Analysis of Facilities Management Practices in Selected Public Secondary Healthcare Institutions in Delta State

EGOLUM C. CHARLES¹, IGHOSIETA SYLVIA ONORIODE²

^{1, 2} Department of Estate Management and Valuation, Faculty of Environmental Sciences, Nnamdi Azikiwe University Awka, Anambra State, Nigeria

Abstract- This study was inspired by the prevalent poor management of facilities within public secondary healthcare institutions in Delta State. The aim of this study was to analyse using survey method facilities management practices in selected secondary healthcare institutions in Delta State, with a view to integrating facilities management practices for effective service delivery. Data for this work was gotten from primary and secondary sources, research instrument used includes: questionnaires, oral interviews and personal observation. The result of this research shows that; there are significant Facilities management practices that affect service delivery in public secondary healthcare institutions in Delta State. The implementation of facilities management practices in secondary healthcare institutions within Delta State can however be improved to ensure that all loop holes are covered and professionals are given the opportunity to effect positive change in issues relating to public secondary healthcare institutions within the state. It is therefore important for facilities management practices be put in place to ensure effective service delivery as this is the main purpose of every health institution. Sequel to these, the study recommended that facilities managers should be part of the management team of Public Secondary healthcare institutions to ensure everything runs smoothly as hospitals are places where an error can cause the life of a person, all hands therefore has to be on deck.

Indexed Terms- Health Care Institutions, Facilities Management Practices and Maintenance Management.

I. INTRODUCTION

The spatial provision, efficiency and maintenance of healthcare facilities are of paramount importance to a nation. It can therefore, be said that, a healthy nation is a wealthy nation. The inequitable distribution over space is of concern and has brought about the issue of provision and effective utilization of these facilities. According to Rizyada (2012), it is believed that healthcare facilities are highly available in the urban areas and the number and quality of healthcare facilities in a country or region, is one common measure of that area's prosperity and quality of life.

Healthcare institutions include all public, private, non-governmental and community-based facilities, which could be a static facility (has a designated building) in which general healthcare services are offered. According to WHO (2010) health report; health posts can be counted as static facilities, but because they are generally small with minimal supplies, they may need to be disaggregated for interpretation purposes. In addition, Shrestha (2010) also noted that, healthcare facilities refer to the physical structure and supporting equipment established for provision of healthcare services. It usually involves a structure with facilities for different healthcare services which needs equipment such as cold chain facilities for storage of ice, management and are used in the provision of healthcare services to the population. Markus and Makanjuola (2011) stated that health policies are directed towards the creation of a basic infrastructure and adequate manpower for effective delivery of healthcare services for the rapid growing population considering the primary, secondary and tertiary levels of healthcare institutions.

Federal Ministry of Health (2000) reported that, responsibilities for healthcare at the primary level reside with the local government while, the federal government has responsibility for policy formulation, monitoring and evaluation of the nation's healthcare system and the states manage secondary facilities and provide logistic support for the local government, in form of personnel training, financial assistance, planning and operations. However, this segregation of responsibilities for healthcare has inherent problems of coordination. In effect, the organizational structure of the Nigerian healthcare system has significantly affected managerial decisions, financing and incentive structure.

In Delta state however, changes in financial mechanism of public hospitals seem to be politically driven. There is therefore, the need for prudential principles of healthcare facilities management in the Nigerian healthcare system; especially, in the hospitals and healthcare centres within Delta State. For Healy and Mckee (2002), hospitals are the prime resource consuming units in any national healthcare system and it is the dominant sector of the healthcare system. Though, direct evidence is difficult, it is however reasonable to assume that, hospitals can contribute to overall population's health status, by providing care to the people. In addition, hospital services can reduce poverty levels and promote economic developments through minimizing mortality in the population.

Facilities management practices within the healthcare facility include: ensuring buildings are up to date and operating at their most efficient level, moving from reactive to preventive maintenance, to mitigate risks and optimize lifelong cost of buildings and equipment's; Furthermore, it helps project a quality image to attract patients and medical staff, gain insight into space usage, match available space and space requirements, optimize square meter usage to facilitate movement and improve patients/clients comfort. To some extent, hospital facilities management practices differ, from normal types of facilities management practices, such as facilities management practices for office buildings, residential properties etc. Hospital facilities managers tend to view the systems and components of their facilities from a long-term life-cycle perspective because, hospitals usually own their facilities.

1.1 Statement of the Problem

The population of Delta State is, 4,098,391 (National Population Commission, 2006), with an estimated annual growth rate of 2.8%. The current population

of Delta State is 5,475,450. It is therefore, evident that the state's demand for healthcare is large and increasing over time, due to a large growing and ageing population. However, scarce resources for healthcare maintenance and management are not effectively utilized or managed.

Again, there is an obvious management deficiency in the acquisition, deployment and utilization of available scarce resources in the health sector. This is evident, by the reduction of budgetary allocation for health sector in Delta state. In 2016, the allocation for health sector was fourteen billion naira (\$14, 000,000,000), while in 2017, it was reduced to six billion naira (\$6, 000,000,000), (Delta State Ministry of Finance Report, 2017). The reduction in finance allocated, has led to the shortage of funds channeled towards maintenance of healthcare facilities, judging by the present state of some of the facilities.

Furthermore, the organizational structure of the Nigerian healthcare facilities shared responsibilities for healthcare among the three tiers of government: federal, state, and local government. According to Duarte (1994) and Adeyemo (2005), (as cited in Alvarado, 2006), this organizational design, was to allow healthcare programmes to be adapted to local population needs, raise community participation, mobilize local resources and improve service delivery. In the case of Delta State, healthcare facilities at all levels have become political instruments, both in terms of management and resources allocation; thereby, presenting the state with a situation where some of the healthcare facilities are in a deplorable state, with outdated buildings and outdated/nonfunctional equipment.

This study therefore, seeks to point out various facilities management practices in selected public secondary healthcare institutions in Delta State.

1.2 Aim and Objective of the Study

The aim of this study is to analyze facilities management practices in selected secondary healthcare institutions in Delta State, with a view to integrating facilities management practices for effective service delivery. This aim will be achieved through the following objectives: To determine the facilities management practices that affect service delivery in selected public secondary healthcare institutions within Delta State.

1.3 Research Question

In light of the strategic nature of healthcare facilities in the Nigerian healthcare system, this study intends to shed light on the following questions:

What are the facilities management practices that affect service delivery in public secondary healthcare institutions within Delta State?

1.4 Hypothesis

The following hypotheses were developed;

Hypothesis: There are no significant facilities management practices that affect service delivery in public secondary healthcare institutions within Delta State.

1.5 Study Area

Delta State was carved out of the former Bendel State on August 27, 1991. The state was created following agitations for the creation of a separate distinct state by the peoples of the old Delta Province: The Urhobos, Itsekiri, Isoko, Ijaw (Ezon) and Ukwuani (later joined Anioma). There was yet another state creation movement designated as "Niger State" comprising the old midwestern Igbo-speaking Asaba divisions and Ukwuani-speaking Aboh division of the old Midwest region. This was transformed into "Anioma" following the creation of Niger State from the old Northwestern State by the Murtala Muhammed's administration in 1976. The then Military President, Gen Ibrahim Babangida (Rtd) created the state using the name "Delta" advanced by Niger Delta region and "Asaba" a prominent town within the "Anioma" axis as the capital. Asaba was designated as capital of the proposed Anioma State. The proposed capital was a virgin land or "Anioma city" in the heart of the two constituent divisions that had evolved to become the Anioma area. Delta state was once integrated in the Mid-Western state from 1963 to 1976 and later Bendel state, from 1976 to 1991. The name "Bendel" (Ben-Del) coined from the old Benin and Delta Provinces of Western Region-Delta to reflect the integration of Benin and Delta provinces.

The nature of oil exploration and exploitation within the state leads to the creation of squatter settlements for the workers of oil companies and oil servicing companies, the activities also expose residents to environmental hazards like gas explosion, fire outbreak resulting from vandalization of oil pipelines. There is also the inflow of people seeking better jobs leading to the steady growth in the rate of urbanization of Delta state in recent past; the state therefore requires efficient maintenance and management of secondary health facilities to carter for the dire health needs of her populace.



Source: Delta State Ministry of Lands and Survey.

Fig 1: Map of Nigeria showing Delta State.



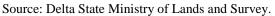
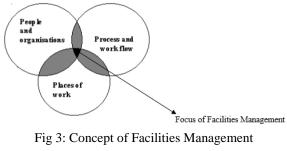


Fig 2: Map of Delta StateShowing 25 Local Government Areas.

II. CONCEPT OF FACILITIES MANAGEMENT



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This Facilities management model is based on factors that have evolutionarily led to the development and operational changes within organizations such as hospitals. The model encapsulates the role of facilities managers as that of being a change agent or manager. This challenge will allow the organization to be flexible to adapt to future changes in the market and business environment. Thus, a focus on the changing business environment will bring with it a handful of opportunities for the facilities manager to practically co-ordinate and package the required portfolio of property, goods and services that best support the organization's needs. Payne and Rees (1999) argue that the facilities manager must also have a clear focus on changes taking place, which are relevant within their organization's core business environment. 'An integrated management process that considers people, process and place in an organization context'. (Udechukwu, 2012).

Each of these factors has a direct effect on the other and they all contribute to the success of any organization.

2.1 Maintenance Management

Maintenance management is one of the core domains of knowledge around which facilities management revolves. It includes not only the budgeting and priority setting of the different maintenance activities according to the preferred maintenance policy, but also service life planning. In order to achieve an optimal balance between minimization of costs and maximization of performance, maintenance of complex facilities can be resolved using one of two alternatives: maximization of performance level while maintaining a limited maintenance budget, or minimization of costs subject to a minimum required performance level of the building (Jardine,

2.2 The Concept of Healthcare

The importance of human health in national development has made efficiency in the provision of healthcare services in the Healthcare System, a subject of intense research interests in the literature (Hollingsworth, 2003). This sounds reasonable because, investing in healthcare is normally regarded as a productive investment. Consequently, healthcare is a fundamental goal of development. In addition, increase in the costs of healthcare delivery has been

attributed, at least in part, to the inefficiency of facilities within healthcare institutions (Worthington, 2004).

However, the definition of health adopted by providers and government has implication for the process, measurement and range of services offered. The World Health Organization defined health as "a state of complete physical, social and mental wellbeing and not merely absence of disease and infirmity". In this way, health is metabolic efficiency while sickness or ill health is metabolic inefficiency.

Poor health status, doubtless, is costly. It generally imposes costs on the society and individuals in terms of reduced ability to enjoy life earn a living or work effectively. Good health, on the other hand, allows the individual to lead a more fulfilling and productive life. The process of producing services, goods, and managing agencies that support or enhance good health is of interest to all: professionals, government, patients/clients and those who provide and shape healthcare services through strategic and operational management.

Good health is one of the fundamental human rights everybody is entitled to enjoy. And the onus rests on the healthcare system to provide health services at the three tiers of the government (federal, state and local government). A healthcare system can then be said to be an organization of people, institutions, and resources that deliver health care services to meet the health needs of target population. World Health Organization [WHO] (2000) identified three basic goals of a healthcare system which include:

- 1. Good health (improvement and protection of the health of the populace)
- 2. Fair financial contribution (receiving the services paid for)
- 3. Responsiveness of the healthcare providers (living up to the people 's expectation)

Achievement of these goals is dependent on how the healthcare systems carryout the following functions:

- a. Rendering of efficient health services
- b. Resources generation such as healthcare financing (raising, pooling and allocating)
- c. Health investment such as material resources Stewardship such as human resources.

2.3 Theoretical Framework

Different theories have been developed over the years to explain various concepts, for the purpose of this study; two theories will be applied namely: The Scientific Management Theory and the Symbolic Interactionism theory.

2.3.1 Scientific Management Theory

Scientific management theory also called classical theory or Taylorism was developed in the early 20th century by Frederick W. Taylor. It is important because, its approach to management is found in almost every industrial business operation across the world. Its influence is also felt in general business practices such as planning, process, design quality control, cost accounting and ergonomics.

It seeks to improve organizations efficiency by systematically improving the efficiency of task completion by utilizing scientific, engineering, and mathematical analysis. The goal is to reduce waste and increase the process and methods of production and create a just distribution of goods. This goal serves the common interests of employers, employees and society. Applying this theory to facilities management practice, one can say that the goal which is the efficient performance of a facility is dependent on the employers (owners of the facility), employees (people who work within the facility) and the society (benefactors of such services performed by the facility).

2.4 Review of Related Literature

This section will briefly highlight works carried out by various authors on facilities management and healthcare facilities.

Oladejo, E. (2009) did a research on the problems of facilities management in corporate organization in Lagos state, a case study of some selected manufacturing industry. The study examined the role of the facility manager and highlights the problems that constrain effective facilities management. The research adopted both the survey and case study methods. The survey was used in data collection while the case study was based on an intensive study of 6 selected drug, beverages and textile manufacturing industries in Lagos. The sampling technique used was simple random sampling. The

sample of 240 respondents was drawn from the population parameters through Taro Yamane model. A total number of 200 completed questionnaires representing 83.3% of the distribution made were recovered and used for statistical analysis. The hypothesis of the study stipulated that facilities management problems do not have significant effect on efficient productivity in an organization. The data collected was subjected to an inferential statistical test using chi square technique. The major problem identified includes poor funding and maintenance, bureaucracy and unavailability of skilled/right professionals. The work concluded that facilities management problems have significant effect on productivity organization. efficient in an Benchmarking, safety and security provision, good communication, continuous training program, adequate budgetary provisions, value- engineering application among others were recommended.

Romina Asiyai (2012) carried out a study on assessing school facilities in public secondary schools in Delta State Nigeria, the purpose of the study was to find out the state of the facilities, the types of maintenance carried out on the facilities by school administrators, the factors encouraging school facilities depreciation and the role of social administrators in the management and maintenance of school facilities. The study employed EX-Post-Facto research design; the questionnaire was the for data collection instrument from 640 correspondents selected through stratified sampling techniques from all the 358 public secondary schools in the state. Findings reveal that the facilities in the school are generally in a state of disrepair. The findings further revealed that the maintenance carried on the school facilities were inadequate for majority of the facilities. The factors encouraging school facilities depreciation included: excess pressure on available facilities and delay maintenance among others. The role of school administrators in the management and maintenance of school facilities included periodic inspection of facilities and decentralization maintenance. of The study recommended that school administrators, teachers and students should develop and inculcate good maintenance culture; government should budget for facilities maintenance and allocate more funds to

schools for effective management and maintenance of school facilities.

Oladejo, Umeh and Ogbuefi (2015) carried out a research which critically analyzed the inherent challenges of healthcare facilities maintenance in tertiary hospitals in South East Nigeria, the work was an appraisal of the state of tertiary healthcare facility design as they relate to user needs and satisfaction. The study established that faulty tertiary healthcare facility designs impact negatively on both patients and healthcare workers, other findings include: staff in the maintenance unit not undergoing training and development even in the face of highly sophisticated medical equipment and technology which leads to lack of maintenance, breakdown and abandonment of these equipment, inadequate resources allocated for facilities management in tertiary hospitals and lack of qualified professional staff in the maintenance department. Tertiary healthcare facility designs therefore ought to be evaluated periodically to ensure that user needs are well taken care of and the expected satisfaction achieved. The reviewed study was mainly concerned with healthcare facility design, as a major challenge in tertiary healthcare facilities which is only but an aspect of facilities management practices. The current study intends to look at other facilities management practices (ensuring up to date buildings, moving from reactive to preventive maintenance and project a quality image to attract patients and medical staff) that can be integrated for effective service delivery

2.5 Literature Gap

An overview of the reviewed study shows that, most of the studies were centered on factors affecting maintenance cost and management of hospital buildings, healthcare problems, management, provision and distribution of healthcare facilities. Other facilities management practices like ensuring up to date buildings, projecting a good image of the facilities to both patients and staff, ensuring that a good maintenance strategy is put in place and the level of patients'/client's level of satisfaction were not given attention. It therefore, becomes necessary to fill this gap by conducting a study on the Analysis of Facilities Management Practices in Selected Public Healthcare institutions in Delta State.

III. SAMPLE FRAME

The staff of the Administrative Department of the hospitals management board forms the first group (group 1), staff of Works Department in institutions selected forms the second group (group 2) and the convenience sampling method was used to distribute questionnaires to 3 patients/clients from each institution selected (group 3). The list of selected secondary healthcare institutions and the staff strength of Works Department are shown below;

Table 1: Secondary Healthcare Facilities within theStudy Area

S/N	Name of LGAs	Name of Secondary Healthcare Facilities	Staff Strength of Works
			Department
1	Aniocha North	General Hospital, Issele-Uku	3
2	Aniocha North	General Hospital, Aniocha-Ukwu	3
3	Aniocha South	General Hospital, Ogwashi-Uku	3
4	Aniocha South	General Hospital, Ubulu-Uku	3
5	Bomadi	General Hospital, Bomadi	3
6	Bomadi	Cottage Hospital, Ogriagbene	2
7	Burutu	General Hospital, Burutu	3
8	Burutu	General Hospital, Kiagbodo	3
9	Burutu	General Hospital, Ogualagha	3
10	Etipoe East	General Hospital, Abraka	3
11	Etipoe East	General Hospital, Eku	3
12	Etipoe East	Cottage Hospital, Erhioke	2

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13	Ethipoe West	General Hospital, Oghara	3
14	Ethipoe West	General Hospital, Mosogar	3
15	Ika North East	General Hospital, Umunede	3
16	Ika North East	General Hospital, Owa-Alero	3
17	Ika South	Central Hospital, Agbor	5
18	Ika South	General Hospital, Abavo	3
19	Isoko North	General Hospital, Ozoro	3
20	Isoko North	General Hospital, Owhelogbo	3
21	Isoko South	Central Hospital, Oleh	5
22	Isoko South	General Hospital, Uzere	3
23	Ndokwa East	General Hospital, Aboh	3
24	Ndokwa East	General Hospital, Ashaka	3
25	Ndokwa West	Central Hospital, Kwale	5
26	Okpe	General Hospital, Orerokpe	3
27	Okpe	Cottage Hospital, Mereje	2
28	Oshimili North	General Hospital, Ibusa	3
29	Oshimili North	Government Hospital, Ebu	3
30	Oshimili South	Central Hospital, Asaba	5
31	Oshimili South	General Hospital, Okwe	3
32	Patani	General Hospital, Patani	3
33	Sapele	Central Hospital, Sapele	5
34	Udu	General Hospital, Otor-Udu	3
35	Ukwani	General Hospital, Obiaroko	3
36	Ukwani	General Hospital, Umutu	3
37	Ughelli North	Central Hospital, Ughelli	5
38	Ughelli North	Government Hospital, Agbarho	3
39	Ughelli North	Government Hospital, Orogun	3
40	Ughelli South	Government Hospital, Otu-Jeremi	3
41	Ughelli South	Government Hospital, Ewu	3
42	Uvwie	Central Hospital, Ekpan	3
43	Warri North	General Hospital, Koko	3
44	Warri North	Government Hospital, Abigborodo	3
45	Warri South	Central Hospital, Warri	5
46	Warri South	Government Hospital, Omadino	3
47	Warri South West	General Hospital, Ogbe Ijaw	3
48	Warri South West	Government Hospital, Ogidigben	3
	Total		164

Sample size of Administrative Department of Hospitals Management Board is 20.

3.1 Sample Size/Sampling Technique

The total number of secondary healthcare institutions in Delta state is 54; they are spread across the 25 Local Government Areas of Delta State, using the Taro Yamane's formula because based on the research condition the population is finite, hence a corrected sample size will be determined by applying the formula as stated below:

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

A total number of 328 questionnaires was administered; 164 to staff of works department across the selected public secondary healthcare institutions, 20 to staff of administrative department of hospitals management board and 144 to patients and clients (3 from each facility) who visited selected institutions.

3.2 Method of Data Collection

This study adopted the use of self-administered questionnaire backed up with interview guide. A well-structured questionnaire was administered to the targeted population. Three types (I, II, III) of questionnaires were used. The first was administered to the staff of hospitals management board, the second to the staff of works department of the secondary healthcare facilities and the third to patients/clients whom the researcher met on the day of visit to these secondary healthcare institutions. The services of research assistant were also employed in administering questionnaires.

3.3 Method of Data Presentation and Analysis

Data collected for this work was presented using descriptive statistical tools as this would ensure a more meaningful and simpler way of interpreting data collected; such tools includes frequency and percentages and results were presented in tables, pie chart, bar chart and plates. The research hypothesis 1 was tested using the Principal Components Analysis (PCA) as it is a method used to reduce the number of variables in one's data by extracting important ones from a large pool while research hypothesis two was tested using the One Sample T- Test which is used to determine if there is a significant difference between the means of two groups which may be related in certain features

IV. DATA PRESENTATION AND ANALYSIS

The preliminary information of the respondents, such as sex, age, educational qualifications, specialization, Years of Experience and Routine Inspection/Visitation to SPSHI are presented and explained in this section.

Resp	St	Perce	Staff	Perce	Clients/	Per
onse	aff	ntage	of	ntage	Patients	cen
s	of	(%)	WDS	(%)		t
	Н		PSHI			(%)
	М					
	В					
Male	9	45.0	102	62.2	64	44.
						4
Fem	11	55.0	62	37.8	80	55.
ale						6
Total	20	100	164	100	144	100
~	D	1 .	D' 110		10	

Table 1: Sex of Respondents

Source: Researcher's Field Survey, 2019

From table 1, it can be seen that the 45 percent of the HMB staff are male, while 55 percent are female. For the WDSPSHI staff, 62.2 percent are male while 37.8 percent are female, and 44.4 percent of the clients/patients are male with 55.6 percent being female. diploma certificate holders are 34.7 percent while 26.4 percent and 22.2 percent respectively represent those who hold HND/BSc and Masters/PhDs. This shows that for the staff of HMB and WDSPSHI, more of the respondents are HND/BSc holders while more of the clients/patients are diploma certificate holders.

1	1	` '	
Specialization	Frequency	Percent	
Technicians	64	39.0	
Engineers	50	30.5	
Bio Medical	35	21.3	
Technologist			
Secre2arial	15	9.2	
Studies			
Total	164	100.00	
G D 1 1	T ' 110 0 0	10	

Source: Researcher's Field Survey, 2019

Table 2 shows the responses of the staff of WDSPSHI on their various areas of specialization. It

can be seen from the table that 39.0 percent of them are technicians, 30.5 percent are engineers, and 21.3 percent are bio-medical technologists, while 9.2 percent are secretarial students; showing that they are more of technicians and engineers.

Responses	Staff of	%	Staff	of	%
	HMB		WDSPSHI		
1-5 years	5	25.	24		14.6
		0			
6-10 years	7	35.	60		36.6
		0			
11-15	4	20.	50		30.5
years		0			
15 years	4	20.	30		18.3
& above		0			
Total	20	100	164		100

Table 3: Years of Experience of the respondents

Source: Researcher's Field Survey, 2019

From table 3, we see that 25 percent of the staff of HMB have worked for about 1 to 5 years, 35 percent for about 6 to 10 years, those who have worked for11 to 15 years and above 15 years are each 20 percent. Then for the staff of WDSPSHI, those who have worked for 1 to 5 years are about 14.6 percent, those who have 6 to 10 years are about 36.6 percent while those who have worked for 11 to 15 years and above 15 years are respectively 30.5 percent and 18.3 percent.

Table 5: Total Variance Explained for hypothesis one

T able 4	Table 4: Routine inspection/ visitation to SPSHI								
Respons	Staff	of	%	Staff	of	%			
es	HMB			WDSPS	SHI				
Yes	20		100.0	164		100.0			
No	0		0.0	0		0.0			
Total	20		100	164		100			

Table 4: Routine Inspection/Visitation to SPSHI

Source: Researcher's Field Survey, 2019

Table 4 has the information of the respondents about routine inspection/visitation to SPSHI. From the table, it can be seen that both the staff of HMB and WDSPSHI do routine inspection/visitation to SPSHI.

4.1 Objective

To determine the facilities management practices that affect service delivery in public secondary healthcare institutions within Delta state.

To meet this objective, a Principal Components Analysis (PCA) was done with the responses of the respondents on the facilities management practices put in place for effective performance of selected public health institutions by SHMB. The results of the PCA are presented in table 5 and table 6 as shown.

					Extraction Sums of Squared			Rotation Sums of Squared		
	Initial Eigenvalues			Loadings			Loadings			
		% of	Cumulative		% of	Cumulative		% of	Cumulative	
Component	Total	Variance	%	Total	Variance	%	Total	Variance	%	
1	4.879	69.701	69.701	4.879	69.701	69.701	3.506	50.084	50.084	
2	1.374	19.622	89.323	1.374	19.622	89.323	2.747	39.240	89.323	
3	.398	5.689	95.012							
4	.174	2.486	97.498							
5	.105	1.505	99.003							
6	.061	.865	99.868							
7	.009	.132	100.000							

Source: Researcher's Statistical Analysis, 2019

Table 5 shows the total variance explained for the PCA; total variance explained tells us the percentage variations of the responses of the respondents and as

well the number of components that the PCA was able to explain. From the table, the number of components is two; with component one explaining about 50.084 percent of the total variations while component two explained about 39.240 percent. Loading contained in component one usually have higher significance than those contained in component two. We will then move over to table 9 to explain the loadings of the PCA.

Table 6: Rotated Component Matrix for hypothesis one

	Comp	onent
	1	2
Ensuring a Good Public Image of Secondary Healthcare Facilities	.965	
Moving from Reactive to Preventive Maintenance	.899	
Attract Patients and Medical Staff	.893	
Ensuring up to Date Buildings	.856	
Gain Insight Into Space Usage by Matching Available Space and Space Requirements		.911
Facilitate Movement and Improve Patient/Client Comfort		908
Optimize Lifelong Cost of Building and Equipment		850

Source: Researcher's Statistical Analysis, 2019

Table 6 shows the various loadings of the PCA. It can be seen that in component one, the following are the loadings:

- a. Ensuring a Good Public Image of Secondary Healthcare Facilities
- b. Moving from Reactive to Preventive Maintenance
- c. Attract Patients and Medical Staff
- d. Ensuring up to Date Buildings.

The implication is that the respondents are of opinion that prioritizing these four things (in their order of listing) will affect service delivery in public secondary healthcare institutions within Delta State; that is, great attention should be shown to the four issues listed in order to have positive effects on service delivery in public health secondary institutions within Delta State.

The second component had the following loadings:

- a. Gain insight into space usage by matching available space and space requirements
- b. Facilitate movement and improvement patients'/clients' comfort and
- c. Optimizing lifelong cost of building and equipment.

This represents another set of actions that when taken (in their order), will have great effect on service delivery in public secondary healthcare institutions within Delta State.

4.2 Hypothesis

There are no significant facilities management practices that affect service delivery in selected public secondary healthcare institutions within Delta state.

This hypothesis showed from it result that there are significant facilities management practices that affect service delivery in public secondary healthcare institutions within Delta state. Furthermore, it can be seen that the practices are in two categories.

V. SUMMARY OF FINDINGS

Secondary healthcare institutions are very important in sustaining the health of persons within a state. The survey revealed that facilities management practices like; ensuring a good public image of secondary healthcare institutions, moving from reactive to preventive maintenance, attracting patients/medical staff and ensuring up to date buildings should be given great attention as this will have positive effects on service delivery in public secondary healthcare institutions within Delta State.

5.1 Conclusion

In view of this study, which has provided an insight to Facilities Management Practices in Selected Public Secondary Healthcare Institutions in Delta State, it can be said that there are significant facilities management practices that affect service delivery is public secondary healthcare institutions in Delta State; Facilities users (patients/clients) also have significant satisfaction with services rendered in Public Secondary healthcare institutions in Delta State.

The implementation of facilities management practices in secondary healthcare institutions within Delta State can however be improved to ensure that all loop holes are covered and professionals are given the opportunity to effect positive change in issues relating to public secondary healthcare institutions within the state.

5.2 Recommendations

The objective of this study is to analyze facilities management practices in selected public secondary healthcare institutions in Delta state. As a result of the effect of facilities management practices on effective service delivery, facilities users' satisfaction and prolonging the life span of secondary healthcare institutions in Delta state, some challenges were stated by staff by hospitals Management Board and Works Department within the selected public secondary healthcare institutions.

To overcome the challenges faced in the management of public secondary healthcare facilities in Delta State, the following should be done: Employment of skilled personnel, Making movement easy by providing mobility to aid easy routine inspection of public secondary healthcare institutions, Organizing seminars/workshops on the importance of facilities management practices and their effects on performance of secondary healthcare institutions and Making funds readily available for the management of facilities within various institutions.

PLATES



Plate 1: A building Central Hospital, Warri



Plate2: Maintenance work at Central Hospital Ugheli

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