

Evolving Maintenance Culture in Nigeria: The Role of Facilities Management ¹

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1. ABSTRACT

The public perception as an “all comers’ affairs” poses a challenge of competence on practitioners, while the multidisciplinary nature of the practice of facilities management (FM) enhances access to requisite professionals in puts. Maintenance on the other hand is important for production of machinery and equipment’s in technological advancement since population is fast growing. The aim of the study is to examine the role of facilities management to the evolving maintenance culture in Nigeria by professionals practicing facilities management. Lagos state was used as a case study and structured questionnaires were administered to 150 professional facilities managers within the state. Also data was gotten from other researchers work and articles. Result of the study shows that 39% of the respondents have between 6-10 years of working experience, which means that younger generation professionals currently dominate the practice of FM. It has been established that FM can be best practiced by adopting information standardization, acquisition of more relevant trainings by practitioners as well as the practice performance benchmarking. Finding validates the literature on the multidisciplinary nature of FM. Also to embrace a better maintenance culture within the country, industry, professional bodies and university academics have to embrace FM practice and begin to create innovations that will move FM practice in Nigeria to maturity stage just like in the developed countries like USA and UK.

Key words: multidisciplinary nature, facilities management, maintenance, culture, industry

2 INTRODUCTION

As the population is fast growing, technological advancement (in quality and quantity) should also be growing in like manner, for this reason production engineers and manufacturers are working round the clock seeking for the technical ideals of maintenance to meet up with ever increasing demand of the populace. Infrastructural development is the basis and bedrock of any development effort in the world today. The maintenance of production machinery and equipment and assurance of availability of spare parts are becoming increasingly important (Ramdeen and Pun, 2005). It is important to stress that, it is not enough for facilities of development to be put in

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place; it is more than enough for these facilities to be adequately and properly maintained so that the purpose for which they are meant would be accomplished.

Maintenance management is a data-intensive activity which forms an important aspect of human and non-human resources development as it is considered one of the major catalysts of the continuous existence of all forms of resources in the universe (Uma, 2009). With the increasing specialization and complexity of equipment and other facilities used in manufacturing, the need to develop effective maintenance culture in the industries had become imperative (Olatunbosun and Abimbola, 2005). Olatunde (2009) is of the view that understanding the importance of project sustainability will mean incorporating long term facility management agreements in all major projects.

Maintenance is the work necessary to keep the body, equipment and machines in proper and safe operating conditions (Usman, 2008). Maintenance is therefore seen as a vital part and a necessity in human or non-human resources management if they are to be continuously functional. Maintenance can be summarized as the repair and upkeep of existing equipment's, buildings and facilities to keep them in a safe, effective as designed condition so that they can meet their intended purpose (Eti et al, 2004, Adeniyi et al 2004). Any equipment or facility has a pre-determined expected standard of performance and support for extent to which the maintenance objectives are met as regards the satisfaction of both internal, external and customers requirements (Oluleye and Olajire, 2009). The phrase maintenance culture could therefore be seen as an important one that should be defined to have a proper understanding of what it stands for in the process of sustainable development. In financial perspective, maintenance is classified as an operating expense while the other non-maintenance activities such as process optimization, manufacture of replacement parts, relocation, upgrading, modification and installation of equipment (plant engineering functions) are capitalized. Ajibola (2009) defines culture as "the shared belief and values of a group; the beliefs, customs, practices and social behavior of a particular nation or people". A good maintenance culture ensures that machinery functions properly even when depreciation is assured. Cost saving can be enormous if basic maintenance procedures are put in place (Ikpo, 2000). Appropriate maintenance culture, proper repair and preventive maintenance of industrial machinery and equipment will not totally prevent their breakdown and failure but it would reduce it to a barest minimum. Also, the cost of preventive maintenance would be returned in many folds in the form of better performance, greater reliability and long equipment useful life. It may even enhance less down time during peak operating period (Adigun and Ishola, 2004).

Maintenance work is generated by a whole range of factors including weathering, corrosion, dirt, structural and thermal movement, wear, low initial expenditure, passing of time, incorrect specification, inferior design, poor detailing and damage by users. Some of the major maintenance problems stem from the use of new materials and techniques.

3.0 LITERATURE REVIEW

3.1 INTRODUCTION

Maintenance seeks to preserve a building in its initial state so that it continues to serve its purpose and is an essential component in the life cycle of a building. Yet there exists a general financial climate where minimum first costs are often the only consideration, risking future maintenance problems. It is a good policy to require contractors on new projects to supply maintenance manuals giving a physical record of each building as built, inspection and maintenance cycles for each element, list of specialist subcontractors and suppliers and information and instructions on maintenance for occupants (Seeley, 1996). In 1970, The Royal Institute of British Architects drew attention to the need to balance capital costs against subsequent maintenance and running costs. Building Maintenance Cost Information Service (BMCIS) commenced the distribution of building maintenance cost analyses in 1971 and was subsequently renamed Building Maintenance Information (BMI), operating under the auspices of the RICS.

3.2 FACILITIES MANAGEMENT

Facilities management (FM) is interlinked with certain activities of cost management particularly those relating to life cycle costing. Facility management as defined by the International Facility Management Association (IFMA) as “a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology”. Facility management is responsible for making sure everything works harmoniously together, and the facility manager is responsible for keeping the facility alive.

Facilities are generally defined as any property where people are accommodated and work, or where an organization conducts its business, while management concerns all aspects of providing, operating, maintaining, developing and improving those facilities.

3.2.1 Scope of Facility Management

In a general sense, facilities management can be viewed as the management of anything within the facility operation, but using the insight from the international facility management association to narrow this down; in 2009, the IFMA identified eleven core competency of facility management that include the following;

Communication, emergency preparedness and business continuity, environmental stewardship and sustainability, finance and business, human factors, leadership and strategy, operations and maintenance, project management, quality, real estate and property management and technology.

The RICS facilities management skill panel (1992) considered that FM embraces all the principle functions of management, planning, organizing, staffing, directing, controlling and monitoring and the bringing of all these components together in a co-ordinated way. Watts (2002) in a keynote address at the RICS described the technique in an interesting and discerning way.

‘Effective facilities management has to provide a complete service, encompassing the whole lifestyle of buildings. In aiming to give buildings a long, productive and effective life, facilities management must be in tune with the spirit of the age.

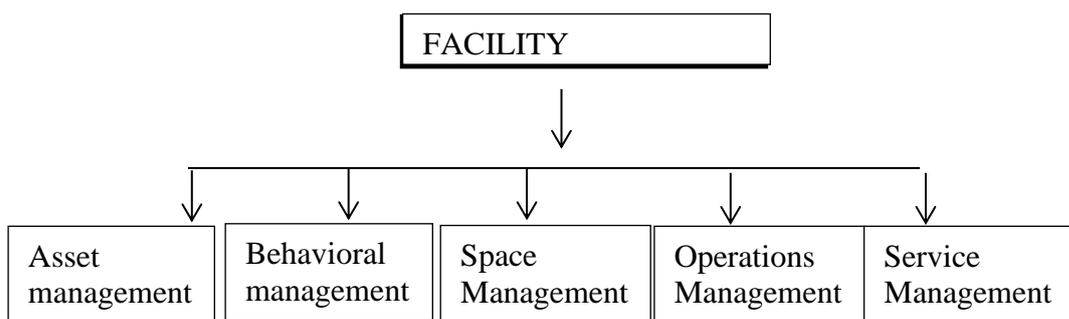
While Park (2002) believes that FM embraces the control and the most appropriate and effective use of property resources dealing with many inter-related aspects such as space planning, space costing, asset tracking, life cycle costing, maintenance and component specifications.

3.2.2 Implementation of Facilities Management

The range of FM services is widely accepted as being broad and highly inclusive of a number of functions and roles played out by practitioners (Chotipanich, 2004). Not only has it been difficult for practitioners to demarcate the boundary of FM, but the multi-disciplinary nature of FM has been common in literature (Tay and Ooi, 2001, cited in Best et al, 2003). A substantial number of studies have analyzed the size and composition of FM and established its relevance over and above traditional property management (Regterschot, 1990, Nelson and Alexander, 2002). USA and UK have concentrated on determining the strategic role of FM in a business organization. Examples include the works of Pratt (2007), McGeever (2007), Russell (2007), Waardhuizen (2009), Nutt (2000) and Masha (2006). These studies however have not addressed the practice of FM in a developing country like Nigeria.

3.2.3 Difficulties of FM

Campbell (2003) has identified the challenges of FM as the need for competence, cost control services and performance measurement.



Source: British Institute of FM

Figure 1. Facilities Management Network.

Veronesi and Zambani (2008) established the approaches of FM as operations oriented, cost oriented and integration oriented. While others such as Kleeman (2004), Barrett (2005), Atkin and Brooks (2000), Embleton and Wright (1998), Tuomela and Puhto (2001) and Kwok and Warren (2005) considered the variants of outsourcing and operational facets of FM as optimization of performance measurement in FM, shareholders relationship and facility performance. IFMA

(2007) explored the current trend and future outlook for FM professionals linking FM to strategy and forecast future challenges for the profession. Most of these studies focused on the size, growth and estimation of the UK market over time with a report of an increase of 35% between 1998 and 2003 (Booty). The study of Moore and Finch (2001) examined the growth rate of FM in the South East Asia. The finding shows that the South East Asia need to open up to change, particularly, with respect to parity in issues of global competition in FM standards.

It appears that the relative newness of FM in Nigeria, like other African countries account for the paucity of related literature in the region. Adewumi (2006) however examined the perception of Nigerian Estate Surveyors and Valuers of the emerging FM profession in Nigeria. The major limitation of the foregoing studies is that they took no cognizance of the peculiarity of developing countries like Nigeria.

3.3 MAINTENANCE CULTURE IN NIGERIA

The word maintenance to Eti et al. (2006) means preserving and keeping in good order as near as possible in their organized state. Infrastructure is a generic term for basic structures and facilities that are essential for development and subsequently for economic growth. Infrastructure as a generic term refers to overhead capital such as education, water supply, sewage systems, energy, post and telecommunication services, transport systems and roads (morakinyo, 2009). This implies that when sites and facilities have maintenance practices that encourages the provision of breakdown, repairs and replacements then facilities have longer life-span and are put to better use for the benefit of the people (Fen et al., 2009).

Development in this context means the extent to which facilities are put to good use in order to improve the economic, social and cultural conditions of the people of a particular community (Adedokun, 2008). Maintenance culture is therefore necessary for development and it is why the lesson of maintenance should be sunk down every individual in the Nigerian communities so as to bring about better living conditions. In the Daily Trust of 27 April, 2008, Nahimah (2008) made a report about poor aircraft maintenance. The report stated that aviation industry encounters great problems when it comes to carrying out major checks on the aircraft. Godwin (2008) in the same report expressed that “acquiring a new aircraft is not a relief to the industry as good maintenance of the existing ones, adding that a well maintained ageing aircraft”. This represents the view of another Nigerian on maintenance culture.

4. RESEARCH METHODOLOGY

The quantitative research methodology was deemed appropriate and adopted for this study. Using Lagos State as a case study, a survey was conducted where structured questionnaires were administered face-to-face to ensure prompt response. The choice of Lagos State was based on the fact that it is one of the most important commercial States in Nigeria. Lagos State is the most intensive economic centre in Nigeria, harbouring 60% of the nation’s industrial and economic

establishment and accounts for 80% of the total value added of manufacturing activities in the country. The presence of the headquarters of almost all industrial and commercial corporations in Lagos State provides a major reason for the takeoff and the current vibrancy of the practice in the State. A sample size of 150 facilities managers (22%) was selected from a total population (sampling frame) of 700 - members of the Lagos State branch of International Facility Management Association (IFMA) in good financial standing as at 2009 constituted the sampling frame. The questionnaires were in three sections. Section one asked questions pertaining to the respondents and their organizations. Questions included the status of the respondents in the organizations as well as educational and professional qualifications of the respondents. In section two, questions about the organizations' involvement in facilities management services and classes of FM property portfolio prevalent in the study area were posed. Respondents were asked to indicate their years of experience and their respective designations. This section also asked questions on the volume of facilities management jobs already handled by each respondent. The last section asked questions pertaining to the current challenges of FM practice in Nigeria. A response rate of 33% (50 respondents) was finally achieved. The data was analysed using descriptive statistics like percentages and arithmetic means.

5. DATA PRESENTATION AND DISCUSSION

5.1. Academic Qualifications, Years of Experience and Designation of Respondents

The educational qualifications of respondents are presented in Table 1. The Table shows that a majority (42%) of the respondents have Bachelors of Science (BSc) as their minimum qualification in their individual primary area of specialisations. A substantial (39%) represents those that are holders of Higher National Diploma (HND) while the remaining 19% are holders of different master's degrees. The implication is that most of the respondents are knowledgeable enough to be part of the multi-disciplinary profession of FM. It is probably due to the fact that all the respondents are professional members of their respective professional bodies and that professionalism requires formal training, which the respondents have subscribed to.

Table 1. Educational Qualifications Respondents

Educational Qualification	F r e q u e n c y		%	
N a t i o n a l D i p l o m a	-		-	
H i g h e r N a t i o n a l D i p l o m a	2	0	3	9
B a c h e l o r o f S c i e n c e	2	1	4	2
M a s t e r o f S c i e n c e	9		1	9
T o t a l	5	0	1	0

Source: Field Survey (2010).

The respondents' years of experience in their respective primary specialisations are shown in Table 2.

From the Table, a majority (39%) of the respondents are professionals of between six-10 years of working experience whilst respondents with less than 5 years of working experience constitute 19%. Other responses are those having between 16 and 20 years experience constituting 12% of the total respondents and those with more than 21 years of experience constituting 1% of the total respondents. This result shows that the younger generation professionals (58%) are the early ones to embrace the practice of FM. This could be due to the quest for innovation and international exposure of the younger generations owing to the information exposure and globalisation in the contemporary world.

Table 2. Years of Respondents' Experience

Years of Experience of Respondents	F r e q u e n c y			%
B e t w e e n 1 A n d 5	9			9
B e t w e e n 6 a n d 1 0	2	0	3	9
B e t w e e n 1 1 a n d 1 5	1	4	2	9
B e t w e e n 1 6 a n d 2 0	6		1	2
A b o v e 2 0	1		1	
T o t a l	5	0	1	0

Source: Field Survey (2010).

In Table 3 the distribution of respondents primary and core areas of specializations are shown. The Table shows that respondents who are professional estate surveyors and valuers constitute 32% while those that are architects constitute 26%. Nineteen percent are engineers while the remaining 23% of the respondents are quantity surveyors. It means that all current members of the profession are members of one professional body or the other in the building industry. The implication is that they have all passed through their respective requisite professional tutelage and training and have been adjudged qualified to practice. In Nigeria, the standard of education as well as practice of all professions is subject to regulation by the respective regulatory organs. These organs can equally impose a series of sanctions for erring members. In view of this, it would be said that FM practitioners in the country are competent enough to deliver quality service. This also confirms what has been known from the literature that FM is a multi-disciplinary profession.

5.2. FM Jobs and Services Rendered

Table 4 is a record of the volume of FM projects handled by the respondents' overtime. The Table indicate that 45% of the respondents have handled between 11 and 20 FM jobs while 20% have handled less than 10 FM jobs. A majority (65%) of the respondents have handled less than 20 FM jobs. Sixteen percent, 6% and 13% of the respondents have executed between 21 – 30, 31 - 40 and

more than 40 FM jobs respectively. The justification for the fact that a majority of the firms have overtime handled relatively few FM assignments could be explained by virtue of the newness of the profession in the country. The Nigerian chapter of IFMA was established in 2006 and therefore the profession is still at its infancy stage in Nigeria, like other African countries.

Table 4. Volume of FM Jobs Handled by Respondents

Volume of FM Jobs Handled by Respondents	F r e q u e n c y		%	
L e s s t h a n 1 0 B r i e f s	1	0	2	0
B e t w e e n 1 0 a n d 2 0 b r i e f s	2	3	4	5
B e t w e e n 2 1 a n d 3 0 b r i e f s	8		1	6
B e t w e e n 3 1 a n d 4 0 b r i e f	3		6	
A b o v e 4 0 b r i e f s	6		1	3
T o t a l	5	0	1	0

Source: Field Survey (2010)

Table 5 contains the categories of FM services handled by the respondents as an indication of their level of involvement in FM practice. The Table reveals that a vast majority (71%) of the respondents manage the buildings or real estate components of FM. It also shows that 10% of the respondents handle physical plants in addition to buildings while the remaining 19% ventures into the management of other building services. The study found that the provision of FM services in Nigeria like other African countries currently concentrates on the management of buildings or real estate and their components. The justification for this is the high need for maintenance services especially by the multi-national companies who are the early companies to embrace FM. It could well suggest an attempt to adopt a seeming alternative to the practice of traditional property management, which might not have been providing “satisfactory” service. It is hoped that overtime the profession will grow into full FM providers.

Table 5. Categories of FM Services Rendered

Categories of FM services rendered	F r e q u e n c y		%
B u i l d i n g c o m p o n e n t s	3	6	71
P h y s i c a l p l a n t s	5		10
O t h e r s e r v i c e s	9		19
T o t a l	5	0	100

Source: Field Survey (2010)

In terms of challenges, the respondents were asked to rank on a five-point Likert scale, the different challenging factors that are currently facing the practice of FM in Nigeria. The results

are presented in Table 7. The Table shows that in rank order, the key challenges of FM are information standard, education training and needs, performance benchmarking, and cost value versus value in service procurement. The mean figures for the four factors are 5.0, 4.73, 4.67 and 4.53 respectively. Career pathways have a mean value of 3.58 and are rated by the respondents as the least challenge for FM. This result indicates that the nascent profession of FM in African countries like Nigeria can only be nurtured to operate competitively with global practice if priority would be accorded information standardization and performance benchmarking while members will be willing to acquire more specialised training in the field of FM. It therefore shows that FM can be best practised if the various challenges are well mitigated and overcome.

Table 7. Challenges of FM Practice in Nigeria

R e a s o n s	Mean	R a n k i n g
L a c k o f r e c o g n i t i o n	4 . 5 3	4
E d u c a t i o n a n d t r a i n i n g n e e d s	4 . 7 3	2
P r o f e s s i o n a l s t a t u s	4 . 2 7	7
C a r e e r p a t h w a y s	3 . 5 8	8
I n f o r m a t i o n s t a n d a r d	5 . 0 0	1
P e r f o r m a n c e b e n c h m a r k i n g	4 . 6 7	3
Cost value versus value in service procurement	4 . 5 3	4
Corporate and community contribution of FM	4 . 0 7	6

Source: Field Survey (2010)

6.0 CONCLUSION AND RECOMMENDATION

6.1 CONCLUSION

The paper has appraised the practice of FM in Nigeria with regards to maintenance culture. The major conclusion from this study is that the focus of FM practice in Nigeria, like in other African countries, is the management of the building component. The research has provided some valuable insights into the training background, involvement of practitioners in FM practice as well as the requirement for better and improved practice. They are important both for those educating and the professional body retraining professionals for contemporary FM practice. The study also shows that regardless of the growth level in Nigeria, the profession is being currently practiced by all professionals in the building industry and that they are qualified and competent to handle FM services like their foreign counterparts. This finding validates the literature on the multi-disciplinary nature of FM. Emerging from the research is the common view of all respondents that more educational training and skills beyond what is obtained by their respective background training is currently required for better practice in Nigeria like other African countries.

6.2 RECOMMENDATIONS

These are needed for current and future FM practice. Furthermore, the research has shown that FM practice is currently dominated by younger generation of practitioners who are driven by the quest for innovation and global practice. There is therefore an obvious need for the industry, professional bodies and University academics to embrace FM practice and begin to collectively understand the requirements in the industry for qualified professionals with requisite knowledge and skills for meeting the expectations of business organizations who employ facility managers. This calls for the need to nurture the profession into a full maturity stage as currently witnessed in the developed economies like UK and USA. There is therefore the need for constant training of members in order to enhance their knowledge for effective service delivery. Mandatory continuous professional development seminars will not only help to regulate the practice but will also guarantee the contemporary knowledge required for FM practice.

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