

Facilities Management Approach For Achieving Sustainability in Commercial Buildings in Nigeria.

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Abstract

The purpose of this research is to determine the extent of sustainable facilities management (FM) practice in the management of commercial buildings in Nigeria and identify barriers to it, in order to develop a solution model that will proffer ways of overcoming these barriers and ultimately determine sustainable methods by which facility managers in Nigeria can effectively manage commercial properties. This study is a work in progress and it presents a theoretical review on the extent of sustainable FM in developed countries, especially the United Kingdom (UK), and comparing it with the development of sustainable FM in developing countries and Nigeria in particular. Nigeria has a history of unsustainable building practices, mismanagement of buildings and poor maintenance culture with no consideration for its impact on the environment. Findings reveal the three main barriers to sustainable FM practice in corporate organisations in Nigeria, as lack of training and tools, lack of relevant laws and regulation, and lack of knowledge and awareness. Nevertheless, there remains the urgent need to investigate barriers of sustainable FM practice in the management of commercial buildings in Nigeria.

Keywords:

Sustainability, Sustainable facilities management, Nigeria.

1. Introduction

Sustainable development has been defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987). According to Brandon and Lombardi, (2005) sustainability is about leaving the environment in at least the same state by a generation and leaving it in a better state for newer generations to come.

The race towards sustainability has shown the role of buildings as an agent of decay on the natural environment, bringing fresh challenges for building engineers to devise new ways of reducing the use of natural resources, making use of renewable materials and minimising waste. This has created the need for sustainable FM, which has been seen to be vital in the longest phase of the life-cycle of a building, where severe impact on the environment occurs (Alnaser *et al*, 2008; Mora *et al*, 2011).

Buildings are the main physical assets of any nation; they are created for providing shelter and enhancing people's quality of life (Lam *et al*, 2010). If these buildings are not properly planned and maintained, they will become liabilities (Wood 2006). In the UK, from the year 2002, 50% of all annual construction activities were exclusively for building maintenance (Lam *et al*, 2010). However, this is not the case in Nigeria, where there is poor maintenance culture and values (Iyagba, 2005). Commercial buildings in Nigeria have a record of poor performance operations, poor maintenance and mismanagement (Abigo *et al*, 2012). In the past two decades, the emphasis has been on the development of new properties, with little attention paid to the maintenance of the existing stock and the future maintenance needs of the proposed ones (Odediran *et al*, 2012). These problems form the basis of this study. This paper argues that an integration of sustainable FM practice is required to promote the development and preservation of sustainable buildings with suitable environmental initiatives and practices within Nigeria.

2. Research Methodology

This study reviews existing literature on how developed countries have benefited from the development of sustainable FM in the management of buildings in order to identify ways by which Nigeria can adopt sustainable practices in the management of commercial buildings to achieve sustainability. The study also reviews existing literature on sustainable FM in Nigeria, so as to determine the extent of sustainable FM in Nigeria.

3. Sustainable FM Practice in Developed Countries

Facilities management in the United States has been established for over 30 years (Wiggins 2010) and the International Facility Management Association (IFMA) is the world's largest and most widely recognized international association for facilities management professionals, supporting more than 23,000 members in 85 countries (IFMA n.d.). The FM market spread to Europe with the establishment of Euro FM in 1990 and the British Institute of Facilities Management (BIFM) in 1993 (Shah, 2007). In the UK, FM is one of the fastest growing professions with a market worth of £106.3 billion and an anticipated annual growth of between 2% and 3% up to the year 2012 (Elmualim *et al*, 2008; Shah 2007).

Developed countries, particularly in Europe, have applied research focus to sustainable FM, although this is arguably still in its infancy. In Finland, for example, a case study (Aaltonen *et al*, 2013) showed that relatively light changes to FM service processes achieved extensive environmental benefits. In the case study building, they found that FM had direct or indirect (operational) influence on 82% of the green building certification (LEED) points achieved by the building.

However, even in developed countries, it seems that action towards sustainable facilities management is, at times, minimal. According to Nielsen (2012), the term sustainable FM is unknown in Denmark but there may be greater awareness in the UK and other countries.

According to Elmualim *et al.*, (2012), facilities managers have a great role to play in advancing the sustainability agenda in the built environment through the practice of sustainable FM. In the UK, the concept of sustainable FM has developed and grown in parallel with the all-embracing theory of sustainable development and the growing appreciation for climate change (Shah, 2007). According to the study carried out by Elmualim *et al.*, (2008), facilities managers are now aligning their practice with the sustainability agenda along its three strands, economic, environmental and social. However, they are constrained by time, lack of knowledge of the basic information necessary to implement sustainability policies and lack of senior management commitment to the sustainability agenda.

According to Elmualim (2012) the main driver for sustainable FM in the UK, is the formulation of legislation. These pieces of legislation, according to KPMG, (2008) make organisations conform to stipulated regulations and, in the process, drive the compliance of sustainable practices by facilities managers. These laws incorporate sustainable policies that involve waste management, recycling, energy management, carbon footprint and health and safety (Shah, 2007).

In other developed countries, such as Japan, New Zealand, Hong Kong, Singapore and South Africa, FM has been successfully developed and established. It is recognised in these countries as an activity that can achieve more effective management of buildings, its services and associated workforce, in support of the strategic objectives of an organisation (Kamaruzzaman and Zawawi, 2010). According to Shah (2007) FM in Australia is one of the fast growing industries with an annual turnover of more than AUD\$60 billion.

4. Sustainable FM in Nigeria

In developing countries such as Malaysia, the development of FM started in the second half of the 1990s. Now Malaysia has put great focus and emphasis on the development of FM particularly in the public sector (Kamaruzzaman and Zawawi, 2010). In Uganda, a study was carried out in order to project the growth of FM, which concluded that the FM industry in Uganda, though not officially recognised, exists in a capacity to grow steadily in line with the economy (Natukunda *et al.*, 2013).

Sustainability in terms of environmental impact of various industries, especially the oil and petrochemical industry in Nigeria, has been well documented, (Odeyemi and Ogunseitan, 1985; Olokesusi, 1992; Osuji *et al.*, 2006; Agbalagba *et al.*, 2012). However, sustainability in FM, in the country is yet to be embraced, as its growth has been slow, awareness is low and also there is little literature on the subject (Adewunmi *et al.*, 2012). Literature that is available tends to focus on environmental issues in sustainability (Kadiri, 2006; Adewunmi *et al.*, 2012), with little focus on the economic and social aspects. Existing literature includes Abigo *et al.*, (2012) and Adewunmi *et al.*, (2012), on sustainable FM in the management of public buildings in Nigeria and on the development of a sustainable approach to corporate FM in Nigeria. Adewunmi *et al.* (2012) emphasised environmental sustainability in their study involving the use of questionnaires and interviews of FM professionals, regarding key themes including environmental awareness, performance of ecologically sustainable development activities and strategic management. Their results showed that FM only minimally addresses sustainability in Nigeria.

Abigo *et al.* (2012) undertook a comparative study of sustainable FM in the UK and Nigeria and found that the top three barriers to sustainable practice in Nigeria are lack of regulations

or legislation; lack of sustainable policies and lack of awareness. They proposed a framework for embedding sustainable FM in public buildings in Nigeria, based on six phases: (1) public awareness; (2) training and education; (3) creating legislation; (4) public organisations developing written sustainability policies; (5) incorporating sustainable practices in the management of public buildings and; (6) enforcing regulations/legislation.

A study was also carried out by Ikediashi *et al.*, (2012) on assessing the level of commitment and barriers to sustainable FM practice by facilities managers within corporate organisations in Nigeria. This study revealed the three main barriers to sustainable FM practice. These are lack of training and tools, lack of relevant laws and regulation, and lack of knowledge and awareness. The study also identified the commitment of senior management personnel, as a major driver to the course of sustainable FM within organisations in Nigeria. Nevertheless, there remains the urgent need to investigate barriers of sustainable FM practice in the management of commercial buildings in Nigeria. Commercial buildings, being the economic powerhouse of the nation, serving the whole of the country in respect of imports and locally manufactured goods; contributing more than 70% of the national economic output (Research Unit, 2011).

5. Conclusion

Although barriers to sustainable FM within corporate organisations have been identified, there remains the need to identify barriers to sustainable FM practice in the management of commercial buildings. The extent of sustainable FM in commercial buildings in Nigeria has not yet been determined. However, the findings so far, identify commitment of senior management personnel, as a major driver to the course of sustainable FM. This study is a work in progress and therefore, continuous effort will be made to determine the extent of sustainable practices in the management of commercial buildings and identify barriers to sustainable FM in commercial buildings in Nigeria. This will be achieved by a pilot study, followed by questionnaire survey of qualified professionals in the various institutes in Nigeria as well as stakeholders and building users.

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