VARIATIONS IN THE MAINSTREAMING OF SUSTAINABILITY: A CASE STUDY APPROACH

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The construction sector has a major role to play in delivering the transition to a low carbon economy and in contributing to sustainable development; however, integrating sustainability into everyday business remains a major challenge for the sector. This research explores the experience of three large construction and engineering consultancy firms in mainstreaming sustainability. The aim of the paper is to identify and explain variations in firm level strategies for mainstreaming sustainability. The three cases vary in the way in which sustainability is framed – as a problem of risk, business opportunity or culture – and in its location within the firm. The research postulates that the mainstreaming of sustainability is not the uniform linear process often articulated in theories of strategic change and management, but varies with the dominant organisational culture and history of each firm. The paper concludes with a reflection on the implications of this analysis for management theories and for firm level strategies.

Keywords: corporate sustainability, corporate strategy, neo-institutional theory, organisational culture

INTRODUCTION

The UK Climate Change Act (2006) and UK Strategy for Sustainable Construction (Berr 2008) reflect the UK's focus on sustainability and the low carbon agenda. There are increasing political, social and market pressures on the construction industry to play its part. At the level of policy, accelerated revisions to Part L building regulations, increasing demand for CEEQUAL and BREEAM assessments, guidelines for government procurement and the Code for Sustainable Homes have all helped to put sustainability on the agenda. Pressure from socially responsible investors and external stakeholders have led to demands for greater accountability and transparency, while attempts to document best practice have led firms to engage with advisory forums (e.g. Forum for Future, Tomorrow's Company) and benchmarking (e.g. Business in the Community, Times Green Companies).

As external pressure has increased, there has been a drive inside companies to develop sustainable policies and procedures. There is also a view that improving sustainability performance in terms of reducing waste and energy usage is a lever to reduce operational and project costs. The response of firms in the construction sector has been diverse. Firms vary in their framing of the problem, the location of sustainability

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Boyd P and Schweber L (2012) Variations in the mainstreaming of sustainability: a case study approach *In*: Smith, S.D (Ed) *Procs 28th Annual ARCOM Conference*, 3-5 September 2012, Edinburgh, UK, Association of Researchers in Construction Management, 1343-1354.

within the firm, internal and external facing initiatives and the integration of sustainability into everyday practice. The aim of the research is to identify and explain variations in firm level strategies for mainstreaming sustainability. Research focuses on the framing of sustainability as a problem and on the institutionalization into the organizational structure and internal and external corporate strategies. The research does not assess the effectiveness of the different approaches, in part because, in two of the three cases, these strategies are relatively recent. However it does suggest guidelines for effective practice.

LITERATURE REVIEW

The call for corporate sustainability lies at the intersection of a number of policy agendas, including environmentalism, corporate social responsibility and modernisation of the construction sector. While much of the academic literature on corporate sustainability relies on practically oriented management theories, this research rejects that approach as overly simplistic and insufficient to account for variations between firms. Instead the analysis draws on neo-institutional theory.

Corporate Sustainability

The literature on corporate sustainability focuses on the integration of sustainability into core business objectives and operations and draws on theories of organizational and strategic change. Much of this work focuses on how to encourage corporate sustainability and the relation between environmentalism and competitive advantage. Three main approaches dominate this area: Stakeholder Theory, Resource Based Views and Stage Models.

Studies drawing on Stakeholder Theory (Sharma and Starik 2004, Benn and Dunphy 2007) explore the role of institutional investors (Mathews 2008, Sullivan and Pfeifer 2008, Reid and Toffel 2009), local communities and pressure groups (Baron 2003, Sharma and Henriques 2005), NGOs customers (Anderson, Daly and Johnson 1999, Delmas and Monitiel 2008) and employees(Mathews 2008) in driving corporate sustainability. While scholars generally agree that all of these groups potentially matter, they tend to be studied in isolation. Little is known about the interaction between these different types of demands and their effect on firms. Literature advocating a Resource Based View (RBV) suggests that the culture and capability of the firm are key factors in the successful integration of sustainability within the firm (Aragon-Correa and Sharma 2003, Buysse and Verbeke 2003). The effects of previous change patterns and acquisition history in the implementation of environmental strategies are identified (Ellis, Cordanok and Lamont 2002), but are not generally explored.

Literature on stage models includes linear models which focus on a stepwise approach to sustainability (Doppelt 2003, Hoffman 2006) and wave approaches where the firm's journey along the road to sustainability is characterised by different phases of momentum (Dunphy, Griffiths and Benn 2007). Like stakeholder engagement and RDV, this work is partially descriptive and partially prescriptive, laying out the steps which firms must take to become truly sustainable. This literature highlights the role of the champion within the firm and the importance of communication (Johnson 1990, Ginsberg and Abrahamson 1991). However, the approach tends to be a "one size fits all" analysis which identifies major step changes, but which does not address what it is about the firm that makes these prescriptions so hard to follow. In addition, few studies take into account regional or sector level variations.

In summary, the literature on corporate sustainability identifies a number of key factors, deemed crucial for the mainstreaming of sustainability. These include: stakeholder engagement, firm level resources, including capabilities, and the role of champions. While all of these factors are clearly important, this literature tends to be highly prescriptive. Little is known about how the different factors combine in specific firms or on variations in firm level trajectories. Nor does this literature provide the analytic resources to explain why different firms adopt different strategies, with varying outcomes. In contrast, sociological versions of institutionalism combine an appreciation of these different factors with a more coherent explanatory framework.

Neo-Institutionalism

This research draws on sociological versions of institutional theory to explain variations in the mainstreaming of sustainability across three firms. In general, institutional theory draws attention to the relation between the broader institutional context – including formal regulations and standards, societal expectations and dominant ways of working – and individual or firm level action (Scott 2001). While the theory initially focused on pressures for convergence across firms (isomorphism), recent developments explore firm level variations and agency (Delmas and Toffel 2012). A central focus of this literature is on the impact of dominant understandings of problems and associated rules and sanctions on firm level activities. While some firms conform to broader institutional rules, others may try to avoid the cost of change by decoupling their symbolic responses from their everyday practices (Hironaka and Schofer 2002). These observations draw attention to variations in how firms align institutional and environmental targets with internal strategies.

In the past decade, neo-institutional scholars have turned their attention to problems of corporate sustainability (Jennings and Zandbergen 1995, Bansal and Roth 2000, Lounsbury, Ventresca and Hirsch 2003). Key theoretical contributions include: a focus on institutional entrepreneurs and their role in shaping both firm level responses and institutional requirements (Larson 2000, Hall, Daneke and Lenox 2010), the role of organisational culture in inflecting firm level responses (Milstein, Hart and York 2002, Howard-Grenville 2006) and the importance of firm history in accounting for variations in firm level response (Levy and Rothenberg 2002, Sastry, Bernicke and Hart 2002). This research considers the nature and impact of all three of these factors in each of the three cases.

RESEARCH DESIGN

The research adopts an interpretivist approach, which fits with the neo-institutional concern for meaning and processes. It uses a small number of in-depth case studies and qualitative data to document variations in firm responses to external demands for sustainable construction. The case study method adopts a 'holistic' approach (Ragin 1992) to one or more (complex) units with the aim of "elucidating features of a larger class of similar phenomenon" (Gerring 2004, p.341). As such~~,~~ it directs attention to the dynamic interaction between factors within a case. In addition, case study research focuses on causal mechanisms (Hedström and Swedberg 1996). As such, it is particularly suited to the study of strategic change and change management in complex organizations.

Three roughly comparable firms were selected as case studies. Two are large construction firms (with extensive engineering consultancy businesses), while the smallest is an engineering consultancy firm. All three are multi-national firms and in all three the UK division has taken the lead in mainstreaming sustainability for the firm as a whole; research therefore focuses primarily on UK initiatives. Each firm underwent significant organisational change during the course of this research. While these were not driven by sustainability related concerns, they did provide the firm with an opportunity to strengthen, affirm or downgrade its commitments. Table 1 (below) provides a general profile of the three cases.

Data Collection

Data collection combined semi-structured interviews and documentary analysis of annual corporate reports. The former provided insights into the understanding and experience of employees within the firm, the implementation of formal strategies and the impact of entrepreneurial initiatives. The latter helped to document changes in firm level strategy and senior management support It also provided a historic record of changes in the importance and location of sustainability within the firm.

Interviews

Interviews focused on the professional services in each firm. This included a range of functions and roles including Sustainability CSR, Quality Control, Health and Safety, Finance, Marketing and HR. For each firm the sustainability champion and at least nine other individuals within the firm were interviewed. Interviews lasted between fifty and ninety minutes and were recorded, transcribed and anonymised. In total thirty four semi-structured interviews were conducted for this research.

Corporate Reports

Corporate reports are standard sources of data for the study of firm level change (Sastry, Bernicke and Hart 2002). By charting variations in discourse about sustainability, noting changes to the organisational structure and following leads suggested in the published reports, a history of the firm's mainstreaming of sustainability can be re-constructed. These documents reveal both the outwardly communicated message and the internal conflicts arising from firm culture and strategy. In the past decade all three firms began to publish specialised CSR reports alongside their annual report. In the past two years, all three have replaced these with a separate 'Sustainability' report. Twenty two Annual Reports and eighteen Sustainability/CSR reports were analysed for the research.

Table 1: Profile of Case Study Firms

	Firm I	Firm II	Firm III
Type	Engineering Consultancy	Construction & Engineering Consultancy	Construction & Engineering Consultancy
Approx Global Revenue	£450m	£10bn	£5bn
Employees	6,000	60,000	45,000
Main Business Units	Development, Natural Resource, Transportation	Infrastructure, Engineering, Consultancy	Infrastructure, Buildings, Business Services

Data Analysis

NVivo 9 software was used to analyse interviews. This software allowed transcripts to be analysed against a set of categories or nodes which had been derived from neo-institutional theory. These included: the location of sustainability in the firm's formal structure, formal strategy – including internal and external outreach, the location and activities of (formal and informal) champions, organizational culture and the history of the firm's engagement with CSR and sustainability related issues. Published corporate reports (both Annual Reports and Sustainability Reports) were analysed for evidence of firm experience and engagement with sustainability. Reports spanning the last decade were examined to chart changes over time in the way the firm talked about sustainability, how sustainability was measured, and the hierarchical position given to the sustainability champion.

FINDINGS

Data from the three firms was analysed using a neo-institutional framework to explain the variation in mainstreaming sustainability and to find ways of describing this. Three types of comparisons are discussed below. These include: frames, location and history and culture.

- Frames. This heading includes the way firms talk about sustainability and how it was seen to fit with firm strategy
- Location. This refers to how sustainability was organised within the firm. It encompasses the location of the sustainability champions, their 'fellow travelers', as one interviewee described them, and sustainability expertise more generally.
- The history and culture of the firm. This refers to those events and characteristics deemed essential to explain variations in frames and location.

Frames

Analysis of interviews revealed three distinct ways of talking about sustainability: sustainability as culture, sustainability as an opportunity, and sustainability as risk.

A striking feature of the analysis concerns the consistency of these differences within firm specific interviews. Employees within each firm demonstrated a common understanding of the meaning of sustainability in their firm, with a sharp contrast between firms. A comparison of the statements by sustainability directors (Table 2) serves to illustrate this contrast. Table 2: Visions of Sustainability, as expressed by Formal Champions

Table 2: Visions of Sustainability, as expressed by Formal Champions

	Summary	Statement
Firm I: Sustainability as Culture	Sustainability as part of good design and project work	"….we embed sustainability within the way we do things, so to have a separate large sustainability (unit) would then be counter intuitive and would actually go against the grain..."
Firm II: Sustainability as Opportunity	Sustainability as a business opportunity (like all others).	"..If our clients want to be more sustainable then [we must] change the way we do work – it's an opportunity…"
Firm III: Sustainability as Risk	Sustainability as a dimension of good project management, comparable to Quality control, and Health and Safety.	"…Sustainability is part of risk management…..thinking about the negatives, managing the locals and giving something back all save time and money in the end – they are worth it…"

Location

Differences in the framing of sustainability between firms were paralleled by differences in the location of sustainability within the firm. Key dimensions include the position of the formal champion within the organisational structure and their access to both Senior Management and business units. These contrasts are summarised in Table 3.

Firm I: In 2007, the main board asked one of their members to oversee sustainability related activities and in 2008 they appointed a sustainability director from outside the firm. This formal champion was located in corporate services, with no leverage over business units and no single supporter at main board level. The champion was one of a team of two. His primary role was outward facing, while his colleague focused on internal initiatives. In terms of business unit buy in, the formal champion relied on persuasion. A sustainability group, consisting of the senior members from each business unit was formed; however there was no cost code for participation and attendance was sporadic.

Firm II: Sustainability was identified by a UK business unit in 2008 as an area of business opportunity and a small (sub-) business unit was set up to bring in sustainability-related work. Individuals within the team worked hard to grow it and to use business to develop and roll-out a firm wide policy. In 2010, the UK business was restructured and sustainability gained its own separate business unit. In contrast to the other two firms, formal sustainability roles were subject to billable hours – in line with other business units.

Firm III: The sustainability champion was an internal appointment. As in Firm I, he was located in corporate services. In contrast to the situation in Firm I, the original sustainability champion worked closely with the main board who were actively engaged in the ongoing development of the strategy. Because of his prior experience in business units, he developed an approach which mapped onto dominant firm level practices. In contrast to the other two firms, sustainability in Firm III was integrated into the firm's Integrated Management System (IMS). This, in turn, ensured a visible presence in every business unit and every project.

Table 3: Organisational Structure and Location of Sustainability Champion by Firm

	Firm I	Firm II:	Firm III
Recruitment	External	External/Internal	Internal
Location of formal champion	Group Services	Business Unit	Group Services
Main Board support	Weak	Weak (with strong UK support)	Strong
Internal engagement	Sporadic	Informal	IMS, Core strategy goal, Internal branding

History

Information from interviews and published reports was used to map histories of the three firms and to trace the introduction of sustainability into each firm. These findings are summarised in Table 4.

Firm I: In 2006, two developments helped to carve out a space for the subsequent introduction of sustainability into the firm. First, the main board decided that the firm should produce a CSR report in addition to the corporate annual report. Secondly, one of the business units introduced specialised sustainability services as a business offering. This initial offering was later expanded as part of a very ambitious overall growth strategy. In 2008, an external sustainability expert was recruited to deliver sustainability and was located in corporate services. His influence was somewhat limited as there were no channels for regular reporting to the main board. In addition, there was confusion over the division of functions between sustainability and CSR. This tension reflected a more general confusion in firm structure, arising from mergers and acquisitions and a culture of decentralisation.

Key internal sustainability initiatives included advice at bid level (which was limited to a small number of projects), benchmarking of office statistics (recycling, energy consumption etc.) and advertising individual project achievements in the firm's internal publication. Sustainability reporting was limited to office statistics and was not treated as a priority at senior level. Data collection was carried out by willing but under-resourced business unit volunteers who were allocated insufficient time and capacity to complete the task. The sustainability team devoted a great deal of time to internal promotional activities and to developing a firm specific comprehensive assessment tool, but at the time of the study it was just nearing completion and had not been rolled out. In 2009 the formal champion produced the first sustainability report for the firm, in lieu of a separate CSR report. In 2011, following restructuring along regional lines, the sustainability budget was cut and the specialised roles were abolished.

***Firm II*:** In 2008 sustainability was recognised by a business unit senior manager as providing a revenue opportunity. A formal champion was brought in from outside the firm to develop this area. At the time of the initial interviews, sustainability was a sub-unit within a larger business unit and the team included 15 people, most of whom offered services such as BREEAM assessments and sustainability advice to clients. In 2009, the head office produced the firm's first sustainability report. As in Firm I, the official sustainability champion had no formal leverage over other business units and relied on persuasion to win support. This was helped by the corporate report which signaled the parent company's commitment. In Firm II this took the form of extensive internal networking around specific projects and bids. The champion organised regular virtual meetings with colleagues across the multi-national firm to contribute to sustainability related business projects and shared learning. Reporting of sustainability was confined to office statistics and select projects and information was gathered by volunteers. This was partly in response to head office request. There were initiatives to measure and communicate sustainable value added to clients, however, at the time of the research, these had not been taken up in a systematic manner.

In 2010, following the UK Climate Change Act, sustainability was identified by international management as a potential growth area. Restructuring resulted in the creation of separate sustainability business unit.

Firm III: Following a major environmental incident in 1994 the company recruited an external committee to implement a sustainability review. Following a demerger, this committee was replaced by an internal champion and in 2002 the firm's first sustainability policy was published. Sustainability was declared to be a business objective in 2004 and benchmarking of progress began. The sustainability policy was aligned with government strategy at this time. A main board director was given responsibility for sustainability. At the same time sustainability was integrated into the central management system, with representatives in every business unit and on every project. In addition, a number of sustainability advisors were appointed to provide additional support to business units. Performance on sustainability was reported at board level. In 2007 internal branding was established as a means of raising employee awareness and buy-in. In 2010 there was a major re-structuring within the firm, but the integrated status of sustainability remained largely unchanged.

Table 4: Sustainability Milestones by Firm

	Firm I	Firm II	Firm III
First Sustainability Report	2006-CSR	2008	2002
Appointment of first Sustainability champion	2008	2008	2001
First mention of sustainability as a revenue generator	2006	2008	2004
First attempt at sustainability benchmarking	2009	2009	2004
Sustainability as a business objective	2009	2010	2005
Internal branding of sustainability	N/A	2008	2007
Reorganisation 2010	Sustainability budget reduced	Sustainability becomes business unit	Sustainability remains a central function

DISCUSSION

This research explores variations in the mainstreaming of sustainability across firms and the relationship between the framing of sustainability as a problem and implementation within each firm. In considering these findings, it is important to keep in mind that this research focused on firm level commitments to sustainability. As such, it says little about the ability of the firm to deliver highly sustainable projects when clients request them. All three firms are highly respected, all have the requisite technical capabilities and expertise and all have produced individual award winning, sustainable buildings and infrastructure. This research is premised on the assumption that one of the main challenges facing this type of firm is to move from isolated flagship projects to the integration of sustainability into everyday practice across the firm.

All three firms appear to have made a commitment to sustainability, all have engaged in significant outreach to external stakeholders and all have adopted internal benchmarking; however they differ in their understanding of sustainability (framing), its location within the firm, and in their internal strategies (as shaped by their organizational culture and history). Employees at Firm I talked about sustainability in a diffuse way, describing it as 'something they already do'; this is described as a view of sustainability as culture. In Firm II employees talked about sustainability in terms of business opportunities and profit. In Firm III sustainability was presented as a source of risk. Three factors would seem to influence the content and effectiveness of sustainability strategies: organisational structure, senior management buy-in and the fit of sustainability and firm culture.

Large construction firms and engineering consultancies are heterogeneous, multi-divisional, complex entities which oscillate between centralising and de-centralising tendencies. Where they fall on this continuum influencesthe type of sustainability strategy which they adopt and its effectiveness. Of the three case studies, Firms I and II were more decentralized in their structure and practices; Firm III was more committed to centralization and standardizing practices across the firm. This, in turn, had implications for the location, content and effectiveness of internal sustainability strategies. In Firm I sustainability was located in corporate professional services; this limited the effectiveness of the sustainability champion. In Firm II, sustainability was located in a number of business units. Decentralization allowed for niche developments and entrepreneurship, but it impeded the diffusion of innovations across business units. In Firm III, centralization and the standardization of practices supported the integration of sustainability into existing management systems and supported its diffusion across the firm.

The importance of senior management buy-in is clearly evidenced in the contrast between Firm III on the one hand and Firms I and II on the other. In Firm III, the mainstreaming of sustainability was driven from the very top and benefited from continuity in senior management. In Firm I, sustainability was not a priority for the main board. It was not integrated into the core business strategy. Moreover the absence of regular reporting left it relatively invisible to its employees. This fits with more general observations in the literature concerning the importance of board level engagement (Hoffman 2006). Firm II offers a transitional case. In the course of the study, sustainability rose from a business unit activity to a clearly identifiable core strategy, although how this will be institutionalised remains to be seen. This shift in senior management buy-in is largely down to the skill of the formal champion and his team who very effectively used the firm's commitment to profit making to draw attention to their cause.

Finally, the comparison between the three cases underlines the importance of 'fit' between sustainability strategies and firm culture for the integration of sustainability across business units. In Firm I, sustainability champions were located in corporate services and did not have to bill their time. This was at odds with the dominant culture of the firm and undermined their authority. This lack of legitimacy, coupled with the absence of visible senior management support and the highly fragmented nature of the firm, severely restricted the roll-out of internally focused sustainability initiatives. In

Firm II, the location of formal sustainability champions in business units and shared billing targets, bought them a degree of credibility with fellow business units. Similarly, their strategy of winning business for the firm through sustainability services resonated with the firm culture and helped to change attitudes. The achievement of global management buy-in towards the end of this research attests to the success of this approach, although the roll-out of specific initiatives has yet to be fully realized. Finally, in Firm III, the more bureaucratic strategy of sustainability targets, measurement and reporting matched the firm's approach to quality assurance and health and safety compliance. These, in turn, reflected the firm's overall culture of risk avoidance. Employees uniformly recognize and embrace their firm's commitment to sustainability, although the impact of these 'core values' on projects still needs to be assessed.

CONCLUSION: 3 FIRMS, 3 RESPONSES TO THE AGENDA

Based on this research, large construction firms appear to be very good at the outer-facing work of engaging external stakeholders and of producing high quality demonstration projects. The challenge which they face is how to move from responding to client demand to developing a sustainable identity and culture. This research began from a criticism of the overly generic prescriptions which dominate the literature on corporate sustainability and a view that the mainstreaming of sustainability depends on a more nuanced understanding of variations across sectors and across firms. The aim of the research was to identify and explain how three construction firms have approached the challenge of mainstreaming sustainability. While the immediate aim of the research was not to document its impact on either firm practice or on the built environment, the assumption was that strategies will be improved by a better understanding of variations .

The research findings confirmed the initial assumption of variability across firms, thus challenging the adequacy of the type of generic prescriptions offered in government policies and in the literature on corporate sustainability. Analysis of the source of this variation suggested a number of factors, including the role of champions, senior management buy-in and organizational culture. While all of these factors figure in the literature, this study highlights the conditions which render them effective. Comparisons of the location of champions in different positions within the firm highlights the importance of giving champions the resources and authority essential to introduce change. It also points to the need for a 'fit' between the sustainability strategy and the dominant organizational culture. Research into senior management buy-in suggests that reporting and measurement are only effective when the information which they produce is fed up to the top and translated into a vehicle for recognition and reward across the firm. Stated differently, this research suggests that if the way a firm talks about and attempts to integrate sustainability is not in line with the firm's culture, de-coupling will occur. This is where what has been committed to and what can realistically be achieved are so different that mainstreaming cannot occur, and in extreme cases this results in a dramatic U-turn. Looking forward, this research suggests that mainstreaming sustainability depends on ensuring that champions have access both to senior management and business units, integrating sustainability related mechanisms into dominant systems and procedures and legitimating those commitments through visible senior management support and the alignment of incentive structures.

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