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Operational Assessment of Facilities in Catholic Major Seminaries in Nigeria: A Comparative Case Study of Bigard Memorial Seminary and St. Joseph Major Seminary.

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Abstract

Background: Catholic major seminaries in Nigeria represent significant investments in physical infrastructure to support priestly formation. However, the operational effectiveness of these facilities remains understudied despite implications for formation outcomes and institutional sustainability. Objective: This study assessed the operational state of facilities at Bigard Memorial Seminary, Enugu, and St. Joseph Major Seminary, Ikot Ekpene, with particular focus on identification of available facilities, evaluation of utilization patterns, and analysis of management challenges. Methods: A mixed-methods case study approach was employed, including physical facility inspections, administrative interviews, and survey of seminary personnel. The study drew on both Nigerian and international literature on facilities management to contextualize findings. Both institutions possess comprehensive facilities. However, significant underutilization was observed primarily due to inadequate professional facilities management, deficient maintenance systems, and insufficient operational planning. Conclusion: Strategic integration of professional facilities management is critical to optimizing the substantial physical assets in Nigerian Catholic seminaries. Institutional leadership should prioritize development of comprehensive facilities management plans, investment in maintenance systems, and professional development for operational staff to align physical resources with formational mission.

Keywords: Catholic seminaries, facilities management, human formation, institutional sustainability, maintenance culture, Nigeria.

1.0 Introduction

1.1 Background

Catholic major seminaries in Nigeria represent significant institutional investments with substantial physical infrastructures designed to support comprehensive human, spiritual, academic, and pastoral formation. These institutions function as critical training grounds for future Catholic clergy in a region experiencing both substantial vocations to priesthood and significant challenges in institutional maintenance. The physical

environment of formation institutions directly impacts the quality and effectiveness of priestly training, yet the operational management of these extensive facilities often receives insufficient attention in strategic planning and resource allocation.

Bigard Memorial Seminary, Enugu, and St. Joseph Major Seminary, Ikot Ekpene, stand as two prominent formation centers in Southern Nigeria, each with considerable infrastructure developed over decades of operation. Bigard Memorial Seminary, established earlier and serving as the "Mother Seminary," features extensive facilities including a FIFA-standard sports field, multiple football pitches, library facilities upgraded to e-library status, and various residential halls (Omenyi, 2015; Eze, 2019) . St. Joseph Major Seminary, originally established as a philosophy campus of Bigard to address congestion at the main facility, has evolved into a full formation institution with its own comprehensive infrastructure (Okoro, 2020; Nwokolo, 2018). Both institutions represent substantial ecclesiastical investments in priestly formation with physical plants valued at millions of dollars.

1.2 Statement of the Problem

Despite these substantial physical assets, preliminary evidence suggests significant operational challenges in facility utilization and maintenance, which includes- Underutilization of facilities, Poor maintenance culture. Limited professional facility managers, Lack of empirical studies on seminaries, etc. This study investigates the paradoxical situation wherein facilities such as water production plants, bakeries, residential halls, and other infrastructure remain physically present but operationally suboptimal. The central thesis argues that this underutilization stems not from absence of infrastructure but from deficiencies in professional facilities management practices—a challenge reflecting broader institutional maintenance patterns in Nigeria.

1.3 Aim and Objectives

Aim: To assess the operational condition and utilization of facilities in selected Catholic seminaries.

Objectives: The research employed a case study methodology to achieve three primary objectives:

First, to catalog the extensive facilities present at both institutions;

Second, to assess their current operational status and utilization patterns; and

Thirdly, to analyze the management structures contributing to current operational states.

2.0 Literature Review

2.1 Global Facilities Management Principles

Facilities Management (FM) has evolved globally from a narrowly focused maintenance function to a strategic discipline integral to organizational success. Internationally, FM is recognized as "an integrated approach to maintaining, improving, and adapting the buildings and infrastructure of an organization in order to create an environment that strongly supports the primary objectives of that organization" (Sommerfeld, 2024). The strategic importance of FM is particularly pronounced in educational institutions, where physical environment directly impacts institutional effectiveness and mission fulfillment. The International Facilities Management Association (IFMA) emphasizes that proper FM encompasses not merely reactive maintenance but comprehensive planning for space utilization, life cycle costing, sustainability, and user experience optimization.

The global staffing crisis in facilities management further compounds these challenges. According to research by the College and University Professional Association for Human Resources (CUPA-HR), the median age of the skilled craft workforce is 54, with more than half between ages 50 and 65, and only 17% under 40 . This aging workforce, combined with competition from the private sector and changing workforce values, creates significant challenges for institutional maintenance worldwide. These global trends manifest with particular acuity in developing economies like Nigeria, where resource constraints intensify these structural FM challenges.

2.2 Facilities Management in the Nigerian Context

The Nigerian context presents particular challenges for facilities management, characterized by a documented poor maintenance culture affecting both public and private institutions. Research on building maintenance in Nigeria identifies multiple contributing factors including: "non-availability of funds, indiscipline and ignorance, bad economy, corruption, cultural beliefs, lack of maintenance culture, lack of skilled maintenance personnel, use of foreign building materials and unethical behaviour". These factors create a context in which even substantial initial investments in physical infrastructure frequently deteriorate prematurely, compromising institutional functioning and requiring costly interventions.

Studies of Nigerian higher educational institutions specifically identify common maintenance defects including "joinery infestation and fittings, substandard finishes and cracks, deterioration and leakages, and rusting and installation issues". The petroleum training Institute in Uwvie and Delta State University in Abraka exemplify these challenges, where research identified "lack of preventive maintenance" as the highest ranked factor affecting building maintenance, followed by "vandalism" and "shifting values and modernization". These institutional patterns directly impact operational functionality and create significant long-term costs through deferred maintenance.

2.3 Catholic Institutional Management

Catholic institutions globally face particular challenges in balancing mission fulfillment with operational excellence. The National Standards and Benchmarks for Effective Catholic Schools (NSBECS) emphasizes "Operational Vitality" as an essential dimension of institutional health, encompassing facilities planning, financial management, and human resource development. The concept of Operational Vitality Assessments for Catholic institutions specifically includes facilities planning as a core component of institutional sustainability, recognizing that physical environment directly impacts formational effectiveness.

Catholic theology of creation further emphasizes responsible stewardship of material resources as a spiritual imperative, adding theological dimension to practical facilities management. This integrated approach recognizes that "the built environment—the spaces where learning, research, and student life happen" cannot be relegated to "afterthought" status without compromising both operational effectiveness and mission fulfillment. The management of religious institutions thus requires integration of practical management principles with theological values regarding material creation and institutional stewardship.

3.0 Methodology

3.1 Research Design

This study employed a qualitative case study approach to investigate the operational state of facilities at two Catholic major seminaries in Southeastern Nigeria. The research design incorporated multiple data collection methods to enable comprehensive assessment of facility conditions, utilization patterns, and management practices. The case study methodology was selected for its capacity to

provide rich contextual understanding of complex institutional phenomena within their real-life contexts.

The study examined Bigard Memorial Seminary, Enugu, and St. Joseph Major Seminary, Ikot Ekpene, as purposefully selected cases representing typical challenges and opportunities in facility management within Nigerian Catholic institutional contexts. These two institutions share common ecclesiastical provenance while operating in distinct geographical and administrative contexts, enabling comparative analysis of facility management approaches within similar mission frameworks.

3.2 Data Collection Methods

Data collection incorporated three primary methods to ensure comprehensive assessment:

1. Physical Facility Inspection: Researchers conducted systematic inspections of key facilities at both institutions, including water production facilities, bakeries, residential halls, academic buildings, libraries, and recreational facilities. Inspection protocols documented physical condition, operational status, evidence of maintenance or deterioration, and utilization indicators.

2. Administrative Interviews: Semi-structured interviews were conducted with 12 administrative personnel at both institutions, including rectors, vice-rectors, finance officers, and facility maintenance staff. Interview protocols focused on understanding management structures, maintenance procedures, budget allocation, and perceived challenges in facility operations.

3. Documentary Analysis: Institutional records including strategic plans, maintenance logs, budget documents, and facility improvement reports were reviewed where available to supplement observational and interview data.

3.3 Analytical Approach

Data analysis followed a thematic analysis framework using a combination of deductive codes derived from the facilities management literature and inductive codes emerging from the data itself. Analysis focused on identifying patterns of facility management challenges, utilization barriers, and potential leverage points for improvement. The research employed triangulation across data sources and methods to enhance validity and reliability of findings.

The study adhered to ethical research principles, including institutional permissions, confidentiality protections, and accurate

representation of findings. Limitations included reliance on self-report data in interviews and the inherent subjectivity of facility condition assessments, though these were mitigated through methodological triangulation.

4.0 Findings

4.1 Inventory of Key Facilities

Both seminaries maintain extensive physical plants with diverse facilities supporting the comprehensive formation of seminarians. The facilities assessment revealed substantial investments in infrastructure across multiple domains:

Table 4.1: Key Facilities at Bigard Memorial Seminary and St. Joseph Major Seminary

S/N	Facility Category	Bigard	St. Joseph
1.	Library	St. James e-library	Library
2.	Academic/Administrative Blocks	Philosophy and Theology Facilities	Philosophy and Theology Facilities
3.	Clinic	Bigard Clinic	St. Luke Clinic
4.	Residential Facilities	Multiple Dormitories for Seminarians and Staff Housings	Multiple Dormitories for Seminarians and Staff Quarters
5.	Recreational Facilities	Four standard lawn tennis courts, two volleyball courts, one basketball court, three standard football Pitches.	Tow standard lawn tennis courts, two volleyball courts, two basketball court, two standard football pitches.
6.	Bakery	Bakery Facilities	Bread Bakery Facilities
7.	Water Production	Sachet and Bottled water production Facilities	Sachet and Bottled water production Facilities
8.	Chapel	About 15,000 person's capacity Chapel.	About 12,000 person's capacity Chapel.
9.	Farms	Piggery, Poultry, Plantain Plantation, Livestock, etc.	Snail farm, Piggery, Poultry, Banana Plantation, Pineapple Orchard, etc.

4.2 Facility Utilization Patterns

Assessment of facility utilization revealed significant underutilization of existing infrastructure across multiple facility categories at both institutions. The water production facilities at both seminaries, initially designed to provide potable water for the entire campus community and potentially generate revenue through external distribution, were operating at approximately 30-40% of capacity due to maintenance issues and

operational constraints. Similarly, bakery operations demonstrated substantial underutilization, with production levels falling significantly below installed capacity despite adequate physical infrastructure.

Academic facilities, including classrooms and lecture halls, showed variable utilization patterns, with peak usage during morning academic programs but minimal utilization during afternoon and evening periods. The St. James' Library at Bigard Memorial Seminary, despite its e-library upgrades, demonstrated limited evening utilization and restricted access patterns that diminished its potential impact on the academic formation program . Recreational facilities, while generally better utilized than other facility categories, still showed temporal underutilization and maintenance challenges, particularly with specialized sports infrastructure.

Table 4.2: Facility Utilization Rates at Bigard Memorial Seminary and St. Joseph Major Seminary

Seminary Name	Facility Type	Utilization Rate	Primary Constraint
Bigard Memorial	Water Production	30-40%	Operational/staffing limitations, and Seminary Vacations.
St. Joseph	Water Production	30-45%	Inefficient staffing, Supply Chain limitation and Seminary Vacations.
Bigard Memorial	Bakery Operations	20-35%	supply chain challenges
St. Joseph	Bakery Operations	30-35%	supply chain challenges
Bigard Memorial	Academic Facilities	60-70% (peak); 20-30% (off-peak)	Evening access restriction and Seminary Vacations
St. Joseph	Academic Facilities	60-65% (peak); 25-40% (off-peak)	Structure of evening activities and Seminary Vacations
Bigard Memorial	Recreational Facilities	70-80% (peak); 40-50% (off-peak)	Seasonal variations
St. Joseph	Recreational Facilities	60-75% (peak); 30-40% (off-peak)	Seasonal Variations
Bigard Memorial	Residential Facilities	90-95%	Generally well utilized during academic semester
St. Joseph	Residential Facilities	90-95%	Efficiently used during academic periods

4.3 Operational and Management Challenges

The study identified several interconnected operational and management challenges contributing to facility underutilization:

1. Inadequate Professional Facilities Management: Both institutions lacked dedicated facilities management professionals with formal training in contemporary FM practices. Existing personnel demonstrated strong commitment but limited technical training in preventive maintenance systems, life-cycle costing, and strategic facilities planning. This finding aligns with broader patterns in Nigerian institutional management where "lack of skilled maintenance professionals" ranks as a significant factor in maintenance deficiencies.
2. Reactive Maintenance Culture: Maintenance approaches at both institutions predominantly followed a reactive model rather than preventive or predictive approaches. The research documented evidence of "deferred maintenance" across multiple facility types, with interventions typically occurring only after equipment failure or significant deterioration. This pattern reflects broader challenges in the Nigerian context where "lack of preventive maintenance" consistently ranks as the primary factor affecting building maintenance.
3. Financial Constraints: Both institutions faced significant challenges in allocating sufficient operational budgets for comprehensive facility maintenance. Limited financial resources resulted in prioritization dilemmas where immediate academic and formation needs typically superseded facility maintenance requirements. This pattern reflects global challenges in educational FM, where institutions often "close buildings, cut maintenance, and pause capital projects to save money" without calculating long-term costs.

4. Documentation and Planning Deficiencies: The study identified limited documentation of maintenance histories, incomplete inventory systems for equipment and parts, and absence of comprehensive facilities management plans. This documentation deficit complicated effective maintenance scheduling and long-term planning for facility improvements.

5.0 Discussion

5.1 Consequences of Facility Underutilization

The documented underutilization of substantial physical infrastructure at both seminaries generates multiple negative consequences affecting institutional

effectiveness and mission fulfillment. First, financial inefficiencies result when significant capital investments fail to deliver intended operational returns. The substantial resources invested in water production facilities, bakery operations, and specialized recreational infrastructure represents sunk costs that generate suboptimal returns when operating below capacity. This financial inefficiency is particularly problematic in resource-constrained environments where alternative uses for these resources exist.

Second, missed formational opportunities occur when facility underutilization limits the holistic development of seminarians. The Catholic vision of priestly formation emphasizes integrated human development encompassing intellectual, spiritual, pastoral, and human dimensions. Adequate facility utilization contributes directly to this formational mission, particularly in the human dimension where recreational activities, practical skills development, and community living all depend on appropriate physical environments. The documented underutilization of recreational facilities, for instance, potentially limits important aspects of human formation through physical development and community building.

Third, accelerated deterioration of physical plants occurs when facilities remain underutilized without proper preservation maintenance. Research indicates that "deferred maintenance is a ticking time bomb "where every dollar "saved" through inadequate maintenance creates significantly higher future costs. This pattern is particularly evident in specialized equipment such as water production facilities and bakery operations, where technical systems often deteriorate more rapidly when not properly operated and maintained.

5.2 Theoretical Implications

The findings from this study have important implications for theoretical understanding of facilities management in religious institutional contexts in developing economies. First, the research demonstrates that management deficiencies rather than infrastructure deficiencies constitute the primary constraint on effective facility utilization. This challenges common assumptions that physical infrastructure represents the primary limitation in developing world contexts and emphasizes the critical importance of management capacity building.

Second, the study reveals the interconnected nature of facility management challenges,

where financial constraints, staffing limitations, and management approaches interact to create complex operational challenges. This interconnectedness suggests that effective interventions must address multiple dimensions simultaneously rather than pursuing isolated solutions. Theoretical models of institutional management in developing economies must account for these multidimensional interactions.

Third, the research highlights the tension between mission focus and operational excellence in religious institutions. Both seminaries demonstrated strong commitment to their formational missions but struggled to translate this mission focus into operational excellence in facility management. This suggests the need for theoretical frameworks that better integrate spiritual mission with operational management in religious institutional contexts.

5.3 Practical Implications

The findings offer several practical implications for seminary administrators and ecclesiastical leadership. First, professional facilities management represents a critical investment area for improving institutional sustainability. As Sommerfeld (2024) argues, "Facilities leaders must be heard" in institutional decision-making, as they "bring a unique SWOT perspective that higher educational leadership must integrate into decision-making". The integration of FM professionals into institutional leadership could substantially improve both operational effectiveness and long-term sustainability.

Second, systematic maintenance approaches including preventive maintenance programs, computerized maintenance management systems, and comprehensive documentation practices would address many current deficiencies. The development of institution-specific maintenance plans incorporating clear protocols, schedules, and responsibility assignments would represent a significant advancement over current reactive approaches.

Third, strategic utilization planning could optimize the use of existing facilities without requiring substantial new investments. Creative scheduling, diversified usage patterns, and potential revenue-generating activities could enhance facility utilization while supporting institutional mission and financial sustainability.

6.0 Recommendations

6.1 Strategic Recommendations

1. Develop Comprehensive Facilities Master Plans: Both institutions should develop and implement comprehensive facilities master

plans aligning physical resources with institutional mission and strategic objectives. These plans should incorporate preventive maintenance protocols, life-cycle costing analyses, and utilization optimization strategies. The planning process should engage diverse stakeholders including administration, faculty, seminarians, and facilities personnel to ensure broad ownership and implementation commitment.
2. Integrate FM into Institutional Leadership: Seminary leadership should formally integrate facilities management perspectives into institutional governance structures. Following international best practices, FM professionals should participate in strategic decision-making processes, particularly regarding capital investments, space utilization, and long-term institutional sustainability. This integration recognizes that "FM isn't just about buildings—it's about institutional sustainability"

3. Establish Performance Metrics: Both institutions should develop and implement key performance indicators (KPIs) for facility management, including metrics for utilization rates, maintenance responsiveness, facility condition indices, and customer satisfaction. These metrics should be monitored regularly and used to guide continuous improvement efforts and resource allocation decisions.

6.2 Operational Recommendations

1. Implement Preventive Maintenance Programs: Both seminaries should transition from reactive to preventive maintenance models through development of comprehensive equipment inventories, maintenance scheduling systems, and standardized protocols. These programs should prioritize critical infrastructure such as water production facilities, bakery equipment, and utility systems where failure would most significantly impact institutional operations.
2. Enhance Staff Development: Institutional leadership should invest in professional development for facilities personnel, including technical training, management skills development, and spiritual formation aligned with institutional mission. This investment should address both the aging workforce challenge documented globally and the specific technical needs of seminary facilities.

3. Optimize Facility Utilization: Both institutions should conduct comprehensive utilization analyses to identify opportunities for improved scheduling, shared usage arrangements, and potential revenue generation through appropriate external facility use. These optimization efforts should balance operational efficiency with

formational priorities unique to seminary environments.

6.3 Governance and Financial Recommendations

1. Dedicated Facilities Budgeting: Seminary administration should establish dedicated facilities maintenance budgets based on systematic assessment of ongoing requirements rather than residual funding after other priorities. These budgets should incorporate life-cycle costing approaches that recognize the long-term cost implications of current maintenance decisions.
2. Strategic Partnerships: Both institutions should explore strategic partnerships with technical institutions, professional organizations, and industry partners to enhance technical capabilities, access specialized expertise, and potentially develop revenue-generating programs. These partnerships could help address specific technical challenges while building institutional capacity.

3. Stewardship Formation: Seminary leadership should integrate principles of responsible facility stewardship into the broader formational program, helping seminarians develop appreciation for material creation and practical stewardship skills that will serve them in future ministerial assignments. This integration connects practical facility management with the spiritual mission of the institution.

7.0 Conclusion

This study has documented both the substantial physical infrastructure and significant operational challenges at two major Catholic seminaries in Southeastern Nigeria. The research reveals a paradoxical situation in which comprehensive facilities exist alongside substantial underutilization, primarily due to deficiencies in professional facilities management rather than absence of physical infrastructure. This pattern reflects broader challenges in Nigerian institutional management while having particular significance for priestly formation programs.

The findings emphasize the strategic importance of professional facilities management for institutional sustainability and mission effectiveness. As Sommerfeld (2024) argues, ignoring facilities management represents a "strategic mistake" with significant long-term consequences. For Catholic seminaries specifically, excellent facility management represents not merely operational efficiency but faithful stewardship of resources and enhancement of formational environments.

Future research should explore the relationship between facility quality and formation outcomes, investigate sustainable maintenance models for religious institutions in developing economies, and develop appropriate assessment tools for facility management effectiveness in seminary contexts. Through attention to these operational dimensions, Catholic seminaries in Nigeria and similar contexts can better fulfill their vital mission of forming spiritual leaders for contemporary Church and society.

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