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Materiality and external assurance in corporate sustainability reporting: an exploratory case study of the UK construction industry

Abstract: The aims of this paper are to provide a preliminary examination of the extent to which the UK's leading construction companies are reporting embracing materiality and commissioning independent external assurance as part of their sustainability reporting processes and to offer some wider reflections on materiality and external assurance in sustainability reporting. The information for the paper is drawn from the top 20 UK construction companies' corporate websites. The paper reveals that only a minority of the UK's top 20 construction companies had embraced materiality or commissioned independent external assurance as an integral part of their sustainability reporting processes. This can be seen to reduce the reliability and credibility of the construction companies sustainability reports. The paper provides an accessible review of the extent to which the UK's leading construction companies are currently reporting embracing materiality and commissioning external assurance as part of their sustainability reporting processes.

Keywords: sustainability; materiality; external assurance; construction companies; UK.

1 Introduction

Sustainability is becoming increasingly integrated into the corporate mindset of a growing number of large companies. Carroll and Buchholtz (2012), for example, suggested that "Sustainability has become one of business' most recent and urgent mandates". A survey of business managers and executives undertaken by MIT Sloan Management Review and The Boston Consulting Group (2012) suggested that "70% of companies have placed sustainability permanently on management agendas" and that "despite a lacklustre economy, many companies are increasing their commitment to sustainability initiatives, the opposite of what one would expect if sustainability were simply a luxury afforded by good times". A number of factors can be identified in helping to explain this trend. These include the need to comply with a growing volume of environmental and social legislation and regulation; concerns about the cost and scarcity of natural resources; greater public and shareholder awareness of the importance of socially conscious financial investments; the growing media coverage of the activities of a wide range of anti-corporate pressure groups; and more general changes in social attitudes and values within modern capitalist societies.

Corporate sustainability reporting can encompass a wide and varied range of issues and reporting practices which are constantly evolving but Ernst and Young (2014) argued that while "today's non-financial reporting environment can seem complex but there is one commonality amongst the various reporting initiatives- materiality". In a similar vein GreenBiz (2014) identified that a focus on materiality was one of the top four sustainability reporting trends in 2014 and argued that the "focus is increasing in the sustainability world on the principle of materiality as the essential filter for determining which environmental, social and governance information will be useful to key decision makers". In basic terms within sustainability reporting, materiality is concerned with identifying those environmental, social and economic issues that matter most to a company and its stakeholders. At the same time there is a growing awareness within the business community that external independent assurance of sustainability reports, simply defined, as a process used to provide confidence as to the degree of reliance that can be placed on the information contained in such reports, can enhance their credibility. In making the case for increasing external assurance KPMG (2011), for example, suggested that "as corporate responsibility reporting begins to play a larger role in the way stakeholders and investors perceive corporate value, companies should increasingly want to demonstrate the quality and reliability of their corporate responsibility data".

While all companies have a role to play in promoting the transition to a more sustainable future construction companies have an important role to play in developing the more efficient deployment of land, natural resources and in helping to create more sustainable communities. With this in mind this practice briefing paper provides a preliminary examination of the extent to which the UK's leading construction companies are embracing materiality and commissioning independent external assurance as part of their sustainability reporting processes. The paper includes a review of the concept of materiality and of the characteristics of external assurance, a brief outline of the construction industry in the UK and of the sustainability challenges the industry faces, an exploratory examination of the extent to which the UK's top 20 construction companies have embraced materiality and commissioned external assurance in their current sustainability reports and it offers some wider reflections on materiality and external assurance in sustainability reporting.

2 Materiality and external assurance

The concept of materiality has primarily been associated with the financial sector and more specifically with the auditing and accounting processes of financial reporting. Here an issue "is considered material to the company if its omission or misstatement influences the economic decision of users" (PGS, 2013). However, the concept has become increasingly important in sustainability and corporate social responsibility reporting but "compared to financial reporting, sustainability considers a broader scope of action and covers a multitude of issues: environmental, social, economic and more" and "requires a more comprehensive definition of materiality" (PGS, 2013). At the same time Eccles et al. (2012) have argued that in defining materiality in non-financial reporting "more emphasis is placed on defining the users of the information, typically described as stakeholders rather than shareholders and emphasising the importance of considering the impact of not providing information".

That said there is little consensus about what constitutes materiality in sustainability reporting and a number of definitions can be identified. There are sets of definitions that focus principally on investors and shareholders. The International Integrated Reporting Council (2013), for example, in advocating the integration of financial and non-financial reporting, suggests that "a matter is material if it is of such relevance and importance that it could substantively influence the assessments of providers of financial capital with regard to the organization's ability to create value over the short, medium and long term. In determining whether or not a matter is material, senior management and those charged with governance should consider whether the matter substantively affects, or has the potential to substantively affect, the organization's strategy, its business model, or one or more of the capitals it uses or affects". There are also definitions that embrace a wide range of stakeholders. PGS (2013), for example, argues that "materiality aims to identify the societal and environmental issues that present risks or opportunities to a company while taking into consideration the issues of most concern to external stakeholders". The Global Reporting Initiative (GRI), for example, asserts that "material topics for a reporting organisation should include those topics that have a direct or indirect impact on an organisation's ability to create, preserve or erode economic, environmental and social value for itself, its stakeholders and society at large" (GRI, 2014). More generally the GRI suggests that "sustainability impacts create both opportunities and risks for an organisation" and that "the ability of an organization to recognise opportunities and risks and act effectively in relation to them, will determine whether the organization creates, preserves or erodes value" (GRI, 2014).

KPMG (2014) argued that a review of definitions of materiality clearly indicates that "there is an obvious distinction in three key areas: scope (the range of information provided), stakeholder groups (those whose perceived interests are likely to be affected), and time frame (the time period applied)" and it argued that "these variables are important in that they define the boundaries of materiality made by organisations". More specifically KPMG (2014) develops these three areas in the context of the increasing recognition within businesses of the importance of 'natural capital' which is taken to include 'natural resources', 'environmental assets', 'ecosystems', 'ecosystem services' and 'biodiversity'. KPMG (2014) suggests that the changing boundaries of what constitutes materiality are "likely to enhance the interest in and the justification for natural capital's consideration in corporate materiality assessments in relation to the three key areas". Thus the scope of issues can be seen to be continually evolving, a much wider range of stakeholders, including local communities and non-governmental organisations, need to be included when assessing what is material for natural capital and the time scale may need to be critically reviewed to incorporate short, medium and long term impacts on the environment.

The way in which materiality is identified and operationalised varies from one company and organisation to another but a number of common elements can be identified (PGS, 2013). These include the explicit identification of a number of environmental, social and economic issues around which the sustainability report is developed; the evaluation and ranking of both company and stakeholder concerns on each of the identified issues; identification of the ways in which the company has elicited stakeholders' contributions to the process; and the prioritisation of these issues in a way that informs a company's sustainability strategy and reporting process. Common elements apart there is a growing interest in defining and determining materiality on a business sector specific basis. Eccles et al. (2012), for example, suggested that "while not a panacea, we believe that developing sector specific guidelines on what sustainability issues are material to that sector and the Key Performance Indicators for reporting on them would significantly improve the ability of companies to report on their environmental, social and governance performance". Further Eccles et al. (2012) argued that by employing "guidance that identifies the environmental, social and governance issues that are material to a sector and how best to report on them, companies will have much clearer guidance on what and how to report".

A variety of approaches have been developed to determine materiality as an integral component of sustainability reporting. The Sustainability Accounting Standards Board (SASB), for example, claims that its "Materiality Map creates a unique profile for each industry" and that it "is designed to prioritize the issues that are most important within an industry" and "to keep the standards to a minimum set of issues that are likely to be material" (SASB, 2014). This map classifies issues under five categories namely environment: human capital; social capital; business model and innovation; and leadership and governance; and then identifies high priority material issues on behalf of what SASB (2014) describes as the 'reasonable investor'. More specifically the development of the map "relies heavily on two types of evidence: evidence of interest by different types of stakeholders and evidence of financial impact" (SASB,2014).

The 'materiality matrix' is perhaps the most common approach used to determine materiality issues. The matrix plots sustainability issues in terms of two axes namely, the influence on stakeholder assessments and decisions and the significance of environmental, social and economic impacts. PriceWaterHouseCoopers (2014), for example, developed its 'sustainability prioritisation matrix' in 2011 based on surveys, interviews and desk-based research from its, clients, its employees, potential recruits, regulators and non-governmental organisations. Within this matrix while 'quality and ethics' and 'brand reputation' were positioned highly on both the importance to the business and the importance to stakeholder axes while ‘biodiversity’ was positioned lowly on both axes (PriceWaterHouseCoopers, 2014). In its 2013–2014 materiality matrix Siemens (2014) identified ‘demographic change’, ‘urbanisation’, ‘climate change’ and ‘globalisation’ as ‘mega trends’ and positioned ‘corporate citizenship’, ‘health and safety’, ‘human rights’ and ‘affordable and personalised healthcare’ lowly on both axes, with ‘innovation’, ‘sustainability in the supply chain’, ‘resource productivity’ and ‘environmental portfolio’ being positioned correspondingly highly.

A range of benefits are claimed for those companies which embrace materiality as an integral part of their sustainability reporting process. Strandberg Consulting (2008) for example, suggested that materiality analysis can help companies to clarify the issues that can drive long term business value; to identify and capitalise on business opportunities; to coordinate sustainability and business strategies; to build and enhance corporate brand and reputation; and to anticipate and manage change. KPMG (2014) claims that “materiality assessment is much more than a reporting exercise” arguing that it is the foundation for “sustainability strategy, target setting, stakeholder engagement and performance management”. Looking to the future the introduction of new GRI standards for sustainability reporting seems likely to enhance the focus on materiality. The new guidelines, initially released in 2013, will apply to all corporate sustainability reports to be completed within GRI guidelines and frameworks that are to be published after January 1st 2016. KPMG asserted that the new guidelines ‘put materiality centre stage’, they encourage “reporters to focus content on the issues that matter most to the business, rather than reporting on everything” and they look to make “more explicit links between materiality and the management and performance information organisations should disclose in their report” (KPMG, 2014). More specifically, for example, corporate sustainability reports should begin with a focus on material issues and maintain this focus throughout the report, include a detailed discussion of the processes by which the company both defines and manages its material issues and provides details of where the impact of material issues is seen to lie.

Assurance can be undertaken in a number of ways. CSR Europe (2008), for example, identified four principal methods namely ‘conducting assurance internally’, ‘stakeholder panels’, ‘expert input’ and assurance by an ‘independent, impartial and external organisation.’ In theory conducting assurance within a company should include providing comprehensive access to the relevant data and be less costly but it may lack credibility especially with external stakeholders. Inviting a panel of stakeholders to produce an assurance statement can have the advantage of ensuring that the process will address those issues important to the invited stakeholders but such panels may not always fully represent the full range of stakeholder interests. The use of so called ‘expert input’ in assurance might be seen to lend what some stakeholders might regard as authoritative support to a CSR report but doubts may remain about the extent to which such experts have had the opportunity or the appropriate access to the primary data which would allow them to make informed judgements.

The most widely adopted approach to sustainability assurance is the commissioning of an assurance statement by an independent external organisation and such an approach would seem to have claims to offer credibility, integrity and reliability to the reporting process. An assurance statement is defined by CorporateRegister.com Limited (2008) as “the published communication of a process which examines the veracity and completeness of a CSR report”. However, the production of assurance statements is seen to be problematic in that not only is there considerable variation between the volume, character and detail of the information companies provide in their CSR reports themselves, but there is currently little consensus on how companies should collect, evaluate and report on their CSR data. In addressing the issue of appropriate data collection

CorporateRegister.com Limited (2008), for example, argued that “the underlying processes are often opaque and company specific, so it’s difficult to know how far a report reflects actual performance” and that “unless a company can define its scope of performance disclosure, how can an assurance provider define the scope of assurance”.

That said a growing number of major companies now employ the interdependent principles of inclusivity and responsiveness which are an integral part of the AA1000 Assurance Standard 2008 developed by Accountability (2008), a UK non-profit organisation, to guide and inform their corporate responsibility and sustainable development reporting. The principle of completeness focuses upon the extent to which both the identification and the communication of material issues and impacts is fair and balanced. Responsiveness examines the extent to which a company can demonstrate that it is responding to stakeholders’ material issues, impacts and concerns. At the same time it is important to recognise that external assessors work to one of two so called ‘levels of assurance’ namely ‘reasonable assurance’ and ‘limited assurance.’ In the former, “the assurors have carried out enough work to be able to make statements about the report which are framed in a positive manner, e.g., the reported environmental data accurately reflect” (the company’s) ‘environmental performance’. In the latter “the assurors have only carried out enough work to make statements about the report which are framed in a negative manner e.g. Nothing has come to our attention which causes us to believe that the reported environmental data do not accurately reflect” (the company’s) ‘environmental performance’ (CorporateRegister.com Limited,2008).

A number of benefits are claimed for commissioning and producing an assurance statement. Perhaps most importantly there is the argument that as a wide variety of stakeholders increasingly shares an interest in how companies are discharging their social, environmental, economic and ethical responsibilities so the inclusion of a robust and rigorous assurance statement within a CSR report helps to enhance reliability and credibility (Jones and Solomon, 2010). It is also argued that assurance can “give a boost to (the) internal management of CSR, since the process of providing an assurance statement will involve an element of management systems checking” in that “a number of assurance statements identify shortcomings in underlying data collection systems, thus providing a roadmap for improvement to the reporting company” (CSR Europe, 2008). More commercially the provision of an assurance statement might be seen to enhance both a company’s reputation with its stakeholders, its brand identity and its standing in the wider community.

3 The construction industry and the challenges of sustainability

The construction industry is one of the largest sectors of the UK economy, contributing some £90 billion to the economy (6.7%) in added value and provides employment for some 2.8 million people. More generally “construction has a much wider significance to the economy. It creates builds and maintains the workplaces in which businesses flourish, the economic infrastructure which keeps the nation connected the homes in which people live and the schools and hospitals that provide the crucial services that society needs. A modern, competitive and efficient construction industry is essential to the UK’s economic prosperity” (Department for Business Innovation and Skills, 2013). The UK’s construction industry is diverse in that it ranges from international construction companies to small local building firms and embraces commercial property, housing, transport facilities and routes, digital infrastructure and water and energy projects, and it also includes manufacturers of construction products and professional and consultancy services.

The construction industry has a large and wide ranging impact on the environment, on society and on the economy and poses a series of complex and interlinked challenges and opportunities for promoting sustainable development. Amongst the environmental impacts, climate change and energy use are arguably the most important issues but the construction industry also exploits a wide range of non-renewable natural resources including land, both for new development and for the disposal of waste material, mineral resources and water, it is a major source of air, water and noise pollution, it generates large quantities of waste materials, including toxic and hazardous substances, it can lead to flooding and soil erosion, it can reduce visual amenity and it can threaten prised habitats and reduce biodiversity. Socially the construction industry can have a major impact on the communities where development is taking place, it poses major health and safety problems, primarily for its workforce, it can provide opportunities for people to develop new practical and technical skills and it can be important in promoting diversity and inclusion and in driving social and cultural change. The economic impacts of the construction industry include building shareholder value, employment creation, providing value for clients and customers and generating income throughout the supply chain. More generally the World Wildlife Fund (2004) suggested that in embedding sustainability within the business model, and adding value from it, the construction industry must address compliance and risk management, operational efficiency and competitiveness, reputation management; and market ifferentiation.

Underpinning each of the wide range of issues outlined above is the need for continuing and enhanced engagement with a diverse range of stakeholders. Here, the ability of companies to confirm that they have both identified and determined the issues seen to be material to these stakeholders and to provide independent external assurance of the sustainability reporting process seems likely to assume ever greater importance. However, Glass (2012) has argued that “the construction industry lags behind other industries in sustainability reporting”. In a similar vein, PricewaterhouseCoopers (2015) argues that “construction companies are demonstrating varied responses to the new range of pressures, expectations and drivers of developing a sustainable business strategy. The more forward thinking companies are addressing the issues and actively engaging with a range of stakeholders to understand the risks and opportunities. However, most companies to date have only taken a compliance-driven approach thus missing the wider opportunities sustainability presents”.

3.1 Frame of reference and method of enquiry

In an attempt to obtain an initial picture of the extent to which the UK construction industry is embracing materiality and commissioning external assurance as an integral part of the sustainability reporting process the authors employed a loose case study approach. More specifically the top 20 construction companies (see Table 1), ranked by turnover, were selected for study. Dul and Hak (2008) argued that case study research is often seen as “an exploratory research strategy” and that such an approach “draws conclusions on the basis of a qualitative analysis (visual inspection)”. Dana and Dana (2005) have commended the utility of the qualitative approach case study approach which can be based on ‘document analysis’ and which “allows the researcher to be open to whatever emerges from the data”.

Table 1 Top 20 UK construction companies 2014

Company	Turnover (£ million)	Company website
Balfour Beatty	10,118	http://www.balfourbeatty.com/
Carillion	4,081	http://www.carillionplc.com/
Kier Group	2.669	http://www.kier.co.uk/
Interserve	2,582	http://www.interserve.com/

Morgan Sindall 2,095 http://www.morgansindall.com/

Amey 1,782 http://www.amey.co.uk/

Laing O'Rourke 1,640 http://www.laingorourke.com/

BAM 1,596 http://www.bam.co.uk/

Galliford Try 1,467 http://www.gallifordtry.co.uk/

Keller 1,438 http://www.keller.co.uk/

ISG 1,284 http://www.isgplc.com/

Vinci 1,108 http://www.vinciconstruction.co.uk/

Skanska 1,121 http://www.skanska.co.uk/

Mace 1,108 http://www.macegroup.com/

Willmott Dixon 1,023 http://www.willmottdixon.co.uk/

Costain 960 http://www.costain.com/

Wates 941 http://www.wates.co.uk/

Bouygues 912 http://www.bouygues-uk.com/ Sir RobertMcAlpine 898 http://www.sir-robert-mcalpine.com/ Lakeside 885 http://www.lakeland.co.uk/

Source: theconstructionindex.co.uk (2015)

Businesses can employ a variety of methods to report on sustainability including "product labels, packaging, press/media relations, newsletters, issue related events, reports, posters, flyers, leaflets, brochures, websites, advertisements , information packs and word-of mouth" (European Commission Directorate-General for Enterprise, undated). During the past decade "sustainability reporting has evolved from a marginal practice to a mainstream management and communications tool" (Global Reporting Initiative, 2014) and Bowen (2003) suggested that the majority of large companies have realised the potential of the World Wide Web as a mechanism for reporting their sustainability commitments and achievements. He also argued that the web's interactivity, updatability and its ability to handle complexity adds value to the reporting process. With this in mind in April 2015 the authors undertook an internet search of each of the selected construction companies' corporate websites using the key phrase 'sustainability report', then selected the most recent report/information and searched it digitally using the keywords 'assurance' and 'materiality' using Google as the search engine.

A number of authors (e.g., Newell, 2008; Emuze, 2012) have employed content analysis to interrogate websites but in this paper the authors took the decision to tease out If, and how, the leading UK construction companies were embracing materiality and commissioning external assurance as an integral part of their sustainability reporting processes. In taking this decision the authors were minded that the information on materiality and external assurance was generally confined to discrete sections of the selected construction companies' sustainability reports. The information obtained through this search and interrogation process provided the empirical information for this paper and as this information is in the public domain the authors took the view that they did not need to contact the selected construction companies to obtain permission to conduct their research. The paper does not look to offer a systematic and detailed comparative analysis and evaluation of the selected construction companies' approach to embracing materiality and commissioning external assurance and the specific examples and quotations are used for illustrative rather than comparative purposes.

In discussing the reliability and validity of information obtained from the internet, Saunders et al. (2009) emphasise the importance of the authority and reputation of the source and the citation of a specific contact individual who can be approached for additional information. In surveying the UK's leading construction companies the authors were satisfied that these two conditions were met. At the same time the authors recognise that the approach chosen has its limitations in that there are issues in the extent to which a company's public statements accurately, and in detail, reflect strategic corporate thinking and whether or not such pronouncements may be little more than the cynical marketing ploys outlined earlier. However, given the need to drive forward exploratory research such as this and to begin to understand the extent to which the UK's leading construction companies are currently embracing materiality and commissioning external assurance as part of their sustainability reporting processes the internet-based analysis adopted offers an appropriate approach and an accessible starting point. It also provides a simple platform on which future research might be based.

4 Findings

The internet search revealed that 14 of the UK's top 20 construction companies, namely Balfour Beatty, Carillion, the Kier Group, Interserve, Morgan Sindall, BAM, Galliford Try, ISG, Vinci UK, Skanska, Wilmot Dixon, Bouygues, Wates and Sir RobertMcAlpine had posted sustainability reports while Laing O'Rourke included a safety and sustainability review within their Annual Review and Keller included a strategic sustainability report within its annual Report and Accounts. A further three of the selected companies, namely Amey, Mace and Costain had posted a more limited range of information on their sustainability policies and achievements while Lakeside provided no information on sustainability on the internet. There is considerable variation in the volume and detail the top 20 construction companies provided on their approach to sustainability but the majority stress their commitment to the principles of sustainability, albeit in a variety of ways, and to integrating sustainability into their core business activity.

Balfour Beatty, for example, reported "sustainability is an integral part of the dialogue we have with our clients, the products we deliver and our management systems". More explicitly Balfour Beatty claimed that "before the 'S' word became fashionable it was a natural part of Balfour Beatty's approach to business –identifying and taking profitable market opportunities, encouraging our clients and investors to think about the long term, acquiring businesses on the basis of their ability to make an enduring contribution to our portfolio, and conducting our businesses ethically and with integrity in all our geographies". BAM reported its recognition that "sustainability creates value for our business, it improves the efficiency of our operations, helps us to develop client and supply chain relationships and improve our decision making processes" Galliford Try claimed its "long term future and strategy for disciplined growth rely on us positively managing the fundamentals of sustainable business", Skanska argued that "sustainability is an integral part of good business practice" and ISG reported that its '2020 Sustainability Vision', launched in 2013 "will embed sustainable approaches throughout our operations". The Kier Group reported its commitment "to adding social value to all it undertakes as a business" and to "reducing negative environmental impacts" and looking to the future claimed that "its financial success and ability to win new work depends to a growing extent upon how we address our social and environmental responsibilities". In a similar vein Interserve reported "we recognise that environmental issues, social challenges and economic pressures are setting the new context in which companies must operate" and that its sustainability strategy, launched in 2013, had put "these issues at the heart of our operations".

Such corporate commitments are evidenced across a range of environmental, social and economic agendas. The top 20 construction companies addressed a variety of environmental issues including climate change and greenhouse gas emissions; energy use; water stewardship and conservation; waste management and recycling; eco-design and environment friendly work sites; and bio-diversity. BAM, for example reports on its achievements in "tackling climate change by reducing energy and carbon dioxide emissions from our own supply chain and partners operations, and the products we deliver" while in addressing waste Morgan Sindall reported "our overarching objective is to minimise waste produced both in terms of the total amount generated and the proportion that ends up as landfill". Bouygues reported on its work "in adopting the principles of eco-design to reduce to the greatest extent possible the environmental impact of its building and structures". In addressing water stewardship Balfour Beatty, for example, reported that "our strategy is to produce growth opportunities in efficient water distribution, water treatment and desalination technologies" and that the company was looking to "enhance existing tools and to develop innovative approaches to provide added value to our clients".

A diverse range of social issues are also important elements in the selected construction companies' commitments to sustainability namely improvements in living conditions; recruitment, diversity and inclusion; health and safety in the work environment; training and leadership development; and charitable donations. The Kier Group reported "we continue to recruit from our local communities, particularly for new entrant and apprenticeship positions" and that the company "is committed to giving something back to the communities in which it works" and that "through the continued enthusiasm and energy of our staff, we continued to support a wide range of community projects across the UK". In a similar vein Balfour Beatty argued that the company "works at the heart of local communities around the world" and that "we believe that, in addition to the contribution we make to the physical fabric of society, we have a responsibility to support its social fabric". Economic dimensions of sustainability generally receive less explicit attention from the selected construction companies but a number of themes are

cited including contributing to local development: business growth; responding to market needs; investing in innovation and development; optimising value creation; and employment creation. Bouygues, for example, claimed to have "established itself as player committed to local communities", that the company "contributes to the economic development of the regions in which it is active" and that it "has a positive impact on employment and the development of the local economic fabric through the consumption of goods and services".

While all but one of the top 20 UK construction companies publicly reported or provided information on their approach to sustainability on the internet, materiality and external assurance received scant attention in the reporting process. The findings revealed that only seven of the selected companies namely, Balfour Beatty, Carillion, the Kier Group, Morgan Sindall, Laing O'Rourke, Keller and ISGT made any explicit reference to materiality. Each of the seven companies adopted a different approach and there was some variation in the volume of material they published on how they determined materiality. The Kier Group and Morgan Sindall were the only companies to provide information on how they determined materiality. More specifically the Kier Group, for example, reported "we undertook a major stakeholder engagement to identify what key areas of sustainability are material to them in their relationship with Kier and to prioritise which elements were most important in their expectations of actions, delivery and reporting on corporate responsibility by Kier". The stakeholders canvassed in this process included clients, investors, analysts, employee representatives from property, construction and service, companies in the Kier Group's supply chain and a major UK national charity. The stakeholder group was asked to score 19 individual aspects of sustainability in terms of both material importance and expectations of action and these two dimensions formed the axes of a simple materiality matrix onto which the 19 aspects were then mapped. The most important material issues, included carbon and greenhouse gas emissions, energy, local communities waste management, health and safety and training, education and apprenticeships, and these formed the focus for the Kier Group's sustainability report.

Recognition of the growing importance of materiality was a key theme running through Morgan Sindall's sustainability report. In his 'Foreword' to the report Graham Edgell, the company's Director of Sustainability and Procurement, outlined a comprehensive stakeholder engagement exercise employed to determine "what is important and material for our key stakeholders". Some 2,000 individuals representing stakeholders including current and potential future employees, investors, clients, supply chain partners, joint venture partners, local communities, industry associations and government regulatory bodies were asked to assess and prioritise a range of sustainability issues in terms of how the company conducted its business activities. Following further analysis and internal review Morgan Sindall then determined 14 material issues under the umbrella headings 'people', 'planet' and 'profit' which formed the basis and informed the content of the company's sustainability report. The four material people issues included health and safety and development and training; the three planet issues were energy use, sustainable building and labelling and waste; and the seven profit issues included economic business performance, advocacy and leadership, business ethics and customer feedback and satisfaction.

In the 'Foreword' to its sustainability report ISG asserts that it identified its 'priority objectives' via 'a materiality assessment' in which "material issues were identified and rated in terms of importance to our stakeholders and importance to the business achieving its strategic objectives". This exercise resulted in 12 issues being considered material including profit, employee development and training, greenhouse gas emissions, water consumption and employee diversity. In its sustainability report Lang O'Rourke's asserts that it specifically "addresses the issues we regard as having the greatest material impact on the sustainability of our business" and these issues are "grouped under four key headings health and safety, people, environment and market place". However, the company provided no information on how these issues were determined and in an independent assurance statement of Laing O'Rourke sustainability review DNV-GL stressed that while "it is understood that an informal materiality process was undertaken" there were no details "on how key internal and external stakeholders have been involved in this process". In his introduction to Balfour Beatty's sustainability report, for example, Ian Tyler the company's Chief Executive, defined materiality as focusing on the activities that have the greatest impact and stressed that "this year's report revolves around the three principles of materiality, clarity and transparency". However, the report contained no information on how materiality was determined. In a similar vein BAM simply reported that 'all material aspects', which "reflect BAM's significant economic, environmental and social impacts or that substantially influence the assessments and decisions of stakeholders", and which are addressed in its sustainability report are 'approved by the BAM Executive Board'. In addressing 'carbon reporting' Keller simply stated "to the best of our knowledge we have included all material emissions" but provided no information on how materiality was determined. Carillion, looking more to its future sustainability reporting suggested that the company would "use the learning gained from preparing this report……to develop our materiality assessment".

While a number of the selected companies drew attention, in various ways, to the priorities that informed and underpinned their sustainability reports, an essential initial element in determining materiality, but they provided no explicit commentary on materiality per se. ISG, for example, reported launching its ‘SustainAbilities Plan’ focused on ‘four priority areas or capitals’ namely ‘natural capital’, ‘social capital’, ‘knowledge capital’ and ‘financial capital’. The focus on natural capital, for example, is concerned with “ensuring that our business practices are conducted in a way that minimises our impact through reducing waste, emissions and water consumption” and that of financial capital is on “understanding that sustainable business growth can be achieved whist ensuring factors such as sustainable procurement and the support for local economies are taken into account”. Galliford Try reported “we recognise six fundamental responsibilities, which aim to ensure we are economically sustainable, whilst embracing our duty to society and the environment”. The responsibilities are health and safety; environment and climate change; the company’s employees; customers; the communities in which the company operates; and the company’s supply chain. In addressing ‘carbon reporting’ Keller simply stated “to the best of our knowledge we have included all material emissions” but provided no information to support this statement.

Six of the selected companies, namely Balfour Beatty, Carillion, the Kier Group, Laing O’Rourke, BAM and Keller reported commissioning independent external assurance of their sustainability reports but the assurance statements varied in their coverage, approach and in the character of the information provided. Balfour Beatty, for example, engaged KPMG to provide “limited assurance over selected greenhouse gas performance data” contained in its sustainability report. While the assurance statement reports that Balfour Beatty was responsible for determining the content and statements contained in the report, for establishing the reporting guidelines and maintaining appropriate records. KPMG asserts “our responsibility is to independently express a limited assurance conclusion” in relation to the greenhouse gas emission performance data. KPMG outlined how they planned and performed their work in order to obtain the necessary evidence, information and explanations to enable them to conduct the assurance process. More specifically the work was conducted in two phases. The first was focused at operating company level and involved interviews with the company’s management and staff, an examination of the systems in place to collect, aggregate and report greenhouse gas emission data and a review of selected company documentation on greenhouse gas performance data. The second was focused on aggregated group data and was concerned, inter alia, with the consistency and presentation of the greenhouse gas performance data. KPMG concluded that “based on the work performed and the scope of our assurance engagement …. nothing has come to our attention to suggest that the selected greenhouse gas performance data ….. are not fairly stated”.

BAM engaged PricewaterhouseCoopers to provide an assurance for its sustainability report and this assurance exercise was described as “a combination of audit and review procedures”. The audit was of the key performance indicators for safety and carbon dioxide emissions and here the focus was on ‘obtaining reasonable assurance’ while the review examined all the other elements in the sustainability report and here the emphasis was on ‘obtaining limited assurance.’ The audit procedures involved “testing the design, existence and effectiveness of the relevant control measures during the reporting period”, while the review procedures included an external environmental analysis, assessing the acceptability and the applicability of the reporting policies and reviewing the systems and processes for data gathering. In relation to the audit procedures, PricewaterhouseCoopers concluded that the performance indicators for safety and carbon dioxide emissions are ‘presented reliably and adequately’ and in relation “to all other elements of the sustainability report……..nothing has come to our attention that would cause us to believe that the sustainability report, in all material aspects, does not provide an adequate presentation” of the company’s sustainable development policy.

Keller reported appointing Anthesis Consulting to provide independent assurance of its greenhouse gas emission data and the assurance statement concluded that this data conformed to the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. Bureau Veritas provided assurance to verify the achievement of a selection of Carillion's sustainability targets and the approach to gathering carbon footprint information. The aim was "to provide independent verification of the stated level of achievement of the selected targets and provides assurance to Carillion's stakeholders that data referring to these targets is a reflection of overall performance". The concluding 'Bureau Veritas Opinion' was "that the performance reported by Carillion against the selected targets is an accurate reflection of performance". While not commissioning formal external assurance some of the UK's top 20 construction companies looked to provide some limited verification and endorsement as part of their sustainability reporting. Willmott Dixon, for example, included a statement from Jonathon Porritt. He stated that, "a lot of effort has been put into strengthening sustainable development governance inside the company and streamlining internal processes" and suggested that "the strapline for sustainable development activities here at Willmott Dixon is simple "everybody plays a part". I feel confident that the work done during 2013 has strengthened the foundation for making this strapline a reality".

5 Discussion

While all of the UK's top 20 construction companies recognise and publicly report on a wide range of impacts their businesses have on the environment, society and the economy there is marked variation in the extent, character and detail of the sustainability reporting process. As such this may reflect the reality that the UK's leading construction companies are at the start of a long and potentially difficult journey towards sustainability. More specifically only a minority of the UK's top 20 construction companies have reported embracing materiality and including some form of external assurance as an integral part of the sustainability reporting process and a number of issues merit discussion and reflection. A variety of approaches are employed in attempting to determine materiality but there is a generic issue concerning the nature of the relationship between company interests and stakeholder interests. This can arise where the company, and more specifically its executive management team, is principally, and sometimes seemingly exclusively, responsible for identifying and determining material issues within its sustainability reporting process. As such the company might also be seen to be essentially responsible for identifying its stakeholders and for collecting, collating and articulating their views on the priorities for the company's sustainability strategies. However, whether the leading construction companies can realistically and comprehensively elicit and represent the views of all their key stakeholders remains to be seen. Generally, within the business world Banerjee (2008), for example, has argued that "despite their emancipatory rhetoric, discourses of corporate citizenship, social responsibility and sustainability are defined by narrow business interests and serve to curtail the interests of external stakeholders". A number of the selected construction companies reported seeking to elicit stakeholder opinions on their sustainability priorities and strategies via stakeholder panels and customer surveys and face to face meetings with investors. This suggests some of the leading companies wish to look beyond their own immediate commercial imperatives in determining materiality but Cooper and Owen (2007) counsel caution arguing that "whilst the corporate lobby apparently espouses a commitment to stakeholder responsiveness, and even accountability, their claims are pitched at the level of mere rhetoric which ignores key issues such the establishment of rights and transfer of power to stakeholder groups". More specifically Cooper and Owen (2007) suggested that "hierarchical and coercive power prevent the form of accountability that can be achieved through discussion and dialogue" and that arguably, at best, companies may "favour shareholders over all other interested groups".

There are also issues about how executive managers and/or stakeholders rank material issues in terms of both importance and impact and about the nature of the materiality matrices used to depict materiality. Listing material issues in rank order, for example, effectively fails to depict or to distinguish between the perceived orders of magnitude of importance and impact. Schendler and Toffell (2013), for example, argue that while many of the world's largest companies "are working to reduce energy use and waste, and many have integrated sustainability into strategic planning" …… "such actions don't meaningfully address the primary barrier to sustainability, climate change". Schendler and Toffell (2013) suggest that "shareholder analyses of businesses focus almost entirely on operational greening activities and policies, but not on whether companies can continue on their current course in a climate-changed world. In other words, such analyses don't actually measure sustainability". Equally critically, Schendler and Toffell (2013) further argue that many businesses that claim to be sustainability leaders "don't recognise the primacy of climate change" and that many businesses include "climate in a basket of equally weighted issues" like oceans, forests or fisheries' and that such an approach is 'misguided' in that "climate vastly trumps (and often includes) those other environmental issues". Although the issue of climate change is clearly "too vast for any single business" (Schendler and Toffell, 2013) the leading construction companies can exert a significant influence on the extent to which people can reduce energy usage and carbon emissions and thus live more sustainable lifestyles.

Concerns have also been expressed that the basic dimensions of the matrices that many large companies currently use to determine materiality are effectively not fit for purpose. Mark McElroy, Executive Director of the Center for Sustainable Organizations, for example, argued that "while it is common practice now for corporate sustainability reports to include materiality matrices, whether or not they serve their purpose is debatable" (McElroy, 2011). McElroy's argument is that the majority of large companies have adapted the concept of the materiality matrix, initially favoured by the GRI, to suit corporate rather than wider environmental, social and economic goals. More specifically he argued that "instead of considering the impacts on the economy, the environment and society" as one of the two axes of the materiality matrix as proposed by the GRI, the matrices contained in the sustainability reports published by many large companies focus "instead on whether, and to what degree, impacts affect the organisation and/or its business goals" (McElroy, 2011). More critically McElroy (2011) claimed that this change "amounts to a perversion of the idea of materiality in sustainability reporting because it essentially cuts out consideration of what are arguably the most material issues" namely "the broad social, economic and environmental impacts of an organisation regardless of how they relate to a particular business plan or strategy" (McElroy, 2011).

The UK's leading construction companies' approach to independent external assurance can perhaps be best collectively be described as idiosyncratic and partial. Idiosyncratic in that the external assessors were given varying briefs and they in turn adopted varying approaches. Though this is not a problem per se, as CSR reports are themselves voluntary and the accompanying assurance statements are not subject to regulation, it means that the lack of a common and agreed methodology makes any systematic assessment of, and comparison between, the leading construction companies effectively impossible. Partial in that the majority of the UK's leading construction companies did not report commissioning external assurance and where such assurance was commissioned for sustainability reports it did not include all the issues contained in those reports and provided only limited assurance.

A wide range of stakeholders are taking an increasing interest in the UK's leading construction companies' corporate behaviour and in theory the external assurance of sustainability reports must be seen to be important for a variety of audiences including the general public, customers, investors, employees, suppliers, regulatory bodies, local and national government, trade unions, non-governmental organisations and pressure groups. While RAAS Consulting (2009) has argued that the two primary audiences are regulators and investors, the formal assurance statements commissioned by the construction companies provided little indication of their intended audiences. CorporateRegister.com Limited (2008) suggests that “statements are supposedly for external stakeholders, but in practice they’re probably written for internal audiences and the language of assurance reduces its appeal to the wider audience”. O’Dwyer and Owen

(2005) contrast this approach with “the governance structures underpinning the financial audit process” arguing that management’s “reluctance to address the assurance statement to specific constituencies implies that they are primarily providing value for management thereby reflecting a perceived demand for assurance of this information from management as opposed to stakeholders”. Further, O’Dwyer and Owen (2005) conclude that unless this issue is dealt with “assurance statement practice will fail to enhance accountability and transparency to organisational stakeholders”.

More generally the independence of the assurance process can be a thorny issue. While Wiertz (2009) has argued that “in applying external verification to CSR reports, a central characteristic of the assurance process is to be independent of the reporter and the subject matter being attested”, O’Dwyer and Owen (2005) claim that their work on 41 large UK and European companies “raises question marks regarding the independence of the assurance process”. Additionally O’Dwyer and Owen (2005) have expressed concerns about “the concept of independence in the fullest sense of the term” and they argue that “put simply, the assurance exercise is commissioned by corporate management, rather than by individual stakeholder groups, who are thus able to place restrictions on the areas of performance and reporting upon which the assurance provider can bring to bear independent judgements”.

Such reservations and concerns would certainly seem to limit the value, credibility and integrity of the assurance process but it is important to note that the UK’s leading construction companies are large and dynamic organisations. Capturing and storing information and data across a diverse range of business activities throughout the supply chain in a variety of geographical locations and then providing access to allow external assurance is a challenging and a potentially costly venture and one which the majority of the UK’s leading construction companies currently seemingly choose not to pursue. Thus while data on operational carbon emissions may be systematically collected, collated and audited as part of the company’s environmental sustainability commitments, information on their contribution to local communities and levels of staff satisfaction may be more difficult to define, measure and assure. Where a company’s data collection and collation systems are not so developed to realistically allow rigorous and comprehensive assurance processes then limited assurance may well be the best way forward. At the same time it is important to recognise that assurance statements come at a cost which includes employee time, scheduling impacts and the assessors’ fees.

6 Conclusions

The vast majority of the UK’s top 20 construction companies publicly report, albeit in a variety of ways, on their commitments to sustainability and on how they are integrating sustainability into their businesses. There are marked variations in the extent to which the UK’s top 20 construction companies have publicly embraced materiality as part of their sustainability reporting process and there was little or no evidence of a collective sector specific approach to materiality emerging. While seven of the leading construction companies drew attention to materiality in their sustainability reports, some of these made very limited reference to how they had determined material issues, and while others identified a number of priorities in their sustainability reports they made no explicit reference to materiality. At the same time only six of the leading construction companies reported that they had commissioned independent external assurance or verification as an integral part of their sustainability reporting processes. At best the accent was upon 'limited' rather than 'reasonable' assurance and there are some concerns about management control of the assurance process. In many ways this reduces the reliability and credibility of the construction companies sustainability reports. That said the UK's leading construction companies are large and dynamic organisations and this makes more rigorous and comprehensive assurance a difficult, time consuming and costly process. Looking to the future growing stakeholder pressure may prompt the UK's leading construction companies to commission more rigorous and wider ranging external assurance and to embrace materiality as a systematic element in the reporting process.

More generally the authors argue that the UK's leading construction companies currently seem reluctant to embrace the concept of materiality and to commission independent external assurance and this suggests that they are pursuing a 'weak' rather than a 'strong' model of sustainability. More critically the authors suggest that the UK's leading construction companies' commitments to sustainability are couched within existing business models centred on continuing growth and consumption and that current policies can be viewed as little more than genuflections to sustainability. As such this echoes, Roper's (2012) belief that weak sustainability represents "a compromise that essentially requires very little change from dominant economic driven practices but effectively works to defuse opposition, increase legitimacy and allow business as usual". Looking more positively to the future the UK's leading construction companies must determine the resources they are prepared to invest in sustainability and look to how they identify and measure the benefits of embedding sustainability within their business models. The Ethical Corporation (2015, web page), for example, has argued that "a good proxy for how seriously organisations take sustainability is, of course, how much money they are prepared to spend on it". While a low budget commitment to sustainability is not necessarily a problem per se, for example, in identifying the major sustainability issues facing a company, it can send a clear message throughout the company that sustainability is low on the corporate priority agenda.

Arguably more importantly there is the thorny issue of whether and how companies capture and evaluate the benefits of their strategic sustainability commitments and achievements in financial terms. Initially benefits seem likely to be generated by the range of efficiency gains and savings outlined earlier but the leading hospitality companies seem to likely to continue to face challenges in measuring the returns on their investment in sustainability.

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