

Facilities Management Practices in Nnamdi Azikiwe University Teaching Hospital (NAUTH), Nnewi, Anambra State, Nigeria¹

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Abstract

The study assessed FM practices in NAUTH Nnewi with a view to improving service delivery as regards the transportation of patients within the hospital premises; with the aid of a feedback mechanism. Being a survey research, the use of questionnaire in collating data was employed. A total of 253 questionnaires were distributed and 200 returned, which corresponds to 79% of the sample frame and found fit for analysis. The research analysis was done using Tables and Mean score. The hypothesis postulated was tested using the Fisher-Irwin test, as the data fell under the nominal and ordinal scales of measurement. The study found out that the inefficiency in service delivery is as a result of a fairly operational system and that transportation facilities are insufficient; and consequently recommended the provision of more transportation facilities followed by a high level of maintenance; installation of alert devices for notification/requisitions, organizing workshops on such issues as hospital management, and the like for members of administrative staff periodically.

Keywords: Facilities management, feedback, NAUTH Nnewi, service delivery, transportation facilities.

1. Introduction

Facilities Management (FM) can be referred to as the practice of co-ordinating the physical workplace, work and the people in an organization in order to enhance service delivery and in turn create an enabling work environment for optimum output (Cotts, 1999). The above definition is somewhat limited to workplace FM practice as FM can still be practiced in order areas such as apartment buildings or condominiums, refugee camps, places of worship, military formations/bases and wherever there is an assembly of human activities and materials to be handled. FM can also be said to involve guiding and managing the operations and maintenance of buildings, precincts and community infrastructure on behalf of property owners (Burt, 2012).

Facilities Management is an age-long practice which has existed out of necessity since building/infrastructure was first constructed to support human activities. Burt (2012) further opined that the FM industry is generally acknowledged to have stemmed from services provided by janitors and caretakers during the 1970's. According to Achoru (2015), FM is an

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interdisciplinary field and management concept, encompassing the seven principles of management, that is, planning, organizing, controlling, motivating, coordinating, communicating and directing. This is primarily devoted to the maintenance and care of commercial or institutional buildings, such as hotels, resorts, schools, office complexes, sport arenas, convention centers and so on (Bagshaw and Peters, 2015).

The practice of Facilities Management (FM) is concerned with the process by which organisations ensure that their buildings, systems and services support core operations while contributing to the achievement of their strategic objective under stable business conditions (Bagshaw *et al.*, 2015). It focuses on matching limited resources to user needs with a view to securing higher quality, lower risks and value for money (Cotts, 1999). Specifically, it deals with space design, construction, allocation, strategy, property asset management, maintenance and post occupancy evaluation of premises, inventory management, value management and life cycle costing, computerization and office automation, management of support services, and so on (Achoru, 2015).

Dell (2008) explains that FM involves the creation of an environment that is conducive to carrying out an organization's primary operations, taking an integrated view of the services and infrastructure, and using same to deliver customer satisfaction and value for money through support for and enhancement of the core business. Little wonder it is defined as the co-ordination of the physical workplace, work and the people, in order to enhance service delivery and in turn create an enabling work environment for optimum output (Opaluwah, 2005). In essence therefore, the practice of FM aims to achieve but not limited to the following:

- i. Assets re-evaluation – making them highly cost effective at any given time.
- ii. Enhance organisation's culture and image.
- iii. Deliver efficient/effective services.
- iv. Enable future change of space use.
- v. Placing the organisation's position strategically in the industry of operation which gives it competitive advantage.

In developed climes such as Europe and North America, emergency alarms in buildings are linked to a central agency in charge of emergency management, which decimates same to the appropriate agencies for prompt attention to such distress calls. There is also the case of alerting the emergency unit in hospitals, from the security post at the entrance of such medical facility, of the arrival of a patient in critical health condition. This enhances promptness in the service delivery process as every medical personnel concerned is put on alert in readiness to receive the supposed patient. At this time, all facilities meant for transporting the patient into the emergency unit/ward are made readily available, so as not to have any cause for delay in the process. This act assures the patient and/or custodian that he or she is in safe hands.

In Nigeria however, Nnamdi Azikiwe University Teaching Hospital (NAUTH) Nnewi is a healthcare facility situated in the heart of the industrial city of Nnewi in Nnewi north local government area of Anambra state, where most patients who seek proper medical attention visit. Admitted patients as well as those who come from home (out-patients) are taken care of here,

including those on emergency and/or scheduled visits. Every patient looks forward to experiencing the best quality medical services, as the hospital boasts of an array of professionals who have made their mark in the medical profession, but as preliminary investigations reveal, most patients who patronize the services of the hospital complain of poor service delivery, as this is peculiar to government owned healthcare facilities (Opaluwah, 2005; Bagshaw and Peters, 2008).

On approaching the security post at the main entrance of NAUTH Nnewi as anecdotal evidence depicts, with an ambulance conveying a patient on emergency, the Accident/Emergency (A/E) unit is not alerted on the need to be on standby to receive a patient. This is evident in the frequent delays observed overtime, in transporting these patients into the A/E unit on arrival at the hospital. At this point, the patient begins to lose confidence in the yet-to-be rendered medical services which ultimately affects the level of customer satisfaction.

There are several factors identified by past researches, militating against effective/efficient service delivery, but it is important to note that the unavailability of modern FM practices in the service delivery process of the healthcare facility contributes mostly to the inefficiency in the system. Therefore, the aim of the study is to assess facilities management practices in Nnamdi Azikiwe university teaching hospital Nnewi, with a view to improving service delivery as it relates to the facilities for the transportation (within the hospital premises) of patients, who are incapacitated.

2. Literature Review

2.1 Concept of Facilities management

Over the years, facilities management has grown from what was traditionally perceived to be mere managing of buildings or maintenance unit of an organization to the holistic reality of being woven into the core and support services of organizations (Price and Akhkaghi, 1999), making it one of the most outsourced components in particularly public sector organisations (Iwarere and Lawal, 2011). In other words, the more developed view of facilities management is an integrated approach to management of building/infrastructure (product) and services of an organization in order to create an environment that supports the primary objectives of that organization (Nutt, 2004). In their contribution, Pitt and Tucker (2008) define facilities management as the integration and alignment of the non-core services, including those relating to premises, required to operate and maintain a business to fully support the core objectives of the organisation. This study entirely agrees with this assertion which views FM from the perspective of a non-core support service. This was earlier supported by Chitopanich (2004) who argued that the primary function of FM is to handle and manage support services to meet the needs of an organization, its core operations and employees. In other words, it is a support function coordinating physical resources and workplace, and support services to user and process of works in order to support the core business of an organization, the author concludes. In an effort to develop a synchronized list of FM services, Chitopanich (2004) after reviewing a list of support services within the FM remit, evolved a cluster of support services that can give a generic scope of FM services. It is made up of five main components namely real estate and property management, maintenance and repairs, office services, space planning and management as well as employee supports and services.

Nowadays, the importance of FM is readily acknowledged in many companies which recognise the necessity of properly managing elaborate and expensive support facilities (Kincaid, 1994). The tasks are multi-disciplinary and cover a wide range of activities, responsibilities, and knowledge, because every aspect of an organisation will come under the purview of FM. The IFMA model of a *triangle of 'Ps'* sums up facility management concerns in today's work place: *people, process and place* (see figure 2.1). These three factors are interdependent and have direct reciprocal relationships. As Armstrong (1982) pointed out, "we know there is a need to manage the physical environment in concert with people and job processes." FM finds management solutions by positioning itself at the intersection of these three factors (Figure 2.1). This strategy makes sense, since *people, process and place* are the three main factors of organisations, and FM involves the whole organisation. The position of FM at the centre implies enhanced cooperation among the key factors in any organisation. However, FM is most active with factors relating to place. According to Cotts (1999), FM is the practice of co-ordinating the physical workplace, work and the people in order to enhance service delivery and in turn create an enabling work environment for optimum output. It entails the harmonization of support services like effective communication, effective workspace planning, conducive environment, and so on to the main business of the corporation for an overall effective/efficient output.

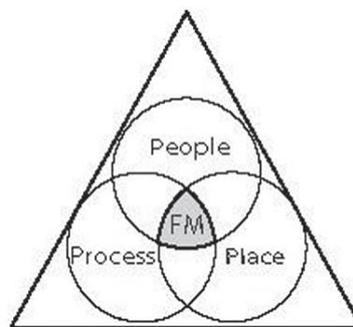


Figure 1: The essentials of FM

Source: Cotts (1999)

2.2 Facilities Management services

Services are increasingly taking up a larger part of any organization's purchasing expenditures and one part of the business sector services is FM services (Lehtonen & Salonen, 2005). In a recent study on procurement and relationship management trends in FM services, the authors argue that the relative importance of different business services may differ across sectors, industries and individual companies; but all companies need a workplace (i.e. a physical place and related services). Therefore FM services are the most important service category in terms of volume (Fearon & Bales, 1995). What then constitutes FM services?

As noted earlier, services performed under a typical FM division range from very complex strategic planning confined to the top echelon of management to the day-to-day operational janitorial services such as cleaning, security and catering services; while the management style of the services depend on the size, objectives and core activities of the parent organisation. Opaluwah (2005), using the Nigerian context breaks down FM services into personnel, information services, premises and support services. Support services comprises of mail services, fleet car, catering, reception, house- keeping, office administration, furniture, refuse disposal, reprographics, security, stationery, travel, vending, power supply, water supply, land maintenance and laundry. In a paper on “overcoming the challenges facing FM operators in Nigeria”, Aloafin (2003) writing under the caption “the current state of FM services in Nigeria”, lists 9 major areas that are very active in Nigeria. They include janitorial, mechanical and electrical, building systems, building structures and permanent interior elements, furniture and equipment, security, food services and office administrative services.

However, Kamarazaly (2007) citing Then and Akhlaghi (1990) classifies FM works from the administrative point of view into classical, tactical and operational FM. FM on the strategic level involves aligning with the higher level of management to deliberate on corporate decisions that will ensure that facilities meet clearly defined business objectives on a long term basis. According to Chitopanich (2004), such strategic decisions involve issues on property asset portfolio management, strategic property decisions and facilities planning and development which are related to policy and strategic plan of the organization. On the other hand, tactical FM involves monitoring, controlling and managing the operational functions of FM to ensure they are being done in accordance with organization’s standards as it relates to policies, strategies and plan. The operational function involves short term results on a day-to-day level and is the most visible part of FM (Chitopanich, 2004). It supports the basic routine and regular needs of the organization.

2.3 Facilities for transporting patients and its availability in the study area

An on-the-spot assessment of activities in the institution of study reveals a number of factors that could be responsible for the seeming non-availability of transportation facilities and their corresponding FM practices, and some of them are herein discussed.

2.3.1 Bureaucracy

This is one of the bottlenecks of effective FM practice. It tends to hinder the rapid response tendencies of FM practice, as files move from one cadre to the other seeking approval or consent of management for a proposed maintenance (preventive, planned, corrective and so on) exercise. This compounds the lag in time of response to perhaps a simpler work, which ultimately multiplies the level of deterioration when final approval for such work is given. It is referred to as Due process in the public sector, where all parties concerned must first append their signatures for approval to be given to an action before the action proper, but can actually be a time-killer.

2.3.2 Underfunding

Sometimes in the institution as revealed by anecdotal evidence, something as minute as a bolt or tire of a stretcher or wheelchair, can become faulty and because perhaps, there isn't a spare in the maintenance unit, an approval for the release of funds in order to purchase a spare can be made. But surprisingly, funds won't be released because it is not available at the moment of request, leaving the faulty unit to deteriorate further. In some cases, because of the delay in the process of making these funds available, the level of deterioration of the facility may have worsened. At this point, getting a fund-raise to take care of the extra expense may prove difficult, resulting to a backlog of works to be done and ultimately leaving the FM unit to prioritise. Little wonder some facilities are in a poor state.

2.4 Examining ways of improving service delivery in NAUTH Nnewi

As a key to the practice of healthcare FM, an integration of management and control of support services represents effective business decision-making by healthcare executives towards delivering value for money. It is crucial that an integrated approach is designed and incorporated into the main operational strategy in order to reap maximum benefits from FM (Ware *et al.*, 2017). According to Opaluwah (2005), to provide an integrated healthcare service, there must be sufficient healthcare facilities available to sustain the core business. Managing of hospital services cost money to both government and customers who pay for it indirectly as tax. Thus, for any hospital to have efficient and well-managed facilities, there must be sufficient financial resource investment to sustain its assets and service delivery objectives. It has also been observed as opined by Okoroh, Gombera, and Ilozor (2002), that efficient doctors and clinicians are always comfortable to care for patients in a hospital environment where the technology, facilities and resources, especially finance are available, in order for them to manage clinical outcome effectively.

3. Methodology

This study was a survey research and was conducted in Nnamdi Azikiwe university teaching hospital (NAUTH), Nnewi, Anambra State, Nigeria. Although NAUTH is just one out of the many teaching hospitals in Nigeria, statistically, this might not be a true reflection of FM practices in other institutions. Therefore the population of this study constitutes patients and/or their custodians, staff of NAUTH Nnewi in the A/E and Works units.. The population was obtained from the records available at the administrative section of the hospital. Subsequently, questionnaire was administered randomly to the target population from where came the data for the research endeavour, encompassing the current state of FM practice in NAUTH Nnewi, the state of transportation facilities, likely causes of inefficiency in the service delivery process and panacea to them. The respondents were asked to respond to each question based on five point Likert scale where 1 = strongly disagree/ not at all and 5 = strongly agree/critical.

it was gathered that there are over 605 medical files in the last one month, at the accident/emergency unit; though it seems the population of the patients can be referred to as Infinite as one cannot ascertain their exact number owing to the fact that new patients keep

registering on a daily basis while old ones may cease to patronize further. It was also learnt from preliminary investigations at the various units visited, that there are 20 and 65 members of staff at the Works unit as well as the A/E unit, respectively.

The sample size for this study was determined using Taro Yamane’s formular as cited in Ogunoh (2008)

$$n = \frac{N}{1+N(e)^2}$$

when n = sample size

N = population

e² = Margin of error (assumed 5%)

1 = unity or constant

$$\text{Therefore} = \frac{690}{1+690(0.05)^2}$$

$$\frac{690}{1+(690 \times 0.0025)}$$

$$\frac{690}{1 + 1.725}$$

$$\frac{690}{2.725} = 253$$

The sample size of 253 was adopted for this study.

4. Results

Table 1 Current FM practice as regards the transportation of patients in NAUTH Nnewi.

S/N	FM practices	5	4	3	2	1	Mean score	Rank
A.	Operations, maintenance and repair.	5	100	-	30	15	1.98	2
B.	Facility planning and forecasting	-	80	-	100	20	2.3	1
C.	Facility allocation and management	-	5	-	170	25	1.9	3
(5) Highly adequate, (4) Adequate, (3) Unsure, (2) Inadequate, (1) Highly inadequate								

Source: Researcher’s field work (2018).

From Table 1, which shows the opinion pattern of respondents from both strata (FM and A/E), the data depicts that the current FM practice in NAUTH Nnewi as regards ‘facility planning and forecasting’, ranked 1st with mean score of 2.30, while ‘operations, maintenance and repair’, and ‘facility allocation and management’, ranked 2nd and 3rd with mean scores of 1.98 and 1.90, respectively.

Table 2: Availability of these facilities for transporting patients

S/N	Availability	5	4	3	2	1	Mean score	Rank
A.	Readily available/ available on demand	5	10	-	125	60	1.8	4
B.	Available due to previous booking/ booked ahead of time	55	105	-	40	-	3.08	3
C.	Never readily available due to use/patronage and/or limited quantity	190	10	-	-	-	3.95	1
D.	Available after a few minutes of request	185	10	-	5	-	3.9	2
(5) Highly adequate, (4) Adequate, (3) Unsure, (2) Inadquate, (1) Highly inadquate								

Source: Researchers field work (2018)

From Table 2, the data shows the responses relating to the availability of the facilities for transporting patients in the study area. The option of ‘never readily available’ ranked 1st with a mean score of 3.95, while the option of ‘available after a few minutes of request’ ranked 2nd with a mean score 3.90. Again, the ‘available due to previous booking’ option ranked 3rd with a mean score of 3.08 while the ‘readily available’ option ranked 4th with a mean score of 1.80.

Table 3: The present state of maintenance of facilities for transporting patients

S/N	Improving service delivery	5	4	3	2	1	Mean score	Rank
A.	Improved funding	150	45	-	5	-	3.73	3
B.	Direct information link from the Accident/Emergency (A/E) unit to the FM unit	170	25	-	3	2	3.82	2
C.	Engaging more manpower in the Works unit	10	25	-	90	75	1.85	7
D.	Equipping the store in the FM unit of spare parts	45	75	-	60	20	2.73	6
E.	Training/re-training of staff both in the A/E and the FM units	100	80	-	15	5	3.38	5
F.	Changing old facilities to modern ones	105	70	-	25	-	3.53	4
G.	Installation of a cloak-in device which takes care of requisitions, and can be monitored simultaneously by Management and the FM unit	180	18	-	1	1	3.89	1
(5)Very important, (4)Important, (3)Unsure, (4) Not important, (1) Not very important								

Source: Researchers field work (2018)

From Table 3, the data shows the responses relating to the present state of facilities for transporting patients in the study area. The option of ‘accessibility’ ranked 1st with a mean score of 3.53, while the option of ‘structural stability’ ranked 2nd with a mean score 3.40. Again, the ‘ease of usage’ option ranked 3rd with a mean score of 3.30, and also the ‘fitness for purpose’ option ranked 4th with a mean score of 2.93. Furthermore, the ‘aesthetics’ option ranked 5th with a mean score of 2.20, and ‘modernity’ option ranked 6th with a mean score of 2.18; while the ‘number in use’ option ranked 7th with a mean score of 1.95.

Table 4: Ways of improving service delivery in the institution

S/N	State of facilities	5	4	3	2	1	Mean score	Rank
A.	Fitness for purpose/ functionality	45	105	-	40	10	2.93	4
B.	Aesthetics and psychological appeal	10	60	-	90	40	2.2	5
C.	Modernity	12	50	-	100	38	2.18	6
D.	Ease of usage	90	85	-	20	5	3.3	3
E.	Structural stability	95	90	-	15	-	3.4	2
F.	Accessibility/ access to the facility	110	85	-	5	-	3.53	1
G.	Number in use	5	10	-	155	30	1.95	7

Source: Researchers field work (2018)

From Table 4, the data shows the responses relating to ways of improving service delivery in the study area. The option ‘installation of a cloak-in device’ ranked 1st with a mean score of 3.89, while the option ‘direct information link’ ranked 2nd with a mean score 3.82. Again, the ‘improved funding’ option ranked 3rd with a mean score of 3.73, while the ‘changing of old facilities’ option ranked 4th with a mean score of 3.53. Furthermore, the ‘training of staff’ option ranked 5th with a mean score of 3.38, while ‘equipping the store’ option ranked 6th with a mean score of 2.73, and finally the ‘engaging more manpower’ option ranked 7th with a mean score of 1.85.

5. Discussion

Based on the research questions and data analyses, the findings of the study are summarized as follows.

Majority of the respondents, opinionated that the current FM practices as regards the care for transportation facilities in the form of Operations, maintenance and repair, Facilities planning and forecasting, and Facilities allocation and management; in NAUTH Nnewi, are not adequate enough to effect good service delivery. Also, they cannot be said to be efficient as well as sufficient enough to transform the service delivery process or bring about Office Automation (see Tables 2 and 3), which corroborates the views of Opaluwah (2005), Ogunoh (2014), and Bagshaw

and Peters(2015). This has led to several complaints by patients who come to patronize the services of the hospital.

Majority of the respondents say that the number of facilities such as stretchers and wheelchairs provided are insufficient and the ones in use in the hospital are not readily available. Also, respondents are of the opinion that there isn't adequate monitoring of the members of staff in charge of handling patients' transportation, depicting some sort of laxity, which is as a result of the job security feeling in the public sector (see Table 4). This corroborates the view of Opaluwah (2005).

An ample number of respondents opinionated that the poor state of maintenance of facilities translates to inefficient service delivery which affects customer satisfaction; and that the number of professionals in the institution is enough to effect great changes, therefore there won't be need for additional hands. Similarly, the qualities of these facilities such as Fitness for purpose, Modernity, Ease of usage and so on, needs to be checked regularly for optimum performance, as depicted in Tables 5, 4.6 and 7. This is corroborated by Opaluwah (2005) and Ware *et al.*,(2017). Many respondents say that the introduction of a feedback mechanism would help the FM unit improve service delivery, as against the present state of affairs in the institution. While some respondents opined that the data from the feedback mechanism may be doctored if staff other than those in the FM unit be allowed access to it, others have a contrary view. The feedback mechanism should convey such information as; Request for stretcher and location, Request for wheelchair, and so on, as this will enhance service delivery in NAUTH Nnewi. Again, the approval of soft loans for the FM unit was frowned at by some respondents, lamenting that the funding at present has not been justified, hence the idea should be dropped. Furthermore, some respondents are of the option that the institution needs to focus on the training and education of members of staff (see Tables 4.8 and 4.9), who are readily available in wards/units, to receive anticipated/prospective patients. This is corroborated by Ware *et al.*, (2017).

6. Conclusion.

Service delivery in Nnamdi Azikiwe University Teaching Hospital (NAUTH) Nnewi is bedeviled by a number of factors owing primarily to a fairly functional system of operations. These factors include: Bureaucracy associated with the analog operational systems, Underfunding of the institution, Epileptic incorporation of modern technology into day-to-day services/operations, and so on. These are independent of such factors associated with members of staff of the institution like; negligence of duty, poor customer relations, lackadaisical attitude to work, and so on, all occasioned by either the job security feeling in the public sector, poor monitoring/supervising system, mediocrity, nepotism and worst of all, corruption.

Having identified communication gaps in the service delivery process in the institution, where a patient cannot relate back to the management of NAUTH Nnewi formally and in a quick and easy manner, of any form of requisition or unsatisfactory service received, then the need to correct such anomaly arises. With most patients complaining of poor quality services at the institution which has continued to cause a decline in sustainable patronage, lingering opprobrium against the

management and staff of the institution, as well as half-baked services, it sure has attained an alarming rate.

In view of the above therefore, the study tends to demonstrate that the incorporation of a feedback mechanism into the service delivery process, will not only improve service delivery but will also help in keeping track of the level of satisfactory services rendered to patients in the institution.

In view of improving service delivery in NAUTH Nnewi, through an effective/efficient FM practice, with the aid of a feedback mechanism, the study therefore recommends that there should be an integrated approach to the management of facilities between the Works/FM unit and the A/E unit such that allocation, operation, planning, maintenance and forecasting of these facilities, are closely monitored by members of staff of both units in charge of handling them, as this will enhance efficiency.

The provision of additional transportation facilities is crucial, as the ones presently in use are inadequate. There should be planned as well as routine maintenance of these facilities by the FM unit of the institution periodically. At intervals, there should be workshops organized for members of staff, particularly those in the lower cadre, on such topics as hospital management and the like, as they are the ones who make service delivery more efficient.

There should be a device at strategic locations where a patient/visitor can rate the performance or level of satisfaction of the services rendered to him or her. This will help the FM unit keep track of the responses. It is important to have installed in every department, a device that helps reach the FM unit directly (Intercom perhaps) and in the quickest possible time, in case of reporting any maintenance/repair related works, and also the device that alerts the A/E Unit from the entrance into the hospital, of the arrival of an emergency case.

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