchising.

INTRODUCTION

What determines whether and how much a retail chain communicates about its corporate social responsibility (CSR) activities and results? Retail chains, like firms in other sectors, have for decades communicated about their social and environmental initiatives, but there is evidence that such communication has increased during the last years (Campbell, 2004; Deegan, 2002; Gray, Javad, Power, & Sinclair, 2001). While some CSR communication may be required by law, retail chains are voluntarily communicating more than they are obliged to about their policies and practices on issues such as labor standards in the supply chain (Mamic, 2005), donations to good causes (Amato & Amato, 2012), and the impacts of the products that they sell (Jones, Comfort, & Hillier, 2006).

A large literature has examined the antecedents to firms' CSR communication (da Silva Monteiro & Aibar-Guzmán, 2010; Jones, Comfort, & Hillier, 2007; Tagesson, Blank, Broberg, & Collin, 2009). Different theoretical approaches have been used, but much of the research has been based on legitimacy theory and stakeholder theory (O'Donovan, 2002; Wilmshurst & Frost, 2000; Branco & Rodrigues, 2008, Reverte, 2009). In this study, I develop and test hypotheses based on what has been named the *strategic view* of CSR, which suggests that firms engage in “profit-maximizing” CSR (McWilliams, Siegel, & Wright, 2006; Siegel & Vitaliano, 2007). The relationship between profits and CSR has been much debated, and likely differs between various CSR dimensions. However, meta-studies (Orlitzky et al, 2003; Margolis et al., 2009) and recent empirical studies (Flammer, forthcoming) have found a positive relationship between CSR and profits. Since many of the potential positive effects of CSR depend on outsiders becoming aware of the organization's good CSR performance, this suggests that organizations also will communicate about their CSR initiatives when they

perceive this as profitable.

The theoretical foundation for this study is signaling theory. Signaling theory deals with situations of information asymmetry, where the seller knows more about the quality than the buyer. This is often the case with issues of CSR, where a challenge for outsiders who demand good CSR, such as investors, consumers or NGOs, is to evaluate true firm CSR performance (Connelly, Certo, Ireland, & Reutzel, 2011, Zerbini, forthcoming). In such situations, firms with high levels of performance may have incentives to send signals about their underlying performance, making it easier for interested parties to select or reward them (Bergen, Dutta, & Walker Jr., 1992; Spence, 1973).

Based on signaling theory I develop hypotheses about retail chains' CSR signaling. Firstly, I focus on the benefits of signaling, which are expected to arise for aspects which make performance evaluation particularly important or difficult for outsiders. Such aspects include the use of private brands, which are brands only for sale in the given chain, higher prices, which are not necessarily followed by high performance, and international expansion, since it may be more difficult to evaluate the true performance of foreign firms. Secondly, I focus on the cost of signaling. Retail chains are multi-unit organizations, with the difficulty of coordinating their member stores (Greve, 2003). This difficulty particularly applies to franchised, plural and voluntary chains, where the individual store owner has the right to the profits from their own activities (Michael, 2002). I therefore examine whether the likelihood of signaling vary according to the retail chain's organizational form.

The hypotheses are tested with data about 208 retail chains present in the Norwegian market. These are all, or close to all, chains with more than 10 stores operating in Norway, and

include both small local retail chains and large international chains, across all sectors. As the measure of CSR signaling I use content analysis of the retail chains' web pages. I combine this with data about the chains collected from the web pages and other secondary sources.

This study makes several contributions to the literature on CSR communication. While other studies have used signaling theory in this context (Hossain, Perera, & Rahman, 1995; Ness & Mirza, 1991), further research on CSR communication using signaling theory has been called for (Zerbini, forthcoming), and this study tests novel and more specific hypotheses. Further, existing studies of CSR communication have typically looked at general characteristics of firms such as size, visibility or industry (Fifka, 2011), and studies examining the influence of organizational structure and firm strategy have been called for (Adams, 2002). The determinants of CSR in retail are also important to understand from a societal perspective, since retailers link the final consumers with suppliers and producers, translating consumers' interest for CSR into pressure upstream in the supply chain (Ytterhus, Arnestad, & Lothe, 1999). Large retailers have considerable power in the relationship with its suppliers, sometimes so much that it raises concern about the well-being of other actors (Bloom & Perry, 2001), and it has been suggested that retail chains in practice create their own private standards regarding CSR (Fuchs, Kalfagianni, & Arentsen, 2009).

The paper is structured in the following way. First I present signaling theory and develop hypotheses about how retail chains use CSR signaling. Thereafter I present the methodology, including how the database with the variables was constructed, and the results of regression models used to test the hypotheses. In the final part I discuss the theoretical and managerial implications of the findings.

THEORY AND HYPOTHESES

Signaling theory starts from situations of information asymmetry, where the seller knows more about his or her quality than the potential buyer. In such cases, it may be rational for sellers with good quality to communicate (“signal”) their ability. Some conditions have to be met for this to be the case. The firm with high quality has to be better off from sending the signal, and other firms that do not have the desired quality have to be worse off from sending the signal (Kirmani & Rao, 2000). More formally: When high-quality firms signal, they receive payoff A, and when they do not, they receive payoff B. When low-quality firms signal, they receive payoff C, and when they do not, they receive payoff D. Signaling is a viable strategy for high-quality firms when $A > B$ and $C < D$ (Kirmani & Rao, 2000; Connelly et al., 2011). As a consequence of this, signals have to be costly in the sense that they are more expensive for actors who do not have the required quality than for those who have the required quality (Connelly et al., 2011). A graduate degree, such as an MBA (Master of business administration), can for instance be used as a costly signal of ability, since an MBA will be relatively cheaper for those with intelligence and motivation than those without (Spence, 1973). If this is the case, a “pooling equilibrium” occurs, where high-quality firms send out signals about their performance while low-quality do not (Kirmani & Rao, 2000). Potential customers or other interested outsiders can then infer from the (lack of) signals whether the firm is of (low) high quality.

Following signaling theory, a firm will signal CSR performance when the reward from sending such signal is higher than the cost, and when it is less costly to send such signals for good performers than for bad performers. It may be profitable to signal CSR quality. Meta-studies (Orlitzky et al, 2003; Margolis et al., 2009) and empirical studies suited to uncover

causal relationships (Flammer, 2015, forthcoming) have found a positive relationship between CSR and profits. Many of the potential explanations for this positive relationship depend on key groups being able to observe the firm's CSR quality. Some customers are particularly concerned with CSR performance and reward or punish firms accordingly, through purchases, boycotts or activism (Delmas & Montiel, 2009; Drumwright, 1994; Luo & Bhattacharya, 2006). NGOs frequently follow individual firms or industries with the aim of attracting attention from media or regulators (Huijstee & Glasbergen, 2010; Vachani, Doh, & Teegen, 2009). Many shareholders are concerned with CSR performance, and some screen their portfolios to only include firms that perform acceptably (Renneboog, Ter Horst, & Zhang, 2008). Many dimensions of CSR performance are costly to evaluate (Connelly, Ketchen, & Slater, 2010). Working conditions in factories in developing countries, the environmental consequences of the activities across the supply chain, or whether organic or fair trade products hold what they promise is difficult for outsiders to assess (Jahn, Schramm, & Spiller, 2005). Firms with a good CSR performance can therefore benefit from signaling this to outsiders.

However, for signals to work they have to be costly, and the cost of CSR signals is not always clear. Writing general statements about good intentions on the firm's web pages is cheap, and rational observers will not interpret this as a credible signal. Indeed, there has been concern about so-called greenwashing, where companies communicate about their good performance while in reality being average or worse (Delmas & Burbano, 2011; Laufer, 2003; Ramus & Montiel, 2005). However, other signals, such as information about the firm's actual CSR performance and about the firm's social or environmental certifications (Terlaak & King, 2006), will be more costly to poor than good performers and therefore honest signals. An

environmental certification like the ISO 14000, for instance, presumably costs more for a firm with poor than for a firm with good environmental performance (Bansal & Hunter, 2003; Cañón-de-Francia & Garcés-Ayerbe, 2009; Connelly et al., 2011).

Signaling theory and the closely related agency theory have previously been used to study firms' CSR communication (Belkaoui & Karpik, 1989; Hossain et al., 1995; Ness & Mirza, 1991). Most of these studies as well as studies of CSR communication based on other theories have looked at how general characteristics of firms such as size, visibility or industry influence signaling (Fifka, 2011). The main finding is that large and visible firms are more likely to signal. While this may be consistent with signaling theory since the payoff from signaling may be larger for such firms, there may be other alternative explanations; large firms may for instance be more concerned with maintaining legitimacy (O'Donovan, 2002). To examine the empirical support for signaling theory, more specific hypotheses are needed. In the next sections, I develop such hypotheses in the context of the retail sector.

Private brands

Retail chains decide whether to sell manufacturer brands (also called national brands), private brands (also called private label brands or store brands), or both. Manufacturer brands are controlled by a vendor, and normally for sale in several retail chains. Private brands are controlled by the retailer and normally only for sale in the retailer's chain(s) (Levy & Weitz, 2012). Over the last years the sales of private brands have increased, and private brands now have a considerable market share in supermarkets in the US and Europe (Hyman, Kopf, & Lee, 2009; Kumar & Steenkamp, 2007). Private brands have become popular in food retailing, but retailers in other categories such as clothing and furniture have used private brands for a long time, and successful international retailers such as IKEA, H&M and Zara use almost

only private brands. Retailers use private brands because they can give higher margins, they can give power in the negotiations with manufacturers, and they can give loyalty to the retail chain, as opposed to the manufacturer brand (Ailawadi & Keller, 2004; Kumar & Steenkamp, 2007).

In general, brands can work as signals of unobservable product and firm quality (Kirmani & Rao, 2000). Expensive investments in brands have to be recovered in future sales, and such investments will therefore only be profitable for providers of high quality products (Kirmani & Rao, 2000). Firms with strong brands should therefore be more likely to signal good CSR performance. By connecting the signals to the brands, the signals are more credible, since a CSR problem or crisis will damage the brand. Haddock (2005) found that firms with brand names were more likely to issue environmental reports. In a more comprehensive study of the companies listed on the UK FTSE 250, Haddock-Fraser and Fraser (2008) found that firms that were selling to consumers (B2C) were more likely to report on environmental procedures and performance than firms selling to other firms (B2B). Again they found that firms with brand names were more likely to engage in environmental reporting.

All retail chains are brands themselves (Ailawadi & Keller, 2004), and therefore have incentives to signal CSR performance relative to other firms with less prominent brands. However, among retail chains, those with private brands have even stronger incentives to signal CSR performance. Signaling CSR will not only benefit their chain brand, but also their product brand, which will be associated with good CSR performance since the chain brand is used as a “bond” giving credibility to the signal. It is also possible that the CSR signal works as a signal of general product quality, previous research has found that firms selling experience or credence goods score higher on CSR ratings (Siegel & Vitaliano, 2007). Finally,

the information asymmetry between sellers and buyers may be higher for private brands than manufacturer brands. Private brands are only for sale in one chain, meaning that other resellers do not monitor the CSR performance of the brand, and are in many categories relatively recent developments, thereby lacking a long history with customers. In total, retail chains using private brands should be more likely to signal CSR than those who do not, and the first hypothesis is as follows:

H1: CSR signaling is more likely in retail chains selling private brands than in chains that do not

Low prices

An important variable in a retail chain's strategy is the choice of pricing strategy. Some retailers follow a low-price strategy, where they try to distinguish themselves by offering lower prices than their competitors relative to the quality of the products. Low prices can only be sustained if operations have low costs. This typically includes reducing product and service quality through reducing the size of the assortment, picking cheaper locations, hiring less expensive staff, purchasing from the cheapest suppliers, finding cheaper ways of advertising. The successful German retailer Aldi's strategy has for instance been keeping a limited assortment in simple shops and using relatively large percentage of private label products (Steenkamp & Kumar, 2009). Keeping low prices can be done through everyday low prices or high/low prices, where prices sometimes are above competitors, but where advertising is used to promote frequent sales (Levy & Weitz, 2012). There may be discrepancies between the perception of the consumer and the actual prices, but prices are easy to observe and both price comparisons in media (such as Consumer Reviews or newspapers) and online price comparison services give an overview of prices of retail chains.

Prices may also work as a signal for the underlying quality of the products and retail chains (Kirmani & Rao, 2000). A high price signals that a product has high quality, since customers looking for high quality will only repurchase the product if the quality turns out to be good. Previous research has shown that consumers make inferences about quality based on product prices (Rao & Monroe, 1989), even if such inferences are not always warranted (Zeithaml, 1988). When consumers associate low quality with low prices, it is more important for high quality producers to signal high quality. A low price credibly signals low quality, but a high price is not always a credible signal for good quality (Lancaster, 1981; Siegel & Vitaliano, 2007). Several empirical studies have shown that consumers are willing to pay a higher price for products if they know that they come from a firm with good corporate social responsibility (Elfenbein & McManus, 2010; Ferreira, Avila, & Faria, 2010). If the firm's CSR is seen as part of the firm or product quality for at least a segment of customers, firms with lower prices should be less likely to signal CSR. The second hypothesis is the following:

H2: CSR signaling is less likely in retail chains with a low-price strategy than in other chains

Foreign origin

Increasingly, retail chains are international firms with operations in several countries (Gielens & Dekimpe, 2001; Gripsrud & Benito, 2005). For outsiders, it may be more difficult to establish the true performance if the firm is located abroad. The cost of measuring performance increases since the observer has to invest in understanding the local legislation and cultural and institutional surroundings, since operations take place in another language and currency, and since travel costs are greater. Previous research has found empirical support for the effects of physical (Kalnins & Lafontaine, 2013) and cultural distance on the costs of

doing business (Roth & O'Donnell, 1996; Shenkar, 2001). Foreign retail chains with high CSR performance therefore have an extra incentive to signal their CSR performance to the local market. Such signals reduce the costs of measuring the performance for outsiders and can compensate for the general handicap of being foreign. It may even be that a signal from a foreign firm is particularly efficient, at least under some conditions, as the principal may perceive it as costlier and therefore honest.

Several previous studies have included foreign listing or ownership in their models. The empirical findings have been mixed; some have found positive effects (Hackston & Milne, 1996; Hossain et al., 1995) while others have not found any effects (da Silva Monteiro & Aibar-Guzmán, 2010; Llena, Moneva, & Hernandez, 2007). Theoretically, foreign chains should be more likely to signal CSR performance, and the third hypothesis is the following:

H3: CSR signaling is more likely for foreign chains than domestic chains

Organizational form

Retail chains vary in their organizational form. The two most common forms are vertically integrated chains, where the shops are owned by the chain, and franchised chains, where the shops are owned by a franchisee who rents the right to the brand name and business system from a franchisor (Brickley & Dark, 1987). Many chains use a combination of these forms, often called the plural form (Bradach, 1997; Bradach & Eccles, 1989). Some chains are voluntary chains, which are loosely organized retailers where the central organization has a smaller degree of control. Voluntary chains are typically formed in a “bottom up” fashion instead of the “top down” of the integrated and franchised chains (Rokkan & Buvik, 2003). A distinguishing feature between the different organization types is who has the right to the

residual profits from the operations. For the vertically integrated chains, the chain has the right to the residual profit, while for the franchised and voluntary chains, the franchisee or member shop has the right to the residual profit (Dahlstrom, Haugland, Nygaard, & Rokkan, 2009). This creates powerful incentives for franchised stores and stores in voluntary chains to maximize their own profits, but can come at the expense of maintaining common quality standards (Brickley & Dark, 1987; Kidwell, Nygaard, & Silkoset, 2007).

A challenge for retail chains and other multi-unit organizations is to coordinate the behavior of their units (Greve, 2003). Since each unit have incentives to maximize their own utility (which typically is profits, but also can be budgets, power or status), it may be difficult for the chain to make common investments in CSR activities and therefore signaling, since the chain has to convince the units about the investment, and make sure that the individual units follow any common promises made. Diverging internal interests have previously been found to influence CSR activities and signaling (Adams, 2002; Brammer & Millington, 2003).

Franchised stores and stores belonging to voluntary chains maximize their own profits and not the profits of the chain. This creates incentives for these types of stores to free-ride on common investments and activities in the chain, by not covering their part of the costs while trying to benefit from the investments of the others. Recent studies have confirmed the prevalence of free riding at the unit level. Franchised restaurants have been found to have worse food hygiene than corporate stores belonging to the same chain (Jin & Leslie, 2009), and franchised restaurants have larger amounts of back-wages (wages owed to their employees but not paid) than corporate restaurants in the same chains (Ji & Weil, 2015). Taking the potential free riding into consideration, the rational chain invests less in common activities and standards. Empirical studies have found support for this, the percentage of

franchised units in hotel and restaurant chains has a negative effect on quality as perceived by the customer, and franchised chains also invest less in advertising than integrated chains (Michael, 1999, 2000).

By the same logic, franchised, plural and voluntary chains should invest less in common CSR activities, particularly at the store level, and therefore be less likely also to signal CSR.

Existing empirical evidence is limited, in a study of French chains using franchising, the percentage of franchised stores was negatively associated with CSR communication on their web pages (Perrigot et al., 2015), but others have found no relationship between the percentage of franchised stores and CSR activities (Meiseberg & Ehrmann, 2012). My fourth hypothesis suggests that integrated chains should be more likely to engage in CSR signaling than franchised, plural and voluntary chains:

H4: CSR signaling is more likely in vertically integrated chains than in (a) franchised, (b) plural and (c) voluntary chains.

METHODOLOGY

The sample

The hypotheses are tested in a sample of 208 retail chains operating in the Norwegian market. The sample included retail chains with at least ten stores and that trade under a common brand name. The minimum limit of ten stores was selected to exclude the smallest chains which are likely to lack policies and resources for CSR activities, and follows other studies of retail chains (Matsa, 2011). By only including chains where the shops trade under a common brand name I excluded chains that collaborate in purchasing or logistics but not in marketing. Since these chains do not communicate externally as one unit, they do not signal chain CSR

activities. The sample is mainly compiled from a bi-annual trade publication which lists retail chains in the Norwegian market (Andhøyregistrene, 2011), supplemented with some chains identified through other sources such as shopping centers' web pages and trade magazines. The sample thus consists of all or almost all retail chains operating in the Norwegian market with at least ten stores, including regional chains, national chains and international chains in all sectors of retail.

As a measure of CSR signaling I use content analysis of the retail chain's web pages. Content analysis of annual reports and web pages is a much used methodology for studies of CSR signaling (Fifka, 2011). In this study I use web pages only, for several reasons. Annual reports are mainly aimed at institutional stakeholders such as investors or public authorities. For my sample, the annual reports many companies are not easily available to the public, since they can only be ordered from the national corporate business register for a fee. Since the firms are aware of this, few firms include non-mandatory information in their annual reports (Vormedal & Ruud, 2009). Web pages, on the other hand, are easily available to all stakeholders, including consumers, NGOs and the media (Tagesson et al., 2009). Also, while legal requirements often shape the content of annual reports, including some dimensions of CSR reporting, firms are generally free to include what they want in their web pages.

The web pages were identified by using a search engine. Two international chains that did not have a separate Norwegian web page but only one common web page for all markets were excluded from the database. In some cases, several chains shared the same web page, normally because they are part of the same group of firms. In such cases the web page was randomly assigned to one of the chains and the other chains excluded from the sample.

Measures

The dependent variable: CSR signaling

The web pages were all visited in October 2012. All content on web pages was analyzed, except for the news sections, newsletters and inclusions of social media content. I followed first-level links, meaning that information about CSR communication stored on another web page/server (typically the group level web page, cf. Frostenson et al., (2011)) would be analyzed if it was linked directly to from the chain web page, but not if the chain web page only included a general link to the group level home page.

Like other studies I use a combination of the areas and the type of CSR signaling on the web pages (Bouten, Everaert, & Roberts, 2012). The areas deal with the number of topics reported on. I kept this simple, distinguishing between five areas based on the Global Reporting Initiative's (GRI) Sustainability Reporting Guidelines: Environment, human rights, labor practices & decent work, society and product responsibility (Global Reporting Initiative, 2013). The GRI guidelines can be used by all types of firms, some retail firms use them, and have been used as basis for the categorization in previous studies of CSR signaling (Bouten et al., 2012; Bouten, Everaert, Van Liedekerke, De Moor, & Christiaens, 2011; Clarkson, Li, Richardson, & Vasvari, 2008). Table 1 shows the areas and issues covered by the five areas of the GRI.

Table 1: Areas and issues

Environment	Human rights	Decent work	Product responsibility	Society
Materials Energy	Investment and procurement	Employment Labor/	Customer health and safety	Community Corruption

Water	practices	management	Product and	Public policy
Biodiversity	Non-	relations	service labelling	Anti-competitive
Emissions,	discrimination	Occupational	Marketing	behavior
effluents and	Freedom of	health & safety	communications	Compliance
waste	association &	Training and	Customer	
Products and	collective	education	privacy	
services	bargaining	Diversity &	Compliance	
Compliance	Child labor	equal opportunity	Customer	
Transport	Forced &	Employee	satisfaction	
Overall	compulsory labor	satisfaction		
	Security			
	Indigenous rights			

Source: (Global Reporting Initiative, 2013)

For the type of signaling I use the categorization developed by Wood (1991), who distinguishes between principles, processes and outcomes. Signaling of principles includes statements on visions, ideas and goals, signaling of processes include statements on actions, and signaling of outcomes includes specific statements on results. Signals of principles were given the weight of 1, processes the weight of 2 and outcomes the weight of 3. Any procedure to give weights to the different types of signals is partly arbitrary, but this is in line with several previous studies (Bouten et al., 2011; Cormier, Magnan, & Van Velthoven, 2005). The weights function as indicators of the costs of the different types of signaling. Since general statements about principles are difficult to verify, the cost for the firm is low, while signals about outcomes are costly since they both require systems to track outcomes and make it possible for outsiders to compare promises and actual results. The GRI framework contains 31 areas, and the maximum score is therefore 93, given to a retail chain that signals outcomes on all possible areas. Table 2 gives an example of types of signaling that would be given the weights 1, 2 and 3 under each area of the GRI.

Table 2: Examples of weights

Weight	Environment	Human rights	Decent work	Product responsibility	Community
1	Statement of environmental concern	Concern about human rights	Importance of good working conditions	Importance of safe products	Importance of community
2	Recycling procedures	Actively monitoring suppliers	Training procedures	Quality control procedures	Sponsorship relationships
3	Energy use in Kw/H	# of factories not complying	Sickness absence %	# of product recalls	Amount of money donated

To ensure coding reliability a research assistant independently coded a randomly selected sample of 25% of the web-pages. An analysis of the inter-coder reliability between the author and the research assistant showed an inter-coder agreement of 90, 2%, indicating relatively good reliability. However, the percentage of inter-coder agreement does not take into account that agreement may happen just by chance. For instance, with only two categories random coders would agree 50 % of the time. (Lombard, Snyder-Duch, & Bracken, 2002). I therefore calculated the Krippendorff's alpha, a measure of inter-coder reliability with many desirable characteristics (Hayes & Krippendorff, 2007). Using the package "IRR" in the statistical software R (Gamer, Lemon, & Fellows, 2012) the Krippendorff's Alpha was calculated to be 70, 1%, which is towards the low level of what is typically accepted. However, the Krippendorff's alpha is a conservative measure (Lombard, Snyder-Duch, & Bracken, 2004), and I concluded that reliability in total was acceptable.

The use of *private brands* is measured as a dummy where a retailer that has a brand with the same name as the chain is assigned 1 and a retailer without is assigned 0. Information about this variable was collected from the web pages of the firms, store visits or by telephone

directly from the chain. Examples of chains that have private brands with the same name as the chain are IKEA, H&M, and many other chains, particularly in the food retailing and textiles sectors. Previous research has used similar measures (Haddock-Fraser & Fraser, 2008; Haddock, 2005).

For *low-price strategy* I use a combination of information from the web pages and expert ratings. First I did a content analysis of the web pages (only the front page) of the retail chains, looking for “low prices”, “always low prices”, “guarantee of low prices” and “price warranties”, and versions of these concepts. Second, I asked two retail experts with many years of experience from working in and teaching about the Norwegian retail market to select the chains known for a low-price strategy from the data set. I defined a chain as a low-cost chain if two of the three sources agreed. The advantage of using a combination of information from the web pages and the experts is that some chains use low prices but do not communicate about their prices on the web page. This variable was coded with a dummy set to 1 if the chain is a low-cost chain and 0 if not.

Foreign chain is measured as a dummy where a retailer that has the headquarters in another country than Norway is assigned 1 and a retailer with headquarters in Norway is assigned 0. Information about this variable was collected from the web pages of the firms.

The *organizational form* was collected from the chains' web pages, the Norwegian company register or by personal communication with the chain if not available elsewhere. I distinguish between integrated chains, plural chains, franchised chains and voluntary chains. In line with previous research (Bernstein & Sheen, 2013) I define as integrated chains those with at least 95% corporate stores, as franchised chains those with at least 95% franchised stores. As

voluntary chains I define chains where the stores own at least 50% of the chain.

Control variables

Size. Several studies have found that larger firms are more likely to communicate about CSR (Brammer & Pavelin, 2004, 2008; Branco & Rodrigues, 2008), and I therefore control for chain size. As a measure of size I use the net sales of the chain in 2010, which was the last year with available data. The data for net sales was collected from industry publications, newspaper articles and the Norwegian company register.

Visibility. Visibility may be positively related to CSR communication, also when controlling for firm size (Bewley & Li, 2000; Branco & Rodrigues, 2008). I therefore control for visibility using media exposure as a proxy. Media exposure was measured as number of mentions in more than 1100 Norwegian online news sources stored by a media tracking agency in the period 2009-2011 (Retriever AS, 2013). This service tracks and stores all online newspapers and a large range of other news sources. I used a three-year period to reduce the influence of random incidents or mentions. I searched for the name of the chain, and manually excluded irrelevant mentions. All types of mentions of the chain were included in my count

International exposure. Retail chains that operate in several countries are exposed to multiple sets of legislation and pressures from stakeholder groups, and may therefore be more likely to signal CSR in any given market. Empirical studies have found clear geographical differences in the likelihood and topics of communication (Fifka, 2011). To control for the effect of international exposure I include the number of countries where the retail chain is present. The information of this was collected from the chains' web pages.

Monitoring cost. The cost of monitoring store behavior has been used as an explanation for the choice of organizational form by the retail chain. Where monitoring of store quality is difficult, integrated chains may be more efficient than franchised chains (Brickley & Dark, 1987; Brickley, Dark, & Weisbach, 1991). Everything else equal, chains with high monitoring costs will have more problems enforcing common quality (Michael, 2000), and may have more problems to get their members to commit to common investments. In line with previous research (Michael, 2000) I therefore control for monitoring costs by using the number of regions in Norway where the chain is present. The data for this variable was collected from the chains' web pages.

Chain age. The age of a chain may influence brand awareness and perceived monitoring costs by interest groups. A long relationship makes it possible for the principal to learn about the agent and thus reduces information asymmetry (Eisenhardt, 1989). In line with other studies of CSR signaling (Berrone, Gelabert, & Fosfuri, 2009; Chizema, 2008; Liu & Anbumozhi, 2009) I include the age of the chain as a control. The age of the chain was collected from the web pages or from the national business registry. For international chains, chain age is measured as the number of years present in the Norwegian market.

Web store. The CSR communication may also be influenced by the characteristics of the firms' website. In retail, some websites include a web store, where products can be bought online. This may influence how the website is constructed and designed. I therefore include a dummy variable set to 1 if the website has a web store and 0 if not.

Sector. Differences between industries and sectors have been identified in previous studies (Brammer & Pavelin, 2008; Halme & Huse, 1997), also in retail (Frostenson et al., 2011). I

control for the sector of the retail chains using nine different categories (gas stations, multi-category stores, electronics, construction materials and paint, furniture and interiors, clothes and textiles, food and drinks, specialty stores and other) according to the Standard industrial classification and in line with previous studies of retail (Frostenson et al., 2011).

Descriptive statistics

Table 3 shows some statistics about the dependent variable *CSR signaling*. Only 32% of the firms in the sample had any type of CSR signaling on their web page. The retail chains are most likely to signal about the environment (25% of chains) and society (25% of chains).

Table 3: CSR signaling

	Total 31 items	Environment 8 items	Human rights 7 items	Decent work 6 items	Product responsibility 6 items	Society 4 items
Signaling (% yes)	32%	25%	20%	13%	17%	25%
Mean signaling (all firms)	6.64	1.85	1.77	1.08	0.96	0.82
Mean signaling (66 signaling firms)	20.74	5.81	5.58	3.39	3.03	2.41

Table 4 shows descriptive statistics for the variables. For the further analysis I transformed the variables number of media mentions, net sales and countries present using the natural logarithm to account for their likely decreasing returns to scale.

Table 4: Descriptive statistics

Variable	Mean	Std dev	Min	Max
CSR signaling	6.64	17.82	0	93
Private brands use	0.28	0.45	0	1
Low prices	0.11	0.31	0	1
Foreign	0.25	0.44	0	1
Organizational form (dummies)				
Integrated	43%			
Plural	27%			
Franchised	9%			
Voluntary	20%			
Net sales 2010 (mnok)	1442	3553	42	39818
Media mentions	566	1391	1	12783
Countries	5.88	16.08	1	150
Regions	15.28	4.44	1	19
Age	22.18	18.77	1	120
Web store	0.43	0.50	0	1

N =208

Table 5 shows the correlation matrix. Several of the correlations are significant, but mostly moderate. I checked for multicollinearity by calculating the VIFs (variance inflation factor), which were all below 5, indicating that collinearity should not pose a serious problem.

Table 5: Correlation matrix

	CSR signal.	Private brands	Low cost	Foreign	Net sales	Media	Countries	Regions	Age
CSR signaling									
Private brands	0.35								
Low prices	0.00	0.00							
Foreign	0.41	0.48	-0.02						
Net sales	0.09	0.03	0.33	-0.08					
Media mentions	0.22	0.06	0.33	-0.03	0.80				
Countries	0.40	0.24	-0.03	0.50	0.00	0.16			
Regions	0.11	0.06	0.06	-0.03	0.24	0.22	0.01		
Age	0.28	-0.02	0.00	-0.01	0.18	0.42	-0.27	0.14	
Web store	0.08	0.04	-0.04	0.14	-0.15	-0.09	-0.03	-0.24	0.02

N=208. Correlations larger than 0.14 are significant at $p < 0.05$

MODELS AND RESULTS

Previous research on CSR signaling has shown that the choice of model can influence the results (Bouten et al., 2012). A challenge in many studies is the large number of zeros in the data, since many firms do not communicate anything at all about CSR. Most previous studies have used OLS as the estimation method, but for samples that have many zeros on the dependent variable this can give biased and unreliable estimates (Bouten et al., 2012). In my study only 32% of firms communicate anything. I therefore use a hurdle model to test the hypotheses. Hurdle models separate the data into two parts, in my case the firms that signal and the firms that do not signal. The first step of the model estimates the influence of the

independent variables on the likelihood that the chains will at all signal CSR. The second step uses a count model to estimate the influence of the independent variables on the amount of CSR signaling for the group of firms that signal. The hurdle model therefore has no problems with many zeros in the data set. Hurdle models have the added advantage of allowing for different influences on the decision and amount of signaling. In theory, there may be different influences on whether a firm signals about CSR or not, and how much they signal if they do so. Hurdle models have been used previously in studies of CSR communication (Bouten et al., 2012, 2011), but are frequently used in other fields such as biology (Hoffman & O’Riain, 2012). I estimated the model with the statistical software R (R Core Team, 2012), using the package “pscl” (Zeileis, Kleiber, & Jackman, 2008). Table 6 shows the results from the regression model.

Table 6: Regression results: Determinants of CSR signaling

Dependent variable: Amount of signaling from content analysis	Signaling yes/no	Amount of signaling
Constant	-5.77 (1.33) ***	-0.56 (1.14)
Private brands (H1)	1.07 (0.51) *	0.39 (0.39)
Low prices (H2)	0.19 (0.66)	0.09 (0.49)
Foreign (H3)	2.06 (0.75) **	0.99 (0.51) *
Plural chain (H4a)	-0.68 (0.49) †	-0.03 (0.40)
Franchised chain (H4b)	-1.62 (0.84) *	-2.29 (0.67) ***
Voluntary chain (H4c)	-0.93 (0.66) †	-0.74 (0.83)
Net sales	0.68 (0.22) *	0.40 (0.21) †
Media mentions	0.04 (0.14)	0.01 (0.13)
Countries	-0.31 (0.29)	0.05 (0.20)
Regions	0.05 (0.06)	-0.03 (0.06)
Age	0.00 (0.01)	0.00 (0.01)
Web store	-0.48 (0.44)	0.39 (0.37)
<i>Sector</i>		
Gas stations	1.36 (1.37)	0.41 (0.93)
Multi-category stores	-1.70 (0.93) †	-0.45 (0.74)
Electronics	-0.58 (0.85)	-1.42 (1.03)
Construction materials and paint	-1.91 (0.85) *	0.02 (1.03)
Furniture and interiors	-0.09 (0.66)	-0.71 (0.56)
Clothes and textiles	0.30 (0.55)	0.24 (0.43)
Food and drinks	-0.51 (0.98)	-0.17 (0.82)
Other	-0.17 (1.17)	0.57 (1.06)
Log-likelihood		-344.8
Pseudo-R ²		15,9%

N=208. Standard errors are in parentheses. One-way tests for hypothesized effects, two-way tests otherwise. Reference category for organizational form: Integrated chains. Reference category for sector: specialty stores (pharmacies, opticians, jewelers++)

† Significant at the 10% level, *Significant at the 5% level, **Significant at the 1% level, ***Significant at the 0.1% level

I first hypothesized that retail chains using private brands are more likely to signal CSR related information (H1). The results support this, retailers using private brands are significantly more likely to signal CSR information ($p < .05$) The results from the count model

suggest that using private brands influence only the likelihood of communication and not the amount of information. For the second hypothesis, that retailers that follow a low-price strategy are more likely to signal CSR performance than retailers that use medium or high prices, I get no support. However, foreign chains are more likely to signal CSR performance ($p < .01$) and signal more information when they do ($p < .05$) in accordance with the third hypothesis. Finally, I hypothesized that integrated chains are more likely to signal CSR performance than plural chains (H4a), franchised chains (H4b) and voluntary chains (H4c). I only get full support for franchised chains, which are significantly less likely to signal CSR than integrated chains ($p < .05$), and who signal less when they do so ($p < 0.01$). While the coefficients are in the expected direction for the plural and voluntary chains, the effect is only weakly significant ($p < .10$).

To examine the sensitivity of the results I re-estimated the model using different estimation strategies and samples. See the appendix for the full results. To test the influence of the type of model I re-estimated the model using OLS and Tobit regression. The results were generally similar to those from the hurdle regression model. However, when estimating the Tobit regression the effect of plural chains was significant ($p < .05$).

One concern with the data is the potential influence of the owners of the retail chains (Tagesson et al., 2009). Several of the chains have a common owner, and while they have their own web pages there may still be reasons why their decisions to signal CSR are correlated, such as common policies and strategies in the parent company. To control for this, I collected information about the owners of the different retail chains. In total, 170 different owners are behind the 208 chains in the database. I randomly kept only one chain belonging to each owner, and re-estimated the models in table 6. This changed the results slightly,

making plural chains significantly less likely ($p < .05$) to signal CSR than integrated chains, in line with hypothesis 4b.

FURTHER ANALYSIS: CSR MEMBERSHIPS AND CERTIFICATIONS

While the communication of CSR policies and practices on web pages is a signal that the chain is concerned with CSR, it is not clear how costly this signal is. The analysis supported the predictions of signaling theory for three of four hypotheses, but the levels of signaling is low, and most firms communicate principles and not processes or outcomes. Since the cost of stating general principles may be relatively low, it may be that some unobserved dimension of firm visibility is influencing the results. Previous research has focused on quality certifications as a costly signal (Cañón-de-Francia & Garcés-Ayerbe, 2009; Terlaak & King, 2006). Quality certification functions as a costly signal when it is more expensive for high-quality than for low-quality producers to achieve the certification. A firm with consistent high production quality will for instance find it easier to qualify for the ISO 9001 Quality Management standard (Terlaak & King, 2006). As an alternative test of CSR signaling I therefore estimate models with whether the chain has a relevant CSR-related membership or certification as the dependent variable.

In the Norwegian market, retail chains use three certifications that potentially can be used as a signal of a firm's CSR commitments. The Nordic Ecolabel is the official environmental label of the Nordic countries. Established in 1989, it is mainly used on individual products, but has recently been extended to firms in selected industries, including grocery stores. The Nordic Ecolabel has a range of criteria that have to be fulfilled on issues such as product assortment, energy use, waste, transport and environmental management (Nordic Ecolabelling, 2014). The Eco-Lighthouse is a Norwegian certification scheme for firms, with a relatively similar

approach to the Nordic Ecolabel and a range of criteria that have to be fulfilled on the same areas (Eco-Lighthouse, 2014). Only five different chains have certified according to one of these programs. Finally, the Norwegian Ethical Trading Initiative is a membership organization advocating for good ethical trade practices. Members commit themselves to working to improve labor conditions in the supply chains, but the membership does not require a certain performance level (Ethical Trading Initiative Norway, 2014). 35 of the chains in the sample were members of the Ethical Trading Initiative. The environmental certification programs are costly signals for the chains since they require investments at the store and chain level, in addition to membership fees. Memberships in the Ethical Trading Initiative do not require investments at the store level, but are costly for the chain which has to devote resources to improving labor conditions, pay the membership fee, and also to submit an annual report about last year's activities that is published on the organization's web page and can be accessed by NGOs, journalists and others. All chains who are members communicate this on their web pages. For poor-performing chains it is therefore arguably more expensive to be a member. In total, these three certifications and memberships should fulfill the criteria of being costly signals.

I collected information about the memberships and certifications during the content analysis of the web pages, and double-checked with the membership databases of the three organizations. To test the hypotheses, I estimate a logistic regression model with whether a chain has a certification or membership as the dependent variable (1=yes, 0=no) and the same independent variables as in the previous models. Because of the low number of certified firms, I had to reduce the number of sector dummies to be able to estimate the model. Table 7 presents the results from the regression.

Table 7: Regression results: Determinants of CSR memberships and certifications

Dependent variable: Certification or membership yes/no	
Constant	-9.05 (2.20) ***
Private brands (H1)	-0.13 (0.65)
Low prices (H2)	-0.64 (0.86)
Foreign (H3)	-3.15 (1.33) *
Plural chain (H4a)	-1.53 (0.70) *
Franchised chain (H4b)	-1.56 (1.05) †
Voluntary chain (H4c)	-2.92 (1.11) **
Net sales	0.95 (0.36) **
Media mentions	-0.38 (0.20) †
Countries	0.67 (0.43)
Regions	0.12 (0.08)
Age	-0.00 (0.01)
Web store	-0.72 (0.59)
<i>Sectors</i>	
Clothes and textiles	4.30 (1.23) ***
Construction materials and paint	0.47 (1.59)
Food and drinks	4.06 (1.42) **
Furniture, electronics and interiors	2.28 (1.30) †
Other	1.95 (1.36)
Log-likelihood	-53.8
Pseudo-R ²	33.2%

N=208. Standard errors are in parentheses. One-way tests for hypothesized effects, two-way tests otherwise.

Reference category for organizational form: Integrated chains. Reference category for sector: specialty stores (pharmacies, opticians, jewelers++)

† Significant at the 10% level, *Significant at the 5% level, **Significant at the 1% level, ***Significant at the 0.1% level

Several results change compared to the model with the amount of CSR signaling as dependent variable. Private brands (H1) and low prices (H2) have no effects on certification. Foreign chains are significantly less likely to have a costly membership or certifications, which is the

opposite of suggested in H3 and found in the previous model. The organizational form influences the likelihood of memberships or certifications; plural ($p < .05$), franchised ($p < .10$) and voluntary chains ($p < .01$) are less likely than integrated chains to have costly memberships or certification, in line with my hypotheses.

DISCUSSION AND CONCLUSIONS

This study has developed and tested hypotheses about retail chains' CSR communications. . . Based on signaling theory I hypothesized relationships between retail chains' use of private brands, low prices, foreign origin and organizational form and the level of CSR signaling on their web pages. In the main analysis I got support for three of four hypotheses, chains using private brands and foreign chains are more likely to signal CSR performance, and vertically integrated chains are more likely than franchised, plural or voluntary chains to do the same. However, I found no relationship with pricing. When using relevant CSR certifications and memberships as the dependent variable in an additional analysis, some results changed substantially, and the only result replicated was the influence of the organizational form. Differences between the costs of CSR signaling and certifications and memberships may explain these changes. The certifications and memberships are specific to the Norwegian (Eco-Lighthouse, Ethical Trading Initiative) or the Nordic market (Nordic Ecolabel). These may be more costly for foreign chains than for local chains, and foreign chains may therefore find them unprofitable.

According to signaling theory high-price producers should have larger incentives to signal CSR ability and performance than low-price producers, but I find no relationship between pricing and CSR signaling. One potential explanation can be that the measure I use, comparing chains with and without a low-price strategy, is too crude. It may also be that low-

price chains compensate for their disadvantage by over-signaling CSR. This could be the case if signals about CSR are not costly enough to separate those with ability and those without. The relationship between prices, quality and CSR signaling is an interesting avenue for further research.

An important finding in this study is the influence of the organizational structure, which can influence the cost of engaging in CSR signaling. Franchised and plural chains' difficulties with signaling CSR may ultimately lead to reduced support from those interested in CSR performance, such as customers, NGOs or the media. Many of the dimensions of CSR that retailers currently are faced with, such as improving the conditions under which their products are manufactured, or reducing the total emissions and impact from the operations, require common investments. If integrated chains are better suited at dealing with these challenges, integrated chains should gradually take over for franchised chains in the sectors where these issues are most important. Alternatively, franchised chains may just need more time to implement CSR practices and signaling, for instance because they have to renegotiate their contracts with their stores. This is again an interesting topic for future research.

The study shows that a relatively small percentage of retail chains in the Norwegian market communicate about their CSR principles, processes and results. This indicates that CSR signaling is not seen as crucial for retail chains operating in Norway. Seen in the light of signaling theory, this indicates that outsiders are not particularly concerned with the CSR performance of chains, or that the rewards do not exceed the costs. It may be that this is specific to the Norwegian market, some have argued that CSR activities are a result of political, economic and cultural institutions (Gjølberg, 2010), and the Norwegian market may demand little CSR from retail chains, among other reasons because the state is expected to

take responsibility for social and environmental welfare. On the other hand, the sample includes many small retail chains, and previous research has found that small firms are less likely to signal CSR, either because they experience fewer demands from the surroundings or because they lack the necessary resources to engage in CSR. Size is also a strong predictor of CSR signaling in this study. Regardless, future research may want to test the hypotheses in this study in other markets.

Overall, the findings give some support to signaling theory in the context of CSR communication. Other theories, such as legitimacy theory or stakeholder theory, have previously been used to explain such communication. This study shows that an economic perspective is useful, and that firms' communication of CSR to some degree can be explained by the costs and benefits of such signals. However, it is also clear that the economic perspective only partly can explain the variation between firms as illustrated by the mixed support for signaling theory found in this study.

Whether the market itself can solve social and environmental problems is a much debated question. If customers, employees, investors and other groups can reward high performers or punish average or bad performers, the market can contribute to improved social and environmental performance. One of the identified challenges for this is information asymmetry, making it difficult for outsiders to assess firm performance. Signaling theory offers a solution to such problems, since high performing firms can profit from sending out signals. However, the partial support for the theory also highlights the limitations of this solution; namely that outsiders have to demand good quality CSR, and the signals have to make it possible to separate good from bad performers.

Limitations and suggestions for future research

This study has some limitations. Firstly, like most studies of CSR signaling, I only look at what firms say they do and not what they actually do. Research on the relationship between communication and actual performance has in reality found mixed results (Clarkson et al., 2008; Patten, 2002). Some even question the whole notion of CSR, suggesting that it is mainly or even purely window dressing, and that it is disconnected from any “real” behavior of the firm (e.g. Bakan, 2005). While writing something on the company web page is an action, it may be that the correlation with the actual, underlying performance is weak. The weights assigned to the different types of signals may alleviate this problem somehow, they cannot solve it completely. To account for the potential low cost of the signals I tested the model with certifications and memberships as the dependent variable. For the influence of organizational structure I got similar result, but for the other hypotheses I did not get support using the new dependent variable. This may be a result of the relevant certifications and memberships being local in nature, but it also questions the utility of the weights used for the dependent variable. Future studies may want to identify other relevant costly signals to test the hypotheses.

Secondly, more detailed indicators for some measures would have been desirable. I could only use dummies for brand- and price strategy but indicators like the percentage of private brand products and prices relative to the category average would have given a more detailed picture and potentially more valid conclusions. Such indicators should not be impossible to access but are more difficult to collect. Also, the results in this study assume no omitted variable bias in the regression models (Wooldridge, 2009). Such bias would arise from variables not included in the models that influence CSR signaling and is correlated with one

of the independent variables. I have tried to include relevant control variables but omitted variable bias cannot be completely ruled out.

Thirdly, although the use of a relatively detailed coding scheme helps somewhat, the content analysis of the CSR information always has room for some subjectivity. The first step of the hurdle model which distinguishes only between whether the firm signals or not, give relatively similar results to the other models. The distinction between signaling or no signaling should be less subjective than the assignment of weights. This indicates that coder subjectivity is unlikely to be a large problem in this study, but it cannot be ruled out completely. Finally, while this study has shown that it is possible to study the influence of some parts of strategy and organization with publicly available data, using survey or qualitative data may give even more detailed information about how structures and strategies influence CSR actions and signals.

APPENDIX: ROBUSTNESS CHECKS

Dependent variable: CSR signaling from content analysis	OLS	Tobit	Only one chain per owner: Hurdle model	
			Signaling (yes/no)	Amount of signaling
Constant	-17.38 (6.63) **	-91.48 (17.90) ***	-6.43 (1.61) ***	0.72 (0.94)
Private brands (H1)	6.27 (2.96) *	14.04 (6.40) *	1.20 (0.64) *	-0.12 (0.34)
Low prices (H2)	-5.13 (3.84) †	-2.31 (8.22)	0.32 (0.87)	-0.34 (0.55)
Foreign (H3)	8.74 (4.40) *	33.89 (9.49) ***	2.87 (0.87) ***	0.87 (0.41) *
Plural chain (H4a)	-4.31 (2.78) †	-12.36 (6.68) *	-1.20 (0.65) *	-1.37 (0.50) **
Franchised chain (H4b)	-9.01 (4.28) *	-30.87 (11.46) **	-2.46 (1.13) *	-3.24 (1.18) **
Voluntary chain (H4c)	-0.81 (3.50)	-9.54 (9.62)	-1.09 (0.68) †	-1.35 (0.81) *
Net sales	1.33 (1.39)	6.45 (3.34) †	0.55 (0.33) †	0.14 (0.19)
Media mentions	0.56 (0.77)	2.43 (1.98)	0.19 (0.18)	0.05 (0.10)
Countries	1.39 (1.71)	-2.71 (3.50)	-0.74 (0.36) *	0.22 (0.18)
Regions	0.31 (0.30)	1.11 (0.77)	0.09 (0.07)	-0.03 (0.05)
Age	0.14 (0.06) *	0.26 (0.14) †	0.01 (0.01)	0.01 (0.01)
Web store	3.10 (2.41)	-0.86 (5.97)	-0.92 (0.55) †	-0.02 (0.32)
<i>Sector</i>				
Gas stations	29.9 (7.47) ***	40.35 (15.28) ***	1.61 (1.45)	1.20 (0.75)
Multi-category stores	0.59 (4.49)	-17.96 (12.48)	-1.74 (1.10) †	0.62 (0.59)
Electronics	-2.36 (4.35)	-14.46 (12.64)	-0.50 (1.11)	-0.54 (0.89)
Construction materials and paint	-1.81 (4.01)	-23.35 (11.88) †	-1.63 (0.93) †	1.23 (0.87)
Furniture and interiors	-1.86 (3.68)	-7.91 (9.10)	0.04 (0.74)	0.09 (0.46)
Clothes and textiles	5.36 (3.28)	11.05 (7.21)	0.38 (0.69)	1.26 (0.38) **
Food and drinks	3.01 (5.24)	-5.02 (12.70)	-1.54 (1.70)	1.50 (0.87) †
Other	3.44 (6.41)	-3.64 (16.02)	-0.36 (1.27)	0.93 (0.86)
N	208	208	171	
Log-likelihood	-839.9	-359	-233.2	
(Pseudo)-R ²	34,0%	13,8%	22,7%	

Standard errors are in parentheses. One-way tests for hypothesized effects, two-way tests otherwise. Reference category for organizational form: Integrated chains. Reference category for sector: specialty stores (pharmacies, opticians, jewelers++) † Significant at the 10% level, *Significant at the 5% level, **Significant at the 1% level, ***Significant at the 0.1% level

REFERENCES

- Adams, C. A. (2002). Internal organisational factors influencing corporate social and ethical reporting: Beyond current theorising. *Accounting, Auditing & Accountability Journal*, 15(2), 223–250.
- Ailawadi, K. L., & Keller, K. L. (2004). Understanding retail branding: conceptual insights and research priorities. *Journal of Retailing*, 80(4), 331–342.
- Amato, L., & Amato, C. (2012). Retail philanthropy: Firm size, industry, and business cycle. *Journal of Business Ethics*, 107(4), 435–448.
- Andhøyregistrene. (2011). *Handelshus i Norge 2011*. Lysaker: Andhøyregistrene.
- Bansal, P., & Hunter, T. (2003). Strategic explanations for the early adoption of ISO 14001. *Journal of Business Ethics*, 46(3), 289–299.
- Bakan, J. (2005). *The corporation: The pathological pursuit of profit and power*. New York: The Free Press.
- Belkaoui, A., & Karpik, P. G. (1989). Determinants of the corporate decision to disclose social information. *Accounting, Auditing & Accountability Journal*, 2(1), 36-51.
- Bergen, M., Dutta, S., & Walker Jr., O. C. (1992). Agency relationships in marketing: A review of the implications and applications of agency and related theories. *Journal of Marketing*, 56(3), 1–24.
- Bernstein, S., & Sheen, A. (2013). The operational consequences of private equity buyouts: Evidence from the restaurant industry. Retrieved from <http://www.stanford.edu/~shaib/BernsteinSheenDecember%208th.pdf>
- Berrone, P., Gelabert, L., & Fosfuri, A. (2009). *The impact of symbolic and substantive*

actions on environmental legitimacy. Retrieved from <http://papers.ssrn.com/abstract=1349063>

Bewley, K., & Li, Y. (2000). Disclosure of environmental information by Canadian manufacturing companies: A voluntary disclosure perspective. *Advances in Environmental Accounting & Management*, 1, 201–226.

Bloom, P. N., & Perry, V. G. (2001). Retailer power and supplier welfare: The case of Wal-Mart. *Journal of Retailing*, 77(3), 379–396.

Bouten, L., Everaert, P., & Roberts, R. W. (2012). How a two-step approach discloses different determinants of voluntary social and environmental reporting. *Journal of Business Finance & Accounting*, 39(5-6), 567–605.

Bouten, L., Everaert, P., Van Liedekerke, L., De Moor, L., & Christiaens, J. (2011). Corporate social responsibility reporting: A comprehensive picture? *Accounting Forum*, 35(3), 187–204.

Bradach, J. L. (1997). Using the plural form in the management of restaurant chains. *Administrative Science Quarterly*, 42, 276–303.

Bradach, J. L., & Eccles, R. G. (1989). Price, authority, and trust: From ideal types to plural forms. *Annual Review of Sociology*, 15(1), 97–118.

Brammer, S., & Millington, A. (2003). The effect of stakeholder preferences, organizational structure and industry type on corporate community involvement. *Journal of Business Ethics*, 45(3), 213–226.

Brammer, S., & Pavelin, S. (2004). Voluntary social disclosures by large UK companies. *Business Ethics: A European Review*, 13(2-3), 86–99.

Brammer, S., & Pavelin, S. (2008). Factors influencing the quality of corporate environmental disclosure. *Business Strategy and the Environment*, 17(2), 120–136.

- Branco, M., & Rodrigues, L. (2008). Factors influencing social responsibility disclosure by Portuguese companies. *Journal of Business Ethics*, 83(4), 685–701.
- Brickley, J. A., & Dark, F. H. (1987). The choice of organizational form: The case of franchising. *Journal of Financial Economics*, 18(2), 401–420.
- Brickley, J. A., Dark, F. H., & Weisbach, M. S. (1991). An agency perspective on franchising. *Financial Management*, 20(1), 27–35.
- Campbell, D. (2004). A longitudinal and cross-sectional analysis of environmental disclosure in UK companies—a research note. *The British Accounting Review*, 36(1), 107–117.
- Cañón-de-Francia, J., & Garcés-Ayerbe, C. (2009). ISO 14001 environmental certification: A sign valued by the market? *Environmental and Resource Economics*, 44(2), 245–262.
- Chizema, A. (2008). Institutions and voluntary compliance: The disclosure of individual executive pay in Germany. *Corporate Governance: An International Review*, 16(4), 359–374.
- Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Accounting, Organizations and Society*, 33(4–5), 303–327.
- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, 37(1), 39–67.
- Connelly, B. L., Ketchen, D. J., & Slater, S. F. (2010). Toward a “theoretical toolbox” for sustainability research in marketing. *Journal of the Academy of Marketing Science*, 39(1), 86–100.
- Cormier, D., Magnan, M., & Van Velthoven, B. (2005). Environmental disclosure quality in large German companies: Economic incentives, public pressures or institutional conditions?

European Accounting Review, 14(1), 3–39.

Dahlstrom, R., Haugland, S. A., Nygaard, A., & Rokkan, A. I. (2009). Governance structures in the hotel industry. *Journal of Business Research*, 62(8), 841–847.

Da Silva Monteiro, S. M., & Aibar-Guzmán, B. (2010). Determinants of environmental disclosure in the annual reports of large companies operating in Portugal. *Corporate Social Responsibility and Environmental Management*, 17(4), 185–204.

Deegan, C. (2002). Introduction: The legitimising effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), 282–311.

Delmas, M. A., & Montiel, I. (2009). Greening the supply chain: When is customer pressure effective? *Journal of Economics & Management Strategy*, 18(1), 171–201.

Delmas, M., & Cuerel Burbano, V. (2011). The drivers of greenwashing. *California Management Review*, 54(1), 64–87.

Drumwright, M. E. (1994). Socially responsible organizational buying: Environmental concern as a noneconomic buying criterion. *Journal of Marketing*, 58(3), 1.

Eco-Lighthouse. (2014). About Eco-Lighthouse. Retrieved April 2, 2014, from <http://eco-lighthouse.org/artikler/>

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *The Academy of Management Review*, 14(1), 57–74.

El Akremi, A., Mignonac, K., & Perrigot, R. (2010). Opportunistic behaviors in franchise chains: the role of cohesion among franchisees. *Strategic Management Journal*, 32(9), 930–948.

Elfenbein, D. W., & McManus, B. (2010). A greater price for a greater good? Evidence that consumers pay more for charity-linked products. *American Economic Journal: Economic Policy*, 2(2), 28–60.

Ethical Trading Initiative Norway. (2014). About IEH. Retrieved April 2, 2014, from http://etiskhandel.no/English/About_IEH/index.html

Ferreira, D. A., Avila, M. G., & Faria, M. D. de. (2010). Corporate social responsibility and consumers' perception of price. *Social Responsibility Journal*, 6(2), 208–221.

Fifka, M. S. (2011). Corporate responsibility reporting and its determinants in comparative perspective – a review of the empirical literature and a meta-analysis. *Business Strategy and the Environment*, 22(1), 1–35.

Flammer, C. (Forthcoming). Does corporate social responsibility lead to superior financial performance? A regression discontinuity approach. *Management Science*, doi:10.1287/mnsc.2014.2038.

Flammer, C. (2015). Does product market competition foster corporate social responsibility? Evidence From Trade Liberalization. *Strategic Management Journal*, 36(10), 1469-1485.

Frostenson, M., Helin, S., & Sandström, J. (2011). Organising corporate responsibility communication through filtration: A study of web communication patterns in Swedish retail. *Journal of Business Ethics*, 100(1), 31–43.

Fuchs, D., Kalfagianni, A., & Arentsen, M. (2009). Retail power, private standards, and sustainability in the global food system. *Corporate Power in Global Agrifood Governance*, 29–59.

Gamer, M., Lemon, J., & Fellows, I. (2012). Irr: various coefficients of interrater reliability

and agreement. *R package version 0.84*.

Gielens, K., & Dekimpe, M. G. (2001). Do international entry decisions of retail chains matter in the long run? *International Journal of Research in Marketing*, 18(3), 235–259.

Gjølborg, M. (2010). Varieties of corporate social responsibility (CSR): CSR meets the “Nordic Model.” *Regulation & Governance*, 4(2), 203–229.

Global Reporting Initiative. (2013). G3.1 Guidelines. Retrieved May 7, 2013, from

<https://www.globalreporting.org/reporting/latest-guidelines/g3-1-guidelines/Pages/default.aspx>

Gray, R., Javad, M., Power, D. M., & Sinclair, C. D. (2001). Social and environmental disclosure and corporate characteristics: A research note and extension. *Journal of Business Finance & Accounting*, 28(3/4), 327–356.

Greve, H. R. (2003). Why are there so many multiunit organizations. *Strategic Organization*, 1(1), 109–115.

Gripsrud, G., & Benito, G. R. (2005). Internationalization in retailing: modeling the pattern of foreign market entry. *Journal of Business Research*, 58(12), 1672–1680.

Hackston, D., & Milne, M. J. (1996). Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing & Accountability Journal*, 9(1), 77–108.

Haddock-Fraser, J., & Fraser, I. (2008). Assessing corporate environmental reporting motivations: differences between “close-to-market” and “business-to-business” companies. *Corporate Social Responsibility and Environmental Management*, 15(3), 140–155.

Haddock, J. (2005). Consumer influence on internet-based corporate communication of

environmental activities: the UK food sector. *British Food Journal*, 107(10), 792–805.

Halme, M., & Huse, M. (1997). The influence of corporate governance, industry and country factors on environmental reporting. *Scandinavian Journal of Management*, 13(2), 137–157.

Hayes, A. F., & Krippendorff, K. (2007). Answering the call for a standard reliability measure for coding data. *Communication Methods and Measures*, 1(1), 77–89.

Hoffman, T. S., & O’Riain, M. J. (2012). Landscape requirements of a primate population in a human-dominated environment. *Frontiers in Zoology*, 9(1).
 Hossain, M., Perera, M. H. B., & Rahman, A. R. (1995). Voluntary disclosure in the annual reports of New Zealand companies. *Journal of International Financial Management & Accounting*, 6(1), 69–87.

Huijstee, M. van, & Glasbergen, P. (2010). NGOs moving business: An analysis of contrasting strategies. *Business & Society*, 49(4), 591–618.

Hyman, M. R., Kopf, D. A., & Lee, D. (2009). Review of literature – Future research suggestions: Private label brands: Benefits, success factors and future research. *Journal of Brand Management*, 17(5), 368–389.

Jahn, G., Schramm, M., & Spiller, A. (2005). The reliability of certification: Quality labels as a consumer policy tool. *Journal of Consumer Policy*, 28(1), 53–73.

Ji, M., & Weil, D. (2015). The impact of franchising on labor standards compliance. *ILR Review*, 68(5), 977-1006.

Jin, G. Z., & Leslie, P. (2009). Reputational incentives for restaurant hygiene. *American Economic Journal: Microeconomics*, 1(1), 237–267.

Jones, P., Comfort, D., & Hillier, D. (2006). Healthy eating and the UK’s major food retailers: a case study in corporate social responsibility. *British Food Journal*, 108(10), 838 – 848.

Jones, P., Comfort, D., & Hillier, D. (2007). What's in store? Retail marketing and corporate social responsibility. *Marketing Intelligence & Planning*, 25(1), 17–30.

Kalnins, A., & Lafontaine, F. (2013). Too far away? The effect of distance to headquarters on business establishment performance. *American Economic Journal: Microeconomics*, 5(3), 157–179.

Kidwell, R. E., Nygaard, A., & Silkoset, R. (2007). Antecedents and effects of free riding in the franchisor–franchisee relationship. *Journal of Business Venturing*, 22(4), 522–544.

Kirmani, A., & Rao, A. R. (2000). No pain, no gain: A critical review of the literature on signaling unobservable product quality. *Journal of Marketing*, 64(2), 66–79.

Kumar, N., & Steenkamp, J.-B. E. M. (2007). *Private label strategy: how to meet the store brand challenge*. Boston, MA: Harvard Business School Press.

Lancaster, K. (1981). Information and product differentiation. In M. Galatin, M. and Leiter, R. D. (eds). *Economics of Information*, Boston: Nijhoff Publishers, 17–36.

Laufer, W. S. (2003). Social accountability and corporate greenwashing. *Journal of Business Ethics*, 43(3), 253–261.

Levy, M., & Weitz, B. (2012). *Retailing management* (8th ed.). New York, NY: McGraw-Hill Irwin.

Liu, X., & Anbumozhi, V. (2009). Determinant factors of corporate environmental information disclosure: an empirical study of Chinese listed companies. *Journal of Cleaner Production*, 17(6), 593–600.

Llena, F., Moneva, J. M., & Hernandez, B. (2007). Environmental disclosures and compulsory accounting standards: the case of spanish annual reports. *Business Strategy and*

the Environment, 16(1), 50–63.

Lombard, M., Snyder-Duch, J., & Bracken, C. C. (2002). Content analysis in mass communication: Assessment and reporting of intercoder reliability. *Human Communication Research*, 28(4), 587–604.

Lombard, M., Snyder-Duch, J., & Bracken, C. C. (2004). Practical resources for assessing and reporting intercoder reliability in content analysis research projects. Retrieved October 25, 2013, from

http://ils.indiana.edu/faculty/hrosenba/www/Research/methods/lombard_reliability.pdf

Luo, X., & Bhattacharya, C. B. (2006). Corporate social responsibility, customer satisfaction, and market value. *Journal of Marketing*, 70(4), 1–18.

Mamic, I. (2005). Managing global supply chain: The sports footwear, apparel and retail Sectors. *Journal of Business Ethics*, 59(1-2), 81–100.

Margolis, J. D., Elfenbein, H. A., & Walsh, J. P. (2009). *Does it pay to be good...And does it matter? A meta-analysis of the relationship between corporate social and financial performance*. Retrieved from <http://papers.ssrn.com/abstract=1866371>

Matsa, D. A. (2011). Competition and product quality in the supermarket industry. *The Quarterly Journal of Economics*, 126(3), 1539–1591.

McWilliams, A., Siegel, D. S., & Wright, P. M. (2006). Corporate social responsibility: Strategic implications. *Journal of Management Studies*, 43(1), 1–18.

Meiseberg, B., & Ehrmann, T. (2012). Lost in translation? The performance impact of corporate social responsibility in Franchising. *Journal of Small Business Management*, 50(4), 566–595.

Michael, S. C. (1999). Do franchised chains advertise enough? *Journal of Retailing*, 75(4), 461–478.

Michael, S. C. (2000). The effect of organizational form on quality: the case of franchising. *Journal of Economic Behavior & Organization*, 43(3), 295–318.

Michael, S. C. (2002). Can a franchise chain coordinate? *Journal of Business Venturing*, 17(4), 325–341.

Ness, K. E., & Mirza, A. M. (1991). Corporate social disclosure: A note on a test of agency theory. *The British Accounting Review*, 23(3), 211–217.

Nordic Ecolabelling. (2014). The Nordic Ecolabel's requirements. Retrieved April 2, 2014, from <http://www.nordic-ecolabel.org/criteria/>

O'Donovan, G. (2002). Environmental disclosures in the annual report: extending the applicability and predictive power of legitimacy theory. *Accounting, Auditing & Accountability Journal*, 15(3), 344–371.

Orlitzky, M., Schmidt, F. L. & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies* 24 (3): 403–41.

Patten, D. M. (2002). The relation between environmental performance and environmental disclosure: a research note. *Accounting, Organizations and Society*, 27 (8), 763–773.

Perrigot, R., Oxibar, B., & Déjean, F. (2015). Corporate social disclosure in the franchising sector: Insights from French franchisors' websites. *Journal of Small Business Management*, 53(2), 321–339.

Ramus, C. A., & Montiel, I. (2005). When are corporate environmental policies a form of greenwashing? *Business & Society*, 44(4), 377–414.

Rao, A. R., & Monroe, K. B. (1989). The effect of price, brand name, and store name on buyers' perceptions of product quality: an integrative review. *Journal of Marketing Research*, 351–357.

R Core Team. (2012). *R: A language and environment for statistical computing*. Vienna: R Foundation for Statistical Computing.

Renneboog, L., Ter Horst, J., & Zhang, C. (2008). Socially responsible investments: Institutional aspects, performance, and investor behavior. *Journal of Banking & Finance*, 32(9), 1723–1742.

Retriever AS. (2013). Atekst. Retrieved April 5, 2013, from <http://www.mediarkivet.no/>

Reverte, C. (2009). Determinants of corporate social responsibility disclosure ratings by Spanish listed firms. *Journal of Business Ethics*, 88(2), 351–366.

Rokkan, A. I., & Buvik, A. (2003). Inter-firm cooperation and the problem of free riding behavior: an empirical study of voluntary retail chains. *Journal of Purchasing and Supply Management*, 9(5–6), 247–256.

Roth, K., & O'Donnell, S. (1996). Foreign subsidiary compensation strategy: An agency theory perspective. *The Academy of Management Journal*, 39(3), 678–703.

Shenkar, O. (2001). Cultural distance revisited: Towards a more rigorous conceptualization and measurement of cultural differences. *Journal of International Business Studies*, 32(3), 519–535.

Siegel, D. S., & Vitaliano, D. F. (2007). An empirical analysis of the strategic use of corporate social responsibility. *Journal of Economics & Management Strategy*, 16(3), 773–792.

Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87(3), 355–374.

Steenkamp, J.-B. E. M., & Kumar, N. (2009). Don't be undersold! *Harvard Business Review*, 87(12), 90–95.

Tagesson, T., Blank, V., Broberg, P., & Collin, S.-O. (2009). What explains the extent and content of social and environmental disclosures on corporate websites: a study of social and environmental reporting in Swedish listed corporations. *Corporate Social Responsibility and Environmental Management*, 16(6), 352–364.

Terlaak, A., & King, A. A. (2006). The effect of certification with the ISO 9000 Quality Management Standard: A signaling approach. *Journal of Economic Behavior & Organization*, 60(4), 579–602.

Vachani, S., Doh, J. P., & Teegen, H. (2009). NGOs' influence on MNEs' social development strategies in varying institutional contexts: A transaction cost perspective. *International Business Review*, 18(5), 446–456.

Vormedal, I., & Ruud, A. (2009). Sustainability reporting in Norway—an assessment of performance in the context of legal demands and socio-political drivers. *Business Strategy and the Environment*, 18(4), 207–222.

Wilmshurst, T. D., & Frost, G. R. (2000). Corporate environmental reporting: A test of legitimacy theory. *Accounting, Auditing & Accountability Journal*, 13(1), 10–26.

Wood, D. J. (1991). Corporate social performance revisited. *The Academy of Management Review*, 16(4), 691–718.

Wooldridge, J. M. (2013). *Introductory econometrics: A modern approach*. 5th ed. South-

Western, Cengage Learning.

Ytterhus, B. E., Arnestad, P., & Lothe, S. (1999). Environmental initiatives in the retailing sector: an analysis of supply chain pressures and partnerships. *Eco-Management and Auditing*, 6(4), 181–188.

Zeileis, A., Kleiber, C., & Jackman, S. (2008). Regression models for count data in R. *Journal of Statistical Software*, 27(8), 1–25.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2–22.

Zerbini, F. (Forthcoming). CSR initiatives as market signals: A review and research agenda. *Journal of Business Ethics*, doi:10.1007/s10551-015-2922-8.