

UK retailers and climate change: The role of partnership in climate strategies

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More and more companies in the UK are developing strategies to address the challenges of climate change. We focus on the UK retail sector and explore the role of partnership in shaping the climate change commitments and actions taken by retail companies. We use a social capital approach to firstly measure best practice in the climate strategies of a sample of 60 companies. We then measure the differences in engagement with partner organisations across the same set of companies. Using our best practice and partnership indices, we investigate how committed companies are to climate strategies; how partnerships have an impact on best practice; and we try to understand the distinction between companies that are more and less highly engaged in partnering. We find that partnership has an important role to play; and specifically that higher levels of partner diversity and greater depth of engagement improve the impact of partnership on best practice.

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Abstract

More and more companies in the UK are developing strategies to address the challenges of climate change; and in many cases companies are opting to partner with specialist organisations to help them along the way. We focus on the UK retail sector and explore the role of partnership in shaping the climate change commitments and actions taken by retail companies. We use a social capital approach to firstly measure best practice in the climate strategies of a sample of 60 companies. We then measure the differences in engagement with partner organisations across the same set of companies. Using our best practice and partnership indices, we investigate how committed companies are to climate strategies; how partnerships have an impact on best practice; and we try to understand the distinction between companies that are more and less highly engaged in partnering. We find that partnership has an important role to play; and specifically that higher levels of partner diversity and greater depth of engagement improve the impact of partnership on best practice.

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1. Introduction

Many companies in the UK are now embracing the challenges of climate change and incorporating various types of climate actions into their corporate responsibility (CR) programmes and in some cases their business strategies. Even in the last two years, there have been marked improvements in the quality of carbon and energy information disclosed by companies (CDP, 2008). This trend is set to continue, particularly as changes in the regulatory framework, encourage less energy-intensive companies to collect and report data on energy and emissions (DEFRA, 2008a). At this point in time, however, it is not possible to directly compare the energy and emissions performance of companies in the UK commercial sector due to a lack of standardised data. As a result, it is inherently difficult to assess how successful certain companies have been in developing and implementing actions to address climate change.

Although there are several indices that in some way measure the environmental performance of companies in the UK, they tend to be general in their approach, often focusing for instance on how “green” a company is or how “green” it is perceived to be. For example, Consumer Focus, the UK statutory consumer body, has recently rated the UK’s top nine supermarkets on the extent to which they facilitate green or more sustainable choices to be made by consumers. The concept of green-ness or sustainability in this context includes climate change, sustainable farming, sustainable fishing, waste and recycling (Consumer Focus, 2009). On the other hand, the Carbon Trust Standard is an example of a more targeted approach to recognising the performance of UK organisations specifically in tackling carbon emissions. The standard was launched in June 2008 and aims to certify the performance of organisations in measuring, managing and reducing greenhouse gas emissions. Its main aim is to fill a gap in defining good practice in this area and to reward leading organisations for their commitment to real action (Carbon Trust Standard, 2009).

Our approach is to focus on the retail sector and specifically on the actions that retail companies in the UK undertake to reduce their own carbon footprint as well as their wider indirect footprint through consumers and suppliers, referred to from this point forward as climate strategies. We are interested in understanding the performance characteristics not just of the organisations that are leading the way, but also those that are slightly, as well as much further, behind. The exact components of a climate strategy are not easy to define. As this is an exploratory analysis of the retail sector, however, we consider a broad approach to be appropriate and useful in terms of allowing for as much variation within strategies as possible. In order to overcome the difficulties of comparing across companies at very different stages of development and with different levels of available data, we have constructed a best practice index to quantify levels of commitment to carbon reduction in terms of measurement and reporting; target-setting; target impacts; and implementation. The overall aim of any climate

strategy should be carbon reduction; and whether a company achieves this aim is dependent on how committed it is to each of these categories.

We focus on the retail sector firstly because a substantial part of retail sector emissions are electricity-related which means the retailer has considerable management control over its carbon impact; secondly because retailers as the link between producers and consumers have significant influence over an even larger share of emissions than those directly associated with their business; and thirdly because consumers exert a considerable amount of influence over retail companies through the buying process which means that retailers have become very conscious of consumer perceptions of their image (Hristov and Reynolds, 2007). Many retailers and other companies have chosen to partner with specialist non-profit organisations, consulting companies and academic institutions in order to improve their climate strategies. We identify the main components of these partnerships and guided by developments in and applications of the social capital literature, we measure differences in engagement between companies and partner organisations. Combined with the results from our best practice carbon reduction index, our aim is to clarify the role that partnering has had in shaping the development of retail climate strategies and to understand if and how partnership has the potential to differentiate company performance in this area.

The three main questions we are concerned with are: (1) how committed are companies at this point in time to carbon reduction as demonstrated by their climate strategies; (2) are companies engaged in partnerships more likely to be more committed; and (3) what distinguishes those that are more and less highly engaged in partnerships. In the next section, we set the context for our study by looking at some key concepts and related literature. Section 3 provides an overview of the policy context and introduces the retail sector from a carbon and energy perspective. Section 4 presents the methodology for our study, firstly looking at our best practice index and then at partnership engagement. In section 5 we discuss some of the most interesting results of our survey of retail companies and we follow this in Section 6 with a simple regression analysis that explores the determinants of best practice and the role of partnership. We find that partnership indeed has an important role to play in encouraging the spread of best practice for retail sector climate strategies. Partnering widely and engaging deeply with various types of organisations improves the impact of partnership on best practice; and company size appears to have a dominant effect on partnership score suggesting that partner organisations could do more to target smaller companies in the retail sector.

2. Key Concepts and Literature

2.1. Climate strategies

There is a growing level of awareness among UK companies of the need to recognise the business implications of climate change. The Carbon Disclosure Project (CDP), a global initiative

aimed at facilitating dialogue between shareholders and corporations on the risks and opportunities of climate change, has conducted surveys of the FTSE 350 companies in the UK since 2006. The survey results offer detailed insights into overall strategies, methodologies used for calculating emissions, reduction programmes and targets, and the type of governance structures in place within companies to deal with climate change. Between 2006 and 2007, the response rate among FTSE 350 companies increased from 49% to 70%; and the response rate among FTSE 100 companies in 2007 was 92% (CDP, 2007). The 2008 survey saw a slight decline in response rate to 67% overall and 90% among FTSE 100 companies, driven by a considerable number of new entrants to the FTSE 350 (CDP, 2008).

As well as an increased awareness in the business community of the risks and opportunities posed by climate change, there has been a shift from political to more practical approaches in dealing with these same risks and opportunities. The initial response of many companies was to concentrate on influencing policy debates; responses have since matured into developing climate strategies with carbon reduction targets and practical actions to address the environmental impact of business (Okereke, 2007). The reasons for this shift are manifold but they can be divided into two main categories. The first is external pressure from, for example, government regulation, consumers and environmental non-governmental organisations (NGOs). The second involves pressure from within the company to reduce costs, maximise profit, limit risks and position the company among its competitors.

2.2. Corporate responsibility and partnership

In this paper, we are particularly concerned with how companies in the UK engage with external society as part of strategies to address their climate impacts. Corporate climate strategies usually form part of wider corporate responsibility (CR), corporate social responsibility (CSR) or corporate citizenship (CC) programmes. These three terms are often used interchangeably; and although there are subtle differences between them, they all in essence refer to a company's relationship with wider society. These types of programmes are voluntary and include responses to environmental as well as social issues; the specific emphases are likely to change across sectors. Among the UK-based retail companies that we focus our analysis on, the terms CR or CSR are most often used. CC is not mentioned by any in our sample and tends to be a term associated more closely with companies that have very significant negative environmental or social impacts, for example companies in the extractive industry (Jones et al., 2007)

Corporate responsibility is often guided by motivations central to business strategy. Although some have questioned whether it is ethical to use ethics in a strategic manner (Husted and Allen, 2000); others have instead celebrated the advantages of linking CR programmes more closely to business strategy as a means of moving beyond the realm of public relations and closer to creating shared value (Porter and Kramer, 2006). CR can be profitable to the company and may indeed be a source of competitive advantage and viewing CR in this manner has the potential to lead to more productive results for the company and society at large. In fact, Jones

and Pollitt have long argued that principled decision making and profitable decision making are usually compatible (Jones and Pollitt, 1998). There is in fact growing evidence in the UK retail sector of companies attempting to more closely integrate their corporate responsibility programmes into business strategy. A good example of this type of approach is Marks & Spencer's Plan A where the tagline very clearly illustrates a move towards responsibility to environment and society being placed at the very core of decision-making:

"We're doing this because it's what you want us to do. It's also the right thing to do. We're calling it Plan A because we believe it's now the only way to do business".

At the same time as this is currently an area characterised by voluntary commitments, there is a danger that claims of environmental responsibility can be used as a means of "green-washing" rather than as a genuine means of reducing the impact of business on the environment. Greenwash refers to advertising or marketing by a company that brings attention to its environmental reputation when the basis for this is misleading or unsupported by appropriate evidence (Gillespie, 2008). Spending on advertising that includes the words CO₂, carbon, and environmental has risen considerably in recent years. In 2003, total spend in the UK was £448,000 compared to £17 million in 2006 (Gillespie, 2008). There has also been an increase in public complaints about the environmental claims in ads. The Advertising Standards Authority in the UK reports that these complaints rose sharply between 2006 and 2007 from complaints about 83 ads in total in 2006 to 410 in 2007. In particular, claims about companies' CO₂ emissions were challenged (ASA, 2008). Public scrutiny can act as a means of controlling the spread of greenwash and the role of NGOs in this process can be important. Too much pressure from NGOs, however, may lead some companies to be less forthcoming in disclosing information about their environmental performance. This result implies that a mixture of NGO auditing and mandatory disclosure rules would be more effective than a purely voluntary disclosure framework (Lyon and Maxwell, 2006). It also implies that a more collaborative relationship between NGOs and companies may lead to higher and better quality information disclosure.

Internal company motivations can often be as important as external sources of pressure particularly in relation to corporate climate strategies. The prime example of this is energy efficiency, where taking measures to improve efficiency are often at negative cost to the company and have a positive impact on the environment and society through reduced carbon emissions (CBI, 2007). It is also the case, however, that there are often significant organisational and behavioural barriers to cost-effective implementation of energy efficiency decisions particularly in the commercial and public sector (Carbon Trust, 2005; Grubb and Wilde, 2008). The costs of implementing decisions and strategies in this area are as a result often underestimated. The transaction costs involved in collecting information, making decisions and monitoring progress or performance can be substantial and often require specialist knowledge or skills.

In line with the shift from political to practical approaches in dealing with climate change, many companies have embraced the role that partnering with external organisations can play in contributing to effective action and in overcoming some of these barriers, including transaction costs. Business/NGO partnerships have become particularly widespread and this trend has been identified in some of the recent academic literature on corporate climate strategies (Cowe, 2004; Kolk and Pinkse, 2004; Okereke, 2007). This type of relationship can be a delicate undertaking, especially for NGOs with established reputations in the area of sustainability and climate change. There are serious reputational risks involved for the NGO if, for example, the business it engages with, and is publicly associated with, is criticised for greenwashing. Furthermore, some organisations have strict criteria for excluding the types of companies they view as having the greatest risk to their organisation's reputation. For example, WWF-UK avoids working with companies whose core business is in armaments, tobacco, nuclear power and animal testing (WWF, 2006). Several NGOs manage their interaction with partner companies by establishing engagement guidelines, a set of principles that governs the relationship and identifies the main responsibilities of each party. Forum for the Future, for example, assesses potential partners prior to engaging with them and familiarises itself with the partner company's reputation; the guidelines are then discussed with company representatives from senior management level in order to establish a strong and mutually beneficial foundation for the relationship.³ Other important forms of partnership include engagement with government initiatives, specialist consultancies, and supply chain partners, an area that is growing in importance as the carbon impact of products throughout their life cycle attracts increasing attention (DEFRA, 2008d). While it is often recognised that there are different types of partnership in terms of levels of engagement and commitment (Cowe, 2004), the impact of these forms of partnership on the climate actions ultimately taken by companies has not been investigated.

2.3. Social capital

Our aim in this paper is to clarify the role that engagement with external partners has played in the development and impact of corporate climate strategies in the UK retail sector. Although our focus on one sector facilitates comparison across companies in terms of their climate strategies, we need to use an analytical approach for the partnership analysis that allows us to characterise and measure different types and levels of partner engagement. In order to do this, we build on the detailed work of Jones, Pollitt and Bek (2007) in which the authors use a social capital approach to analyse multinational firm engagements in host country communities. They apply ideas from the social capital literature to generate network scores and norm scores for a sample of multinational companies. The network score reflects the total amount of corporate citizenship activity and the norm score reflects the quality of a company's reporting of its CC activity. We adapt this approach and use a norm indexing approach to generate best practice

³ Interview with Dan Crossley from Forum for the Future, 16th of October 2008.

scores for retail climate strategies. We then look at company engagement with external partners as a means of implementing these strategies. We generate network scores for each of the companies based on the type of engagement in specific partnerships; the total number of partners; and the different levels of partnership engagement.

Social capital is a useful concept in undertaking this type of analysis because it can help to explain the impact and structure of different types of social relations. Robert Putnam's work on civic engagement in Italy and the United States has been central to the development of the theory of social capital (Putnam, 1993; Putnam, 2000). Putnam, a political scientist, defines social capital as the "features of social organisation, such as trust, norms and networks, that can improve the efficiency of society by facilitating coordinated actions." (Putnam, 1993, p. 167) Others have attempted to develop this theory further using different disciplines. Dasgupta (2005), an economist, offers what he describes as a tighter definition of social capital – "interpersonal networks" – so as not to prejudge the quality of this type of asset. He suggests instead that it is the *use* to which a network is ultimately put that determines its quality rather than its mere *presence*. This is a very helpful observation and suggests that measuring the quality of partnership or engagement as part of a network is crucial in any empirical analysis. It also ties in very closely with Goyal's work on the economic theory of networks (Goyal, 2007). Goyal suggests that connections within a network can take on very different forms and depend not only on a company's internal assessment of the cost and benefits of investing in a connection but also on the connections formed by others. Putnam, Goyal and Dasgupta are all concerned with the effects that different patterns of connections and networks have on social and/or economic outcomes in a society.

In the CR literature, there are several examples of recent studies that use a social capital framework to investigate the impact of companies on the environments and societies in which they operate. The main dimensions of social capital identified by Putnam (1993), i.e. networks, trust and norms of cooperation feature strongly in this literature. Most of the studies have looked at CR or business practices as a whole and several have focused in particular on the contrast between assessing the impact of large and small companies (for example, Spence et al., 2003; Avram and Kuehne, 2008; Russo and Perrini, 2009). Few have used a social capital approach as a means of assessing a particular strand of CR. One example is a recent study by Muthuri et al. (2009) in which the authors look specifically at employee volunteering as part of CR in three UK companies.

Measuring the various components of social capital is a challenging task. For our purposes we are particularly interested in measuring networks and we look to the sociological literature on the concept of tie strength as a first port of call. Marsden and Campbell (1984) use survey data on friendship ties to investigate issues in the measurement of social networks. They identify a number of indices or measures that have been developed to analyse networks including network size; tie strength; and network range. In order to reflect the multiple dimensions of

engagement in networks, we incorporate several of these measures into our analysis to measure not only the size but also the depth, intensity and diversity of partnership networks. Furthermore, we build on the work of Jones, Pollitt and Bek (2007), adapting and applying social capital measures to a specific sector and a specific aspect of CR.

3. Retail climate strategies: Setting the context

3.1. Policy framework

There are a number of policy instruments already in place that have an impact on the climate strategies of UK companies. The most heavily regulated companies are those that use energy most intensively and many of these now fall under the European Union Emissions Trading Scheme (EU ETS). Heavy industries such as electricity generation, iron and steel, mineral processing (e.g. cement manufacture) and pulp and paper processing, are the main parties involved. The scheme aims to reduce carbon emissions by putting a price on carbon and creating a market for emissions allowances; the theory being that trading emissions allows emissions reductions to take place where the costs of reduction are lowest. Installations rather than entire companies or organisations are covered by the scheme.

Other instruments relevant for the business sector are:

- a) The Climate Change Levy (CCL), a tax on energy use in the business and public sectors⁴;
- b) The Climate Change Agreements (CCA), allowing energy intensive businesses to receive an 80% rebate of the CCL in return for meeting negotiated sector targets;
- c) Buildings regulations;
- d) Support services managed by the Carbon Trust, set up as an independent company by the UK government in 2001;
- e) The Carbon Reduction Commitment (CRC), a cap-and-trade scheme for large non-energy intensive organisations due to come into effect in April 2010.

Up until the development of the CRC, energy-intensive sectors were the main targets of climate policy; exposing these sectors to the price of carbon through emissions trading and the CCL has been the main method of encouraging companies to become more efficient in their use of energy. Although the CCL also applies to the public and commercial sectors, its impact has not been as effective. Non-energy intensive organisations are less responsive to price signals such as

⁴ The levy applies to all industrial and commercial energy supplies in the following sectors: industry, commerce, agriculture, and public and service sectors. Fuel supplies to domestic customers or the transport sector are not covered by the levy.

the CCL for a number of reasons. Firstly, energy costs are less significant than is the case with energy-intensive organisations. Secondly, there are other barriers to efficient energy use in non-energy-intensive organisations that are more significant than price in terms of decision-making: organisational structure; transactions costs; hidden benefits such as those from CR; lack of adequate skills; and market misalignment, for example the tenant-landlord split, where tenants have little incentive to improve the performance of an asset (e.g. a building) they do not own (Grubb and Wilde, 2008).

The Carbon Reduction Commitment aims to address some of these barriers so as to improve the incentives for large non-energy intensive organisations to invest in energy efficiency. The scheme recognises that there are limits to the impact that financial incentives alone can have on these types of organisations given that energy costs are typically less than 3% of total operating costs (DEFRA, 2008a, p. 5). After an introductory phase from 2010 to 2013 where emissions allowances will be sold at a fixed price, allowances will be fully auctioned from 2013. Revenue from the auctions will be recycled back to the participating organisations⁵ and will be adjusted by a bonus/penalty depending on performance in a CRC league table. The league table will be based primarily on a rolling average of participants' emissions which will relate to the previous 5 years. Both emissions from direct (burning of fuel on-site) and indirect (electricity-related) sources will be included. It is estimated that approximately 6,000 organisations will be covered by the CRC; the final design includes all public sector and commercial organisations in Great Britain and Northern Ireland that (i) have at least one half-hourly electricity meter settled on the half-hourly market and (ii) consume more than 6,000 MWh of electricity per year (DEFRA, 2008c). In September 2009, the Environment Agency will be contacting all UK addresses with half-hourly metering; all of these organisations will be required to collect information on their total electricity consumption for 2008 and submit this to the Environment Agency in order to assess qualification for the scheme.

There are three particularly important elements of the CRC in terms of its impact on the role of CR in developing corporate climate strategies. Firstly, the scheme focuses on organisations in contrast to the focus on individual installations in the EU ETS. The highest UK parent organisation will be defined as the UK participant; the participant is then responsible for all energy use emissions covered by the scheme, emitted by all its subsidiaries. For example in the case of a group of franchised companies or a company with a number of subsidiaries, one part of the group acts as the point of contact with the scheme administrator, i.e. the highest parent organisation or another part of the group that is nominated to take on the role. This top-down approach ensures that climate actions are brought to senior management level within CRC organisations rather than being dealt with in a piecemeal fashion. Secondly, linking revenue recycling to the performance league table places reputational incentives centre stage. Thirdly,

⁵ Revenue neutrality was part of the original proposal for the CRC put forth by the Carbon Trust, in part because the sectors concerned are already subject to the Climate Change Levy (Grubb et al., 2009).

the comparison of organisations via the league table and thanks to the standardised measurement and reporting criteria at the heart of the scheme will be more reliable and consistent than before.

The behavioural barriers to energy efficiency decisions are lowered; a combination of financial and reputational incentives is used to encourage managerial and behavioural changes. While transaction costs are minimised by focusing the scheme on large organisations with access to half-hourly electricity consumption data, the means by which energy efficiency performance is improved are left up to the individual organisation. Partnership still has a role to play in shaping commitments and performance and in preparing companies to behave within this new regulatory framework. Furthermore, certain climate commitments will remain voluntary such as those related to supply chain (scope 3) emissions; and the role of partnership in this area has the potential to differentiate performance among companies.

3.2. Carbon and energy in the UK retail sector

Total emissions of carbon dioxide (CO₂) in the UK were 543 MtCO₂ in 2007 and total estimated greenhouse gas (GHG) emissions for the same year were 636 MtCO₂e (DEFRA, 2008b). When we consider the impact of the retail sector as part of this total, it helps to first of all consider the three scopes of emissions as defined by the GHG Protocol:⁶

- a) *Scope 1 (direct)* refers to GHG emissions from the generation of electricity, heat or steam; physical or chemical processing; transportation of materials, products, waste and employees (company owned or controlled vehicles); and fugitive emissions (e.g. from refrigeration or air-conditioning units).
- b) *Scope 2 (indirect electricity-related)* refers to emissions from purchased electricity that is used in owned or controlled equipment/operations.
- c) *Scope 3 (other indirect)* covers a wide range of indirect emissions upstream and downstream of a company or organisation. Some of the main categories include the production of purchased materials and fuels; transport-related activities (those that don't fall under scope 1); outsourced activities; the use of sold products and services; and waste disposal (WRI and WBCSD, 2004).

To comply with the GHG Protocol (a voluntary standard), companies must report scope 1 and 2 emissions separately. Reporting of scope 3 emissions is considered optional but is also seen as an area with opportunities for innovative approaches to GHG management. In our analysis we focus on a sample of 60 retail companies, a mixture of general and food/drug retailers. Our list of companies constitutes 60 out of the 65 retail companies that appear in the 2008 Value Added

⁶ The Protocol is an accounting tool and standard developed by the World Resources Institute and the World Business Council for Sustainable Development to help governments and businesses to manage their GHG emissions.

Scoreboard from the Department for Innovation, Universities and Skills.⁷ The online database gives access to company data on productivity, sales and operating profits for the top 800 UK companies by value added, including domestically-owned companies as well as foreign-owned companies that report in the UK. We have chosen to focus on the retail companies in this selection so that we can make sure we are incorporating the major UK retail actors, both listed and non-listed, into our analysis with a wide coverage of commercial buildings, employees and customers in the UK. For some of the domestically-owned companies, the data refer to worldwide operations and for a small number of companies the data also include non-retail business segments. As we are interested in focusing exclusively on retail activity in the UK, we have adjusted these data using company annual reports.⁸

The definition of retail sector used in the Value Added Scoreboard is based on the FTSE/Dow Jones Industry Classification Benchmark (ICB). The retail industry as defined by the ICB is split into two main sectors: food and drug retailers comprising drug retailers, as well as food retailers and wholesalers; and general retailers which include apparel, broadline, home improvement and specialty retailers (those that focus on a single class of goods), as well as specialised consumer service providers. This is a wider definition than that of the Standard Industry Classification (SIC) used by the UK Office for National Statistics but corresponds broadly to section G of the SIC which includes wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods. Our sample of 60 retail companies accounts for approximately 25% of total sector value added and 34% of total sector employees.⁹ This is a considerable share for 60 companies, particularly considering the total number of enterprises in the sector is approximately 381,000. Among all types of retailers, reporting of scope 1 and 2 emissions is on the rise and will continue to increase due to the imminent introduction of the Carbon Reduction Commitment. Within our sample, 18 companies publicly report their emissions; however there is considerable variation in methods. Not all companies, for instance, report emissions for the UK separately from the rest of their operations; and some do not explicitly divide emissions into scope 1 and 2 categories. Direct comparison across the companies in our sample is therefore difficult.

Retail direct CO₂ emissions (scope 1), as defined by the ICB, constitute just over 2% of total UK emissions.¹⁰ This share has been steadily rising since 1990. Statistics available at the sector level

⁷ 2008 Value Added Scoreboard:

http://www.innovation.gov.uk/value_added/default.asp?quicklink=database ; Five companies were dropped from the sample due to inadequate information availability (see Section 4.1).

⁸ Where exact figures are not available in company annual reports, we have estimated the percentage shares of UK-based VA, employees, and retail business using available information.

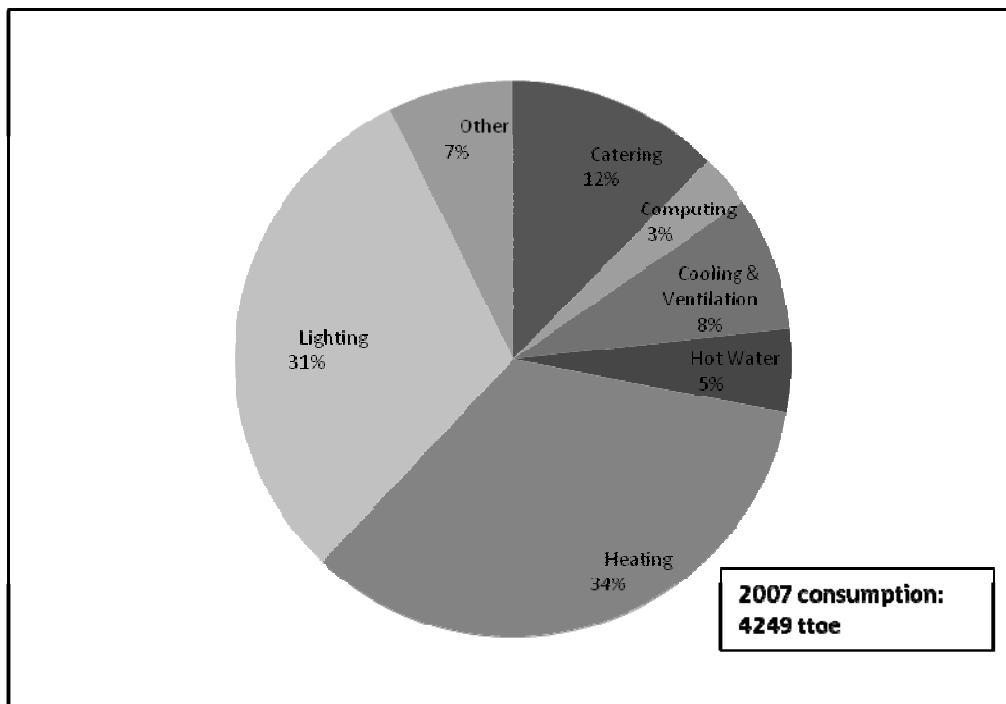
⁹ This is based on 2006 Section G totals for value added and employees (average of total employment during the year) from the Annual Business Inquiry available from the Office of National Statistics: <http://www.statistics.gov.uk/abi/>.

¹⁰ Based on National Accounts numbers by sector (IPCC-based accounting not broken down by sector), including retail and wholesale trade and garages.

do not, however, reflect electricity-related or transport emissions (scope 2) attributed to UK retailers nor do they reflect any of the retail sector's scope 3 emissions. Scope 1 and 2 emissions are the most relevant in terms of identifying the retail sector's impact on total UK emissions and they are also the emissions over which a retailer has the most management control. Based on the scope 1 and 2 emissions data available from our sample, we have estimated an average emissions intensity figure (CO_2 per unit of VA and CO_2 per employee) for general retail and food/drug retail. Scaling this up using VA and employee data, we find that direct (scope 1) emissions come to approximately 3 MtCO_2 ; and scope 1 and 2 together account for approximately 11 MtCO_2 (2% of total UK CO_2 emissions). If we assume that scope 3 emissions are 30 times direct retail sector emissions (Carbon Disclosure Project, 2007, p. 24), the total impact of our sample comes to approximately 100 MtCO_2 . These emissions are not all attributed to the UK due to global supply chain activities, however they give an indication of the potential influence of retailers on a substantially larger share of emissions than is directly attributed to them.

These numbers illustrate several important characteristics of the retail sector and some of the main reasons for our focus on retail in this analysis. Firstly, indirect electricity-related emissions account for a substantial amount of the carbon footprint that can be managed directly by a retailer. Secondly, our sample of 60 large non-energy-intensive retail companies constitutes a substantial share of the entire UK retail sector's carbon footprint. Thirdly, retailers have the potential to influence a significant share of UK carbon emissions through their supply chains and customer base. They represent a significant amount of buying power on behalf of consumers throughout the UK because retailing as an economic activity provides the link between producers and consumers. As a result, retailers reach most of the population in some way every day (Hristov and Reynolds, 2007). This makes retailing an interesting object of study particularly due to the direct contact that companies have with the public on a regular basis. The influence of the retailer on the consumer as well as the consumer on the retailer is crucial in thinking about the retail sector's relationship with external society. Due to this regulator contact between retailers and consumers, there may also be a tendency for consumers to expect more from retail companies than from other organisations in addressing the impact of their business on environment and society. Finally, although only a small number of retailers in our sample currently report any scope 3 emissions, this is an area that has the potential to differentiate performance and climate strategies among retailers in the years ahead. In fact from our sample we identified 14 retail companies that are engaging with their suppliers in some way to exert their influence over the environmental credentials of their supply chains. For example, several companies are engaged in developing systems to accurately measure the carbon footprint of different products (e.g. John Lewis, Asda); and several others are working with suppliers to reduce their fleets' transport emissions (e.g. Tesco, TK Maxx, WH Smith).

Figure 1: Retail sector energy consumption by end-use



Source: DECC (2009)

In terms of the main energy end-uses, In fact from our sample we identified 14 retail companies that are engaging with their suppliers in some way to exert their influence over the environmental credentials of their supply chains. For example, several companies are engaged in developing systems to accurately measure the carbon footprint of different products (e.g. John Lewis, Asda); and several others are working with suppliers to reduce their fleets' transport emissions (e.g. Tesco, TK Maxx, WH Smith).

Figure 1 provides an end-use breakdown for the retail sector based on data for 2007. By far the two most significant end-uses are heating and lighting in retail settings. Together they account for over half of total energy consumption in the sector. This breakdown may vary depending on the type of store. Food retailers, for example, tend to use more energy for refrigeration than other retailers. In advising retail companies on the areas to investigate for energy saving opportunities, the Carbon Trust emphasises the following four main areas:

- Lighting
- Heating
- Cooling and ventilation

- Refrigeration

These four areas constitute a large share of total energy consumption. They are also areas where there are a range of low-cost solutions for energy savings, for example switching off lights and appliances when not in use, as well as opportunities for longer-term savings by investing in new equipment and/or controls (Carbon Trust, 2006).

4. Methodology and Data

4.1. Best practice index

Once the Carbon Reduction Commitment comes into effect, large non-energy intensive organisations will be required to collect energy and carbon emissions data in a standardised way. Until then, collecting and reporting this data will be, and indeed has been in the past, voluntary. There are considerable challenges involved in comparing climate strategies and performance across retail companies at this point in time as there is a lack of consistent energy and emissions data. The Carbon Disclosure Project has done much to improve the situation, however substantial gaps still remain. In light of these challenges we have developed a best practice index to measure the level of commitment a company has to its climate strategy as a means of differentiating company efforts. We have used a mixture of qualitative and quantitative indicators to incorporate the varying levels of detail available for different UK retail companies. Our list of retail companies comes to a total of 60. The original list contained a further 5 companies which we eliminated due to an inability to locate any online information for three companies (BFS, Tyco and UAG); or in the case of two other companies a lack of information pertinent to the UK retail segment of the business (Volkswagen Group and BMW UK). *Table 1* presents an overview of our final set of companies by sector (i.e. food and drug retailers; and general retailers) and in order of value added (highest to lowest).¹¹

Our best practice index has been developed with the retail sector firmly in mind but can be adapted for other sectors. Our overall aim is to measure the level of commitment an individual company has to its climate strategy using a number of indicators related to reporting, targets and levels of engagement with selected stakeholder groups. There are several existing corporate indices that attempt to measure corporate responsibility towards the environment in different ways. Business in the Community's (BITC) Environment Index is one example and has been in operation since 1996 as a means of helping companies to benchmark their environmental performance. Since 2007, the Environment Index has been merged into BITC's overall Corporate Responsibility Index in order to allow the organisation to focus more specifically on climate change.¹² On the basis of the BITC index results, companies are ranked in four main bands:

¹¹ The division into industry categories is based on the Industry Classification Benchmark used by FTSE and Dow Jones where "the nature of a company's business is determined by its source of revenue or where it constitutes the majority of revenue" (http://www.icbenchmark.com/icb_structure.html).

¹² Interview with Amita Vaux from Business in the Community, Monday 8th of September 2008.

platinum; gold; silver; and bronze. Performance is compared with the previous year where applicable and awards are given each year to companies that stand out and offer some form of responsible leadership on environmental issues.

In contrast to BITC's indices we have opted for a sector-specific approach so that we can compare performance across similar business entities. We recognise, however, that within our sample of companies there are wide varieties in the types of products sold and also in the ownership structures of the retail companies themselves. These differences will be incorporated into our analysis to further enrich our understanding. We have chosen to focus specifically on climate strategies rather than on a broader concept of environmental performance in our index. Furthermore, we draw from the norm indexing approach used by Jones, Pollitt and Bek (2007). We use this approach, measuring norms of corporate behaviour in addressing climate change, as a means of measuring current action and commitment to action. This approach helps us to overcome the lack of standardised reporting and data on performance in this area and allows us to capture a snapshot of differences in best practice before the onset of the Carbon Reduction Commitment.

Table 1: UK Retail Companies

	Company	VA (UK) £m	Employees (UK)
	<i>Food/Drug Retailers</i>		
1	Tesco	6797	270417
2	Sainsbury	2788	146900
3	Wal-Mart (Asda)	2675	153617
4	Wm Morrison Supermarkets	2206	117804
5	Alliance Boots	1482	56901
6	Somerfield	418	56980
7	Lloyds Pharmacy	380	14855
8	Greggs	289	18974
9	Icebox (aka Iceland)	266	17536
10	Giant Topco	194	7926
11	Aldi Stores	167	4440
12	AAH Pharmaceuticals	164	3469
	<i>General Retailers</i>		
13	Marks & Spencer	2324	71000
14	John Lewis	1500	67100
15	Home Retail	1279	52633
16	NEXT	1233	61369
17	Kesa Electricals	881	8544
18	Kingfisher	865	26830
19	Arcadia Group (Taveta Investments)	683	29748
20	DSG International	653	31855
21	Debenhams	562	25907

22	Pendragon	551	15706
23	Carphone Warehouse	511	9269
24	AA	489	7185
25	Littlewoods Shop Direct	422	21935
26	Inchcape	391	7846
27	AS Watson (Health & Beauty UK)	389	13517
28	Woolworths	378	30209
29	Masterlease	360	1489
30	Sports Direct International	351	11917
31	River Island (Lewis Trust)	343	13431
32	United Co-operatives (now part of Co-operative Group)	333	16106
33	Arnold Clark Automobiles	328	7596
34	Wilkinson Hardware Stores	304	21836
35	WH Smith	298	16227
36	Galiform	278	4541
37	Markerpost (aka New Look)	270	13693
38	HMV	233	10469
39	TK Maxx	227	13185
40	BHS	224	14638
41	Halfords	224	10325
42	Matalan Retail	206	13921
43	Harrods	205	3262
44	House of Fraser (now Highland)	189	8074
45	JJB Sports	175	12017
46	Saga	172	2919
47	Signet	168	3847
48	Lookers	149	4883
49	N Brown	146	3009
50	Bestway	146	4006
51	Carpetrigh	145	3366
52	Monsoon	139	4012
53	Findel	134	4042
54	Palmer & Harvey	126	3821
55	Focus DIY	125	7323
56	Costco UK	124	4148
57	Martin McColl	124	11047
58	Clinton Cards	118	9434
59	Marshall Motor Group	99	1808
60	Game	87	5148

Source: Department for Innovation, Universities and Skills, Value Added Scoreboard 2008

In our best practice index, we measure public commitment to norms of responsible corporate behaviour in the area of climate change. To identify the main indicators of commitment, we conducted semi-structured interviews with representatives from three organisations that work in different capacities with retail and other UK companies on climate and energy-related issues.¹³ From these interviews and an initial survey of a selection of company reports, we identified the following four areas of corporate climate strategy where evidence of public commitment appears to be most important:

- a) Measurement
- b) Target setting
- c) Target impacts
- d) Implementation and stakeholder engagement

Table 2: Best practice index

Category	Indicator	Max. Score	Details
Measurement	Compliance with GHG protocol		
	Scope 1 emissions reporting	2	
	Scope 2 emissions reporting	2	
	Scope 3 emissions reporting	2	0 for no; 1 for partial; 2 for full
	External verification of emissions figures and measurement procedure	2	
	Use of relative measures of emissions/energy performance	2	
Target setting	Longer-term plans/targets (beyond next 5 years)	2	0 for no; 1 for vague; 2 for specific
	Integration of climate strategy into core business strategy, for example board-level engagement; embedding CR management into relevant activities	2	0 for no evidence; 1 for discussion; 2 for central part of CR
	Prioritising sector-specific issues *		
	Lighting	2	
	HVAC and/or Refrigeration (must be both for food retailers to achieve full score)	2	0 for no mention; 1 for mention; 2 for specific target/discussion of measures already taken
	Distribution network (transport)	2	

¹³ The three organisations were: The Carbon Trust, an independent company set up by the UK government in 2001 to accelerate the move to a low-carbon economy by engaging with organisations to reduce carbon emissions; Business in the Community, a membership organisation that encourages members to have a positive impact on society; and Forum for the Future, a sustainable development charity that partners with UK businesses with a focus on solution-oriented advice services.

Target impacts	Achievement of CO2 targets from previous year	2	0 for no reporting; 1 for reporting but with delays in several targets; 2 for reporting with success for majority
	CO2 reduction targets	2	0 for vague or no information; 1 for mention without specific details; 2 for specific targets in one or more areas
	CO2 reduction reporting	2	Including baselines for targets: +1 Clear CO2 footprint: +1
Implementation/ Engagement	Programmes to engage with employees re: energy/carbon (e.g. energy awareness campaigns)	2	
	Programmes to engage with suppliers re: energy/carbon in the supply chain	2	
	Programmes to engage with customers re: energy/carbon	2	0 for no mention; 1 for mention; 2 for specific programme(s)
	Total	32	

* Based on Carbon Trust Retail Sector overview (Carbon Trust, 2006)

For each of these four areas, we are concerned with publicly available information disclosed under the categories of climate change, carbon and/or energy. We developed the best practice index outlined in *Table 2*, keeping the limitations of available information firmly in mind. For most of the indicators in our index, we have differentiated levels of performance or commitment so that we can have a more granular means of comparing across companies. The four categories are weighted so that the first two (measurement and target setting) account for just over 60% of the total score split equally between the two; and the second two (target impacts and implementation) for just under 40% also split equally. This is designed to reward companies that start off with a strong foundation in measuring energy and carbon performance and in identifying and addressing sector-specific target areas.

Measurement of CO₂ emissions by the companies in our sample is currently voluntary. There are, however, norms that are generally accepted as indicators of good practice. The Greenhouse Gas (GHG) Protocol Initiative led by the World Resources Institute and the World Business Council for Sustainable Development offers companies a voluntary international standard for accounting and reporting GHG emissions. Separate reporting of scope 1, scope 2 and scope 3 emissions is an essential part of meeting the standard. We assign scores to companies for each category of emissions depending on whether full or partial information is disclosed. Reporting of scope 3 emissions is optional under the GHG protocol and tends to be pursued by those companies that are already at an advanced stage of developing their climate strategy. Verification of reported emissions by an external organisation is a central component of publicly committing to transparency and considerable guidance is given as part of the GHG protocol on this subject (WRI and WBCSD, 2004). Although verification is a complex process, for the purposes of our index we look only for an indication that external verification has taken place and we do not evaluate the quality of the actual verification process.

Our final indicator in the measurement category refers to the presentation of reported emissions. Under the GHG protocol companies are required to report absolute quantities of emissions. While the importance of ratio indicators or relative measures of performance is recognised, their reporting is not deemed essential. We include an indicator that reflects the use of relative measures in order to differentiate between those doing what is considered necessary and those moving the boundaries of corporate climate strategies forward. Furthermore, using relative measures is particularly important for engagement with external society as their use facilitates comparisons between similar products and processes over time (WRI and WBCSD, 2004). For example, several companies report energy consumption per square foot; others report carbon emissions relative to sales; and for transport, emissions per km or per delivery is a common metric.

The next two categories in our index, target setting and target impacts, measure in a qualitative manner the level of commitment a company has to developing a carbon reduction strategy for the UK and the impact of that strategy. Again, due to a lack of standardisation and a paucity of data, it is not possible to compare targets and outcomes of targets directly. Instead, we have identified a number of indicators that measure commitment. In terms of target setting we are interested in identifying any retail companies that are adopting a longer-term view of strategies to reduce carbon emissions. The UK government has set ambitious medium and long-term carbon reduction targets. If these targets are to be achieved, at least 80% reductions by 2050 against a 1990 baseline (Climate Change Act, 2008), companies in the UK will also have to adopt longer-term strategies. Up until now, however, companies have tended to focus on 4 or 5-year timeframes.¹⁴

Integrating climate strategies into overall business strategy allows energy and carbon issues to be addressed at a senior level; it also ensures that the risks and opportunities posed by climate change are considered as part of the wider business context rather than being sidelined. We measure the commitment of companies towards integrating climate strategies by looking in particular for board-level engagement in climate strategies and for explicit discussion of the importance of addressing climate change for the overall business. Responses to the CDP survey are helpful here. Question 4 of the survey asks companies if a board committee or other executive body has overall responsibility for climate change.¹⁵ For non-CDP respondents, we look for evidence from CR reports that business strategy and climate strategy are interlinked. In many cases, this is explicitly discussed. Debenhams, for example, describes how management and accountability for CR, including energy-related areas, are embedded into the relevant business activities rather than being centralised. This is a strong indicator that climate strategy and business strategy are integrated.

¹⁴ This indicator was informed particularly by discussions with Harry Morrison, Senior Strategy Manager, Carbon Trust, 11th April 2008.

¹⁵ Details available from www.cdproject.net

Giving priority to areas that contribute significantly to sector carbon emissions demonstrates that a company is committed to developing an effective climate strategy. Heating, ventilation and air-conditioning (HVAC); lighting; and refrigeration are the three most important energy end-uses in the retail sector as discussed in Section 3.2. We look for targets or measures already taken in each of these areas and score companies according to the level of detail provided. The same approach is used in looking at targets related to retail distribution. Distribution networks are at the heart of traditional retail businesses and contribute to transport emissions which are an important target for UK climate policy. Freight activities are responsible for around 30 per cent of total UK transport emissions and are to be targeted as part of the UK Transport Department's new low carbon strategy (DfT, 2009).

The impact of targets depends on progress being made from one year to the next. An understanding of how targets in different areas of operation have an impact on total CO₂ reduction is also important, as is communicating this information clearly and accurately. The three indicators used to measure target impacts combine all of these elements and once again companies are scored according to the level of detail that is publicly available. For reporting of CO₂ reductions, we use two criteria to measure company commitment to transparency and accuracy; namely including baselines for targets and having a clear description of what is included or not included in the CO₂ footprint. Bad practice in the area of CO₂ footprint reporting, for example, includes reporting total CO₂ emissions as the total after the purchase of carbon offsets. Furthermore, failing to include a baseline year for a CO₂ target makes it difficult for external observers to track whether a company is in fact progressing towards its stated objectives or not. If the baseline is not stated in advance, the goal itself has the potential to become a moving target.

Finally, corporate responsibility programmes originate from the interaction between business activities and external society. Their successful implementation requires engagement with a number of stakeholder groups. For retail sector climate strategies in particular, employees, customers and suppliers are important and also accessible audiences. By engaging with each of these stakeholder groups, retail companies can improve implementation of strategies internally (employees) and expand the reach of climate strategy to involve decisions made by customers and actions taken in the supply chain. We look for evidence of programmes to engage with each of these stakeholder groups specifically in relation to energy/carbon issues.

Our dataset was compiled using information from company corporate responsibility (CR) reports, company websites and the Carbon Disclosure Project. We located the two most recent CR reports (in most cases 2007 and 2008) for each of the companies in our sample. In some cases CR information is only available from company websites. In cases where insufficient information was available online, we located company annual reports to see if there were any CR-related sections. In several cases where no dedicated CR report or section of a website existed, we found some limited information in annual reports. This part of the project was carried out during March and April 2009. We supplemented the information from company reports and websites with relevant responses to the Carbon Disclosure Project's (CDP) 2008

survey. The CDP survey aims to collect information on corporate carbon measurement and management strategies internationally. Not all of the companies in our sample have responded or have allowed their responses to be made publicly available. For those that have responded, the data on emissions reporting has been particularly useful in building our dataset.

Our first step involved collecting data on carbon emissions and energy consumption for as many of the companies as possible. The second step was to record all carbon and energy targets with information on the target area, baseline, start and end year, coverage (i.e. global or UK) and any progress reported on achieving the target. The third step was to use all of the data on measurement and targets to assign scores to companies based on the best practice indicators. As part of this final step, the most recent reports were revisited to collect any additional information necessary to complete best practice scoring.

There are certain drawbacks with this kind of data mining. First of all, it is difficult to identify if there is in fact more existing information for some companies that has not been made public. We are, however, interested not only in the information that companies have available internally but also how this information is communicated externally. It is not so important to our process to determine what is available so much as what is available publicly and transparently. The second potential drawback is the ephemeral nature of internet-based information. In order to address this, we chose to trace website data and information where possible to a company or annual report. In addition, all companies were surveyed between March and April 2009 in an effort to provide a snapshot of existing behaviour rather than a conclusive overview. The third drawback is that where progress is reported by companies, it is not always clear whether it has been externally verified or not. It may be difficult to ensure that a company has not exaggerated the progress made. We assume, however, that it is unlikely for companies to significantly exaggerate achievements due to the scrutiny to which CR reporting and particularly climate change commitments are currently subject (Jones et al., 2007).

4.2. Engagement

Building on the work of Jones et al. (2007) we use network mapping to measure the engagement of companies with a variety of partner organisations. We focus exclusively on partnerships/memberships of organisations that have a focus on climate change. We are interested in the economic and social effects of the patterns of connections sustained by companies as part of their climate strategies. One of the main motivations for this type of approach is to investigate whether partnership has been viewed as a means of and whether it has in fact been effective in reducing the transaction costs associated with implementing and keeping up with best practice in climate strategies.

Mapping the connections a firm has to partners is a first step in understanding its level of engagement. In order to do this, we have consulted the most recent CR report, company websites and annual reports to identify relevant partnership organisations. From an initial mapping exercise we identified four categories of partners that retail companies are most likely to interact with (summarised in *Table 3*).

Table 3: Partner organisation types

Partner organisation	Definition
NGO – membership	Non-governmental international, national or local organisation with a focus on benefits to members, e.g. trade association
NGO – service	Non-governmental international, national or local organisation with a focus on providing services to other organisations or to entire populations, e.g. WWF
Academic	Academic/research institutions based in the UK and internationally
Firm	For-profit companies, e.g. consulting firms

We have split the NGO category into two based on the primary orientation of organisations. Our classification draws on the work of Vakil (1997) who developed a systematic framework for understanding development NGOs. There are two distinct types of orientation within this framework. The first is *membership* where the beneficiaries of the organisation’s work are the members themselves; and the second is *service* where the organisation acts as an intermediary in providing services to other organisations or groups of people. This classification is also helpful in understanding environmental NGOs (or NGOs with an environmental component) where the ultimate objective is, broadly speaking, also a developmental one but focused on the sustainability of economic activity and development. We have assigned categories to organisations on the basis of their main focus, as outlined in the “About us” sections of their websites.

Although we have also recorded the level on which the partner organisations operate, i.e. international, national or local, we have not made a distinction in measuring engagements on the basis of these levels. For our purposes the partner type and diversity of partners are more important. We use a partner diversity index to capture how widely companies partner with the different types of organisations identified. An ordinal score with five possible outcomes from 0 to 4 is given, where 1 denotes the presence of partnerships with one type and 4 denotes the presence of partnerships with all four types of partner organisations.

In order to move beyond a one-dimensional representation of engagement and to give an indication of depth and longevity, we use an additional scoring system as outlined in *Table 4* to measure individual partnership engagements. Each of the partnerships mentioned by a company is assigned a score using this system. These scores are added together to form an overall measure of partnership that reflects both the level of engagement in each partnership

and the number of partners. Boxes 1 and 2 illustrate using case studies of specific partnerships how various features of engagement have been identified and assigned scores.

Box 1: PARTNERSHIP CASE STUDY – THE SUSTAINABLE CONSUMPTION INSTITUTE AND TESCO

The Sustainable Consumption Institute at the University of Manchester was established with support from Tesco in September 2007. The Institute’s work focuses on national and international issues related to sustainability in the retail sector. The main features of Tesco’s engagement with its academic partner are as follows:

- Investment of £25 million to establish the Institute (+1 for donation)
- Supporting research that relates to sustainability in the retail sector as a whole and to sustainable lifestyles (+1 for beyond company-specific)
- Involvement of board members from Tesco in the Strategic Management Board (+1 for board-level engagement)
- 5-year commitment (+1 for long-term engagement)

Total Score = 4

The bases for the measures we use come from the work of Jones et al. (2007) and are strongly linked to key works in the social capital literature (see Section 2). We have adjusted the indicators used in our scoring system so that they are more appropriate to the specific context of partnership engagements in the energy/environment field. Our interviews with partner organisations have informed this scoring system in a number of ways. Firstly, we have made a distinction between involvement in projects or services that are specific to the company and those that have a wider reach. Companies that engage in activities that are important not only for the company but also for sector-wide development in climate strategies, have been deemed by several organisations to occupy a leadership position.

Table 4: Scoring system for partnership engagements

Indicator	Maximum Score
Donation of resources/Payment for services	1
Involvement in projects/advice services that are specific to the company	1
Involvement in projects/issues beyond company-specific	1
Board-level engagement (e.g. required CEO/board involvement as part of partnership model or emphasis on CEO/board involvement by the company)	1
Long-term engagement, i.e. beyond 1 year; not annually renewed	1
Total partnership score	5

Business in the Community (BITC), for example, has a partnership model that is fairly informal. Companies sign up to a membership commitment; pay a membership contribution; and then any extra involvement with BITC is entirely voluntary. The very engaged members tend to get involved in working groups which focus on practical issues of importance to a group of companies.¹⁶ Secondly, involvement from a company board has been recognised by partner organisations and companies alike to be a key indicator of success for partner relationships as well as internal CR programmes.¹⁷ Some partner organisations, e.g. BITC and Forum for the Future, require CEO or senior management involvement; and when companies are involved at a board or senior level in a partnership, they tend to emphasise this in describing their engagement. Thirdly, long-term partnerships can be an important indicator of commitment. Forum for the Future emphasises how longer-term partnerships enable trust to be built between the organisation and its partners, leading ultimately to better understanding and facilitating the implementation of appropriate solutions. They also allow for progress to be monitored over time and give the partner organisation the opportunity to keep pushing strategies or solutions forward.¹⁸

Of course, there are two sides to every partnership and the commitment of the partner organisation is also crucial in determining the success of the engagement. Some important features from a company perspective include the ability of the partner to work constructively with rather than campaigning against; a clear understanding of organisational goals on both sides of the partnership; a dedicated partnership manager to act as a single point of contact for the company; and the visibility and involvement of senior members of the partner organisation.¹⁹

¹⁶ Interview with Amita Vaux from Business in the Community, Monday 8th of September 2008.

¹⁷ An example of this from a company perspective was illustrated by Jo Fox, Deputy Director of BSKyB's Bigger Picture (CR programme), in her presentation at "Tomorrow's Green Economy Today" hosted by Tomorrow's Company in London on the 25th of March 2009. She emphasized in her presentation how CEO involvement has been crucial in moving the environmental part of the programme forward and in gaining employee acceptance and engagement.

¹⁸ Interview with Dan Crossley from Forum for the Future, 16th October 2008.

¹⁹ Email correspondence with Carmel McQuaid, Climate Change Manager with Marks & Spencer, 24th August 2009.

BOX 2: PARTNERSHIP CASE STUDY – BUSINESS IN THE COMMUNITY AND ALLIANCE BOOTS

Business in the Community (BITC) is a UK membership-based NGO that focuses on encouraging responsible business practices. The organisation has recently strengthened its focus on business and climate change through the Prince's May Day Network which encourages member businesses to share best practice and to take action.

BITC has two different levels of engagement with member companies: membership and premier membership. Alliance Boots is a premier member and has a significant leadership role in the activities of the organisation. The company's engagement with BITC is characterised by:

- Membership contribution on an annual basis, calculated according to the size of the company (+1 for donation/payment for services)
- Dedicated BITC relationship manager and practical advice (+1 for company-specific advice)
- Involvement in BITC's Environment Leadership Team which guides the organisation's work on the environment (+1 for beyond company-specific)
- CEO involvement in all aspects of partnership (+1 for board-level engagement)

Total Score = 4

We use information from companies and partner organisations to identify the most appropriate score for each engagement. Where we identify further partnerships that may not have been mentioned directly by the company, for example by looking at literature on a partner organisation's website, we include this engagement in our study. By doing so we try to overcome some of the limitations of relying only on what the company has published with respect to partnering. Where the partnership models are not clearly explained by the company or partner, we have followed up directly with the partner organisation to determine how best to score the engagement.²⁰ As was the case with the best practice index scores, here we also assign scores on the basis of publicly available and easily accessible information.

²⁰ The main example of this is the Climate Group. We are very grateful for a prompt and clear response on their partnership model.

BOX 3: PARTNERSHIP CASE STUDY – FORUM FOR THE FUTURE AND (1) MARKS & SPENCER; (2) SAINSBURY

Forum for the Future is a sustainable development charity based in the UK, but increasingly operating on an international level. Forum focuses on key sectors including retail, transport, tourism, public sector and finance with an overall long-term aim of transforming each sector to be environmentally sustainable and socially just.

Forum partners with businesses to create positive change and the organisation takes a practical, solutions-based approach to achieving its aims. The organisation offers three levels of partnership: member; corporate partner; and foundation corporate partner.

- (1) Marks & Spencer is a *corporate partner* which means the company has access to Forum's network as well as a detailed, customised work programme to identify opportunities for integrating sustainability into the business. The key characteristics of the engagement are:

- Approval and commitment at senior management level (+1 for board-level engagement)
- Minimum of £10,000 per year (+1 for donation/payment for services)
- Bespoke strategic advice services on sustainability challenges (+1 for company-specific)

Total Score = 3

- (2) Sainsbury is a *foundation corporate partner*; a highly engaged relationship with Forum over a minimum 3-year period. The main partnership elements are:

- Approval and commitment at senior management level (+1 for board-level engagement)
- Minimum of £30,000 per year for 3 years (+1 for donation/payment for services; +1 for long-term)
- Extended strategic sustainability services (+1 for company-specific)
- Involvement with Masters-level course in sustainable development (+1 for beyond company-specific)

Total Score = 5

5. Survey results

The main results of our survey of retail companies are summarised in Tables 5, 6 and 7. *Table 5* provides an overview of company performance using the best practice, partnership and diversity indices described in the previous section. *Figure 2* plots these scores in order of best practice score, from highest to lowest.

Table 5: Best practice and partnership scores

Company	Best practice score	Partnership Score	Diversity Index
Marks & Spencer	29	31	3
John Lewis	28	23	3

Tesco	28	28	4
Cooperative Group	25	24	4
Kingfisher	24	21	3
Debenhams	23	6	2
WH Smith	23	8	3
Sainsbury	22	15	2
Home Retail	21	9	3
N Brown	21	3	2
Halfords	19	4	2
Wm Morrison Supermarkets	18	8	3
Littlewoods Shop Direct	17	4	2
Broadstreet (aka Wal-Mart)	16	15	3
Alliance Boots	15	17	2
NEXT	13	5	3
Taveta Investments	13	1	1
Galiform	12	0	0
Woolworths	12	4	2
Inchcape	10	0	0
Carpetright	9	0	0
Somerfield	8	6	1
DSG International	7	3	1
TK Maxx	7	5	2
Findel	6	1	1
Kesa Electricals	6	0	0
AS Watson (Health & Beauty UK)	5	1	1
Carphone Warehouse	5	3	1
Clinton Cards	5	0	0
Focus DIY	5	1	1
Lookers	5	0	0
Signet	5	1	1
HMV	4	1	1
Masterlease	4	0	0
Sports Direct International	4	1	1
Wilkinson Hardware Stores	4	3	2
Aldi Stores	3	2	1
Greggs	3	3	1
Markerpost (aka New Look)	3	0	0
Marshall of Cambridge	3	1	1
Monsoon	3	0	0
Palmer & Harvey	3	0	0
Game	2	2	1
Matalan Retail	2	0	0
Pendragon	2	0	0

Bestway	1	0	0
House of Fraser (now Highland)	1	0	0
JJB Sports	1	0	0
Lewis Trust	1	0	0
AA	0	0	0
AAH Pharmaceuticals	0	0	0
Arnold Clark Automobiles	0	0	0
BHS	0	1	1
Costco UK	0	0	0
Giant Topco UK	0	0	0
Harrods	0	0	0
Icebox (aka Iceland)	0	2	1
Lloyds Pharmacy	0	0	0
Martin McColl	0	0	0
Saga	0	0	0

Figure 2: Best practice, partnership and diversity scores

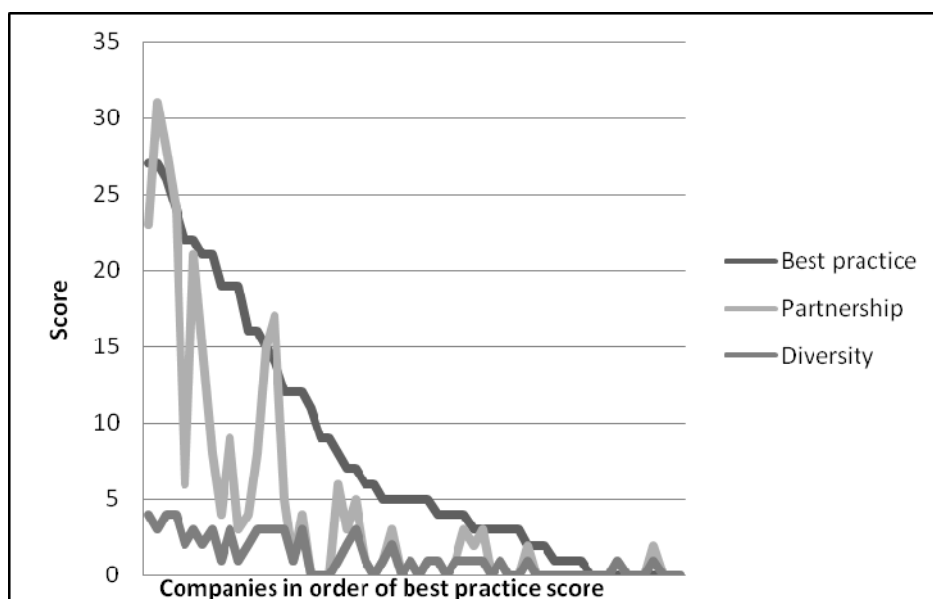


Table 6: Average depth of engagement

Company	Total Score	Number of partners	Average depth of engagement
Aldi Stores	2	1	2.0

Alliance Boots	17	8	2.1
AS Watson (Health & Beauty UK)	1	1	1.0
BHS	1	1	1.0
Broadstreet (aka Wal-Mart)	15	7	2.1
Carphone Warehouse	3	2	1.5
Debenhams	6	3	2.0
DSG International	3	2	1.5
Findel	1	1	1.0
Focus DIY	1	1	1.0
Game	2	1	2.0
Greggs	3	1	3.0
Halfords	4	2	2.0
HMV	1	1	1.0
Home Retail	9	5	1.8
Icebox (aka Iceland)	2	1	2.0
John Lewis	23	10	2.3
Kingfisher	21	10	2.1
Littlewoods Shop Direct	4	3	1.3
Marks & Spencer	31	14	2.2
Marshall of Cambridge	1	1	1.0
N Brown	3	2	1.5
NEXT	5	3	1.7
Sainsbury	15	5	3.0
Signet	1	1	1.0
Somerfield	6	3	2.0
Sports Direct International	1	1	1.0
Taveta Investments	1	1	1.0
Tesco	28	11	2.5
TK Maxx	5	3	1.7
United Co-operatives (now part of Co-operative Group)	24	14	1.7

WH Smith	8	4	2.0
Wilkinson Hardware Stores	3	2	1.5
Wm Morrison Supermarkets	8	5	1.6
Woolworths	4	3	1.3
Average		2.2	1.0

As we expected, best practice and partnership scores appear to move in the same direction, i.e. higher best practice scores are correlated with higher partnership scores and vice versa. There are several outliers, however, that require some attention. Debenhams and Halfords stand out in particular: both have relatively high best practice scores (22 and 19 respectively) but relatively low partnership scores (6 and 4 respectively). Both companies have chosen a small number of organisations to partner with and in both cases the depth of engagement in each partnership may be more instructive than the overall partnership score.²¹

Table 6 shows the average depth of engagement for each company computed as the ratio between the total partnership score and total number of partners. Debenhams and Halfords both score above the average for this measure of engagement. This may be one explanation; other determinants of best practice will be explored further in Section 6. What we can say for certain, however, is that there are no instances of high partnership scores corresponding to low best practice scores. In fact, the highest partnership score for those companies with a best practice score of 10 or under is 6.

Looking at the best practice index scores by category (*Table 7*), there are some clear trends emerging. First of all, best practice seems to be most prevalent in the area of target setting. Setting targets without having clear measurement procedures in place, as is the case with a number of companies in our sample however, presents challenges particularly in terms of assessing progress and measuring impact. Having a long-term vision of climate change strategies is reserved to a small minority of companies and seems to be an area that differentiates the leaders from the rest. John Lewis is the only company that has specific plans or targets beyond the next 5-year period.

Engagement with employees is the most common form of engagement. Several companies have specific programmes for improving employee awareness of climate change and/or energy issues as well as involvement in implementing climate strategies. For example, Kingfisher, HMV, Alliance Boots and Arcadia Group (owned by Taveta Investments) all have energy champion programmes, which generally involve providing energy awareness training to “champions” in

²¹ It may of course be the case that Debenhams and/or Halfords have chosen to report only a small number of the organisations they engage with. We have tried to avoid this being the case by including engagements that are mentioned through the partner organisations of other companies in our sample.

different stores and encouraging them to promote awareness among their colleagues. Engaging with customers appears to be an area in need of further attention. There are several examples of customer engagement programmes, however, they tend to only be promoted by companies that score highly in our best practice index overall. Best practice scores broken down in further detail can be found in the Appendix.

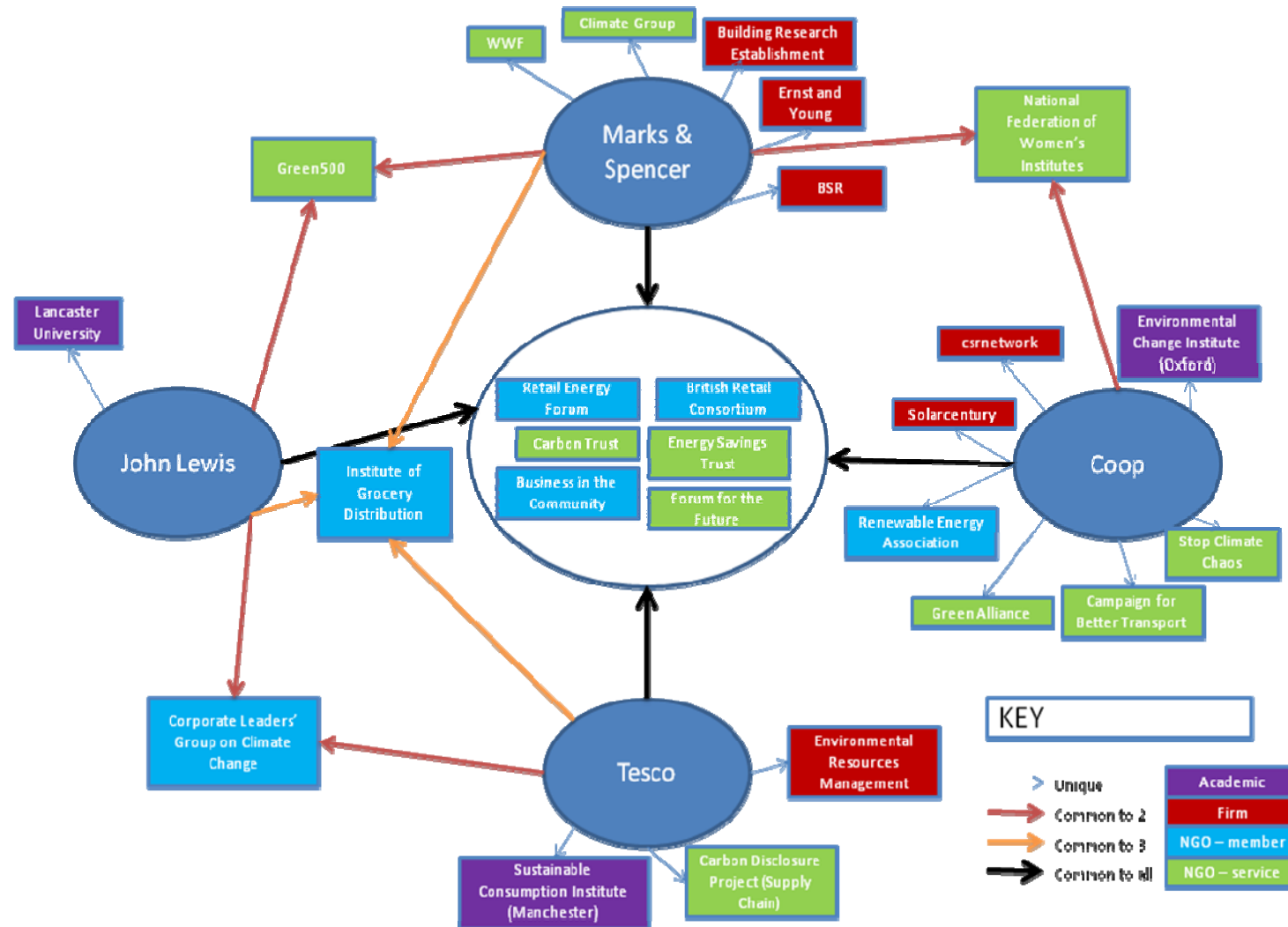
Table 7: Best practice scores by category

Company	Measurement	Target setting	Target impacts	Implementation/ engagement	TOTAL
Aldi Stores	0	3	0	0	3
Alliance Boots	5	5	3	2	15
AS Watson	0	4	0	1	5
Bestway	0	1	0	0	1
Broadstreet	5	4	4	2	15
Carpentryright	0	5	1	3	9
Carphone Warehouse	0	3	0	2	5
Clinton Cards	0	5	0	0	5
Debenhams	7	8	5	2	22
DSG International	0	3	0	4	7
Findel	0	4	0	2	6
Focus DIY	0	1	0	4	5
Galiform	2	4	2	4	12
Game	0	2	0	0	2
Greggs	0	2	0	1	3
Halfords	2	8	5	4	19
HMV	0	1	0	3	4
Home Retail	8	4	5	4	21
House of Fraser	0	0	0	1	1
Inchcape	2	4	0	4	10
JJB Sports	0	1	0	0	1
John Lewis	7	10	5	6	28
Kesa Electricals	0	3	1	2	6
Kingfisher	9	4	6	5	24
Lewis Trust	0	1	0	0	1
Littlewoods Shop Direct	6	7	3	1	17
Lloyds Pharmacy	0	0	0	0	0
Lookers	0	2	0	3	5
Markerpost	0	2	0	1	3
Marks & Spencer	9	8	6	6	29
Marshall of Cambridge	0	1	0	2	3
Masterlease	0	0	0	4	4
Matalan Retail	0	2	0	0	2
Monsoon	0	2	1	0	3
N Brown	9	5	5	2	21
NEXT	6	3	3	1	13
Palmer & Harvey	0	1	0	2	3
Pendragon	0	0	0	2	2
Sainsbury	6	7	6	3	22
Signet	0	4	0	1	5
Somerfield	0	5	3	0	8
Sports Direct International	0	2	0	2	4
Taveta Investments	2	6	2	3	13

Tesco	9	9	5	5	28
TK Maxx	0	3	1	3	7
Co-operative Group	6	8	5	6	25
WH Smith	8	7	4	4	23
Wilkinson Hardware Stores	0	3	0	1	4
Wm Morrison Supermarkets	4	7	5	2	18
Woolworths	2	7	1	2	12

Full details of the partnership scores for each company are in the Appendix. As it is quite difficult to visualise partnership networks by looking at a descriptive list of partners and engagement types, we have constructed a partnership map for the top 4 companies by best practice score – Coop, John Lewis, Marks and Spencer and Tesco (*Figure 3*). One aim of this exercise was to identify the extent to which best practice companies partner with similar organisations and/or types of organisations. We can see that there is significant overlap between these four companies. Each company has at least one unique partner; however, although there are 45 partnerships in total (i.e. between company and partner organisation), there are only 23 separate partner organisations. This is still a substantial number and it appears that there are several options for companies to choose from within each main category of organisation. The central circle in *Figure 3* indicates those organisations that are common partners to all four companies; the orange arrows indicate organisations that are common to three of the four; and the red arrows, those that are common to two. Interestingly, 3 of the four companies partner with unique academic institutions; and the membership-based NGOs are most likely to have overlapping partnerships among this selection of retail companies.

Figure 3: Partnership Map - Coop, John Lewis, M&S and Tesco



6. Analysis

Using our survey results, we conducted a simple econometric analysis to understand the determinants of our best practice index and to see how different aspects of partnership may affect company performance. The general hypothesis we are interested in testing is:

- Partnership has a significant effect on the climate strategy performance of retail companies.

We have chosen to use OLS regression even though our dependent variables are categorical. In doing so, we are assuming that the different steps of the best practice (BPI) and partnership indices (PSHIP) are equally spaced across the continuum, i.e. BPI and PSHIP are interval scales (Cohen et al., 2003). This has often been done where the number of ordered categories is large (usually more than 6 or 7) (Bartholomew et al., 2008). We have also cross-checked our results from OLS with ordered logit models that take the categorical nature of the dependent variables into account. The significance and sign of the relationships we are investigating do not differ considerably and for the sake of simplicity of interpretation, we report only the OLS results here.

As our partnership score (*pship*) variable is very highly correlated with other independent variables of interest, we have substituted a number of variables that explain parts of the score as proxies. *Engdepth* and *Div* refer to the average depth of engagement and the diversity index respectively. *Ngo_m*, *ngo_s*, *firm* and *acad* are dummy variables for partnerships with membership-based NGOs, service-based NGOs, firms and academic institutions respectively. By doing so, we reduce problems of multi-collinearity that may bias our results. Across the first four models, we use BPI to denote the best practice index score. In each of these regressions the partnership-related variables are positive and highly significant, indicating that overall partnering with external organisations has a significant positive effect on climate strategy performance in the retail sector (as measured by our best practice index).

Table 8 summarises the most interesting results from our analysis. The first four models use *bpi* (best practice index) and the last model uses *engdepth* (engagement depth) as the dependent variable. In our first four reported regressions, we include the log of employee numbers (*lemp*) to control for company size. We would expect that the bigger the company, the more resources are available to invest in climate strategies. We control for this effect in order to see if other characteristics have a significant effect on best practice. In our first regression, *profper* is operating profit as a percentage of sales, a relative measure of profitability; and *listed* is a dummy variable indicating whether or not a company is listed in the UK²². We include this as a means of investigating differences between companies that have different ownership structures, i.e. publicly listed versus private firms. Surprisingly, *profper* does not have a significant effect on best practice; instead the size effect appears to dominate. *Listed*, however,

²² Information on company listing comes from the 2008 Value Added Scoreboard.

does appear to have a significant positive effect on best practice suggesting that those companies that are publicly listed are more likely to score higher in the best practice than those that are unlisted. Intuitively, one might expect listing to have an impact on best practice performance because listed companies may experience greater external pressure and pressure from shareholders to perform better in this area and to report their performance clearly and openly. If this is the case, private companies may have a significant opportunity to learn from the strategies of public companies and to assess whether there is competitive advantage to be gained from catching up; and indeed, partnership may have the potential to reduce the transaction costs involved in this process. Given this result, further differences in ownership structure among companies that are unlisted would be interesting to explore in the future.

Engdepth, i.e. the total partnership score divided by the number of partners, also has a significant positive effect on best practice score. This suggests that higher levels of engagement in individual partnerships rather than greater numbers of partnerships overall are positive from a best practice perspective.

Table 8: Investigating retail best practice and partnership scores

	(1) BPI	(2) BPI	(3) BPI	(4) BPI	(5) ENGDEPTH
<i>lemp</i>	2.58*** (0.965)	3.09*** (1.053)	3.80*** (1.014)	1.08 (0.890)	0.45*** (0.093)
<i>engdepth</i>	3.79** (1.496)	4.25*** (1.304)			
<i>gr</i>		5.73** (2.548)	3.91* (2.110)	2.89 (1.771)	-0.38 (0.353)
<i>listed</i>	3.57** (1.753)	2.73 (1.881)	4.72*** (1.718)	3.87*** (1.434)	0.45** (0.212)
<i>foreign</i>		0.22 (2.028)			0.15 (0.306)
<i>profper</i>	13.22 (12.499)				-0.17 (1.496)
<i>div</i>			2.14** (0.981)		
<i>ngo_m</i>				6.12** (2.531)	
<i>ngo_s</i>				2.39 (1.848)	
<i>firm</i>				3.83* (2.175)	
<i>acad</i>				10.26*** (1.881)	
<i>Constant</i>	-22.10*** (8.188)	-30.87*** (10.375)	-35.23*** (9.820)	-10.86 (8.517)	-3.15*** (1.076)

N	58	60	60	60	58
R-squared	0.56	0.60	0.55	0.73	0.47
adj. R-squared	0.53	0.56	0.52	0.69	0.42

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

We control for sector in our second regression, where *gr* is a dummy variable that denotes general retail if equal to 1 and food/drug retail otherwise. We drop *profper* and include a new variable *foreign* that is a dummy variable indicating whether or not a company is foreign or domestically owned. Other things being equal, foreign ownership of companies does not have a significant effect on best practice in our model. Both engagement depth and listing remain positive and significant; and *gr* also has a positive and significant effect. This suggests that general retailers are on average more successful in achieving best practice, holding everything else, including partnership, constant. In model 3, *div* (the diversity index) has a significant positive effect on best practice, where an increase of 1 in *div* (essentially adding another organisation type to the list of partnerships) leads to a 2 point increase in best practice score. Partnering widely with different types of organisations, therefore, appears to be important for climate strategies in the retail sector. In our fourth model, we investigate whether different types of partner organisations have significantly different impacts on best practice scores. Companies that do not partner with any organisations form our base group in this regression. Compared to the base group and holding all other variables constant, partnerships with academic organisations appear to have the largest significant impact on best practice scores, followed by membership-based NGOs, firms and service-based NGOs. The coefficient for service-based NGOs, however, is insignificant. When we include measures that reflect partnership diversity and partnership type (as in models 3 and 4) the size effect that is positive and significant in models 1 and 2 disappears, i.e. the coefficient decreases and is no longer significant.

In our final model, we investigate the determinants of the depth of engagement (*engdepth*), where we use the same variables as in previous models to indicate size (*lemp*) and relative profitability (*profper*). Size appears to be the dominant factor in distinguishing between the more and less highly engaged. Listing again has a positive effect, as it had on best practice performance overall. The sector dummy variable is insignificant which suggests that there is not a significant difference between general retailers and food/drug retailers in terms of the depth of engagement in partnerships.

7. Conclusions

Commitment to effective climate strategies in the retail sector is far from universal. There are some encouraging signs that important sector-specific issues are being given attention, e.g. energy use in heating, cooling, refrigeration and lighting. Target setting is the main category of best practice where most progress has been achieved. The impact of target setting is

questionable, however, particularly given that the measurement of carbon emissions and energy usage, progress reporting and the use of baselines for target-setting are areas in need of significantly greater attention. The majority of companies surveyed also indicate that energy use and carbon emissions reduction are now integrated to some extent within core business strategy. At the same time, however, there is a distinct lack of focus on longer-term solutions with only one company formally integrating a long-term perspective into its climate strategy (John Lewis), and 4 others (Alliance Boots, Marks & Spencer, N Brown and Tesco) mentioning its importance. Long-term trajectories for emissions reduction are essential if the retail sector is to contribute to achieving the UK's ambitious reduction targets and sustainable change over the coming decades. A substantial number of companies (11 out of 60) failed to score any points in our best practice index which is surprising, given the increasing pressure on retail companies to address climate change and the fact that our sample comes from the top 800 UK companies by value added. This gives a sense of how significant the transition to the Carbon Reduction Commitment will be for many UK companies, particularly those without much experience of collecting energy-related data and setting and monitoring energy-related targets. It also highlights the wide range of performance in retail climate strategies and the substantial gap between those at the top and those at the bottom.

There are clear trends indicating that higher best practice performance in climate strategies goes hand-in-hand with higher levels of partnership. We initially hypothesised that this could be due to partnership being viewed as an effective means of reducing transaction costs. Measuring energy usage and emissions, setting targets, keeping track of progress and engaging stakeholders takes time, uses up scarce resources and requires specialist knowledge and skills. Some of the transaction costs involved in these activities can be reduced by involving a specialised partner rather than operating independently. From the results of our survey of companies, we can say for certain that none of the companies in our sample exhibit a combination of high partnership score and low best practice score. Furthermore, there are only one or two examples of companies achieving high best practice scores and relatively low partnership scores. This would seem to indicate that partnership may have played a role in reducing transaction costs and thereby enabling companies to consider implementing more effective voluntary strategies. Following up our analysis with targeted interviews of a selection of companies in our sample to identify the main aims and outcomes of partnering with external organisations would be a worthwhile future exercise.

Different types of partnership, however, may be sought for different reasons; depending on how advanced a company is in developing its climate strategy. From our analysis, we have seen that the effect of partnership on best practice varies according to partner type; academic institutions having the largest effect. At the same time, we know from our sample that those who have engaged with academic partners have typically already reached a certain level of best practice and may not be as concerned as other companies about reducing transaction costs; they may be interested instead in demonstrating a longer-term and wider-reaching commitment to the development of climate-related solutions. It is not necessarily the case, therefore, that there is a

one-way causal relationship between partnership and best practice. It may in fact be the case that higher levels of best practice may also lead to more engaged partnerships. In other words, higher levels of best practice can reinforce partnering. This may help to explain the substantial gap between those at the top of the partnership score table and those at the bottom.

The effectiveness of individual partnerships is influenced in particular by the depth of engagement. Most partnerships involve some form of donation or payment for services; those that go beyond this and involve advice services, longer-term engagements, board-level commitment and support for wider-reaching climate-related projects tend to be more successful in improving climate strategies. Our results also suggest that partnering widely across different types of organisations is a significant factor in determining the overall impact of partnership on best practice. Intuitively, this makes sense: partnering with different types of organisations that specialise in different aspects of business and climate change allows companies the opportunity to maximise the return to their investment in engaging. In terms of characteristics that distinguish the more and less highly engaged; size and listing have the most significant effects. Larger companies may have more resources to devote to external partnering; at the same time larger companies may be more obvious targets for partner organisations to initiate contact with. Smaller companies have a lot to gain from partnering with specialist organisations, particularly in terms of reducing transaction costs. Tailoring partnership models and ultimately making partnership more attractive for smaller companies could go a long way towards improving best practice throughout the retail sector rather than simply confining it to a small number of high profile candidates.

Our analysis is a first step in surveying the characteristics and impact of partnerships between retail sector companies and external organisations in the area of climate strategy. We rely on the published information of retail companies over a short period of time and as such our conclusions are not definitive. Following up our analysis with detailed case-study work on a small number of companies and their engagements with partner organisations would add to our understanding of the dynamics of partnership and best practice. Furthermore, extending the analysis to other sectors, for example food and drinks manufacturing which is closely linked to many retail companies through the supply chain, would facilitate interesting cross-sector comparisons. We have seen, however, that the partnering market is very active; and that companies that are more highly engaged in partnering with a variety of types of partner organisations are more likely to achieve higher levels of best practice in their climate strategies.

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Appendix

Table 9: Partner organisations by type

<i>Partner Name</i>	<i>Partner Type</i>	<i>Level of operation</i>
Environmental Change Institute - Oxford	Acad	Nat
Lancaster University	Acad	Nat
Sustainable Consumption Institute - Manchester	Acad	Nat
Acona CMG	Firm	Int
AEA	Firm	Int
BSR	Firm	Int
Building Research Establishment	Firm	Nat
Clear Carbon Consulting	Firm	Int
csrnetwork	Firm	Int
Ener-G	Firm	Int
Envantage Ltd.	Firm	Nat
Environmental Resources Management	Firm	Int
Enviros Consulting Limited	Firm	Int
Ernst and Young	Firm	Int
Reassurance Network Ltd.	Firm	Nat
Solarcentury	Firm	Nat
British Retail Consortium	NGO – membership	Nat
Business in the Community	NGO – membership	Nat
Corporate Leaders Group on Climate Change	NGO – membership	Nat
European DIY-Retail Association	NGO – membership	Int
Institute of Grocery Distribution	NGO – membership	Int
Retail Energy Forum	NGO – membership	Nat
Cambridgeshire Travel for Work Partnership	NGO – service	Loc
Campaign for Better Transport	NGO – service	Nat
Carbon Disclosure Project	NGO – service	Int
Carbon Trust	NGO –service	Nat
Climate Group	NGO – service	Int
Energy Saving Trust	NGO – service	Nat
Environmental Resources Trust	NGO – service	Int
Forum for the Future	NGO – service	Int
Green Alliance	NGO – service	Nat
Green500	NGO – service	Loc
National Federation of Women's Institutes	NGO – service	Nat
Stop Climate Chaos	NGO – service	Nat
WWF	NGO – service	Int

Table 10: Best practice index in detail

Company	Measurement			Target setting							Target impacts		Implementation/Engagement		
	Scope 1	Scope 2	Scope 3	External verification	Relative measures	Longer-term	Core business strategy	Lighting	HVAC and/or Refrigeration	Distribution	Progress	CO2 reduction commitment	Employee engagement	Supplier engagement	Customer engagement
Aldi Stores									1	2					
Alliance Boots	1	1	1		2	1	1	1		2	1	2	2		
AS Watson								1		1	2		1		
Bestway							1								
Broadstreet	2	2		2			1	1	1	1	1	3		2	
Carpetright							1	2		2		1	2	1	
Carphone Warehouse								2	1				2		
Clinton Cards							1	2	2						
Debenhams	2	2	2	2			2	2	2	2	2	3	2		
DSG International							1			2				2	2
Findel							1	1	1	1				2	
Focus DIY							1						2	1	1
Galiform					2		2			2	1	1	1	2	1
Game								1	1						
Greggs							1			1			1		
Halfords	2						2	2	2	2	2	3	2	2	
HMV								1					2	1	
Home Retail	2	2		2	2		2			2	2	3	2	2	
House of Fraser														1	
Inchcape					2		2		1	1		0	2		2
JJB Sports							1								
John Lewis	2	2	1		2	2	2	2	2	2	2	3	2	2	2
Kesa Electricals							1			2		1		2	
Kingfisher	2	2	1	2	2		2	1	1		2	4	2	1	2
Lewis Trust							1								
Littlewoods Shop Direct	2	2		2			2	2	2	1	2	1		1	

Lloyds Pharmacy																
Lookers							1		1				1	1		1
Markerpost								1			1					1
Marks & Spencer	2	2	1	2	2	1	2	1	2	2	2	4	2	2		2
Marshall of Cambridge							1						1	1		
Masterlease													1	1		2
Matalan Retail							1			1						
Monsoon							1			1		1				
N Brown	2	2	1	2	2	1	1	1	1	1	1	4	2			
NEXT	2	2		2				2		1	2	1	1			
Palmer & Harvey										1			1			1
Pendragon													1	1		
Sainsbury	2	2			2		2	1	2	2	2	4		1		2
Signet							2	1	1				1			
Somerfield								2	1	2	2	1				
Sports Direct International							1			1		0	2			
Taveta					2		1	2	1	2	1	1	2	1		
Investments																
Tesco	2	2	1	2	2	1	2	2	2	2	2	3	1	2		2
TK Maxx							1			2		1	1	2		
Co-operative Group	2	2		2			2	2	2	2	2	3	2	2		2
WH Smith	2	2		2	2		2	2	1	2	1	3	2	2		
Wilkinson							1			2			1			
Hardware Stores																
Wm Morrison Supermarkets				2	2		1	2	2	2	2	3	2			
Woolworths		2					1	2	2	2		1		2		

Table 11: Partnership scores in detail

Company	Partner	Engagement Type	Score
Aldi Stores	British Retail Consortium	Beyond company-specific; donation	2
Alliance Boots	British Retail Consortium	Donation; beyond company-specific	2
	Business in the Community	Company-specific; donation; board-level; beyond company-specific	4
	Carbon Trust	Company-specific	1
	Energy Savings Trust	Donation; beyond company-specific	2
	Forum for the Future	Donation; company-specific; board-level	3
	Green500	Company-specific; donation	2
	Institute of Grocery Distribution	Donation; beyond company-specific	2
	Retail Energy Forum	Beyond company-specific	1
AS Watson (Health & Beauty UK)	Carbon Trust	Company-specific	1
BHS	Energy Savings Trust	Beyond company-specific	1
Broadstreet (aka Wal-Mart)	British Retail Consortium	Donation; beyond company-specific	2
	Business in the Community	Donation; company-specific; board-level	3
	Clear Carbon Consulting	Donation; company-specific	2
	Environmental Resources Trust	Donation; company-specific	2
	Green Alliance	Donation; company-specific; beyond company-specific	3
	Institute of Grocery Distribution	Beyond company-specific; donation	2
	Retail Energy Forum	Beyond company-specific	1
Carphone Warehouse	Carbon Trust	Company-specific	1
	Green500	Donation; company-specific	2
Debenhams	AEA	Company-specific; donation	2
	Business in the Community	Board-level; donation; company-specific	3
	Retail Energy Forum	Beyond company-specific	1
DSG International	Carbon Trust	Company-specific	1
	Energy Savings Trust	Donation; beyond company-specific	2
Findel	Carbon Trust	Company-specific	1
Focus DIY	Energy Savings Trust	Beyond company-specific	1
Game	Green500	Donation; company-specific	2
Greggs	Business in the Community	Board-level; company-specific; donation	3
Halfords	Carbon Trust	Long-term; company-specific	2
	Ener-G	Company-specific; donation	2
HMV	Carbon Trust	Company-specific	1
Home Retail	Acona CMG	Donation; company-specific	2
	British Retail Consortium	Donation; beyond company-specific	2
	Business in the Community	Board-level; company-specific;	3

		donation	
Icebox (aka Iceland)	Carbon Trust	Company-specific	1
	Energy Savings Trust	Beyond company-specific	1
	British Retail Consortium	Beyond company-specific; donation	2
John Lewis	British Retail Consortium	Long-term; beyond company-specific; donation	3
	Business in the Community	Donation; board-level; company-specific	3
	Carbon Trust	Company-specific; beyond company-specific	2
	Corporate Leaders Group on Climate Change	Beyond company-specific; board-level	2
	Energy Savings Trust	Donation; beyond company-specific	2
	Forum for the Future	Donation; beyond company-specific; company-specific; board-level	4
	Green500	Company-specific; donation	2
	Institute of Grocery Distribution	Beyond company-specific; donation	2
	Lancaster University	Beyond company-specific; donation	2
Kingfisher	Retail Energy Forum	Beyond company-specific	1
	British Retail Consortium	Beyond company-specific; donation	2
	Business in the Community	Company-specific; board-level; donation	3
	Carbon Trust	Company-specific	1
	Corporate Leaders Group on Climate Change	Beyond company-specific; board-level	2
	Energy Savings Trust	Beyond company-specific; donation	2
	Enviros Consulting Limited	Company-specific; donation	2
	Ernst and Young	Donation; company-specific	2
	European DIY-Retail Association	Beyond company-specific; donation	2
	Forum for the Future	Beyond company-specific; company-specific; donation; board-level	4
	Retail Energy Forum	Beyond company-specific	1
	Carbon Trust	Company-specific	1
Littlewoods Shop Direct	Energy Savings Trust	Beyond company-specific	1
	Enviros Consulting Limited	Company-specific; donation	2
	British Retail Consortium	Donation; beyond company-specific; company-specific	3
Marks & Spencer	BSR	Donation; beyond company-specific; company-specific	3
	Building Research Establishment	Long-term; company-specific	2
	Business in the Community	Board-level; company-specific; beyond company-specific; donation	4
	Carbon Trust	Company-specific	1
	Climate Group	Donation; beyond company-specific	2

	Energy Savings Trust	Donation; beyond company-specific	2
	Ernst and Young	Company-specific; donation	2
	Forum for the Future	Company-specific; donation; board-level	3
	Green500	Donation; company-specific	2
	Institute of Grocery Distribution	Beyond company-specific; donation	2
	National Federation of Women's Institutes	Donation	1
	Retail Energy Forum	Beyond company-specific	1
	WWF	Beyond company-specific; company-specific; donation	3
	Cambridgeshire Travel for Work Partnership	Beyond company-specific	1
	Marshall of Cambridge		
N Brown	Carbon Trust	Company-specific	1
	Envantage Ltd.	Donation; company-specific	2
NEXT	British Retail Consortium	Donation; beyond company-specific	2
Sainsbury	Energy Savings Trust	Beyond company-specific	1
	Reassurance Network Ltd.	Donation; company-specific	2
	British Retail Consortium	Donation; beyond company-specific	2
	Business in the Community	Donation; beyond company-specific; company-specific; board-level	4
	Forum for the Future	Beyond company-specific; donation; long-term; company-specific; board-level	5
	Green Alliance	Beyond company-specific; company-specific; donation	3
	Retail Energy Forum	Beyond company-specific	1
	Carbon Trust	Company-specific	1
	British Retail Consortium	Long-term; beyond company-specific; donation	3
	Institute of Grocery Distribution	Donation; beyond company-specific	2
	Retail Energy Forum	Beyond company-specific	1
	Carbon Trust	Company-specific	1
	Signet		
Somerfield	British Retail Consortium	Long-term; beyond company-specific; donation	3
Sports Direct International	Energy Savings Trust	Company-specific	1
	British Retail Consortium	Donation; beyond company-specific	2
	Business in the Community	Donation; board-level; company-specific	3
Taveta Investments	Carbon Disclosure Project	Long-term; board-level; beyond company-specific; company-specific; donation	5
Tesco	Carbon Trust	Board-level; company-specific	2
	Corporate Leaders' Group on Climate Change	Beyond company-specific; board-level	2
	Energy Savings Trust	Donation; beyond company-specific	2
	Environmental Resources Management	Donation; company-specific	2
	Forum for the Future	Donation; beyond company-specific; company-specific; board-level	4

TK Maxx	Institute of Grocery Distribution	Donation; beyond company-specific	2
	Retail Energy Forum	Beyond company-specific	1
	Sustainable Consumption Institute	Donation; beyond company-specific; long-term; board-level	4
	Carbon Trust	Company-specific	1
	Forum for the Future	Company-specific; donation; board-level	3
United Co-operatives (now part of Co-operative Group)	Retail Energy Forum	Beyond company-specific	1
	British Retail Consortium	Long-term; donation; beyond company-specific	3
	Business in the Community	Company-specific; donation; beyond company-specific; board-level	4
WH Smith	Campaign for Better Transport	Donation	1
	Carbon Trust	Company-specific	1
	csrnetwork	Company-specific; payment	2
	Energy Savings Trust	Beyond company-specific	1
	Environmental Change Institute - Oxford	Donation	1
	Forum for the Future	Company-specific; donation; board-level	3
	Green Alliance	Donation	1
	National Federation of Women's Institutes	Donation	1
	Renewable Energy Association	Donation; beyond company-specific	2
	Retail Energy Forum	Beyond company-specific	1
	Solarcentury	Beyond company-specific; donation	2
	Stop Climate Chaos	Donation	1
	Acona CMG	Donation; company-specific	2
	British Retail Consortium	Donation; beyond company-specific	2
	Business in the Community	Company-specific; donation; board-level	3
Wilkinson Hardware Stores	Retail Energy Forum	Beyond company-specific	1
	Carbon Trust	Company-specific	1
Wm Morrison Supermarkets	Enviros Consulting Limited	Donation; company-specific	2
	Carbon Trust	Company-specific	1
	Energy Savings Trust	Beyond company-specific	1
	Enviros Consulting Limited	Donation; company-specific	2
	Forum for the Future	Donation; company-specific; board-level	3
Woolworths	Retail Energy Forum	Beyond company-specific	1
	Carbon Trust	Company-specific	1
	Energy Savings Trust	Beyond company-specific	1
	Retail Energy Forum	Beyond company-specific	1