INNOVATION IN SUSTAINABLE FACILITIES MANAGEMENT PRACTICE: IMPLEMENTING A SUSTAINABILITY POLICY

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Pressure from stakeholders and society as larger is increasingly demanding organisations to take action on sustainability including a wide range of social and environmental issues, in addition to their economic objectives. Innovation in sustainable FM practice is vital in order for organisations to respond to these demands as well as stringent legislations. However, perceived barriers such as financial and time constraints, as well as lack of knowledge and awareness, are critically hindering the efforts of organisations to incorporate sustainable activities in their business operations. In response to the aforementioned barriers, a good practice document aimed at helping organisations to develop and implement a sustainability policy was produced which, whilst in support of their core strategic objectives, effectively satisfies their stakeholders’ needs. The upmost value of the present guide lies within its undeniable contribution to reducing the impact of the main barriers in Sustainable FM. The document effectively accomplishes its objective through the dissemination of practical knowledge of the key elements that support a successful sustainability framework; therefore, it boosts the ability of organisations from across all sectors, types and sizes, to respond in time to the increasing and rapidly changing demands from its wide range of stakeholders for innovation in sustainability practices, whilst maximizing their financial performance.

Keywords: FM, Sustainability Policy, Stakeholders, financial performance, climate change and innovation.

INTRODUCTION

Facilities Management (FM) is one of the fastest growing industries with almost 10% contribution to the UK economy. With the rising legislative requirements and targets to tackle global warming, FM are in the forefront in delivering the national and international sustainability targets (Elmualim et al 2009). There are challenges in the understanding and building a consensual definition of sustainability. The existence of such polarised understanding of the term together with materialised interests of various individuals and organisation is a main barrier for achieving sustainability. The lack or the limited understanding of the key concepts of sustainability and lack of practical knowledge contribute to the little implementation and effectiveness of the sustainable practice in the FM industry. The other primary problem preventing the FM sector from driving the sustainability agenda forward is the lack of expertise
information and credible practical guidance (Elmualim et al 2009). However, there is an increasing pressure from organisation stakeholders and society as large to act sustainably. This paper argues that innovation is an important vehicle for advancing the sustainability agenda particularly within the FM industry. The paper further provides a setting for sustainability policy that is vital in providing the commitment, framework and the environment needed to advance innovation in sustainable FM practice.

INNOVATION IN THE CONSTRUCTION SECTOR

Studying innovation is widely becoming a mainstream discipline in economics and business management particularly to understand and evaluate technological and organisational change. The discipline is as an academic field contains a large volume of knowledge about concepts, theoretical models, case studies, technology modelling tools, and government and industry strategies and policies. Innovation is tied considerably with organisations abilities to improve on their current products, services, processes, and working practices for competition, market growth and economic performance as well as customer choice, social and environmental sustainability and quality of life as a whole (Gann 2003). Contrarily to the general practice of low cost tendering in the construction industry, innovation is widely envisaged as the driver for the sustained competitiveness and economic growth. It is that force behind firms failure or success/decline or thrive (Baumol 2002). Innovation, however, is intertwined with human creativity which linked to other akin concepts of human intelligence, adaptation and agency. Innovation can be seen as the creation of solutions that resonate with the concern of the time. Solutions that enable the adaptation within the changing context of space and time. “Innovation is often or always created through analogy and metaphor –through associations of ideas, so that change is slow and gradual”. “Innovation often occurs when we just ‘see what happens if I try this’” (Hodder 1998). Innovative creativity is triggered by linking and making good sense of multi-faceted things that are defined within an established and contextualised terms. It can be seen, therefore, as an establishing links rather than creating differences within a given context (Hodder 1998).

With the construction industry, innovation is notoriously known to be difficult to define and proceduralise (Green et al 2004). Furthermore current debates of innovation continue to raise further questions about the nature and characteristics of innovation. The concept of innovation is intertwined with issues of knowledge creation, continuous improvement and organisational change. Within academia the understanding of innovation is still considered under-developed and highly fragmented (Green et al. 2004). However, innovation is when knowledge from previously separated domains is exchanged and combined in new ways (Justesen 2004). The result of this innovative practice is innovation when and only when this combination of domains leads to the successful diffusion of a new product, process or service. Innovative practice is therefore not merely about getting new ideas and the generation of an invention, but equally about the successful exploitation and diffusion of that invention. Justesen (2004) further strengthens this perspective when she defines innovation as the practice of creation, conversion and commercialisation. Innovation and innovative practice therefore rely very much on the existing knowledge networks in an organization, and how such networks of conversation allow
for or prevent different domains of knowledge from being connected in new and meaningful ways.

Egbu (2004) stated that there is still ongoing debate on whether the construction industry and many of the construction organisations are innovative or not. He argues that there are those who suggest that the construction industry is less innovative than many other industries and they do so on the basis of a weak premise. However, although Egbu (2004) presents many arguments on why innovation is important to the construction industry and builds a case on why building dynamic capabilities is vital for organisational innovations he does not present a clear case on how innovation actually takes place within construction firms (Egbu 2004). In his argument he mentions that because construction organisations are project based organisations networking, communities of practices, story telling, coaching, mentoring and quality circles are important mechanisms for sharing and transferring tacit knowledge in project environments. He goes on further to state that communities of practices are needed to encourage individuals to think of themselves as ‘members of professional families’ with a strong sense of reciprocity and that the networking processes which encourage sharing and the use of knowledge for project innovations are important.

Having said that innovation, as a practice in the construction industry, has been characterized as important, but ill defined as a concept; incremental process innovations are common and highly regarded; incremental innovation is essential for culture change; the industries attitude to risk inhibits innovation; and prolonged imposition of process innovations by clients has led to initiative overload (Green et al. 2004). Incremental innovations are defined as small-scale changes based on current knowledge. Their impact is minimal and predictable and they emanate from within the organisation. Incremental innovations are distinguished from radical innovations which are characterised by breakthroughs and large-scale change, which are unpredictable in appearance and impact. Radical innovations tend to emanate from outside the current industry, and provide a new way of understanding a phenomenon and formulating approaches to problem solving. Radical innovation is very rare because by their nature they result in significant change (Egbu 2004, Green et al. 2004). It is interesting to thus note that the social capital aspects of innovation do not feature very much in the debates on innovation and sustainability in the construction industry. However, concept such stakeholders' management are coming into prominence with the evolving sustainability discourse.

INNOVATION FOR SUSTAINABLE FM

Innovation in FM Services Provision

Innovation while is developing as discipline lacked a common definitions and hence the concept used in FM service provision is ambiguous (Sundbo 1997). Rogers (1983) states that, “an innovation is an idea, practice, or object that is perceived as new by an individual or unit of adoption” (Rogers, 1983). Rogers (1983) found that the rate of adoption of any innovation is in its suitability to fit in with the values, beliefs and past experiences of the social system it is being introduced. Rogers states, “the diffusion of innovations is often a social process, as well as a technical matter”. Henderson states that ‘despite rhetoric to the contrary, design work does not flow in a neat linear pattern, but rather is beset, like those on the ‘yellow brick road to Oz’, with innumerable diversions, mishaps and patch-ups’ (Henderson 2007). These
‘diversions, mishaps and patch-ups’ must reach a consensus to enable the technology meet the needs of the organisation that it is being created in. Indeed there are various models of innovation that help to understand innovation as process (Noor and Pitt 2009). Within the FM services innovation is mostly technical (Cardellino and Finch 2006). With the increasing development of digital technologies, innovation in FM is about adoption of these emergent technologies (Lindkvist and Elmualim 2009), which can be termed digital innovation or "diginnovation".

Innovation is considered one of the most pressing component of the competitive advantage of organisations (Porter 1998). Goyal and Pitt (2007) considered innovation is essential for the survival of organisation. This is particularly true in FM due to the complex nature of the industry and the financial pressures that facing facilities managers. Innovation as process is vital for FM profession to advance and deliver the sustainability agenda.

The Reality of FM

The concept of Facilities Management is continuously developing. Elmualim et (2009) indicated that the term ‘originated in the late 1960’s to describe the then growing practice of banks outsourcing responsibility for processing of credit cards transactions to specialist providers. Facility management is often an area that is undervalued in an organisation. According to Alexander (1997) “few organisations in fact fully recognise the contribution that facilities can make to the business, and few can identify the opportunity they provide”. One of the problems for facility managers is that they work in an environment that is constantly changing. Facilities Management is considered to be one of the fastest growing professions in the UK. The UK Facilities Management market is worth £106.3 billion with an annual growth of between 2% and 3% anticipated up to 2012 (Elmualim et al 2009).

The industry and its market are forecasted to develop to include non-core functions including payroll IT, activities traditionally not associated with this profession, but which are increasingly being addressed by FMs. Various institutions, professionals and organisations offer different definitions but the idea that they reflect is the strong relationship and interaction between buildings, services and organisations’ core activities. Organisations use buildings, services and assets to create an environment that can enhance the performance of their primary business (Wood 2006). The remit of Facilities Management industry is very broad and is constantly growing as more activities are tend to be regarded as non-core ones and included in the facilities management sector (Elmualim et al 2009). The following range of ancillary services is incorporated in the FM sector:

- Security
- Cleaning
- Catering
- Building Fabric Maintenance
- Gardening and Landscaping
- Lift and Escalators Maintenance
- Lighting
- Building Design
- Plant Replacement
- Construction Management
Facilities management used to be perceived in an old-fashioned way as to being concerned with caretaking, cleaning, repairs and maintenance (Atkin and Brooks, 2007). Recently this view is changing as facilities management now include also such issues as real estate, finance, human resource, health and safety, change and contract management. Atkin and Brooks (2007) highlighted that the issues such as domestic services or building and engineering services maintenance are simply the most visible ones and that neither of the FM responsibilities is more important than the other one.

Sustainable FM Practice

Sustainability is becoming increasingly important for Governments, business organisations and community at large having experienced the consequences of the global warming (Stern 2006). There is an urgent need to change the way people think and operate. The concept of Sustainable Facilities Management has developed in parallel with the overarching concept of sustainable development and the growing appreciation of the scale of predicted climate change. The case for change has been successfully made and the need to balance the three strands of sustainable development - social, economic and environmental – is apparent. It is both fortuitous and timely that the facilities management profession has grasped the agenda for change and is aspiring to develop practical sustainability goals within this rapidly evolving profession. Facilities managers are now at the forefront of organisational behavioural change and in a position to influence the behaviour of individuals working in business, government departments and public services within the facilities they manage (Elmualim et al 2009).

Governments at both national and international level are using regulation to bring reduce carbon emissions and manage demand. Much of the burden of regulation will need to be picked up by facilities managers at every level. The need for sustainable facilities management, and for skilled facilities managers to carry out this function, is therefore growing and the need to develop new ways of working to meet sustainability criteria is of increasing importance. The drivers now are to meet the challenges of applying sustainable development criteria to the management of facilities.

The change in focus that this represents is supported by BIFM, University of Reading and partners in setting up a Knowledge Transfer Partnership to raise awareness of best practice in the industry and to provide an electronic knowledge portal to share information that will allow professionals to build on their skills in this area. In order to tackle the problem a project was developed. The overall aim of the project is to
investigate the nature of the sustainable facilities management and provide a benefit to the industry and community in the form of best practice guidance. The objectives of the project are as the following:

- Establish the existing level of understanding and application of sustainable knowledge and practice within the facilities management profession
- Identify the key areas of Sustainable Facilities Management where clearer practical tools, information and industry best practice are required
- Identify the benefits of sustainable facilities management
- Determine and ascertain the existing drivers for implementation of sustainable practice in the facilities management industry
- Determine and ascertain the existing barriers for implementation of sustainable practice in the facilities management industry
- Produce a best practice guide comprising case studies for the facilities management practitioners and community.

The data required establishing the level of sustainable knowledge and practice within the facilities management industry will be collected through an online survey in a form of self-administered questionnaires. The survey was accessed through the British Institute of Facilities Management website and made available to subscribing members. The received data will provide information on the current state of theoretical and practical knowledge among the professionals; it will identify areas in where there is a lack of practical tools, guidance and information.

The questionnaire consisted of a set of both closed and open questions. The pilot questionnaire was tested prior the commencement of the survey on a small number of potential respondents of the same sample as the final questionnaire. The aim of the questionnaire was to obtain data on the existing level of sustainable knowledge and practice within the facilities management industry. It also aims to establish the areas of the facilities management where it is believed that more information is required on the effective implementation of sustainability. The surveys take account of the type of the respondents and attempts to indentify their level of commitment or the commitment of the organisation they represent to the sustainability. The survey was conducted in May 2008 with 251 responses.

The survey results show that time constraints, lack of knowledge and lack of senior management commitment are the main barriers for the implementation of consistent and comprehensive sustainable FM policy and practice. The paper concludes that the diversity of the FM role and the traditional undervaluation of the contribution it makes to the success of organisations are partially responsible for lack of success in achieving sustainable facilities. The overwhelming barriers for sustainable FM practice is the lack of understanding, focus and commitment of senior executives in appreciating the opportunities, threats and need for strategic leadership and direction in driving essential change, and hence further the sustainability agenda.

**A Good practice Guide for Implementing Sustainability Policy**

The key principles underlying the content of the good practice guide are:

- The need for organisations, particularly those in the private sector, to incorporate social and environmental issues as key decisive factors in their strategic decision-making processes.
The necessity of extending the role of the Facilities Manager to include the task of developing and implementing sustainable practices as part of an organisation’s core operations.

The significance of developing a sustainability policy as a means to providing an essential supportive framework for the implementation and management of sustainable practices.

The importance of confirming an organisational strategy, understanding and communicating the benefits of a Sustainability Policy, and undertaking a wide-participatory approach in the definition and execution of all the processes involved in a sustainability policy, as sine-qua-non conditions to ensuring the policy’s ongoing success.

The upmost value of the present guide lies within its undeniable contribution to reducing the impact of the main barriers in innovation in sustainable FM. The document effectively accomplishes its objective through the dissemination of practical knowledge of the key elements that support a successful sustainability framework; therefore, it boosts the ability of organisations from across all sectors, types and sizes, to respond in time to the increasing and rapidly changing demands from its wide range of stakeholders, whilst maximizing their financial performance.

A sustainability policy is a working document that has been approved at the appropriate level within an organisation. It will give guidance and instruction on the most appropriate course of action among a series of interwoven social, environmental and economically sustainable practice alternatives, so that a business’ present and future decisions can be made strategically for the good of the company and the community. The Sustainability Policy itself should be concise and understandable to all stakeholders. It is recommended that the published Policy statement should be no more than the equivalent of one page of A4 paper. This Policy statement will however need to be supported by a more detailed strategy document that provides the guidance and procedures needed to meet the aims of the policy. In other words, a framework aimed at facilitating the implementation of sustainable practices (social, environmental and economic) in support of your organisations core strategic objectives. In addition to selecting the “right” sustainable practice among possible alternatives, it also involves managing effectively the elements that push, enable, guide and measure its performance. The processes of implementing a sustainability policy may include part of all of the following:

- Planning: Defining goals, objectives, roles and responsibilities, indicators, etc.
- Selling: Making a business case that convinces all levels of management.
- Implementing: Building teams, assigning tasks and responsibilities, communicating objectives, execute activities, etc.
- Target setting and Monitoring: Assessing your organisation’s performance, making timely adjustments, etc.
- Reporting: Collecting and organizing the data on performance, enabling a dialogue platform between your organisation and your stakeholders.
- Providing feedback: Acknowledging, translating, communicating and taking action on your stakeholders’ views on your performance.

A sustainability policy should offer a balanced approach across all topics within the triple-bottom line, and not only those that are easy to measure and show improvement on. A sustainability policy primarily aims at satisfying the expectations of an
organisation’s stakeholders. For example, entities from within the public sector may have special interest on practices that improve health & safety standards and support legislation compliance, as a way of pushing forward the government’s core strategic agenda; whereas non-profit organisations might feel stronger about ethical procurement and community engagement activities as means to improving community development. Therefore, identifying your stakeholders and understanding their needs is a key step to outlining the aim and purpose of your sustainability policy.

A successful sustainability policy can generate a wide range of benefits for your organisation, all of which can, directly or indirectly, boost its ability to meet its objectives. These benefits can be classified mainly under two categories: Hard or tangible benefits, which can be quantified and expressed in monetary units. For example, Increased profits generated from improved cost-effective manufacturing processes (cost reduction), or additional sales from breaking into new markets. Soft or “intangible” benefit, which are not commonly regarded as quantifiable, but can be expressed in terms of monetary units. For example, increased profits as a result of higher productivity, triggered by higher employee satisfaction. Developing and implementing a sustainability policy requires the joint effort from all members in your organisation; therefore, confirming a sound organisational strategy is essential to encourage commitment and ensure accountability. The matrix for sustainability issues (Figure 1) assesses the impact of a sustainable activity on each sustainability issue in terms of:

- Relation (i.e. Direct or Indirect).
- Degree of influence (i.e. High or Low).

For example, turning off all electrical office equipment during the night (i.e. Energy Management activity) may have the following effects:

- Social: Indirect relation and High influence on the behaviour and lifestyle of your staff.
- Environmental: Direct relation and High influence on reducing harmful emissions.
- Economic: Indirect relation and Low influence on increasing your organisation’s productivity.

The outcome should then be complemented with support from a stronger, technical framework, such as the Global Reporting Initiative Guidelines. Regardless of the methodology chosen, frequent dialogue and feedback to organisation's stakeholders is highly important to guarantee the successful performance of a Sustainability Policy. In response to this identified reality within the FM sustainable practice and the stringent need for innovation, this good practice guide for sustainability policy provide the industry with the framework of commitment to these important two agendas, innovation and sustainability. Furthermore, in terms of practical implementation a knowledge portal for sustainability in FM was developed and is live (www.sustainabilityinfm.org.uk). The knowledge portal contains numerous case studies of best practice in addition to links to interesting and related domains to sustainable FM practice. A copy of the Good practice guide for implementing sustainability policy is available on the knowledge portal.
Figure 1: Matrix for the sustainability issues to be covered by the policy.

CONCLUSIONS

Facilities Managers are in the forefront for delivering sustainable assets management, and hence further the venture for mitigation and adaptation to climate change. This paper build on recent surveys conducting to establish the barriers and knowledge gap in applying sustainability principles and technologies in Facilities Management (FM). The overwhelming barrier for implementing sound sustainable FM is the lack of consensual understanding and focus of individual and organisations for sustainability, hence appreciating the opportunities, threats and need for strategic leadership and direction in driving essential change. The paper argues that innovation as process is vital for furtherance of the sustainability agenda within FM. While the innovation process is difficult to define, capture and implement, it is vital for organisational survival particularly for sustainable FM with the pressing climate change. A good practice guide for implement a sustainability policy will be vital for FM to adopt innovation while providing a framework for commitment and furtherance of sustainability.

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