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Corporate Motivations for Sustainable Development: Exploring the Role of Consumers in Stakeholder Engagement

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Corporate Motivations for Sustainable Development: Exploring the Role of Consumers in Stakeholder Engagement.

Key words

Stakeholder, motivation, consumer, environmental reporting

Abstract

This paper examines the extent to which the consumer appears to influence corporate behaviour towards specific environmental management activities, by examination of environmental disclosures by the UK FTSE 100 companies. The paper also explores whether proximity to the end-consumer is associated with particular motivations for environmental management- in terms of either cost-reducing or reputational benefits.

The results established that 'Close-to-Consumer' (C2C) companies were significantly more active in establishing measures to (i) combat climate change and (ii) put in place environmental management processes than their 'Business-to-Business' (B2B) counterparts. C2C companies were also more likely to undertake environmental management activities for which there was no explicit cost-reduction benefit. This suggests that reputation with consumers/society is a particularly important motivator in C2C than B2B companies. These findings are important to policy makers, government and investors in terms of identifying which companies are leading the corporate environmental agenda and understanding the driving forces for it.

INTRODUCTION

Concerns about degradation of the environment (such as climate change, waste production and recycling) have become main-stream in society in recent years, along with many social issues (such as ethical trading and animal welfare). Actions to reduce the impact on the environment within developed economies is now evident, with government, media and corporations raising awareness, in tandem to exploring methods of amelioration. From the corporate perspective, interest in amelioration is likely to be linked, in part, to evidence of their major contribution to the problem, as well as opportunities for competitive advantage by taking actions to reduce the problems. Using the example of climate change, the Carbon Disclosure Project (CDP) 4 reported in 2006 that the FTSE 100 group was responsible for around 73% of the UK's total greenhouse gas emissions between 2003 and 2004 (CDP, 2006). Such data presents these large companies with a major incentive to take actions to reduce their impact on climate change.

Increased activity in environmental management can be evidenced by actions taken by both government and the private sector. For instance, whilst government regulations and requirements relating to pollutant emissions have become more stringent (e.g. Berry and Rondinelli, (1998), Milligan (2008)), many companies have begun voluntary initiatives of an environmental nature (Gonzalez-Benito and Gonzalez-Benito, 2006). Such initiatives have resulted in the development of environmental strategies ranging between environmental reactivity (representative of companies that apply only the minimum unavoidable measures to meet governmental regulations), to environmental pro-activity (representative of companies that voluntarily implement changes to diminish their impact on the environment) (Hunt and Auster, 1990; Roome, 1992; Winsemius and Guntram, 1992).

The extent to which organizations respond to societal-environmental issues depends in part on the views and priorities of their most influential stakeholders, as inferred from the literature on legitimacy theory (see Campbell (2000), Dowling and Pfeffer (1975) and Suchman (1995)), which suggested that companies exist in an implied social contract with their stakeholders, where the views and opinions of their most important and powerful stakeholders will prevail and affect behavior. The extent to which it has been demonstrated that stakeholders other than shareholders have been influential in such activities in practice remains undeveloped however.

In parallel with legitimacy theory, corporate social and/or environmental pro-activity has been considered to relate to the type of business case value creation, and whether the central role of business relates to the economic, political or social frame of reference (Kurucz, Colbert and Wheeler 2008). In the case of the political and/or social actor, concepts of reputation, legitimacy and

synergistic value creation extend corporate motivations of cost/risk reduction and competitive advantage at industry level.

Whilst research to date has identified general influencing factors on environmental pro-activity, with some discourse relating to stakeholder influence (see, for example, Spirig (2006), Henriques and Sadorksy (1999)), there is limited literature that concentrates on company pro-activity with respect to particular environmental management actions and initiatives (such as those relating to climate change, waste reduction, resource use), along with consideration of stakeholder influence. Whilst Haddock-Fraser and Fraser (2008) demonstrated that companies focused on supplying directly to the end-consumer were more likely to be pro-active in environmental reporting in general – demonstrating that, in this context, consumers as stakeholders were an important component of corporate behaviour, there is a paucity of information about the relevance of consumers on corporate behaviours for specific types of environmental management activity, or attempts to explore possible motivations for such activity.

The purpose of this paper is to extend studies to date relating to the role of the consumer (in terms of stakeholder power and corporate legitimacy) and corporate environmental activity. It does this by investigating whether specific environmental actions undertaken by companies are influenced by three foci by which the consumer as stakeholder may be distinguished:- (i) position in the value chain (i.e. closeness of supply to end consumer or 'market'): (ii) whether the company is a brand-name product for end consumers (whereby there is an explicit identifier of the company in the societal/consumer domain); or (iii) by industrial sector. For the purposes of this paper, the term 'close to consumer' (C2C) is defined as companies that supply goods or services directly into consumer markets instead of supplying to another business entity (Haddock-Fraser and Fraser, 2008). Where a company supplies brands, although sold by a retailer, they will also be considered 'C2C' (for example Unilever, Proctor and Gamble).

The paper is structured as follows. In the following section, a review of literature of the main determinant factors affecting corporate environmental activity is provided. Following this, the methodology for the investigation is provided along with discussion of the development of the sample data set. The results and analysis provide descriptive data and the results of a Chi-squared analysis used to examine statistical associations between proximity to consumer and brand and particular environmental management activities. In addition, the data is aggregated to explore links between potential motives for environmental behavior and consumer-focus. The final section presents conclusions and areas for further debate.

REVIEW OF KNOWN FACTORS AFFECTING ENVIRONMENTAL PRO-ACTIVITY

Corporate motivations towards environmental activity have been explored in the literature from a number of perspectives. Such perspectives include those which attempt to explain how environmental activity differs between organizations (including consideration of turnover, ownership structure, industry sector etc), and others which attempt to explain why such differences occur– whether in terms of stakeholder power, competitive advantage, political/social reputation, or for philanthropic reasons.

Gonzalez-Benito and Gonzalez-Benito (2006) discussed possible influencing factors of corporate environmental activity, including company size (with high turnover companies being more active than small ones), stakeholder pressure, industry sector, internationalization, managerial attitude, and geographical location. Okereke (2007) considered more specifically factors that motivate, drive or inhibit corporate climate activities, and included profit, risk control, energy prices, government regulation, investor pressure and technological change. Henriques and Sadorsky (1999) argued the view that the type and extent of corporate environmental activity was linked to the perceptions of the relative importance of stakeholders. For the purposes of the paper, the literature reviewed below considers the role of stakeholders and the industrial sector as potential explanatory factors.

Stakeholder Influences

Stakeholders are groups or individuals who can affect or are affected by the company's actions, performance, and achievement of the company's objectives (Freeman, 1984). Clarkson (1995) differentiated between secondary stakeholders - who have an effect on and are affected by the company but are not directly involved in transactions with it and are not essential to the company's survival (such as non-governmental organizations, media), and key primary stakeholders - without whose direct involvement and support the company cannot survive (such as regulators, customers, suppliers). In line with the proposals of Freeman and Liedtka (1991) a company's success and existence is dependent on the ability to create value for its primary stakeholders by catering to their expectations and demands. This view was supported by Berman *et al*. (1999) who empirically established that adopting stakeholder management practices motivates companies because of their likely positive impact on profit.

As part of stakeholder expectations, (summarized by Waddock *et al* (2003) as respect, standards, accountability, integrity and transparency), Gupta (1994) suggested that the perceived environmental consciousness of a company involves balancing key stakeholders' expectations with environmental performance. Therefore, the company adjusts its behaviour according to the pressure it perceives and receives from its stakeholders (Gonzalez-Benito and Gonzalez-Benito, 2006). The importance of this pressure in the development of pro-active environmental initiatives has been discussed by several authors (Berry and Rondinelli, 1998; Fineman and Clarke, 1996; Jennings and Zandbergen, 1995; Maxwell *et al*., 1997; Winsemius and Guntram, 1992).

There is debate concerning the relative importance of different types of stakeholders on the environmental behaviour of companies. Henriques and Sadorsky (1999) supported the view that the extent and type of environmental pro-activity was associated with pressure from 'organizational' stakeholders (shareholders, customers, employees and suppliers) and 'community' stakeholders (e.g. non-governmental organizations). Buysee and Verbeke (2003) argued however, that there is a distinction between internal primary stakeholders (financial institutions, employees and shareholders) and external primary stakeholders (suppliers and customers) and that only pressure from internal stakeholders stimulates environmental pro-activity. This argument was limited by the sample studied however, which consisted of intermediate product producers who have little consumer contact (i.e. B2B). In contrast Klassen and Whybark (1999) indicated that both awareness of environmental regulation (the extent to which plant personnel are informed of and comply with environmental regulation), and public interaction (the extent to which managers provide environmental information to and gather feedback from the public), show positive effects on the degree of environmental pro-activity.

Discussion relating to the importance of different types of stakeholder has been synthesized by Kurucz, Colbert and Wheeler (2008) who identified the co-relation between type of environmental pro-activity and the central role of business (interpreted as the dominant 'actor' or stakeholder group). These relationships are shown in Table 1.

[Take table 1 here]

The table identifies that a business may adopt CSR approaches (for the purposes here, this is can be considered to be a proxy for 'environmental') depending upon a number of factors. These include how value is created (and for whom), as well as the role for business (economic, political or social. As can be observed from the table, where cost reduction and/or competitive advantage are dominant modes of value, the central role of business is deemed to be as an economic actor with a focus on

financial wealth. However, where reputation and legitimacy become the key value proposition, the role of the organization moves to that of political actor where the power and position of the organization in society becomes a central concern (Kurucz, Colbert and Wheeler (2008)). This dynamic suggests a shift in key stakeholders – moving to concern beyond the 'shareholder as stakeholder' perspective to concerns about societal (and consumer or potential consumer) expectations of organizational behaviour.

Various authors point to a benefit of environmental pro-activity being not only the improvement of relationships with stakeholders, but also the prospect of mutual influence (Russo and Fouts, 1997; Sharma and Vredenburg, 1998; Shrivastava, 1995). Within this context, it has been noted that both the environmental consciousness of final consumers, and the number of consumers who prioritize environmental preservation over economic growth, has grown (Mainieri and Barnett, 1997). For example, Maddison (2001) and Batley *et al*. (2001) asserted that climate change was quickly becoming a major consumer issue. If this is the case, it could be inferred that the importance of end-consumers, as a stakeholder group, has become increasingly influential affecting type and extent of environmental pro-activity for that issue.

The extent to which the end-consumer is a key stakeholder in terms of impacting type and extent of environmental activity in organizations has been considered to some extent – albeit tangentially at times. It has been suggested that the proximity to the final consumer within the supply chain is an important factor in influencing the environmental pro-activity of a company (Gonzalez-Benito and Gonzalez-Benito (2006)). There is, however, little empirical evidence to support this assertion. Studies tangential to the issue include those by Arora and Cason (1996), who found that the level of advertising expenditure was an important predictor of participation in pollution prevention programs. This suggests that level of societal exposure of a company may relate to reputational behaviours. Haddock-Fraser and Fraser (2008) found a relationship between a company's position in the value chain and its provision of corporate environmental information, with those companies interacting directly with end-consumers more likely to report on environmental management initiatives and activities undertaken. Again, this suggests that for companies with higher societal exposure, there are higher levels of motivation to ensure corporate reputation is maintained.

However, some authors have argued against the supply chain position as an influencing factor. For example, Wilson (2000) argued that, in the case of automobile assemblers, many final manufacturers require assurance of environmental commitment from their suppliers. In addition, Buysse and Verbeke (2003) explained that environmental pro-activity was not linked to higher pressure from

external primary stakeholders. However, this research was limited to surveying intermediate manufacturers, who did not have direct contact with final consumers. Such research does not necessary contradict the assertion relating to end-consumer and environmental management pro-activity however. As was observed by Haddock-Fraser and Fraser (2008), a key environmental issue reported by 'close to consumer' companies was their assurance of environmental quality standards by their suppliers, not just within their own corporate entity. As such, there would be an expectation that over time environmental management activities would develop further in 'Business-to-Business' (B2B) companies, in line with those of C2C. As with other research relating to environmental management activity this trend has been more apparent in larger companies at the outset.

Industrial Sector Variability

It has been widely demonstrated that different industrial sectors show significant variability in their level and type of environmental activity (Stray and Ballentine (2000), Halme and Huse (1996), Bowen (2000), Clemens (2001), Kolk (2003) and Martin and Hadley (2006). Gonzalez-Benito and Gonzalez-Benito (2006) noted that each sector has different polluting potential and therefore is subject to different controls and expectations from social groups, institutions and consumers. These sectoral differences were empirically identified by Banerjee (2002), who demonstrated considerable divergences in the way each sector regards the importance of the environment as well as how they incorporate the environment into their strategy. Arora and Cason (1996) found a positive relationship between the intensity of polluting emissions and voluntary participation in pollution prevention programmes. They also argued that the most concentrated sectors have more resources for environmental initiatives. As the environment as an issue has moved beyond emissions reduction alone, and also become a main-stream issue in society, there has been a trend towards convergence in sectoral performance, with low-impact sectors catching up in terms of environmental activity. KPMG (2005) identified that low-environmental impact firms showed increased interest in reporting their environmental performance between 2002-5. For example, 57% of the Financial sector provided social and environmental reports in 2005, an increase of 138% in three years. 91% of companies in the electronics and computers sector reported in 2005, as did 57% of all communications and media companies in the survey. Even the university sector is increasing its level of environmental activity. In 2008 it was reported that 117 UK universities have environmental policies (of which 101 were written or reviewed since 2006) (Times Higher Education Supplement

2008 p.). This suggests that industry sector as a factor is unlikely to be of significance in terms of explaining differential levels of environmental activity.

In conclusion, the literature to date has considered potential factors influencing the extent of environmental activity, particularly in relation to the influence of stakeholders and industrial sector, whilst recognizing at the outset that these are only two of a number of potential factors (with others including turnover, ownership, managerial attitude, regulation and technical change). However, there is little evidence that the literature to date has explored: (i) the particular mechanisms by which companies undertake environmental management (whether to combat climate change, manage waste or reduce resource use in particular); (ii) whether there are differences in the extent to which management mechanisms are used (such as external audit, environmental management systems); or (iii) to consider why such differences exist. As such the paper extends the literature to date by (i) specifically reviewing whether there is an association between the implied importance of the end consumer and measures undertaken by companies to adopt particular environmental policies and actions; (ii) considers whether those actions relate to the key value propositions of cost/risk reduction, reputation and legitimacy or synergistic value creation (where economic and political factors co-relate).

RESEARCH METHOD

For the purpose of this research, the sample data set used was the FTSE 100 companies in the UK. This sample was selected for a number of reasons. First, it has been recognized that large companies are among the most pro-active companies in the world in environmental amelioration (Okereke, 2007; Levy and Newell, 2000; Varma, 2004). Previous research has identified that large companies in general are likely to be more pro-active than smaller ones (e.g. Arora and Cason (1996), Alvarez *et al.* (2001) Brammer and Pavelin (2004), Haddock (2005). Therefore, looking for trends within a large company sample not only removed bias in data relating to company size, but also provided a sample where there were likely to be higher levels of environmental activity overall. Furthermore, by using publicly listed companies only, bias in the data caused by reporting differences between privately owned and publicly listed companies would be avoided.

Nine industry sectors were identified within the sample, with classification based on those of the UK Environment Agency. The sectors covered by the sample were consumer services (n=25), basic

materials (n=10), industrials (n=7), telecommunications (n=4), utilities (n=9), consumer goods (n=12), financials (n=26), health care (n=4), oil and gas (n=3).

Various secondary sources were used to collect data relating to the environmental activities of the sample. These included:

1. The Climate Disclosure Project (CDP 5) reports for all the FTSE 100 companies. The CDP reports were important in terms of viewing quantified emissions data and identifying climate actions which are being pursued (as outlined below).

2. Company websites of the FTSE 100 companies, where environmental reports, sustainability reports and/or corporate social responsibility reports or sections were studied, to provide data on additional environmental activities. All data was for the 2006 calendar year.

3. The Tyndall Centre database,, which supplies information on the emissions reduction activities of 458 companies.

The data from these three key sources was supplemented with information from press releases, published materials and other relevant websites. The use of publicly available information was consistent with the content analysis methodology discussed below. It was recognised that the only data used was publicly available data, and that there may be activities and actions undertaken by companies in the sample that were relevant to the study, but had not been disclosed.

For each company, information was gathered and categorized according to (i) the company's environmental activities and actions, as listed below, (ii) company focus (C2C or B2B) and (iii) brand status. For each item, the data was recorded categorically. For data relating to environmental activities and actions in section (i), no attempt was made to assess the extent of activity, merely that information was being disclosed. Each environmental action was classified according to whether the action related to (i) climate change reduction, (ii) waste management (iii) water management, (iv) management processes, recognizing that some activities may fit into more than one of these categories. The authors used their judgment to categorize whether the action concerned provided direct opportunities for cost reduction (as would be the case for Action 4: Reduction in Energy Consumption) as a result of undertaking the action, or whether by implication of not being a direct cost reduction benefit the action provided other benefits (e.g. reputation). Where cost reduction was considered to be a benefit, the action was marked with an asterisk (*). It was recognized that this classification, in some cases, could be considered to be subjective and open to interpretation. For example, for Action 9 (recycling exercised), a cost-reduction identifier was attached as the authors

considered that on balance the cost to a company of undertaking recycling would be cheaper than the costs of waste disposal. The actuality of the situation may be context specific however. Categorisation of the actions assessed and their typologies is provided in Table 2.

[Take Table 2 here]

In terms of company focus, it was determined whether the company could be categorized as being 'close-to-consumer' (C2C) or operating as a 'business-to-business' (B2B) entity. In order to determine this, information was obtained from the company's websites or annual reports which outlined the activities of the business concerned. For the purposes of the sample, it was assumed that if there was any activity that related directly to the end-consumer, the company was considered to be in the C2C category. As such, companies in the Oil/Gas sector such as Shell and BG Group were categorized as C2C even though a substantial percentage of their activities would not be end-consumer focused.

In terms of brand-identifier a company was considered to be a 'brand-name' company where the company had an identifiable brand name to end-consumers – such that their product name/brand name and company name were the same. This was considered an indicator of identifiable presence of the company and its products in the consumers' minds (Haddock-Fraser and Fraser, 2008). For example, HSBC was considered as a 'brand-name' company whereas Unilever was not.

Content analysis was the method used in the research to collect and analyse relevant data within a structured format. The technique has been widely used across social science research (Krippendorff 1980, Haddock-Fraser and Fraser 2008), particularly for collating publicly available information and systematically categorising it to assess trends or differences within the dataset, and to seek meanings within the trends (i.e. latent content) (Bryman and Bell 2003).

Definitions of content analysis abound (including definitions in Berelson 1952; Barcus 1959; Kerlinger 1964; Hosti 1969). Whilst Kassarjian (1977) noted that the analysis method must be objective, systematic and quantitative (in that the data must be able to be analysed using quantitative methods), Collis and Hussey (2003) and Harwood and Garry (2003) stated that, whilst the data collected at the outset may be qualitative, it must be capable of systematic categorisation.

Content analysis was selected as a method for this research as it had the advantages of providing an unobtrusive, systematic and objective method to collect and analyse company data for the sample

selected, enabling the observation of explicit companies' behaviours regarding communication of environmental activities. It needs to be noted however, that the measure used in the analysis was communication of actions and activities, not actions/activities *per se*, (as the data collected was from publicly available corporate communication) and that lack of reporting may not necessarily indicate a lack of activity.

RESULTS AND ANALYSIS

Data Description

Table 3 shows the counts by industry sector (Consumer Services; Basic Materials; Industrials; Telecommunications; Utilities; consumer Goods; Financials; Health Care) against:

- C2C or B2B companies;
- Brand name or Non-Brand Companies.

[take table 3 here]

On the whole the sample provides a good statistical balance between C2C and B2B focus and brand and non-brand companies, although there is some unavoidable imbalance between these attributes at sector level.

[take table 4 here]

Table 4 presents the percentage of companies that undertake environmental actions 1-17, constructed on the basis of the C2C/B2B criterion, both overall and for each sector. At the outset, it can be observed for the sample as a whole some actions, particularly achievement of energy efficiency (action 1), use of an Environmental Management System (action 5) and water efficiency (action 15), were adopted by a high percentage of all companies. Other actions, particularly Research and Development (action 11) and offset emissions (action 13) had low take-up across the group as a whole.

Overall, there was a higher and more consistent employment of actions by C2C companies relative to B2B companies. However, there was diversity in the sample as a whole as to which actions were employed. Within each action, there tended to be disparity between the percentage of C2C companies adopting the action compared to their B2B counterpart, with the C2C companies showing greater levels of involvement in every case. Comparison by sector was not possible at a meaningful level for many sectors, as the disaggregated sample size became too small. However, whilst the

general trend was for C2C companies to be more pro-active in their reporting against actions 1-17, in the two sectors, where there were larger numbers ('Consumer Services' and 'Financial Services') there was not complete conformity to that pattern. In particular in Consumer Services, the B2B businesses were more active in waste reduction (action 8), recycling (action 9) and offset emissions (action 13) than their C2C counterparts. In 'Financial Services', the B2B companies were more active in achievement of energy efficiency (action 1) and the use of external auditing (action 10). C2C and B2B companies performed most similarly on the achievement of energy efficiency (action 1) and waste reduction (action 8), while the largest differences were observed in absolute emissions reduction (action 2), use of renewable energy (action 3), and offering products/services that are a viable alternative for customers to reduce their impact on climate change (action 14).

[take table 5 here]

Table 5 presents the percentage of companies that undertake environmental actions 1-17 constructed on the basis of the brand/non-brand criterion. There appears to be no distinct difference between the extent to which brand and non-brand companies undertake environmental actions. Overall brand companies were found to be more proactive in 10 out of 17 actions, while non-brand companies are found to be more proactive in 7. Brand companies were observed to be more likely to take actions relating to new products (action 14), logistics reduction (action 6), and business planning (action 12). However, for most of the actions, there seemed to be similarity between the brand and non-brand groups (e.g. actions 1, 2, 3, 4, 8, 9).

At the sector level, only the largest groups could be reviewed and it was noted that for 'Customer Services' the brand companies had a higher take-up for all but actions 4 (reduction in energy consumption achieved), and 14 (alternative products). In 'Financial Services' there seemed to be an equal mix of climate change reduction actions taken by brand and non-brand companies – with 8 of the 17 actions showing greater take-up by non-brand companies.

Data Analysis and Discussion

Chi-squared analysis was used to test for association between (i) proximity to end consumer, and (ii) brand and the extent to which companies undertake climate change reduction activities overall and for each action (1-17). Te variable 'industry sector' could not be considered at this stage as the disaggregated sample sizes were too small for reasonable inferential analysis.

Hypotheses H1 to H17 were developed against each environmental action as shown below, with a composite measure of activity identified in Hypothesis 18. The results are provided in table 6.

- H1-H17 tested for significant differences in each of the 17 actions reviewed above, where H(≠0) provides the hypothesis that there is a significant association between the activity and (i) proximity to market, (ii) brand and H0 indicated the null hypothesis that there was no significant association. For example, H1 asserts a significant association between proximity to market and achievement of energy efficiency measures, with its H0 being no significant association.
- H18 tested for significant association in the overall level of climate change pro-activity (i.e. the total amount of actions undertaken to combat climate change) against (i) proximity to market, (ii) brand.

[take table 6 here]

The results identified that there is a significant statistical association between C2C companies and environmental activity in general (H18). However, at the individual action level there were mixed results, with statistically significant associations (at p=0.01) with absolute emissions reduction (H2), use of renewable energy (H3), achievement of reduced energy consumption (H4), adoption of EMS (H5), participation in international processes (H7), employing external auditing (H10), incorporating climate change considerations in business planning (H12), offering products/services which are environmentally friendly (H14), and being awarded ISO 14001 (H16). Other actions (H1, H6, H13, H15) showed a significant association at p=0.05.

Overall, it was found that there was no statistical association between brand and environmental activity (H18). However, specific results show statistically significant positive associations for logistics reduction (H6), and offering products/services which are environmentally friendly (H14). This divergence from the C2C results suggests that position in the value chain may have a greater impact on corporate actions to reduce climate change than explicit market labels.

The association for C2C companies against the various types and potential motives for environmental management (summarized from the categories identified in Table 2) is provided in Table 7. It shows that C2C companies are particularly active in climate change amelioration, with nine of the ten actions relating to climate change showing that there was a significant association (at p=0.05 or better) between those actions taken and the company being consumer focused. The only action where consumer focus did not show significant difference between C2C and B2B was Action 11 (R&D collaboration on climate change). All other indicators showed C2C companies more active in disclosing information in this area. In addition, C2C companies showed significantly more

interest in ensuring appropriate environmental management processes are in place (e.g. EMS, audit, disclosure of data, participation in international discussion on climate change) than their B2B counterparts, with 6 of the 7 actions showing significant association to C2C at p=0.01 (again the only non-significant action was action 11 (R&D collaboration on climate change)). Waste reduction and water resources showed no significant differences between reporting of C2C and B2B companies, and of note is the fact that these actions all provided cost reduction opportunities too. At the outset, from an amelioration point of view, C2C companies do seem to have significantly more interest in portraying activity relating to climate change than their counterparts, and more interest in its reporting than other environmental issues.

In terms of potential motivations for reporting, the data shows that although there is a slight skew in C2C companies undertaking actions of a cost-reducing nature. It is particularly interesting to note that 80% of the actions that do not provide direct cost benefit to the organization are significantly associated with C2C companies. These activities related to climate change specifically (e.g. use of renewable energy, offsetting) and to management processes (EMS, ISO 14000, data disclosure, external auditing) as well as actions which incorporated both (participation in international processes, incorporation of climate change into business planning, alternative products and services). This suggests from a legitimacy point of view that consumer focused companies look beyond environmental actions that provide cost reduction opportunities (on the assumption that regulatory requirements need to be met regardless of C2C or B2B), these companies are driven by a perceived need to protect and enhance their reputation for environmental management with their consumers. Hence C2C companies can be seen as moving towards the 'reputation/legitimacy' or even 'synergystic value creation' modes identified by Kurucz et al (2008) with a focus on the political and/or social actors as stakeholders.

CONCLUSIONS

This paper explored the issue of whether or not position in the value chain, brand name and industrial sector were factors influencing the extent of corporate environmental management action for the FTSE 100 companies (UK). It also investigated whether position in the value chain and brand name were distinguishing attributes for particular environmental management actions corporate actors employed, and whether there was a difference in the inherent motivation for environmental management between customer-focused companies and others.

It was established that a positive statistical association exists between proximity to consumer and environmental management actions in general and for many of the actions measured. Interestingly, it was established that although a positive association exists between brand companies and environmental actions undertaken, it is not statistically significant. In terms of sector differences, the sample size did not enable statistically significant associations to be measured at the disaggregated level but it was noted that patterns of activity did not relate directly to sector specifics either for the C2C or Brand parameters.

Specifically considering the C2C parameter and details of environmental action it was noted that environmental management processes and climate change amelioration activities were particularly prominent in C2C companies, and in terms of business benefits, the C2C companies were more likely to be associated with non-cost reduction type actions than their B2B counterparts.

This exploratory research confirms the notion of the legitimacy of the consumer as an important stakeholder, and suggests that undertaking environmental activities above and beyond those providing cost reducing benefits is perceived to have valency. C2C companies can be seen as having a stakeholder focus beyond pure economic actors, with a focus on the political and/or social actors as stakeholders and interest in the 'reputation/legitimacy' or even 'synergystic value creation' modes identified by Kurucz et al (2008).

Interestingly climate change seemed to be a particular environmental issue C2C companies were keen to address- and showed significantly more activity in these companies compared to B2B, whereas waste and water issues showed no association. It could be speculated that such activity is responding to the greater awareness in the public domain of the issue of climate change relative to that of other environmental problems.

The implications of this research are important to policy makers and government as well as investors in terms of identifying which companies are potentially leading the corporate environmental agenda, and identifying why they are taking that action, in terms of responding to the perceived needs of key stakeholder groups.

There are a number of limitations to this research study. By its nature it is an exploratory study considering general association patterns within a large-company data set. Association does not imply causality, and further work would be required to assess whether the consumer as stakeholder is causing the C2C companies to undertake many of their proactive environmental activities. In addition, as the dataset was drawn from publicly available information only, it may not necessarily

reflect all the actions being undertaken by all companies, merely what they chose to disclose. In order to assess 'action' rather than 'disclosure as proxy for action', further data would be needed to be collected by interview. As noted above the actions identified as being significantly associated with C2C relate to the perceived needs of the key stakeholder group of the consumer. However, further research would be needed to determine whether this perceived need by the companies is responding to an actual need of the consumer.

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TABLES AND FIGURES

Table 1: Four Types of Business Case Value Creation

	Cost and Risk Reduction	Competitive Advantage	Reputation and Legitimacy	Synergistic Value Creation
Key Value Proposition	Trading: Engaging in CSR to reduce costs and risks to the firm	Adapting: A strategic approach to CSR to build relative competitive advantage	Aligning: Exploiting CSR activities to build value through gains in firm reputation and legitimacy	Relating: Integrating stakeholder interests to create value on multiple fronts
Central Role of Business	Economic actor	Economic Actor	Political Actor	Social Actor
Level of Theory	Organisation	Industry	Political and Cultural System	Societal

Source: Extracted from Kurucz, Colbert and Wheeler (2008) p.93.

Table 2: Categorisation of actions used to assess type of environmental activity in sample group.

Action Number	**Activity**	**Typology**	**Potential Business Benefit**
1	Achievement of energy efficiency	Climate	*
2	Absolute emissions reduction	Climate	*
3	Use of renewable energy (e.g. cleaner power technology)	Climate	
4	Reduction in energy consumption achieved	Climate	*
5	Adoption of Environmental Management System	Management	
6	Logistics reduction	Climate	*
7	Participation in international processes to consider ways of meeting the challenges of climate change	Climate Management	
8	Waste reduction	Waste	*

9	Recycling exercised	Waste	*
10	External auditing employed	Management	
11	Research and development collaboration to reduce greenhouse gas emissions or increase material efficiency	Climate Management	
12	Incorporate climate change considerations in business planning and foster co-operation between operations in managing greenhouse gas emissions	Climate Management	
13	Offset emissions	Climate	
14	Offer products/services that are a viable alternative for customers to reduce their impact on climate change	Climate	
15	Water efficiency achieved	Water	*
16	ISO 14000 certification	Management	
17	Quantified data disclosed	Management	

Table 3: Sample market characteristics of industry sectors (numbers indicate the number of companies for each attribute)

Sector	Total in sector	C2M	B2B	Brand	Non-Brand
Consumer Services	25	19	6	14	11
Basic materials	10	1	9	1	9
Industrials	7	1	6	4	3
Telecommunications	4	3	1	4	0
Utilities	9	7	2	3	6
Consumer Goods	12	11	1	3	9
Financials	26	19	7	20	6
Health Care	4	2	2	1	3
Oil and Gas	3	3	0	3	0
Total	100	66	34	53	47

Table 4: Breakdown of actions undertaken to combat climate change by sector in % for C2C and B2B companies

Sector/ Actions:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
C2C (%)																	
Consumer Services n=19	90	63	58	68	74	58	53	58	58	68	26	63	16	74	79	53	53
Basic Materials n=1	100	0	0	0	100	0	0	100	100	100	0	0	0	0	100	0	0
Industrials n=1	100	100	100	100	100	0	100	100	100	100	100	100	0	100	0	0	0
Telecommunications n=3	100	67	67	67	33	33	33	67	0	67	0	33	0	67	67	100	100
Utilities n=7	100	100	100	71	86	29	71	29	57	71	57	57	0	57	71	71	86
Consumer Goods n=11	100	64	91	82	82	18	64	91	91	82	27	55	55	46	73	82	91
Financials n=19	80	90	84	84	84	63	58	58	53	68	16	84	47	58	74	58	63
Health Care n=2	50	100	100	50	100	50	0	50	0	100	100	50	50	50	100	100	100
Oil and Gas n=3	100	67	33	67	67	0	100	0	0	33	100	67	0	100	67	67	67
Total % of sample (n=66)	89	76	76	74	79	44	58	59	56	71	32	65	29	62	74	64	68
B2B (%)																	
Consumer Services n=6	83	16	50	67	50	50	33	83	83	50	0	16	33	33	33	16	50
Basic Materials n=9	78	44	33	33	33	0	44	22	11	56	44	56	0	22	44	56	44
Industrials n=6	50	0	17	67	83	33	17	67	50	33	17	33	0	33	83	50	67
Telecommunications n=1	100	0	0	0	0	100	0	100	100	0	0	0	0	0	100	0	0
Utilities n=2	50	0	0	0	0	0	0	50	0	0	0	50	0	0	50	0	50
Consumer Goods n=1	100	0	0	100	100	0	0	100	0	0	0	0	0	0	100	0	100
Financials n=7	86	57	29	14	57	29	29	43	43	71	14	43	14	14	43	29	43
Health Care n=2	50	0	50	50	0	0	0	0	50	0	0	0	0	0	50	50	50
Oil and Gas n=0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total % of sample(n=34)	74	26	29	41	47	24	26	50	41	44	18	35	9	21	53	35	50
TOTAL % by action for Brand and Non-Brand	84	59	60	63	68	37	46	56	51	62	27	55	22	48	67	54	62

Table 5: Breakdown of actions undertaken to combat climate change by sector in per cent for brand-name and non-brand companies

Sector/ Actions:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Brand (%)																	
Consumer Services n=14	100	71	64	64	79	71	64	71	64	71	29	71	29	12	71	50	57
Basic Materials n=1	100	0	0	0	100	0	100	0	0	0	0	100	0	0	0	0	0
Industrials n=4	75	25	25	50	75	50	25	75	50	75	50	75	0	25	75	50	50
Telecommunications n=4	100	50	50	50	25	50	25	75	25	50	0	25	0	50	75	75	75
Utilities n=3	67	67	67	33	33	0	67	0	0	67	67	33	0	33	67	67	67
Consumer Goods n=3	100	33	67	67	67	0	67	67	100	67	33	33	33	67	33	100	100
Financials n=20	80	80	70	65	80	60	45	50	50	65	20	75	40	55	65	55	65
Health Care n=1	0	0	0	100	0	0	0	0	0	0	0	0	0	0	100	100	100
Oil and Gas n=3	100	67	33	67	67	0	100	0	0	33	100	67	0	100	67	67	67
Total % of sample (n=53)	87	64	58	60	70	49	53	53	47	62	30	64	25	60	66	58	64
Non-Brand (%)																	
Consumer Services n=11	73	27	46	73	55	36	27	55	64	55	9	27	9	36	64	36	46
Basic Materials n=9	78	44	33	33	33	0	33	33	22	67	44	44	0	22	56	56	44
Industrials n=3	33	0	33	100	100	0	33	67	67	0	0	0	0	67	67	33	67
Telecommunications n=0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities n=6	100	83	83	67	83	33	50	50	67	50	33	67	0	50	67	50	83
Consumer Goods n=9	100	67	89	89	89	22	55	100	77	77	22	55	55	33	89	67	89
Financials n=6	83	83	67	67	67	33	67	67	50	83	0	67	33	17	67	33	33
Health Care n=3	67	67	100	33	67	33	0	33	33	67	67	33	33	33	67	67	67
Oil and Gas n=0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total % of sample(n=47)	81	53	62	66	66	23	40	60	55	62	23	45	19	34	68	49	60
TOTAL % by action for Brand and Non-Brand	84	59	60	63	58	37	47	56	51	62	27	55	24	48	67	54	62

Table 6: Chi-square test results for association between C2M, brand and climate change pro-activity

Hypothesis	χ^2 test statistic for C2M	*P* value	χ^2 test statistic for brand	*P* value
H1	4.202*	0.040	0.654	0.419
H2	22.535**	0.000	1.237	0.266
H3	20.083**	0.000	0.107	0.744
H4	10.525**	0.001	0.333	0.564
H5	10.382**	0.001	0.170	0.680
H6	4.010*	0.045	7.032* *	0.008
H7	8.716**	0.003	1.539	0.215
H8	1.753	0.386	0.460	0.498
H9	1.989	0.158	0.662	0.416
H10	6.992**	0.008	0.003	0.954
H11	2.286	0.131	0.582	0.446
H12	8.083**	0.004	3.815*	0.051
H13	5.212*	0.022	0.420	0.517
H14	15.508**	0.000	6.921**	0.009
H15	4.605*	0.032	0.047	0.828
H16	7.257**	0.007	0.915	0.339
H17	3.149	0.076	0.221	0.638
H18	43.762**	0.000	18.223	0.197

**Significant at 1 per cent level (*p* value = 0.01).
*Significant at 5 per cent level (*p* value =0.05)

Table 7: Summary of typology and motivation for environmental action relative to significance of association to C2M

Type of action	C2M significant (p=0.01)	C2M significant (p=0.05)	C2M not significant
Climate change (n=10)	6	3	1
Waste reduction (n=2)	0	0	2
Water resources (n=1)	0	1	0
Management processes (n=7)	6	0	1
Cost reduction potential (n=7)	2	3	2
Non-cost reduction potential (n=10)	8	1	1


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