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Benefits of the Adoption of Facilities Management Practices in Tertiary Institutions: A Case Study of Covenant University

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Abstract. Management of facilities is an interdisciplinary feature of company that coordinates room, infrastructure, individuals and organization. The application of facilities in higher learning institutions is still to be totally researched on and that is the reason why this research was embarked upon to assess the application of facilities management practices in Covenant University. The study was conducted using questionnaire and interview. A total of sixty-two (62) questionnaires completed by academic staff of the College of Science and Technology were analyzed. The facility manager in the Physical Planning and Development Directorate of Covenant University was interviewed. Findings from the analysis showed the benefit of adopting facilities management principles in Covenant University as proactive maintenance, improved health and safety, good and neat environment, quality services and functional buildings. Likewise, the study identified facility management tools used in Covenant University as asset tracking and register, estate operational plan, costs benefit analysis, energy use auditing and control and performance analysis. The study went further to recommend additional facilities management tools that should be appropriately deployed in the University.

1. Introduction

Facilities management is a method through which an organisation provides and maintains its structures, and supporting performance facilities to satisfy strategic requirements and objectives in changing conditions [3]. It is often connected with the administration of apartment buildings, stadiums, and colleges, sports complexes, conference centres, retail complexes, clinics, restaurants, production and transport. There has been a rapid evolution of the practice and use of facilities management globally in the past decade. This is partly because property owners and property managers are beginning to see the benefits of the concept and increasing pressure from tenants on more user friendly customized premises [13]. We cannot overemphasize the significance of education for natural humans. The connection between education and growth is well known to make education a main measure of human economic development [10]. Education has been recorded to improve productivity and wellness and to reduce adverse lives characteristics. This is why a great deal of emphasis has been placed especially in latest moments on access to fundamental education for all people of the globe. [10]. It is no news at tertiary level that the university system is a tool through which the educational goals are supposed to be accomplished. Adebayo [1] was of the opinion that now, unlike in the time past, the university has become a higher learning institution offering educational and study equipment and authorizing the granting of academic degrees. However, reaching excellence in education is anchored on so many factors including availability of facilities and their sustenance backed by effective management. Asiabaka [3] was of the opinion that there is a connection between the quality of educational facilities provided and the quality of products of the school. Facilities within the scope of tertiary institutions means to provide a cozy teaching atmosphere for learners to be trained [6]. School facilities are the



content assets available to employees and students to optimize their education and learning productivity [3]. These facilities include housing, laboratories, electricity, water supply, audio visual media, classrooms, lecture theatres, recreational facilities, administrative offices ventilation and air conditioning, toilets, sports centres and art theaters among others. Facilities are strategic factor in organizational properly functioning. The accessibility, appropriateness and significance of these factors effectiveness and elevated productivity impact [11]. In view of the above, this study identified the benefits of the use of facilities management practice in tertiary institutions with particular focus on Covenant University, Ota, Ogun State.

2. Literature Review

Building is the most important part of people's survival, shelter and well-being and in the social, economic, cultural and environmental setting in which most human activities are carried out [2].

International Facility Management Association (IFMA) [15], the World's leading facilities management (FM) professional body, defines facility management as, 'A profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology.' It is an academic sector dedicated to room, facilities, individuals and organisation cooperation. Its connection with an enterprise's human resources, real estate, and IT tasks has steadily risen. It is a process through which an organisation provides and supports its buildings, system and support facilities to fulfil strategic requirements in a good environment and objectives in changing conditions [3].

On its own part, the British Institute of Facilities Management [12] describes FM as integrating multidisciplinary operations and managing their effect on people and the workplace within the built environment. This meaning acknowledges the input of other professions ' procedures, principles, regulations, concepts and procedures and reiterates the need to handle the tremendous effects that such varied context could have on individuals and organisations ' workplaces. FM encompasses management of support services, IT, maintenance planning, operations and real estate as core functions as well as other functions such as inventory management, programming requirements, project management and implementation, space analysis, security and security audits, capital construction and portfolio management. While the issue of collapse building can never be completely eradicated, the level can be significantly decreased or reduced if the management can proactively deal with the problem at all levels [4].

2.1. Application of Facilities Management in Educational Institutions

Asiabaka [3] in his study on needs for effective management of facilities in Nigeria schools noted management of facilities is an essential part of school management. According to the author, in accomplishing of educational objectives and objectives requires the provision, maximum use and optimal oversight of the facilities. These facilities which the author referred to as school facilities consists Kinds of academic and non-academic facilities, landscapes, athletics and games facilities, gardens and parks including trees, roads and trails, furnishings, toilet facilities, acoustic, heating, storage facilities, parking spaces, safety, ICT, shipping, washing materials, nutrition services and special facilities for the physical challenged. All the above listed facilities, the author noted, perform a vital part in the fulfilment of educational aims and objectives of schools by fulfilling the requirements of the school community.

In a dissertation submitted by [9] literature on the practice of facilities management in higher academic institutions has been found to be limited. The research which adopted the qualitative research was of the opinion that any university's organizational structure, operational methods and facilities management functions are as diverse as the university it covers but are determined by various other variables, including: housing age; university size, multi-campus; reaction to increasing supply for student registration; and innovative technologies. The research found that management of facilities is peculiar in many ways in comparison to other sectors.

According to [9], recognition given to facilities management goes a long way to affect its performance. The study concluded that for facilities management to be a success, there must be an interaction between the academic and the facilities management department.

Uko [14] revealed that in order to create an appropriate educational atmosphere, efficient management of school facilities is important. The study, which was descriptive in nature examined the role of managers in the management of secondary school facilities in Nigeria and stated that educational establishments' facilities are vital parts which facilitate, interact and improve the accomplishment of educational goals. The author listed stages of school facilities management as provision of educational programmes, utilization, maintenance, improvement and audit of educational facilities. The research concluded that efficient management is a forerunner to enabling development, utilization and maintenance aids in improving teachers' overall efficiency and students' overall performance in the long run.

3. Research Methodology

This study used the survey research design which involves the use of self-administered questionnaires as data collection instrument to determine the facilities management practices in Covenant University. For the purpose of this study, the populace was made up of two focus groups, faculty staff in the College of Science and Technology of Covenant University and facility manager in the Physical Planning and Development Directorate, Covenant University.

In this study, the sample frame used was the staff (academic) of the college of science and technology and facility manager in the Physical Planning and Development Directorate. The sample frame is one hundred and seventy-two (172) faculty members in College of Science and Technology spread across nine (9) departments. In calculating the sample size, the study adopted the method proposed by [8]. The author stated if a population is in a few hundreds, 40 percent or more of the population could be a good sample. and if the population is in many hundreds, then a 20% sample is good. Since the sample frame is one hundred and seventy-two, the sample size is taken at 40 %, giving approximately 70. As for the other focus group, the facility manager was interviewed.

Therefore, in order to achieve the objectives, set for this research, 70 questionnaires were administered to faculty members in the College of Science and Technology, all who were randomly selected. Using a statistical tool commonly known as Statistical Package for Social Science (SPSS), data obtained from the comprehensive survey was analysed and the data were evaluated using descriptive statistics. The descriptive statistics used are frequency tables, percentages and weighted mean.

4. Data Presentation and Discussion of Findings

The questionnaires were administered to seventy (70) respondents made up of faculty members in the College of Science and Technology in Covenant University. Out of the total questionnaires that were administered, (62) were retrieved and found useful.

4.1. Rating of Facilities and Services Provided by the University (Academic Staff)

This section shows respondents' responses to questions relating to facilities and services in university provided in the university over the years. Table 1 their responses.

Table 1. Rating of Facilities and Services Provided by the University (Academic Staff)

Opinion	Frequency	Percentage
Very good	25	40
Good	27	44
Fair	10	16
Total	62	100

Table 1 indicates respondents' rating of the facilities and services provided by the university. The table revealed that 40% of the respondents were of the opinion that the facilities and services are very good, 44% opined that they are good while 16% posited that the facilities and services are just fair. It can then be concluded that the services and facilities provided by the university over the years are relatively good based on the findings which shows that 88% of the facilities and services are in good condition.

4.2. Benefits of Effective Facilities Management in Tertiary Institutions.

Table 2 indicates the benefits that can be derived from effective facilities management and how the respondents rank them. using 5 Point Scale of Likert where 5, 4, 3, 2 and 1 is allocated to "Strongly Agree", "Agree", "Indifferent", "Disagree", and "Strongly Disagree".

Table 2. Benefits of Effective Facilities Management in Covenant University

SN	Benefits	SA	A	I	D	SD	Mean	Ranking
1.	High performance	19(30)	37(60)	6(10)	-	-	4.20	8 th
2.	Adequate and functional facilities	20(32)	31(50)	11(18)	-	-	4.14	10 th
3.	Security system effectiveness	21(34)	35(56)	6(10)	-	-	4.24	6 th
4.	Environment Outlook	21(34)	36(58)	5(8)	-	-	4.26	3 rd
5.	health and safety within the university	20(32)	40(64)	2(4)	-	-	4.28	2 nd
6.	facilities manager responsibilities and authorities	20(32)	37(60)	5(8)	-	-	4.24	6 th
7.	Quality services	19(30)	41(66)	2(4)	-	-	4.26	3 rd
8.	Proactive maintenance	22(36)	40(64)	-	-	-	4.36	1 st
9.	Strategic scheduling and execution	19(30)	36(58)	7(12)	-	-	4.18	9 th
10.	Functional Buildings	21(34)	36(58)	5(8)	-	-	4.26	3 rd

Source: Field Survey, 2019

Responses in brackets are percentages

From the analysis it is noted that the highest benefit accruable from the effective use of facilities management in tertiary institutions is proactive maintenance with the highest mean ranking of 4.36, followed by improved health and safety within the university with a mean ranking of 4.28. The researcher observed these benefits to be true as facilities in the study area are functional and reliable. Proactive maintenance helps to put a preventive maintenance strategy in place, which ensures the stability and reliability of the facilities. Improved health and safety within the university was also observed by the research as cases of hazards such as fire outbreaks do not occur in the study area as a result of the effectiveness of the management of the university facilities. Other benefits ranked after these two are good and neat environment, quality services, functional buildings, effective security system, extensive responsibilities and authorities for facilities managers in that order respectively. From this findings, it can be deduced that the facilities in the area of study are in good condition as a result of the effective use of facilities management in the study area.

4.3 Facility Management Tools

The facilities manager of the university was asked to identify the tools of facilities management they employed for the university's operation out of a list of twenty-six (26) facilities management (FM) tools identified from literature. This done with a view to achieve objective one of the study. The tools according to the facilities manager are just five (5) out of the twenty-six (26) tools. The tools listed by the facilities manager are asset tracking and register, estate operational plan, cost-benefit analysis, energy use auditing and control and performance analysis. This implies that FM tools have not been fully utilized or employed by the University.

5. Conclusion and Recommendations

This study has taken a look at facilities management practices in Covenant University. Findings revealed some benefits that can be accrued from the use of facilities management tools in Covenant University. Some of these benefits are proactive maintenance, improved health and safety, good and neat environment etc. These benefits as identified by the study imply that facilities management practices help sustain and improve facilities. This is supported by 88% of the respondents who agreed that facilities and services in Covenant University are functional and reliable. Furthermore, in the light of the study results, it can be stated that the facilities of the university are managed using facilities management tools such as asset tracking and register, estate operational plan, cost benefit analysis, energy use auditing and control and performance analysis. However, this can be improved upon by employing some other tools such as workspace management, life cycle costing, internal environment modeling, internal environment monitoring, cost – in – use assessment, response or emergency maintenance and cyclical maintenance amongst others.

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