

## **Planning Physical Facilities in the Nigerian University System**

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### **Abstract**

*The purpose of this study was to carefully look at the importance of planning physical facilities in the Nigerian university system. Other areas of interest were the models for planning educational facilities which were rational, political and interactive. The findings revealed the issues and problems of planning physical facilities in the Nigerian university system. The study concluded that concerted efforts should be made at all times to ensure that facilities were planned and replanned in a manner that would make it easier for the institutions to deliver better education. It also recommended that university management should make effort to procure all the facilities required for teaching and learning at all cost from the suppliers. The university should also endeavour to carry out full assessment and evaluation of any proposed outsourcing strategy with a view to focusing on a number of critical success factors. Government should, through its policy, ensure that university administrators equally lay emphasis on the maintenance of their institutions.*

**Key words:** University, physical facilities, and planning

### **Introduction**

In recent years, the Nigerian educational system has witnessed tremendous growth, especially in student enrolment. This situation has created the problem of over utilization of facilities. The existing facilities are overstretched leading to their constant breakdown. Physical facility should be planned once, but it is frequently replanned to synchronize it with the needs of all stakeholders therefore, it becomes a huge problem when the synchronization is not adhered to. Old facilities that are due for replacement are never attended to as maintenance is rather initiated when defects have become too obvious and the facility has degenerated to the level of becoming a hindrance to the optimal performance of the users (Nwachukwu, Agu et al (2016).

There is the need therefore, for adequate planning for and provision of facilities to ensure maximum teaching and learning conditions. To support this fact, Oyediji (2000) asserted that for increased productivity to take place in schools, students must perform very well in their academic work which would not easily be attained if school facilities were inadequate. He further pointed out that teachers must perform their duties adequately and be effective. This cannot be done without adequate amenities. The facilities available in most Nigerian universities do not suffice in enhancing students' learning and performance (Christiania, 2011).

Generally, physical facilities and environment reflect the standard of the university. Its assets are complex with its attendant financial cost that continues to weigh heavily on the Federal and state governments of Nigeria due to paucity of funds occasioned by declining receipts accruable to the federation accounts.

Omogbodegun (2014) summarized the state of Nigerian universities situation by asserting that it was in crisis and characterized by a decline in the quality of teaching and learning due to poor facilities and consequently, lead to overcrowding, poor in-door air quality and poorly maintained lecture theatres/classrooms. These have a negative impact on staff and students' performance.

The importance of physical facilities and its planning to the smooth operations of any university programme cannot be overemphasized as studies have shown that there exists a close relationship between the physical environment and the academic performance of students. Ogbimi (2012) maintained that the quality of education that children received bore direct relevance to the availability of physical facilities that comprised buildings, furniture, toilets, equipment and space among others.

Universities depict a country's image internationally therefore, they should not only be accommodated with updated facilities but should also be well planned in order for users and society at large to derive benefits from both the teaching and learning purposes, its aesthetic value. Adeniyi (2009) asserted that the attainment of effective teaching and learning was related to the location of schools and the planning of the physical structures as well as other educational facilities in the school. And if the institutions of higher learning wish to produce graduates who should be able to compete favourably in the international job market, there is the need to pay more attention to the continuous planning of existing and anticipated facilities in these institutions. It is, infact, what necessitated this paper. Thus, this paper was discussed under the following subtopics.

- Concept of Planning and Physical Facility Planning
- Models for Planning Educational Facilities Physical facilities planning in Nigerian Universities
- Impact of Facilities Planning on Academic Quality
- Issues and Problems of Physical Facility Planning in Nigerian University System
- Budgetary Allocation to Education
- Conclusion
- Suggestions

### **Concept of Planning and Physical Facility Planning**

Planning is a deliberate effort. It involves anticipating the future and formulating a systematic framework of action to secure chosen goals in the light of available resources. According to Boniface et al (2021), school facility planning is the process of determining the physical structures needed in a school that will help to facilitate the provision of education. It is seen as the efforts made to access the educational needs of a school that will make for the success of teaching and learning. It can equally be considered as the comprehensive effort that starts with identifying the needs of a school and terminates with the actual provision of those needs.

### **Models for Planning Educational Facilities**

A model is a miniature of a reality and its likened to the concept of a real event. Educational planning models are the means by which educators and design professionals transform an educational vision into an architectural product (Within III, 2006). Arguably, rational, political and interactive models are the broad categories of planning models (Adams, 2006).

Adams (2006) posited that rational model planning has systematic, objective and bureaucratic in nature. Its obvious advantage is that it follows due process and has universal acceptability.

The political model of educational planning views planning as a dynamic process of interaction and exchange that is influenced by the power and ideology of the government of the day. The political model views educational planning as a process of bargaining, negotiating and exercising power in an open human system which is found in a social environment. It is adaptive and dynamic (Adams, 2006).

In the interactive model, a planning decision is more participatory, adaptive, subjective and less dynamic. The advantage of this model is that it is more creative, innovative, proactive and involves a non-static decision as it allows for participatory decision-making (Adams, 2006). The model is only against an educational system that is characterized by non-participatory decisions, poor communication and a poor level of agreement as these may result in poor educational planning.

(Adams, 2006) developed an educational planning model as presented in Fig. 2.

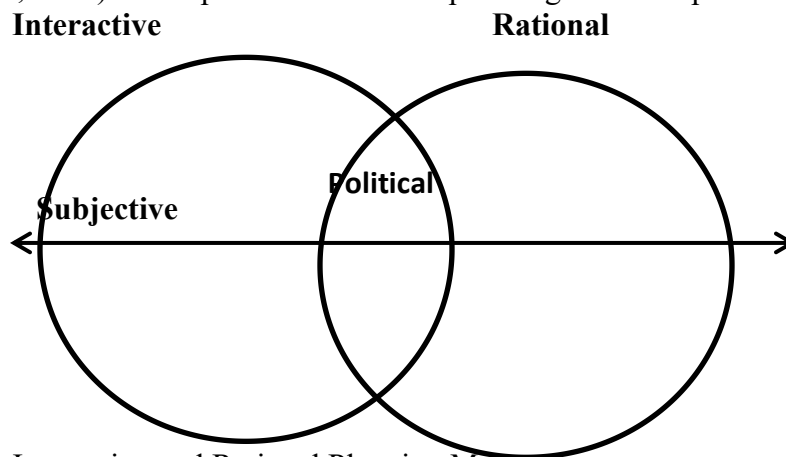


Fig. II: Interactive and Rational Planning Model  
Source: Adams (2006)

As presented in Fig. 2, conceptual distinctions among the range of models and their operative characteristics in educational decision making were highlighted. Adams identified the rational model as the most popular educational planning model because it tends to evaluate the number of variables examined to quantifiable indicators. And it emphasizes centralized and hierarchical administration in order to ensure compliance in the institution.

### **Physical Facilities Planning in Nigerian Universities**

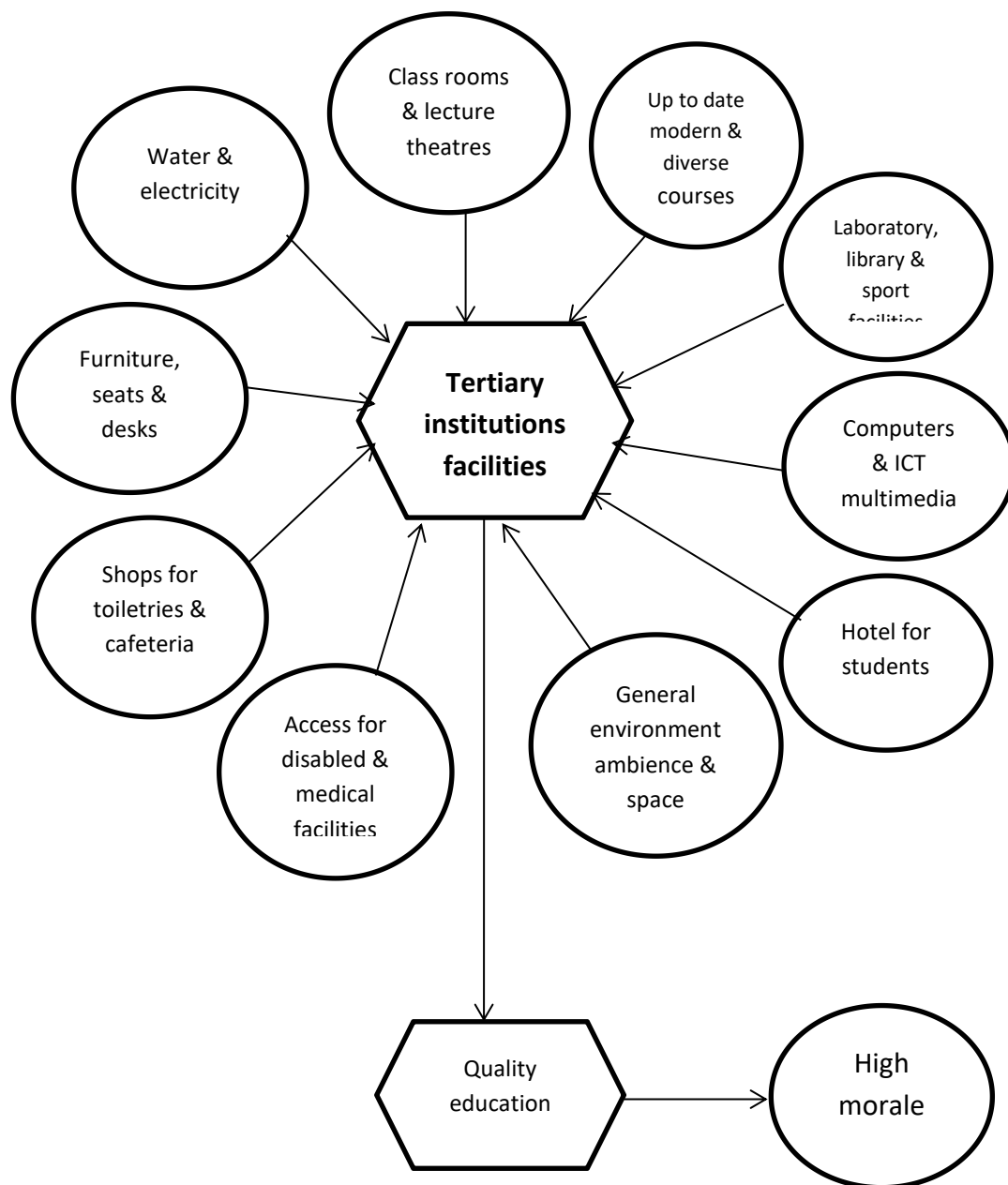
Generally, the task of educating a nation is an enormous one. This is especially true at the university level of education which is saddled with the responsibility of educating future leaders and developing the high-level technical capacities that underpin economic growth and development. Nigeria, being fully aware of this, desires education as an instrument per excellence in the development of the nation's economy. This is strengthened by the fact that the development history of advanced countries such as Britain, U.S.A, Germany and France, to mention but a few, is strongly hinged on education (Majasan, 1997).

The enviable technological development achieved by these countries could not have been possible without a sustained investment in technologically oriented education. It underscores why developing countries like Nigeria must invest in education that will continue to meet the changing needs of a dynamic society and this is in the direction of ensuring that physical facilities are not only provided but planned and maintained for the maximum benefit of the end users and citizenry.

To this end, some critical success factors to be considered when planning facilities in institutions of learning as postulated by Harrison (2006) are as follows:

- The density of development needs of the proposed campus should be high enough to allow the campus population reach all the important parts easily on foot;
- Recognition that the spaces between buildings are as important as the buildings themselves;
- The provision of natural light and ventilation and adequate sun-protection for all habitable rooms;
- Reduction of operating costs to a minimum as a result of a careful consideration of life-cycle costs at the design stage of all capital facilities;
- Development which appears complete at every stage of growth.

The planning and design of education facilities for universities have a vital impact on education outcomes as diagrammatically posited by Bakare (2009).



**Fig. 3: Important Facilities in Tertiary Institutions**  
**Source: Bakare (2009)**

As shown in Fig. 3, tertiary institutions' facilities include water and electricity, shops for toiletries and cafeteria, etc, and all these facilities, jointly combined, not only to create an enabling environment for teaching and learning purposes, but boosting the morale and ensure the comfort of the users and stakeholders generally.

### **Impact of Facility Planning on Academic Quality**

Schools are established for the purpose of teaching and learning. And students are expected to perform brilliantly in examinations as this determines the quality of universities output.

Cynthia and Megan (2008) confirmed a strong and positive relationship between the quality of school facilities and the academic performance of the students. Facilities can actually enhance the academic quality a student receives by;

- Attracting excellent teaching staff who can provide lifelong experiences for the students. This is because quality facilities give teachers and students a safe space to teach as well as one that is beneficial to their physical and emotional health;
- Facility planning also enhances academic quality in the sense that it secures students health and stimulates their teachers to create an impact on their students. When teachers work in a well-equipped and well-furnished school with physical facilities such as good air quality and rich natural lighting, their level of motivation and stability on the job increases (Nwadiani, 2012).
- The administrative and circulatory space planning also impacts on academic quality. A school cannot exist without the non-teaching staff like the bursar, typists, accounts clerk, gatemen and the like while the parks and garden, including other shade apartments on campus, offer useful protection to the students hence, their contribution to students' academic performance. And the better the performance of the students, the more effective the system is assumed to be (Philius & Wanjobi, 2011)

### **Issues and Problems of Physical Facility Planning in Nigerian University System**

The issue of inadequate facilities is primarily due to the fact that existing facilities are used beyond their carrying capacity. It can be argued that nearly all universities are guilty of this and it does not augur well for desired teaching – learning outcomes as the attendant effects will ultimately translate to over-crowded facilities such as lectures theatres, classrooms, laboratories and workshops shared by many programmes across different faculties.

Another pervasive issue is that of inadequate finance for the smooth running of universities physical facilities. A cursory look of some Nigerian universities, facilities, especially those built more than 5 years ago, suggests that they are not well maintained. Olowoake and Wu (2015) revealed that some higher education institutions had not considered budgeting for maintenance due to paucity of funds. This affects facility planning as non-maintenance of school facilities is seen as a hindrance to providing students with functional education resources for learning (Boniface, et al., 2021). Consequently, there are reports of dilapidated and abandoned higher educational institutions buildings in Nigeria (Owolabi, 2014). On the other hand, in advanced countries, maintenance is informed by the life span of a building or equipment

component and not in response to failure or dilapidation (Nwachukwu et al., 2016). The issue of finance has even become more pervasive in the light of falling subventions to education and by extension, to universities primarily due to the economic downturn.

**Budgetary Allocation to Education**

<b>Year</b>	<b>Budget (N Trillion)</b>	<b>Education Allocation (N Billion)</b>	<b>Percentage of Budget (%)</b>
2010	5.160	249.09	4.83
2011	4.972	306.10	6.16
2012	4.877	400.15	8.20
2013	4.987	426.53	8.55
2014	4.962	493.00	9.94
2015	5.062	392.20	7.74
2016	6.061	369.60	6.10
2017	7.444	550.00	7.38
2018	8.612	605.80	7.03
2019	8.830	620.50	7.03
2020	10.33	691.07	6.7

**Source: Ameh & Aluko (2020) Punch Newspaper**

The data above revealed that although the budgetary allocation to education increased in the last four years, in real terms, it decreased when the rate of inflation, which had averaged 17.5% in the corresponding years, was factored in. More so, the exchange rate had further worsened the purchasing power of the money budgeted for education because a sizeable chunk of the education resources is import dependent thereby resulting in its low purchasing power.

Rapid changes in technology are a hindrance to physical facility planning in Nigerian the university system as most tools and machinery procured have become more sophisticated in the present day world. As such, a major challenge which face the 21<sup>st</sup> century maintenance manager is to increase the operational efficiency of the organization. The essence of this is to maximize the productive utilization of these facilities arising from planning for enhanced teaching and learning outcomes. But more often than not, one finds this is not readily possible as certain tasks require specific training on or knowledge of the maintenance of the facilities thereby resulting in a trial and error method and subsequent loss of productivity time.

The above is a common feature in Nigerian universities as one readily finds some equipment that could have still been in a useful state lying waste due to the lack of technical know-how on the part of the maintenance staff. The indiscriminate conversion of physical facilities like open-air sport pavilion, old cafeteria, convocation arenas and even uncompleted buildings to lecture site is also of concern. In some cases, practicals are conducted under corrugated sheds or trees (Laughlin & Faulkner, 2012)

**Conclusion**

Physical facilities in the Nigerian university system is germane to the educational processes and programmes of universities because successes or failures can make or mar the overall deliverables of the desired education outcomes. It is an integral part of the learning environment and, as such, concerted efforts should be made at all time to ensure that facilities are planned and replanned in a manner that will make it easier for the institutions to deliver better education.

### **Suggestions**

- 1) The university management should make effort to procure all the physical facilities required for teaching and learning at all cost from the suppliers.
- 2) Procurement of facilities needed by staff and students should be the exclusive preserve of deans and heads of department to allow for quick access.
- 3) The universities should always endeavour to carry out full assessment and evaluation of any proposed outsourcing strategy with a view to focusing on a number of critical success factors like cost reduction, improved service quality, better user satisfaction and internal process efficiency.
- 4) Government should, through its policy, ensure that university administrators equally lay emphasis on the maintenance of their institutions' physical facilities in order to reduce to the barest minimum the incidence of abandoned facilities in campuses.

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