International Journal Of Engineering Research And Development
e- ISSN: 2278-067X, p-ISSN: 2278-800X, www.ijerd.com
Volume 20, Issue 9 (September, 2024), PP 254-270

Evaluation of the Effects of Facilities Management on the Maintenance of Selected Government Owned Facilities in Anambra State, Nigeria.

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Date of Submission: 08-09-2024 Date of Acceptance: 24-09-2024

I. INTRODUCTION

A nation cannot survive the present technological advanced world without focusing on human resource development. Effective human resource development can only be achieved through quality education (Ogunor 2014). Some countries of the world, today are described as developed or advanced, due to their technological feats and manoeuvers where they achieved through coordinated quality education. Education is a veritable machinery for the development of any country. It seeks to develop the minds and character of future citizens and equip them with abilities, skills and potentials in order to enable them function productively in the contemporary society. It is universally recognized as an instrument for social, political, scientific and technological development.

Consequently, the future development of every nation depends on her younger generation. Societies construct and build schools to educate this segment of her population. Teaching and learning are basic aspects of formal education in a school setting and it is on this note that Janguza, Mahmud and Dodo (2012) consider a school as a significant social environment in the lives of students. Thus, to achieve any meaningful educational objectives, the school environment needs to be physically and socially safe for teaching and learning. It is therefore the responsibility of the school leaders to provide this enabling environment by proper management of the school building and other physical facilities, as well as human resources in order to achieve a desired students' learning.

Educational facilities and its maintenance management is the basic focus in any higher institutions because effective and efficient running of the system depends on proper maintenance and use of available structural units and facilities. According to Ogunor (2012) some of the buildings in the public establishments appear to be 'death traps' and can be described as 'recipes for disaster'. The effects of poor facility management only leave nothing to be desired as it has engineered the collapse of buildings and often require that colossal sums of money are expended to right the wrongs (Okolie 2011). It is anticipated that management of the establishments are aware of the state of the buildings and yet they are negligent. Currently, the physical planning units of our government owned facilities do not have adequate manpower and information technology facilities for the practical application of space factor in predicting, estimating and analyzing space need for efficient management of physical development (Ajator, 2012).

Supporting the above findings, Onyejiaka (2021), posited that consequences of neglecting the aspect of management of quality in the maintenance of facilities, machines, and buildings, has resulted in the increase in maintenance cost and low building performance, wasted energy and effort, very complex service system with low reliability, lack of sufficient instrumentation for easy monitoring, lack of communication regarding maintenance issue. Government owned facilities and its maintenance management should be the basic focus in any Government parastatals because effective and efficient running of the system depend on proper maintenance and use of available structural units and facilities. It is against this background that this study is to evaluate the effects of facilities management on the maintenance of selected Government owned facilities in Anambra state is undertaken.

This to some extent has contributed to business failures and low business profit. The culture of management and maintenance has gone down the drain and this has affected virtually our social and economic lives. When facilities are not well managed and maintained it might lead to various defect which can likely constitute nuisance and disturbances to the users of such facilities, for instance lack of maintenance culture of buildings in our government owned facilities has led to unproductive learning environments in the Nigerian institution system. The implication of this is that the learning environment in our universities is unhealthy with decayed and dilapidated buildings. This seriously undermines the goals and objectives of national policy on education. The reasons for this state of affairs are mismanagement of funds, lack of maintenance culture and

expansion in the students' enrolment. Confirming this situation, Okebukola, (2012) reports that facilities are overstretched, thus presenting a recipe for rapid decay in the face of dwindling funds for maintenance. From the forgoing, it is clear that teachers and students are bitter over this situation and other Nigerians. That is why Ojogwu and Alutu, (2019) lamented that students and teachers have become disinterested and apathetic to goals of learning. Study of Adewunmi, Ajayi and Ogunba (2017) revealed that there is a link between facilities management and organization effectiveness; similarly, a study conducted by Johnson (2014) revealed that good facilities management enhanced productivity. Despite these findings and suggestions, some Government owned establishment still find it hard to manage their facilities effectively and this has resulted into losses school of quality material and other facilities. Therefore, this study intends to carry out a study to investigate the effects of facilities management on the maintenance of selected Government owned facilities in Anambra State. The study evaluates the effects of facilities management on the maintenance of selected Government owned facilities in Anambra State with a view to developing effective and efficient facilities maintenance and management procedures in the study areas.

Concept of Maintenance

Maintenance could be defined as the work undertaken to restore facility to an acceptable standard and at a minimum cost, and also getting personnel involved in the process and as well ensure their empowerment for quality work output. Adenuga (2012) defines maintenance as the construction of all technical and associated administrative actions intended to retain an item in or restore it to a state in which it can perform its required function. Odediran (2012) described maintenance as the combination of every action carried out to retain an item in or restore it to an acceptable condition. Okoye and Ogunoh, (2014) citing British Standard, (BS) 3811) define maintenance as the combination of all technical and associated administrative actions intended to retain an item in or restore it to a state in which it can perform its required functions. In similar vein, Uchendu, Ekanem and Jonah, (2013) described maintenance as the combination of every action carried out to retain an item in or restore it to an acceptable condition. Maintenance is a combination of actions carried out to retain an item in, or restore it to an acceptable condition. But, Okolie, (2011), in his contribution, sees maintenance as a systematic supporting service on any device or equipment, to ensure the continued operation of the facilities. In contrast, Lateef and Khamidi (2019) defined maintenance as the necessary processes and services commenced protecting, shield, improve and care for the building's fabrics and services to dish up their projected function all through their whole life span devoid of radically disconcerting of their basic features and functions.

Maintenance also can be referred as an operation that being done on a continuous basis to maintain the building in a safe and the best form for the everyday use. Maintenance activities cover all the building like from the top to the bottom of particular building. Another definition for maintenance is a work done to control certain condition of a building so that the outline lies within specific regions.

Concept of Management

Management exists principally to help organizations achieve their set objectives. It involves coordination of activities and team work for the achievement of stated objectives. Management simply means the process or method whereby group of people at the top level of an organization plan, organize, control, communicate, coordinate and direct the actions and activities of those who work in the organization with the view to achieving the objectives of the organization (Mgbodile, 2004). Ogbonnaya (2009), sees management as a social process which has goals to achieve and is also the guidance or direction of the people towards organizational goals and objectives. Management in all business and organizational activities is the act of getting people together to accomplish desired goals and objectives using available resources efficiently and effectively. Management comprises planning, organizing, staffing, leading or directing and controlling an organization (Gomez-Mejia, Balkin & Cardy, 2008).

Planning is the first stage in management, since planning is the deliberate preparations for an action in the future. In planning, decisions are taken as to what to do, who to do it, when to do it and how to measure performance against a plan. Ezeike (2005), opined that planning involves decision-making for a future course of action. It is more than a technique; it involves vision and commitment and it is basically action-oriented. In other words, planning does not end with putting down on paper what ought to be done, but it is also concerned with implementation, which is to carry out the decisions made or policies initiated and monitoring the progress to see whether there are flaws in the action plan and finding out how to overcome them. Ejiogu (2000), described planning to mean dreaming, practical thinking, scheming and scheduling of the actions and activities that would be performed in order to achieve the objectives for which the enterprise was set.

Nature and Types of Government Owned Facilities

State-owned enterprises (SOEs) influence the economy and people's lives through the provision of goods and services in ways that are distinct from, and more varied than, the direct action of governments. (Acharya & Kulkarni, 2019) In many countries, SOEs provide basic services such as water, electricity, and transportation to

people and firms, as well as loans to businesses. SOEs are diverse, varying in size, sector of operation, complexity, sophistication, and extent of government ownership and control. Some are essentially an arm of the government, whereas others have a mix of public and private owners (mixed ownership) and a greater commercial focus. Many SOEs are among the largest companies in low-income developing countries, emerging markets, and advanced economies. SOEs have become more prominent in global markets, stimulating renewed interest and debate about their international impacts. Although a few SOEs have had operations abroad for decades, especially in the natural resources sector, SOE cross-border activity has diversified and increased in this century (Cuervo-Cazurra and others 2014). The growing internationalization of SOEs has fueled apprehension about their potential pursuit of noncommercial objectives or unfair competition given that they often benefit from government support, including subsidies or cheaper finance.

At the same time, many governments struggle to manage SOEs effectively. Widespread concerns exist that many SOEs are inefficient, involve significant risks to government budgets, and are a conduit for corruption (European Commission 2013; IMF 2014; OECD 2015) exists, there are some shared elements:

1. the entity has its own, separate legal personality;
2. the entity is at least partially controlled by a government unit; and
3. the entity engages predominantly in commercial or economic activities.

As noted in the *Government Financial Statistics Manual 2014* (IMF 2014), assessing government control of an entity involves judgment. A government may exercise significant influence over corporate decisions even when it owns a small number of shares. For the quantitative empirical analyses in this chapter, a firm is considered state owned if the government owns at least 50 percent of its equity; in some exercises, the analysis focuses on cases where the governments owned at least 20 percent. Ayerbe 2019; OECD 2018b; Richmond and 2019; Wilkinson 2018).

Types of Government Owned Facilities considered in this study include:

Library

Public libraries are public organizations which are governed by the state since they are established and maintained with public funds and taxpayers' money. The delivery of public library services as a governmental activity requires efficient legislation and policies, and a management structure that is responsive both in terms of the implementation of the legislation and policies, and also in satisfying the needs of the people to whom services are delivered. Service delivery takes place through an organised process which cannot be achieved without adequate governance and management structures in place, as the ability to deliver the expected public services at grassroots level requires commitment and efficiency in the capabilities of both the authority and the institution (Islam and Mezbah-ul-Islam, 2010). Foo et al. (2015) posits that service delivery is gauged by the performance of policymakers and managers. For an organisation to deliver the expected services to the populace resources must be available.

However, these are in many cases in short supply and must be shared among competing organisations. In acquiring these scarce resources, organisations must demonstrate value by realising cost efficiency in the process of delivering high quality, useful products and services (The World Meteorological Organisation, n.d.). Therefore, if public libraries are to deliver the services expected from them by their communities, policymakers should continuously assess through public participation the effectiveness of the services delivered.

Service delivery in public libraries is dependent on effective governance and management structures to be in place. The following sections provide an overview of these structures with specific reference to the Nigerian situation.

Learning Facilities: Afolabi (2002) noted that learning facilities refer to the site, furniture, learning equipment that contribute to a positive learning environment and quality of education for all students. The learning facilities available within an educational institution have positive relationship with the quality of teaching and learning activities which in turn leads to the attainment of goals set. The learning facilities of the school equipment and furniture will determine how long such will last while comfortable classroom.

Agusiobo (1991), sees teaching facilities as available that use by the instructor to bring out desirable changes in human behavior. This is situation that teacher uses the available facilities to modify the behavior of a students for a better living. The total development of the learners in the cognitive, affective and psychomotor domains of teaching and learning can only take place in an environment that is conducive to teaching and learning.

Afolabi (2002), opined that learning facilities refers to be the buildings housing other facilities that contribute to a positive learning environment and quality of education for all students. Researches in the past have affirmed a strong correlation between the performance of educational buildings and quality of education. This is so as buildings are critical factors in achieving desirable outcomes for tertiary institutions. University buildings require maintenance in order to create a conducive environment that supports and stimulates learning, teaching,

innovation, and research, (Lateef *et al.,* 2010). However, it appears that the government is more interested in constructing new buildings, while leaving the old buildings to rot and decay (Adeni, 2012). Orebanwo (1999), stipulated that quality and aesthetics of buildings and infrastructure that exists in an institution of learning especially federal universities will reflect her image in terms of aesthetics, modern technology in display with regards to architectural excellence in the use of space, services and other amenities. The appearance of this building and infrastructure speaks aloud of the institution as a citadel of learning. Consequently, it is of significant importance that these institutions evolve a high level of maintenance culture to keep this infrastructure in a state that it performs its function efficiently and effectively as well as retain its aesthetics.

In Nigeria, according to Adenuga and Iyagba (2005), public buildings are in very poor and deplorable conditions of structural and decorative disrepairs. In spite of millions of Naira spent to erect all these buildings, they are left, as soon as they were commissioned to face premature but steady and rapid deterioration, decay and dilapidation (Adenuga, 2012). As observed by Oladapo (2005) cited in Adenuga (2012), buildings are required to provide a conducive and safe environment for various human activities. This, essentially, is the question of function. The extent to which the buildings provide the required environment for the required activity is measure of the functionality of the building. Buildings once constructed are expected to provide this major function of sheltering for a number of years. It is highly desirable to produce buildings that are maintenance free for the expected life span, however, this is very difficult to achieve owing to the rate at which buildings deteriorate overtime because of wear tear, construction techniques, the environmental conditions and the use or intensity of use of the building.

Management and Administrative Structures in libraries

For effective public administration, it is pertinent to adopt a workable administrative and management model with good formulation and enforcement of policies in order to deliver the expected services. Zaharia (2011) indicates that the concept of "public administration" is one that has no one clear definition describing it successfully. This opinion is shared by Aderibigbe and Olla (2014), who agree that it can be seen as a governmental action concerned with the executive part of government, and deals with the formulation and enforcement of public policies. Herbert, Thompson and Smithburg, in Zaharia (2011), describe public administration as "the activities of the executive branch of national, state and local government". According to Zaharia (2011), public administration is a set of authorities working together and operating together as a coherent system which, through its entire activity, aims to satisfy the public interest, continuously and in accordance to social expectations.

Nkuna and Sebola (2015) argue that the practice of administration cannot be separated from the ability of people in leadership positions within any given organisation. Governance structures involve the totality of planning, organising, staffing, coordinating and budgeting in any organisation which is important to the successful running of the organisation. Likewise, the governance of public libraries requires the coordination of both human and material resources for effective and efficient dissemination of relevant information (Saleh and Lasisi, 2011). Governance of public libraries in Nigeria is essentially the responsibility of the government because the public library is regarded as a service institution, established and managed with public funds. According to the Librarians'

Registration Council of Nigeria (2015), there are 316 public libraries in Nigeria, including the urban and rural libraries. There is one National Library of Nigeria at the headquarters in Abuja, and it has 25 branches nationwide. All the 36 states in the country have a public Library Board, each at the state headquarters. These Library Boards also function as the urban libraries. Abuja, which is the federal capital territory, also has a Library Board (Nigeria Library Association, 2011). There are 253 branches of the states' Library Boards spread across the rural communities in the country (Librarians' Registration Council of Nigeria, 2015). These libraries are also known as rural or community libraries, and are governed and administered by the state Library Board as directed by each of the states. According to Ogbonna (2014), the public library system in Nigeria functions on three levels: federal, state, and local.

Federal level. At the federal level, the federal government provides funding for the National Library of Nigeria through the federal Ministry of Education. The National Library of Nigeria is categorised as a public library because it serves all categories of users at the national level. It is the responsibility of the National Library to channel the funding received from the annual budget allocation by the federal government to all the states and local governments of the federation. The governance structure of the National library is the responsibility of the federal Ministry of Education, and the allocation of funds is derived directly from the federal government's budget. The selection and acquisition of material, service delivery, and all other administrative responsibilities are discharged by senior librarians and the executives of the National Library of Nigeria.

State level. At the state level, all urban public libraries fall under the umbrella of the state Ministry of Education, Science and Technology, with the permanent secretary in the ministry as the overseer/supervisor of the libraries (Ogbonna, 2014). The permanent secretaries in each of the 36 ministries represent the interests of the ministries, and have the responsibility of ensuring the smooth operation of the public libraries and the affiliated/local libraries. The permanent secretaries report to commissioners, who are the officers accountable for the libraries' activities, and who are also the chief executives in these ministries. The ministries are responsible for policy formulation, budgetary allocation, the provision of staff, and the payment of their salaries through the states' annual budget as allocated by the federal government (Ogbonna, 2014).

Currently, the main public library at the state headquarters in each of the states in Nigeria has a Library Board that is responsible for its affairs and that of the affiliated rural libraries, with a chairman who is normally a political office holder, and may not necessarily be a professional librarian (Ogbonna, 2014). Members of the Board include the director of the public library, who serves as the secretary of the Board, one or two librarians, and some non-professionals who are political appointees.

The urban public library services under the auspices of the Library Boards are given more attention than their rural counterparts, by the government with regard to the provision of infrastructure and library services, resulting in better service delivery to the patrons. This in turn normally results in a relatively high level of patronage (Oyeronke, 2012). This is observation corroborated in a study done by Erinle (2001), who found that public libraries in the urban centres perform more effectively than those in the rural or local communities because considerably more resources are available, especially reference materials and staff.

Local level. At the local level, most rural/community and local government libraries are either affiliated to, or supervised by, the public Library Boards, and function as branches of the urban libraries (Momodu, 2014). These libraries are funded and governed by the Boards, except for the local government or privately owned libraries; but even these libraries are supervised and assisted by the state Library Boards.

Information, service delivery, and all administrative activities are channeled through the Boards, but the selection and acquisition of information material are the responsibility of the professional librarians (Awogbami, Opele & Adeyemi 2021). The library management staff comprises professional librarians who ensure the smooth running of the library's day-to-day activities. The library management is in charge of public library services, finances, staff motivation and discipline. Regular meetings between the management of the library and staff address issues and challenges that affect the development of the library and staff for possible intervention.

Most of these rural libraries experience problems of infrastructure and service owing to lack of sufficient funding by the government, and its failure to provide effective library and information services in these areas to serve the rural dwellers, who are the bulk of the population (Anunobi et al., 2014). The result is commonly a lack of patronage of public library services at this level. The above studies have established that the non-government funded rural/community libraries and information centres are better governed, with services that meet the needs of the users in the rural communities.

Causes of Poor Facilities Management Strategy in Government Owned Facilities

The issues relating to management of public Owned Facilities were examined from authors' input. In addition to the explanation offered by Thorncroft (1965), Anderson (1962) agrees that apart from ownership, public estates have little attributes in common: they vary in size, character, management, organization and, to a surprising degree, in policy objectives. Neither is the extent of public control and accountability the same for them all. For management purposes, land and buildings in ownership are divided into separate units which have, in many ways, the features of independent estates. In each case, the managing authority must refer back to the elected representatives for major decisions on policy, such as capital investment and so forth but as the processes of management become more specialized, political control often tends to become more difficult. This is particularly so in respect of quasi-public estates where ultimate authority rests upon a coalition of private and public interests. Brech (1969) contributes that the first distinction in the management of government owned facilities is between those that are responsible to the organs of government and those that are controlled by local authorities.

Maintenance management in the public sector in Nigeria has suffered from lack of funds for a considerable time. While the requirements for good practice in maintenance management of building stock have been established over a considerable period, the achievement of good practice is by no means universal (Turrell, 1997). Maintenance of the built environment impacts on the whole nation. The conditions of the surroundings in which we live and learn, is a reflection of the nation's wellbeing. (Lee, 1987). Maintainability of building has been identified as one of the key areas in which the construction industry must achieve significant improvement (Nayantharas de Silva et al, 2004).

According to Iyagba and Adenuga, (2003) it is impossible to produce buildings which are maintenance free, but maintenance work can be minimized by good design and proper workmanship carried out by skilled experts or competent craftsmen using suitable codes of installation, requisite building materials and methods. Management of any process involves assessing performance, and maintenance management of buildings is no exception

(Turrell, 1997). In order for any maintenance manager to measure performance and set priorities, the organizational needs have to be considered i.e. the function and performance of buildings and their appropriate standards will be independent on the user's perception and their primary needs (Chanter and Swallow, 1996). Performance of hospital buildings and their component depends to large extent on continuous and planned periodical maintenance, which challenges owners and facility managers to institute precise planning based on a well-structured maintenance programmes (Shohet et al, 2002). Despite the ever-growing need for lower operational costs, facilities managers must ensure that facilities are constructed and maintained without compromising safety. In Nigeria, colonial architecture in some of the older public buildings especially hospitals which was hitherto famous for its sturdiness and functionality has now becomes less attractive because of the general neglect of the buildings. Overcrowding has also led to the deterioration of the facilities installed (Onifade 2003). If no action is taken all these old buildings and facilities will decay and will only be replaced in function if the means are available. The inadequacy of the operation and maintenance of building and infrastructure in developing countries has serious consequences for economic and social development especially on the health sector.

According to Clifton (1974), it was observed that too often property managers are not among the members of design team when a new building is planned but his wide knowledge of problems of buildings in use would justify his inclusion. The contribution which the property manager would make is often discovered to improve the usefulness of the completed building and increase the flexibility of use, thus enhancing the prospect of finding and keeping a tenant or tenants. The property manager should be able to make significant suggestions regarding materials and layout. Such suggestions affect capital and rental values and the cost of maintenance procedures. Maintenance of properties simply means to embark on a work in order to keep, restore or improve every property, that is, every part of a building, its service and surrounds to a currently accepted standard and to sustain the utility and value of the property. The committee on building maintenance defines acceptable standard to mean that which sustains the utilities and value of the property and this is found to include some degree of improvement over the life of the building as acceptable comfort and as amenities standard rise. Maintenance is a complex and multifaceted activity which until recently has attracted the attention of the British standard. Neglect of property maintenance has accumulation of results with rapidly increasing deterioration of fabric and finishes of a building accompanied by harmful effect on the components and the occupants. It is highly desirable but hardly feasible to produce a building that is maintenance free, although much can be done at design stage to reduce the amount of subsequent maintenance work. All elements of building deteriorate at a greater or lesser rate depending on materials and methods of construction, environmental conditions and the use of the building (Seeley 1965).

Maintenance problems in building facilities are heavily attributed to many factors, the most important ones are design limitations and construction knowledge; owners must be made aware that insufficient funding of design and construction will impact future maintenance capabilities (Aris, 2006). Clients and end-users blame the construction industry for delivering products that do not achieve their objectives or meet their expectations (Barrett and Stanley, 1999). This could be attributed to a number of reasons. Amongst them, clients and end users are not well represented in the design process. Hence, their objectives and requirements are not well perceived or reflected in design. The increasing recognition of the important role played by clients at the core of the construction process and the driving force for improvement necessitated the importance of achieving their satisfaction through accomplishing their objectives and providing them with best value for money (Othman, 2004).

Building owners place great emphasis on the capital costs of a project at the expense of future running costs Arditi and Nawakorawit (1999). The primary initiators of maintenance are the owner and/or user, may exert either a direct or an indirect influence on the amount of work undertaken. The role of building owners with respect to maintenance considerations during design will vary depending on their interest in the use of the building. Their primary aim is to preserve the value of asset to ensure a long-term trouble-free investment capable of providing a continuous and satisfactory return. The objective is to achieve this with minimum expenditure (Lee, 1987).

It is obvious that the quality of maintenance and property management has a profound impact on resident relations. Highly trained maintenance professionals ensure that home and community is continuously maintained to its maximum level of quality, ardency and beauty. Maintenance starts as the builder leaves the site. Design, materials, relationship, function, use and their interrelationship will determine the amount of maintenance during the lifetime of the building. The building fabric has to satisfy different user needs.

Maintenance and repair, one of the building maintenance and operations subtasks (Cotts 1998), is based on the concept that there are benefits in taking care of built assets to avoid suffering from a malfunction. All built assets gradually lose their performance ability from the time of installation, though at differing speeds. The deterioration rate typically depends on materials, construction means and methods, usage, climatic effects, or geographic conditions. Ideally, the required maintenance tasks begin at the same time the building is built and carries on throughout the building's life. This task can, in theory, optimize expenditures and maximize facilities' value. The maintenance plan is typically based on the fundamental aims and objectives of the organization that

owns or occupies the building (Arditi and Nawakorawit 1999b; Vanier 2001). Some organizations plan to temporarily occupy a facility; while others intend to stay in the same building for a long period of time.

A maintenance program is necessary for numerous reasons. Basically, maintenance work can and will increase the life of a building and its support systems. The study of IBM buildings in the United Kingdom confirms that even poor maintenance could prevent premature failures of some building components (Kincaid 1994). Building maintenance helps ensure safety and sanitary conditions, as well as continually meet the designed functions (Wireman 1998). Maintenance also helps make the building acceptable for sociological and psychological reasons. Anderson proposed that maintenance concepts can be classified into six different schools of thought as follows (Anderson 2001):

1. **The Process School:** This school considers maintenance as a series of processes that can be modelled based on various aspects of maintenance management. The defined model is then used to: audit the maintenance process; teach the maintenance theory; and research to improve maintenance process. An example of process school is Production Control.
2. **The Mathematical School:** This school approach is to define and express the maintenance problem in the form of a mathematical relationship. Typically, this school is concerned with finding a quantitative solution, especially economic optimization, to maintenance management problems. An example of process school is Operational Research Theory.
3. **The Reliability School:** The Reliability School focuses its maintenance strategies on items that tend to cause problems. The maintenance plan is a result of the component's prior analysis (before the event) to avoid perceived mandatory or economic failure consequences. Some examples of reliability maintenance are Reliability Centered Maintenance (RCM), Failure Modes and Effects, and Criticality Analysis (FMECA).
4. **The Quality School:** This school is heavily influenced by the Deming cycle paradigm (Plan-Do-Check-Act) and aims to ensure the highest quality product/service with limited waste. Some examples of this school are Total Product Maintenance (TPM), Total Quality Maintenance (TQMain), and Situational Maintenance (Riis, Luxhoj et al. 1997).
5. **The Condition-Based School:** The school objectives are to identify and measure parameters that can detect the beginning of failures. Examples of condition-based maintenance processes are Predictive Maintenance or Just-in-Time maintenance.
6. **The Work Management School:** This school regards maintenance management as a process of planning, organizing, and controlling maintenance work. These processes include preparing, producing schedules, allocating work, and measuring. An example of the Work Management School is Computer Maintenance Management System (CMMS).

Factors Inhibiting Facilities Maintenance Activities

The existence of poor facility maintenance cannot be said to be a natural problem and certainly has been driven by a number of factors. These factors can be noticed in several aspects of an organisation set up which might be stemmed from a number of negligent attitudes on the part of management. A study conducted by Jusoff, Syed, Bin and Adnan (2008) in Malaysia brought to the fore that poor facility management can be traced to low priority placed by an organisation on facility management. The researchers established that facility management is not considered as a major component of overall management due to the inability of management to appreciate and recognise the importance of undertaking all-inclusive facility management as part of an organisation's core functions.

1. Lack of Professional and Technical Expertise: The researchers also opined that poor facility management in Malaysia is pervasive because of the lack of local professionals with technical knowledge and specialised training in conducting facility management. Similarly, Yusof (2007) identified that the failure of organisations to make facility management one of the top priorities coupled with the lack of professionals with technical expertise in the area is the greatest recipe for the poor facility management in Africa. Keith as cited in Wuni et al. (2018) also established that lack of facility management professionals is a cause of poor facility management and indicated that facility management is a new discipline in most part of the developing world with fewer institutions training professionals in that regard. Pretty much the same is evidenced in Ghana since facility management is yet to be introduced in the traditional and technical universities as well the various levels of education (Wuni et al., 2018). The absence of ready local expertise to timely responses to the poor state of repairs is considered a major reason for poor facility management.

2. Ineffective Regulatory Maintenance Associations: Jusoff, Syed, Bin & Adnan (2008) also identified that poor facility management is prevalent because most institutions do not have comprehensive management guides to regulate the conduct of facility management services and described facility management in Malaysia as 'not having standardised practice and implementation mechanisms. They identified that poor facility management in Malaysia can be traced to the non-existence of regulative facility management association which monitors the practice of facility management by property management consultants in Malaysia. This claim by the researchers

might survive in Malaysia but in Ghana, there are disciplines with well-established associations regulating their practices and yet their services and products are still performing below expectation (Wuni et al., 2018).

3. Inadequate Funds: Yusof (2007) identified that a major cause of poor facility management can be attributed to insufficient funds and human resources (technical expertise) in the form of lack of facility managers for some organisations. This asseveration is, however, context-specific because organisations including institutions that train property experts have been known to have poor building outlook which are conspicuous signs of poor facility management. Similarly, it has been corroborated and validated by Kamarazaly et al. (2013) that inadequate funding and technical expertise is the greatest recipe for poor facility management among public institutions. They posited that even if a public institution has a designated in-house facility manager and there are insufficient funds to undertake timely response to facility management demands, poor maintenance and poor facility outlook is to be expected. Budget restrictions on the amount to be expended on maintenance, lack of property maintenance knowledge by facility managers and the attitude of deferred maintenance by facility owners and managers have also been identified as some of the causes of poor facility management among institutions (Keith as cited in Wuni et al., 2018). This is rather most applicable in the Ghanaian situation because the institutions that train property professionals are few comprising two universities and a polytechnic. These professionals are employed in other institutions and consequently, fewer professionals would be available for employment as quasi-facility managers in the rather many public institutions.

4. Poor Building Design and Construction: Waziri (2016) opined that poor building design and constructions expose building to excessive demands for unplanned maintenance which contributes greatly to poor facility management in most public institutions. This mixed design study conducted in Nigeria using questionnaires revealed that even at the advent of the current technological advancement, maintenance of buildings is not factored into the building design and construction stage rendering them susceptible to frequent faults and damages; and the inability of management of such buildings to routinely respond to these maintenance concerns translates into the poor facility management in Nigeria. Similarly, earlier studies by Adejimi and Chohan as cited in Wuni et al. (2018) also established that poor facility management in public institution could be attributed to the inability of construction professionals to incorporate maintenance and facility management at the design and construction stage of a building life cycle. These defects at the design stage are also mostly preceded by poor constructions and the result is a frequent breakdown of facilities during post-occupancy surveys (Adejimi as cited in Wuni et al., 2018).

5. A Low Priority in Capital Budgeting: Wordsworth as cited Wuni et al. (2018) rather identified that maintenance as part of facility management is given a lower priority in capital budgeting and to a great extent some institutions have no funds earmarked for maintenance, repairs and major renovations. Similarly, Hinks (2004) re-echoed that most public institutions do not earmark funds for maintenance and facility management because maintenance activities are viewed as 'responsive', discretionary and hence deferrable. The results of this low priority on maintenance have manifested in poor facility management. Blair (2004) also observed that poor facility management could be traced to inadequate facility management planning and funding. Most institutions defer maintenance until further deterioration and the nature of weather elements in tropical Africa rather speed up the decay and deterioration of the facilities. When this derelict state of repairs is accompanied by long-deferred maintenance, poor facility management outlook is expected (Weidner, 1999). It was also established that some organisations rather place emphasis on the future capital needs of their movable assets and without similar planning for facilities (non-current asset) leading to poor facility management in public institutions. This particular with those who see facility management to be more skewed to the management of physical workplace with a greater emphasis on the human resource than the buildings and infrastructure (Woodward, 2002; Blair, 2004).

6. Inadequate Planning: Blair (2004) also observed that poor facility management could be traced to inadequate facility management planning and funding. Most institutions defer maintenance until further deterioration and the nature of weather elements in tropical Africa rather speed up the decay and deterioration of the facilities. When this derelict state of repairs is accompanied by long-deferred maintenance, poor facility management outlook is expected (Weidner, 1999). It was also established that some organisations rather place emphasis on the future capital needs of their movable assets and without similar planning for facilities (non-current asset) leading to poor facility management in public institutions.

7. Leadership: Facilities cannot manage themselves except there is good leadership that will set the ball rolling (Amanchukwu & Nwachukwu, 2015). Amanchukwu and Nwachukwu maintained that, leadership, whether in the primary, secondary schools and tertiary institutions, has a vital role to play in the maintenance of the school plant. Ministry workers do not stay in educational institutions on a daily basis in order to dictate what is going wrong or right with the school plant. The school authorities should be more concerned about what the students' needs are at their developmental stages and instructional levels. The students should be properly accommodated in their various classrooms and adequate facilities and equipment provided for their effective learning. Facilities and Equipment should be for both indoor and outdoor learning so as to cater to the overall development of the learner. Those facilities and equipment should be properly maintained for them to render their services always, physically, mentally, emotionally, socially and others. Kenezevich (1975) emphasised that "the

physical needs are met through provision of safe structure, adequate sanitary facilities, a balanced visual environment, appropriate thermal environment and sufficient shelter space for work and play" (p. 563). The learner's emotional needs are met by creating pleasant surroundings, a friendly atmosphere and an inspiring environment. The head of an institution should make it a point of duty to appoint people whose task it is to check all these facilities and equipment and submit their report to the authorities for adequate attention. In that case, maintenance culture should be part and parcel of institutions

Effects of Poor Maintenance Management Culture on Government Owned Facilities

Maintenance management in the public sector in Nigeria has suffered from lack of funds for a considerable time. While the requirements for good practice in maintenance management of building stock have been established over a considerable period, the achievement of good practice is by no means universal (Turrell, 1997). Maintenance of the built environment impacts on the whole nation. The conditions of the surroundings in which we live and learn, is a reflection of the nation's wellbeing. (Lee, 1987). Maintainability of building has been identified as one of the key areas in which the construction industry must achieve significant improvement (Nayantharas de Silva et al, 2004).

According to Iyagba and Adenuga, (2003) it is impossible to produce buildings which are maintenance free, but maintenance work can be minimized by good design and proper workmanship carried out by skilled experts or competent craftsmen using suitable codes of installation, requisite building materials and methods. Management of any process involves assessing performance, and maintenance management of buildings is no exception (Turrell, 1997). In order for any maintenance manager to measure performance and set priorities, the organizational needs have to be considered i.e. the function and performance of buildings and their appropriate standards will be independent on the user's perception and their primary needs
(Chanter and Swallow, 1996).

If facilities are not adequately maintained everything will be in disarray, but if properly and adequately maintained, the facility and equipment will be as neat as in their original state. Sadly, NAEAP (2005) observed that in Nigeria, maintenance culture is generally bad as it is easier for us to build new schools than to maintain existing ones. It further explained that the governments both at Federal, State and Local levels do not believe in maintaining existing school facilities but in providing their own as per each regime that comes on board. The reason, the explanation went further, being that in Nigeria education is politicized. The issue being raised is that there appears to be inadequate maintenance of physical facilities in Nigerian colleges of education. This is the true position as Nwagwu, Ehiametalor, Ogunu and Nwadiani (2001) lamented that billions of Naira have been spent in the construction of school buildings across the country, purchase of equipment, machines and furniture to enhance teaching and learning while only very little attention is ever given to maintenance. They also stated that school facilities are usually considered to have perpetual and unpredictable wear and tear due to handling.

In a related development, Ebru (2005) stated that there is evidently poor maintenance of physical facilities in Nigerian tertiary institutions and that most of these facilities are dilapidated. The author reiterated that this was due to poor attitude of Nigerians towards maintenance and called on all levels of government in the educational institution to provide for the maintenance of their physical facilities. Ehiametalor (2001) regretted insufficient maintenance facilities in the colleges of education and attributed it to the lack of defined policy of maintenance of school facilities, hence he asserted: In Nigeria, there has not been clearly defined policy in maintenance culture either in educational infrastructure development or government owned infrastructure. Successive governments have paid lip service on the matter of plant maintenance to the extent that grandiose maintenance plans have always failed even before they take off.

Government needs maintenance policy for institutions of learning such as the tertiary institutions. This will help administrators not to focus on irrelevant administrative issues but on programmes viability and success. There are uncompleted infrastructural projects all over educational institutions and equipment bought for secondary schools by the federal government in the early 80s are still wearing away in their original states (Osadolor, 2001). Apart from poor maintenance culture, most tertiary institutions' authorities appear not to be interested or even experienced enough in carrying out maintenance activities on their institution's physical facilities, may be due to maladministration or that financial resources are not provided for that purpose. Generally, effective teaching and learning in the tertiary institutions is invariably being hampered by un-maintained physical facilities as these have outlived their usefulness. According to Ikede (1999), lack of maintenance of physical facilities has contributed in hampering the efforts being made to bring the nation to lime light with regards to proper education capable of stabilizing its socio-economic and political aspiration. Similarly, Ozo (2002) argued that Nigeria has not attained its desired height in technology due to its poor education system occasioned by poor facilities, which cannot serve any positive purpose in teaching and in learning. He lamented non-functionality of most facilities in our schools and emphasized the need for proper maintenance of teaching/learning facilities.

Performance of hospital buildings and their component depends to large extent on continuous and planned periodical maintenance, which challenges owners and facility managers to institute precise planning based on a well-structured maintenance programmes (Shohet et al, 2002). Despite the ever-growing need for lower

operational costs, facilities managers must ensure that facilities are constructed and maintained without compromising safety. In Nigeria, colonial architecture in some of the older public buildings especially hospitals which was hitherto famous for its sturdiness and functionality has now becomes less attractive because of the general neglect of the buildings. Overcrowding has also led to the deterioration of the facilities installed (Onifade 2003). If no action is taken all these old buildings and facilities will decay and will only be replaced in function if the means are available. The inadequacy of the operation and maintenance of building and infrastructure in developing countries has serious consequences for economic and social development especially on the health sector.

According to Clifton (1974), it was observed that too often property managers are not among the members of design team when a new building is planned but his wide knowledge of problems of buildings in use would justify his inclusion. The contribution which the property manager would make is often discovered to improve the usefulness of the completed building and increase the flexibility of use, thus enhancing the prospect of finding and keeping a tenant or tenants. The property manager should be able to make significant suggestions regarding materials and layout. Such suggestions affect capital and rental values and the cost of maintenance procedures. Maintenance of properties simply means to embark on a work in order to keep, restore or improve every property, that is, every part of a building, its service and surrounds to a currently accepted standard and to sustain the utility and value of the property. The committee on building maintenance defines acceptable standard to mean that which sustains the utilities and value of the property and this is found to include some degree of improvement over the life of the building as acceptable comfort and as amenities standard rise. Maintenance is a complex and multifaceted activity which until recently has attracted the attention of the British standard. Neglect of property maintenance has accumulation of results with rapidly increasing deterioration of fabric and finishes of a building accompanied by harmful effect on the components and the occupants. It is highly desirable but hardly feasible to produce a building that is maintenance free, although much can be done at design stage to reduce the amount of subsequent maintenance work. All elements of building deteriorate at a greater or lesser rate depending on materials and methods of construction, environmental conditions and the use of the building (Seeley 1965).

Maintenance problems in building facilities are heavily attributed to many factors, the most important ones are design limitations and construction knowledge; owners must be made aware that insufficient funding of design and construction will impact future maintenance capabilities (Aris, 2006). Clients and end-users blame the construction industry for delivering products that do not achieve their objectives or meet their expectations (Barrett and Stanley, 1999). This could be attributed to a number of reasons. Amongst them, clients and end users are not well represented in the design process. Hence, their objectives and requirements are not well perceived or reflected in design. The increasing recognition of the important role played by clients at the core of the construction process and the driving force for improvement necessitated the importance of achieving their satisfaction through accomplishing their objectives and providing them with best value for money (Othman, 2004).

Building owners place great emphasis on the capital costs of a project at the expense of future running costs. The primary initiators of maintenance are the owner and/or user, may exert either a direct or an indirect influence on the amount of work undertaken. The role of building owners with respect to maintenance considerations during design will vary depending on their interest in the use of the building. Their primary aim is to preserve the value of asset to ensure a long-term trouble-free investment capable of providing a continuous and satisfactory return. The objective is to achieve this with minimum expenditure.

It is obvious that the quality of maintenance and property management has a profound impact on resident relations. Highly trained maintenance professionals ensure that home and community is continuously maintained to its maximum level of quality, ardency and beauty. Maintenance starts as the builder leaves the site. Design, materials, relationship, function, use and their interrelationship will determine the amount of maintenance during the lifetime of the building. The building fabric has to satisfy different user needs.

Maintenance and repair, one of the building maintenance and operations subtasks (Cotts 1998), is based on the concept that there are benefits in taking care of built assets to avoid suffering from a malfunction. All built assets gradually lose their performance ability from the time of installation, though at differing speeds. The deterioration rate typically depends on materials, construction means and methods, usage, climatic effects, or geographic conditions. Ideally, the required maintenance tasks begin at the same time the building is built and carries on throughout the building's life. This task can, in theory, optimize expenditures and maximize facilities' value. The maintenance plan is typically based on the fundamental aims and objectives of the organization that owns or occupies the building. Some organizations plan to temporarily occupy a facility; while others intend to stay in the same building for a long period of time.

A maintenance program is necessary for numerous reasons. Basically, maintenance work can and will increase the life of a building and its support systems. The study of IBM buildings in the United Kingdom confirms that even poor maintenance could prevent premature failures of some building components (Kincaid 1994). Building maintenance helps ensure safety and sanitary conditions, as well as continually meet the designed

functions (Wireman 1998). Maintenance also helps make the building acceptable for sociological and psychological reasons.

Anderson proposed that maintenance concepts can be classified into six different schools of thought as follows (Anderson 2001):

1. **The Process School:** This school considers maintenance as a series of processes that can be modelled based on various aspects of maintenance management. The defined model is then used to: audit the maintenance process; teach the maintenance theory; and research to improve maintenance process. An example of process school is Production Control.
2. **The Mathematical School:** This school approach is to define and express the maintenance problem in the form of a mathematical relationship. Typically, this school is concerned with finding a quantitative solution, especially economic optimization, to maintenance management problems. An example of process school is Operational Research Theory.
3. **The Reliability School:** The Reliability School focuses its maintenance strategies on items that tend to cause problems. The maintenance plan is a result of the component's prior analysis (before the event) to avoid perceived mandatory or economic failure consequences. Some examples of reliability maintenance are Reliability Centered Maintenance (RCM), Failure Modes and Effects, and Criticality Analysis (FMECA).
4. **The Quality School:** This school is heavily influenced by the Deming cycle paradigm (Plan-Do-Check-Act) and aims to ensure the highest quality product/service with limited waste. Some examples of this school are Total Product Maintenance (TPM), Total Quality Maintenance (TQMain), and Situational Maintenance (Riis, Luxhoj et al. 1997).
5. **The Condition-Based School:** The school objectives are to identify and measure parameters that can detect the beginning of failures. Examples of condition-based maintenance processes are Predictive Maintenance or Just-in-Time maintenance.
6. **The Work Management School:** This school regards maintenance management as a process of planning, organizing, and controlling maintenance work. These processes include preparing, producing schedules, allocating work, and measuring. An example of the Work Management School is Computer Maintenance Management System (CMMS).

II. Methodology

This study adopted the descriptive survey research design. The researcher considers this design appropriate for this study since it intends to collect data from professionals working in the Department of Works and Service in the three government owned institutions in Anambra State (Anambra State Teaching Hospital Amaku, Anambra State Broadcasting Service (ABS) and Kenneth Dike Library). The population the study consists of the total population of one hundred and twenty-two (122) respondents and 122 structured questionnaires were distributed which comprised of two sections. The instrument for data collection were structured questionnaire, Oral Interview and Direct Observations / Walkthrough Evaluations. The structured questionnaire was validated by three experts. The data collected were analyzed using descriptive statistics to answer the research questions and determine closeness of the respondents' mean ratings.

Data Presentation and Analysis

Demographic Analysis of the Respondents

Gender Distribution:

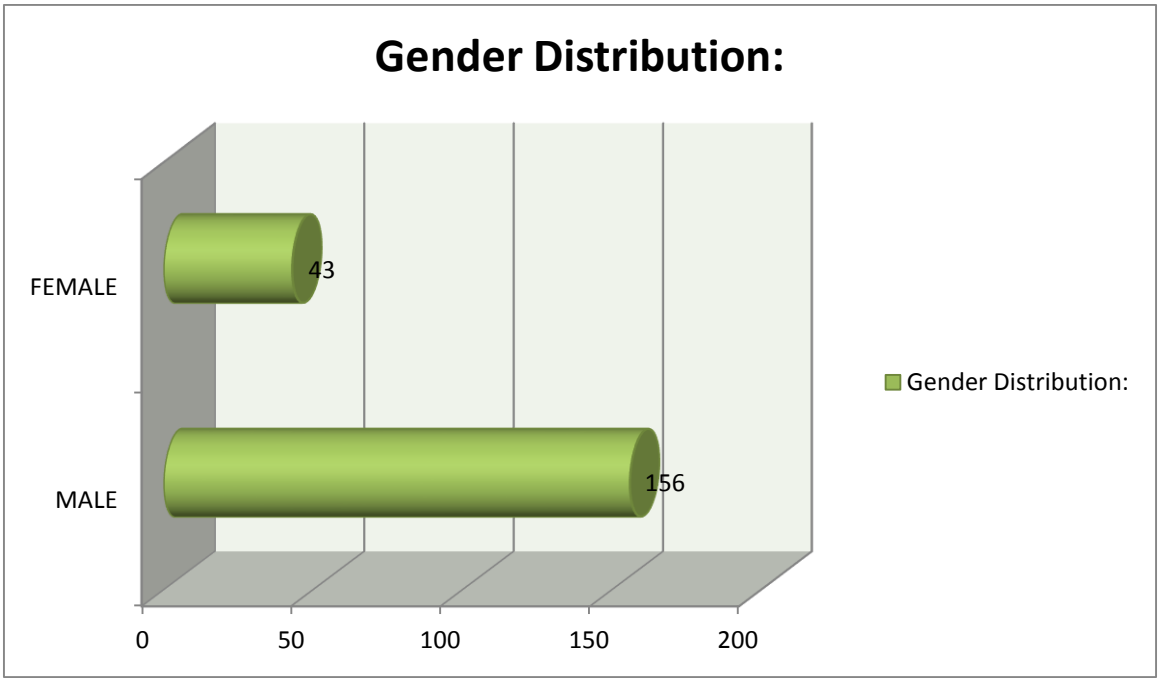

Fig 1.0: Gender Distribution

The gender composition among 119 professionals employed in the Department of Works and Service in State Government-owned Institutions in Anambra State provides important insights into the gender balance within this workforce. The analysis shows that out of the total respondents, 156 are male and 43 are female. This breakdown highlights a notable difference between the number of male and female respondents, indicating a gender gap among the professionals working in the Department of Works and Service in State Government-owned Institutions in Anambra State.

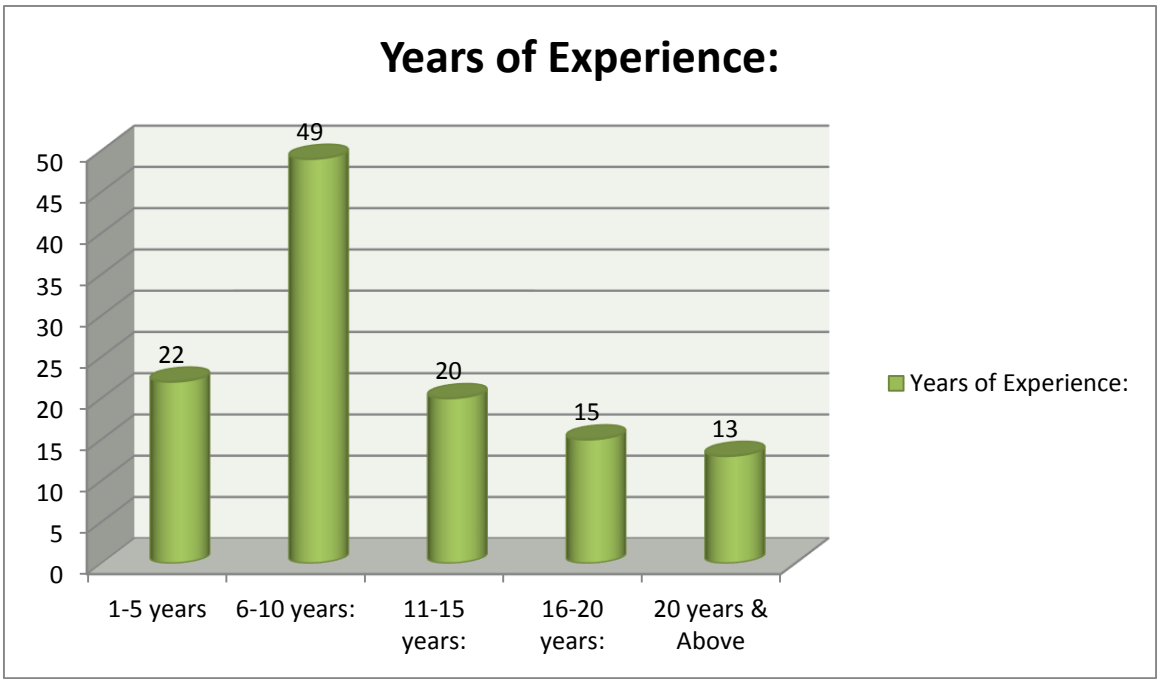

Figure 1.2: Years of Experience

The spread of years of experience among 119 professionals employed in the Department of Works and Service in State Government-owned Institutions in Anambra State offers valuable insights into their professional backgrounds. The breakdown indicates the following number of individuals in each experience category: 1-5 years: 22, 6-10 years: 49, 11-15 years: 20, 16-20 years: 15, and 20 years and above: 13. This distribution reflects a diverse range of experience levels within the group. While some individuals possess relatively less experience

(1-5 years and 6-10 years), others have accumulated significant expertise over time (16-20 years and 20 years and above). The largest portion of individuals falls into the categories of 6-10 years, 1-5 years, and 11-15 years, comprising a substantial portion of the sample.

Academic Qualifications:

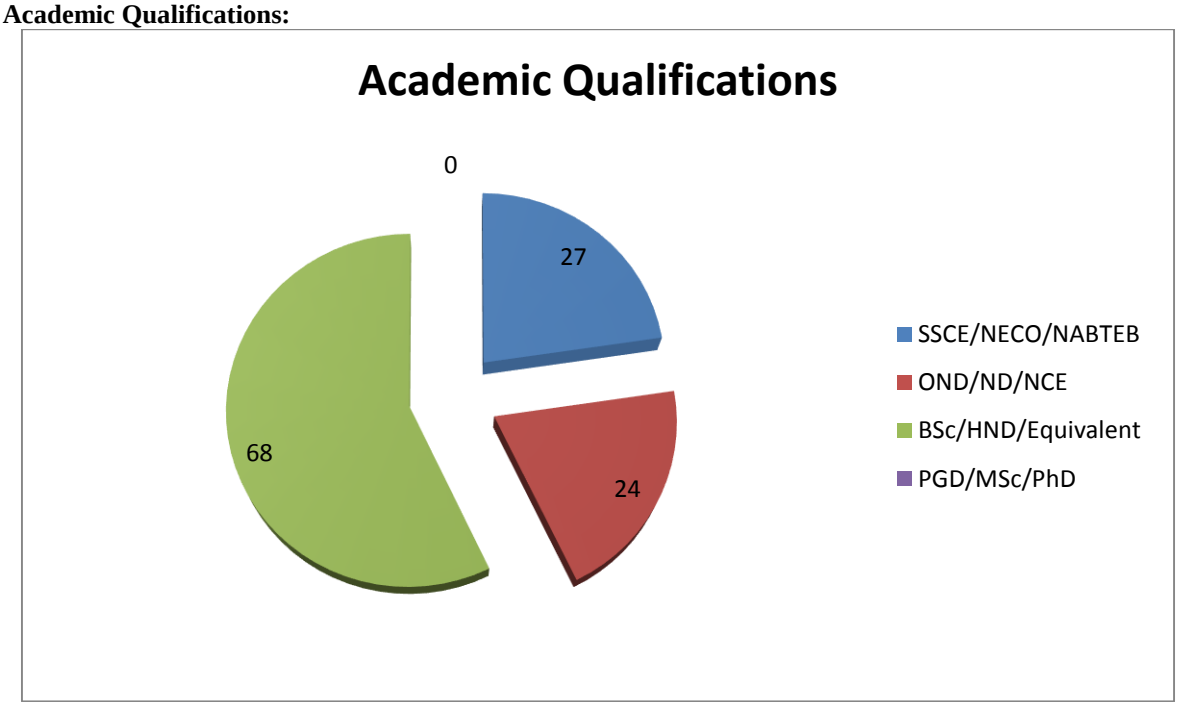

Fig 1.3: **Academic Qualifications**

The educational backgrounds of 119 professionals employed in the Department of Works and Service in State Government-owned Institutions in Anambra State showcase a variety of academic qualifications. The majority, comprising 68 individuals, possess BSc/HND/Equivalent degrees, which represents a significant portion of the workforce. Additionally, there are 24 individuals holding OND/ND/NCE Equivalent degrees, while 27 have SSCE/NECO/NABTEB qualifications, indicating a notable presence of both higher and secondary education levels. None have attained the highest academic qualifications (PGD/MSc/PhD).

This diverse educational mix contributes to a well-rounded and skilled group of professionals in the Department of Works and Service in State Government-owned Institutions in Anambra State. The presence of individuals with different education levels reflects the breadth of expertise and skills within the field. Professionals with OND/ND/NCE qualifications bring practical knowledge and technical skills, while those with BSc/HND/Equivalent degrees offer deeper theoretical understanding and specialized training. Additionally, individuals with SSCE/NECO/NABTEB qualifications contribute foundational knowledge and skills to the workforce.

Data Presentation for Each Research Questions

Research question 1

What is the nature of Government owned facilities in Anambra State?

Table 1.1: Mean scores indicating the nature of Government Owned Facilities in Anambra State

	N	Mean	Std. Deviation
Natural Lighting Comfort	119	3.55	1.095
Fitness for Purposes	119	3.16	.948
Adequate Safety and Security	119	2.90	.817
Artificial Lighting Comfort	119	2.77	1.423
Increased Productivity	119	2.61	1.099
Enhances Life Activities	119	2.49	1.088
Environmental Sustainability	119	2.46	1.040
Improved Quality and Efficiency of Work	119	2.08	.819
Cleanliness of the Building	119	1.97	.818
Aesthetics and Psychological Appeal	119	1.89	.852
General Accessibility	119	1.87	.839

Table 1.1 presents the findings of the study examining the nature of Government-owned facilities in Anambra State, Nigeria. The study employed a mean decision rule of 3.0 to assess various aspects of these facilities,

shedding light on their strengths and areas for improvement. The findings of the study indicate that several aspects of Government-owned facilities in Anambra State align with desirable qualities. Notably, items such as natural lighting comfort and suitability for their intended purposes received mean scores above 3.0, suggesting that these facilities generally provide conducive environments for occupants. However, other crucial aspects, including safety and security measures, artificial lighting comfort, productivity enhancement, support for life activities, environmental sustainability, work efficiency, building cleanliness, aesthetic appeal, and general accessibility, fell below the mean decision rule of 3.0. This implies that these facilities may lack adequate provisions in these areas, potentially hindering their effectiveness and user satisfaction.

Research Question 2

What are the causes of poor facilities management strategy in Government owned facilities in Anambra State?

Table 1.2: Mean Scores Showing the Causes of Poor Facilities Management Strategy in Government Owned Facilities in Anambra State

	N	Mean	Std. Deviation
Financial Constraints and Delayed Funding for Maintenance Projects	119	4.05	.832
Use of Substandard Materials and Construction Practices	119	4.05	.832
Inadequate Resources Allocation for Maintenance Activities	119	4.04	.827
Neglect of Building Design and Structural Stability	119	3.98	.823
Inadequate Maintenance Programs and Procedures	119	3.97	.807
Lack of Documentation and Maintenance Manuals	119	3.94	.847
Absence of Maintenance Planning and Prioritization	119	3.60	1.174
Oversight of Building Functionality and Adaptability to Changing Needs	119	3.55	1.125
Insufficient Training and Skill Development for Maintenance Staff	119	3.55	1.125
Non-Compliance with Building Regulations and Specifications	119	3.49	1.104
Poor Workmanship and Structural Integrity	119	3.39	1.091
Lack of Maintenance Culture	119	3.05	1.352
Impact of Environmental Factors on Building Deterioration	119	2.91	1.390
Lack of Proper Supervision and Oversight	119	2.91	1.390
Failure to Incorporate User Needs and Feedback into Maintenance Strategies	119	2.39	1.136
Challenges with Maintenance Management Systems and Technology	119	1.87	.787

The findings in Table 1.2 identified the factors contributing to the ineffective management of facilities in Government-owned buildings in Anambra State, Nigeria. Drawing upon findings from Table 1.2, utilizing a mean decision rule of 3.0, the study sheds light on the root causes of poor facilities management strategies in the region. These include: financial constraints and delayed funding for maintenance projects, use of substandard materials and construction practices, inadequate resources allocation for maintenance activities, neglect of building design and structural stability, inadequate maintenance programs and procedures, lack of documentation and maintenance manuals, absence of maintenance planning and prioritization, oversight of building functionality and adaptability to changing needs, insufficient training and skill development for maintenance staff, non-compliance with building regulations and specifications, poor workmanship and structural integrity and lack of maintenance culture.

Research Question 3

What are the effects of poor maintenance management culture on Government owned facilities in Anambra State?

Table 1.3: Mean Scores Showing the Effects of Poor Maintenance Management Culture on Government Owned Facilities In Anambra State?

	N	Mean	Std. Deviation
Condition of Buildings Being Very Poor and Deplorable	119	4.05	.832
Problems with Ventilation System	119	3.97	.786
Impact on Aesthetics and Psychological Appeal	119	3.94	.847
Issues with Lighting System	119	3.44	1.117
Impact on Broadcasting Services Delivery	119	2.92	.804
Poor Indoor Air Quality (Humidity)	119	2.91	1.390
Impact on Teaching and Learning Environment	119	2.86	.816
Impact on Information Resources Availability	119	2.39	1.151
Lack of Discussion Privacy and Noise Distraction	119	2.39	1.136
Effect on Academic Performance	119	2.34	1.099
Effect on Reading Culture	119	2.03	.843
Causes Stress Among Users	119	2.01	.828
Inadequacy of Information Resources	119	2.01	.797
Impact on Clinical Operations	119	1.96	.877
Influence on Student Enrolment Rates	119	1.87	.787

Table 1.3 illustrates the consequences of a deficient maintenance management culture on Government-owned facilities in Anambra State. These consequences include: condition of buildings being very poor and deplorable,

problems with ventilation system, impact on aesthetics and psychological appeal and issues with lighting system. These findings highlight the adverse effects of inadequate maintenance practices on the overall quality and functionality of Government-owned facilities in the region.

Research Question 4

What are the factors responsible for deterioration of Government owned facilities in Anambra State?

Table 1.4: Mean scores showing the factors responsible for deterioration of Government owned facilities in Anambra State

	N	Mean	Std. Deviation
Natural Deterioration due to Age and Environment	119	3.96	.796
Lack of Operational Maintenance Policy	119	3.93	.831
Poor Construction Quality	119	3.92	.777
Complexity of Design	119	3.58	.496
Wear and Tear	119	3.50	1.141
Lack of Adoption of Appropriate Maintenance Cycle for Building Maintenance	119	3.45	1.118
Lack of Maintenance Culture	119	3.42	1.116
Wind Action	119	3.37	1.096
Fungal/Termite Attack	119	2.52	1.171
Poor Design	119	2.42	1.139
Reluctance of Some Establishments to Support Innovation	119	2.34	1.100
Absence of Long-Term Arrangements for Supply of Essential Replacement Parts	119	2.34	1.137
Vegetation Effect	119	2.08	.835
Dampness	119	2.00	.803
Inadequate Maintenance of Facility Plant and Equipment	119	1.87	.808

In Table 1, it was revealed that the factors responsible for deterioration of Government owned facilities in Anambra State include: natural deterioration due to age and environment, lack of operational maintenance policy, poor construction quality, complexity of design, wear and tear, lack of adoption of appropriate maintenance cycle for building maintenance, lack of maintenance culture and wind action.

III. Conclusion

In conclusion, the research findings shed light on both positive and concerning aspects of Government-owned facilities in Anambra State. While certain qualities like natural lighting and suitability for intended purposes are commendable, the study reveals significant shortcomings in areas crucial for user satisfaction and facility effectiveness. Poor maintenance practices, stemming from various factors such as financial constraints, substandard construction, and neglect, have led to a host of issues including deteriorating building conditions, ventilation problems, aesthetic concerns, and lighting deficiencies.

These findings underscore the critical importance of addressing maintenance management deficiencies to enhance the overall quality and functionality of Government-owned facilities in the region. It is evident that a lack of adequate maintenance protocols and a culture of neglect have contributed to the deterioration observed.

Moving forward, pragmatic strategies such as regular inspection protocols, preventive maintenance programs, sufficient budget allocations, technological integration, collaboration with experts, and sustainable practices adoption are recommended for effective facilities management. By implementing these measures, stakeholders can work towards ensuring that Government-owned facilities in Anambra State not only meet but exceed the expectations of occupants, fostering environments conducive to productivity, safety, and user satisfaction.

IV. Recommendations

Based on the research findings, the following recommendations are made for improving facilities management and maintenance of Government-owned facilities in Anambra State.

1. Government agencies responsible for facilities management should collaborate with experts in building maintenance and management to develop clear and comprehensive maintenance policies. These policies should prioritize regular inspections, preventive maintenance programs, and adherence to building regulations.
2. Government bodies overseeing finance and budgetary allocations should prioritize and allocate sufficient financial resources to support maintenance activities. Addressing financial constraints and delayed funding for maintenance projects is crucial for ensuring timely repairs and upgrades to Government-owned facilities.
3. Government agencies responsible for facilities management should invest in training and skill development programs for maintenance staff. This includes providing training on proper maintenance procedures, use of technology for maintenance tracking, and adherence to building regulations.
4. Government agencies responsible for facilities management should implement technology solutions for tracking maintenance activities and reporting maintenance issues. This could involve the use of maintenance

management software systems to streamline maintenance workflows, track work orders, and generate maintenance reports for better decision-making.

5. Government agencies responsible for facilities management should foster collaboration with external experts and consultants for specialized maintenance needs. Engaging with experts in fields such as structural engineering, environmental sustainability, and building design can provide valuable insights and recommendations for improving facilities management practices.

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