

CARRYING CAPACITY OF NIGERIAN UNIVERSITIES AND ITS IMPLICATIONS FOR CURRICULUM IMPLEMENTATION

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Abstract

Nigeria, like many other countries of the world, has strong faith in education and this manifests in the steady increase in both the number of universities and in student enrolment. The increase in enrolment without corresponding increase in academic manpower, infrastructure and facilities gave rise to negative deviation from its carrying capacity meaning that it has few teachers to large number of students. In a simpler language, it means that there are large class sizes resulting in increased work load for teachers, inadequate learning facilities, lack of space and high level of indiscipline. Most Nigerian universities experience over-enrolment especially the public universities. Overcrowding has implications for curriculum implementation and achievement as teachers in such situation poorly prepare for and poorly deliver in class. Such classes experience a lot of indiscipline and students do not receive personal attention. Recommendations include reduction in enrolment and specialization by universities as done in Ghana.

Many countries of the world, including Nigeria, have strong faith in education as an agent of change and development. Nigeria's faith in it is so strong that she enshrined the commitment in the National Policy on Education (2004) saying that Education in Nigeria is an instrument "par excellence" for effecting national development. Perhaps Nigeria was responding to the wise saying of the Chinese that "if a nation desires anything good or evil, it should throw it into its schools (Babarinde, 2002)". To demonstrate further this faith especially in university education, the number of universities rose steadily from 1 in 1948 to 95 in 2009 (Jamb, 2009) and more are still being opened. A number of reasons have been given for the expansion of universities in Nigeria. For Combs and Hallak (1987) it was due to the oil boom which saw Nigeria earning more dollars from the sales of crude oil, while Kuku (1997) explained that it was due to pressure from a large number of persons demanding university education; demand for high level manpower in both public and private sectors and the need for a wide geographical spread of higher institutions. Unfortunately, many more were established principally for political considerations and calculations without the regards to adequate funding (Utulu, 2001). One may add that rivalry among religious bodies and for personal ego may have contributed to the upsurge of private universities in Nigeria.

Today, as stated earlier, Nigeria has 95 universities made up of 25 federal, 31 states and 40 private universities, (JAMB Brochure, 2009/2010). In addition, there are seven degree awarding institutions listed in the brochure. The Federal Government of Nigeria has just upgraded for Colleges of Education (Owerri, Ondo, Zaria and Kano), Kaduna Polytechnic and Yaba College of Technology to Universities of Education and Universities of Technology respectively. The increase in the number of universities also meant increase in

enrolment. Enrolment rose from 1,395 in 1960/1961 to 77,791 in 1980 and to 448,230 in 2000/2001 in Nigerian universities (Babalola and Adedeji, 2004). By 2006, enrolment stood at 754,827 (NUC, 2006). The tremendous increase in student population did not attract a corresponding and commensurate funding. The increase in student population without comparable inputs for teaching and research is a threat to the quality of university education in Nigeria (Utulu, 2001). Akpochafo and Filho (2006) expressed a similar view when they opined that "providing more access to university education is good but not backing expansion with funds has dire consequences for curriculum implementation." The universities admitted for more than they could cope with, that is, they exceeded their *carrying capacity* which NUC (2005) defined as "the maximum number of students that the institution can sustain for qualitative education based on available human and material resources." A university with negative deviation from its carrying capacity has over-enrolled meaning that "it has few teachers to large number of students". Under-enrolment means more teachers/resources to fewer students.

One consequence of exceeding carrying capacity is the emergence of large or overcrowded classes. Class size, defined as the total number of students in a class at a given time (Jimoh, 1999) is believed to have effects on academic achievement. More than this, large class size, leads to consequences such as increase in the teachers' work load, inadequacy of learning facilities, lack of adequate space, high level of indiscipline and their resultant psychological and physiological effects on students' achievement (Jimoh, 1999). Abdullah (1996) concluded that large class size is one of the factors militating against hitch-free curriculum implementation in Islamic Studies in Lagos State. One clear link is that over-sized schools or institutions lead to over-sized classes with the attendant problem of inadequate facilities, instructional materials, and scanty attention from the teacher. Personalized instruction gives way to mass instruction which ignores individual differences. With a small group each member is able to interact with every other member, an opportunity which is absent as size increases, especially in discussions and similar intensive interactive tasks (Jimoh, 1999).

The paper aims at the following:

1. Find out whether Nigerian universities exceed their carrying capacities, and
2. Examine the implications of their carrying capacities on curriculum implementation.

Carrying Capacity of Nigerian Universities

For the first aim, the researcher relied on the National Universities Commission (NUC) publication, *Monday Memo*, of February 28, 2005 which laid out the carrying capacities of 51 universities including federal, state and private universities.

The table below summarises the standing of the 51 universities.

Table 1: The Carrying Capacity of 51 Nigerian Universities (2005)

	Type of University	Over-enrolment	Under-enrolment	Within carrying capacity	Sub total
1	Federal	18	7	Nil	25
2.	State	13	6	Nil	19
3.	Private	1	6	Nil	7
	Total	32	19	Nil	51

Source: Summarised from the Monday Memo of February 28, 2005 p. 2-3

The table shows a number of facts: first, both the federal and state universities (public universities) are seriously guilty of over-enrolment; secondly, most private universities have under-enrolment. The reasons for these findings are not hard to seek. The federal and state universities are oversubscribed in terms of enrolment because the fees charged by their authorities are cheaper compared to the private universities. Secondly, since their properties support them with ever-dwindling resources, the public universities resort to over enrolment as a means of choring up their finances. Thirdly, the political class puts pressure on the public universities to admit more than they can actually cope with. On the other hand, the private universities experience under-enrolment for different reasons. First, the fees charged by them are exorbitant since they do not enjoy government's financial support and many Nigerian families cannot cope especially as they sometimes have more than a child in higher institutions at the same time. Secondly, some of the proprietors encourage courses that offered limit access. Thirdly, some applicants prefer the "well known" public universities rather than being pioneers in the new and private universities which to them, amounts to being used

rather than being pioneers in the new and private universities which to them, amounts to being used as guinea-pigs. All in all, the federal and state universities are more guilty of over-enrolment as shown in the Table 2 below.

Table 2: Nigeria's Top 10 Overcrowded Universities (2005)

Rank	University	Proprietor	Excess Enrolment	Remarks
1.	Olabisi Onabanjo University Ago-Iwoye	State government	+24,628	Over-enrolment
2.	Ambrose Alii University, Ekpoma	State government	+20,226	Over-enrolment

3.	University of Nigeria, Nsukka	Federal government	+ 18,095	Over-enrolment
4.	Lagos State University, Ojo, Lagos	State government	+ 15,749	Over-enrolment
5.	Nnamdi Azikiwe University, Awka	Federal government	+15,088	Over-enrolment
6.	Usmanu Danfodiyo Univrsity, Sokoto	Federal government	+ 14,186	Over-enrolment
7.	Delta State University, Abraka	State government	+13,998	Over-enrolment
8.	University of Abuja, Abuja	Federal government	+11,817	Over-enrolment
9.	Federal University of Technology, Owerri	Federal government	+ 10,541	Over-enrolment
10.	Rivers State University of Science and Technology, Port-Harcourt	State government	+ 10,471	Over-enrolment

.Source: Adopted from *Monday Memo* of February, 28, 2005 p. 04.

Out of the top ten over-crowded universities, five each belong to the Federal Government of Nigeria and the state governments. It can also be seen that no private university fell within the top ten over-crowded universities. Another fact that emerges is that all the over-crowded universities over shot their carrying capacities by at least ten thousand students and five universities did so by at least fifteen thousand students while two exceeded their limits by at least twenty thousand students.

Implications of Carrying Capacities of Nigerian Universities

The second concern of this paper is to examine the implications of carrying capacities on curriculum implementation. The universities can have excess enrolment, under-enrolment or achieve an equilibrium in which case the human and material resources are adequate for the number of students enrolled. The 51 universities surveyed by the National Universities Commission (NUC) have either over enrolment or under-enrolment. None achieve equilibrium or stayed within its carrying capacity. 32 universities had over-enrolment and 19 were found to have under-enrolment. Being over enrolled has the immediate implication of large class sizes. This means that the lectures will handle in a single class, more students than expected. Infact, the NUC has fixed ratios or norms for various disciplines. Large classes are therefore classes that surpass the number prescribed by NUC. Relevant figures are not easily available and researchers have to make do with scanty ones they come across. Questionnaires are hardly responded to and this confounds the problem. However, the table below give a fair picture of what the situation was generally in Nigerian universities as at 2006. The situation may have since grown worse as the newly established private universities continue to pull experienced staff from the public universities to man their faculties.

**Table 3:
Universities Academic Staff Shortfalls in 2006**

Discipline	Staff Available	Student enrolment	Existing staff- student Ratio	NUC Staff-Student Ratio	NUC Staff Requirement	Shortfall by NUC Norm
Administration	697	43,933	1:63	1:20	2,197	1,500
Agriculture	1,904	25,602	1:13	1:90	2,845	941
Arts	2,116	45,440	1:21	1:20	2,272	156
Education	1,652	46,812	1:28	1:24	1,930	278
Engineering Technology	1,798	52,843	1:29	1:9	5,871	4,073
Environmental Science	904	15,663	1:17	1:10	1,566	662
Medicine	1,876	23,241	1:12	1:6	3,874	1,998
Pharmacy	360	5,066	1:14	1:01	507	147

Source: BGL *Financial Monitor* October-December, 2008, p. 59

Bane Guaranti Limited (BGL) is one of the key players in the Nigerian stock market and their *Financial Monitor* focuses on the economy, politics, education and the environment. BGL indicated that the sources for the above data are the National Universities Commission (2005) and the Federal Ministry of Education (2006). The figures given by Utulu (2001), though an earlier study, generally agree, with BGL's own especially in the area of existing staff-student ratio and the NUC staff-student ratio. Table 3 reveals that in all the disciplines examined the existing staff-student ratio (ESSR) exceeded the prescribed NUC staff-student ratio (NSSR). This is corroborated by the fact that all the disciplines experience staff shortfall going by NUC norm, it is clear that once there is a staff shortfall, the ESSR must rise and consequently the NSSR is overshot. The disciplines that particularly overshot the NSSR are Engineering Technology, Administration and Medicine while the more compliant ones are Pharmacy, Arts and Education. As observed earlier on, the pull factor of the private universities, who are not part of Table 3, may have aggravated the situation by now.

Another implication of the carrying capacity of the universities is the ability to scale through accreditation hurdles as given by the National Universities Commission. One major criteria for accrediting programmes in Nigerian universities is the staff strength in terms of quantity, quality and the distribution of staff among the three categories of professors (20%) senior lecture (35%) and lecturer (45%). Other core areas that determine accreditation status, apart from staffing, are academic content, physical facilities and library. In 2006, the NUC carried out an accreditation of 327 programmes in Nigerian Universities. The outcome of exercise is captured in Table 4.

Table 4: Summary of November 2006 NUC Accreditation Results

University	Accreditation Status						Total
	Full		Interim		Denied		
Cluster	No	%	No	%	No	%	
Federal	119	59.2	74	36.8	8	4.0	201
State	34	41.5	47	57.3	1	1.2	82
Private	25	56.8	18	40.9	1	2.3	44
Total	178	54.4	139	42.5	10	3.1	327

Source: Imogie (2007) P. 25

The summary above shows that 178 (54.4%) programmes earned Full Accreditation status, 139 (42.5%) were given Interim Accreditation status and 10 (3.1%) earned Denied Accreditation status.

This, on the surface, appears a good performance but it must be remembered that the 139 (42.5%) that earned Interim Accreditation status stand the risk of forfeiting this status if they fail to improve upon the core areas within two years. Besides, accreditation is based on certain minimum standards referred to by NUC as Minimum Academic Standards (MAS). If the stakes are raised a little higher, that is, beyond the MAS, a good number of the programmes enjoying Interim Accreditation status may fall into Denied Accreditation status. Imogie (2007) said it is often wondered how full or interim accreditation could have been obtained for some programmes in the face of obsolete and non-refurbishable laboratories, over crowded classrooms, etc.

Conclusion

What the negative carrying capacity or over-enrolment, large class size, overblown staff-student ratio, interim and denied accreditation status-amount to is slow and faulty delivery of curriculum content.

One agrees with Abudllah (1996) that large class size is one of the factors militating against hitch-free curriculum implementation. The report (World Bank and the Nigerian Institute for Social and Economic Research 2001) on the status of the Nigerian graduate in Ajala (2002) suggested that one of the major causes of declining quality of university education in Nigeria is not just irrelevant curriculum, but also "poor preparation and presentation of lesson notes by teachers". This, in other words means poor preparation and presentation of lectures by lecturers which definitely affects curriculum implementation. It is easier to get prepared and get across to students in smaller classes than in large classes which over-enrolment forces on the university system in Nigeria. Imogie (2007) asserted that the effectiveness of university teachers has steadily declined due to very low staff-student ratio which partly has resulted in lack of commitment, among others.

Recommendations

Nigerian universities must, on their own, decide to reduce the size instead of continuing with the bloated figures. In the alternative, the universities must engage more qualified lecturers, put up more lecture halls, laboratories, workshops, libraries with internet facilities, and create more conducive learning environments.

The Longe Commission on the Review of Higher education (1990) and the Etsu Nupe Committee on Higher Education (1996) have x-rayed higher education system in Nigeria and identified the problems in the system. The Federal Government of Nigeria that set up these investigative bodies should ensure that their recommendations are faithfully implemented especially as they relate to funding, uncontrolled growth and proliferation of universities, uncontrolled student intake, decaying, obsolete and inadequate infrastructure, demoralized staff and poor remuneration, and so on. When these problems are looked into and the universities stay within their carrying capacities, Nigeria can start to witness or experience "added value" to university education. There is too much duplication of courses and programmes. Virtually all Nigerian universities apart from the specialized Universities of Agriculture and Technology run courses in the Arts, Education, Social Sciences, Management Sciences, Natural Sciences, etc and there is no specification as associated with universities in Ghana. Akpochafo (2003) canvassed such specialization when he argued that while the specialized universities of Agriculture (Abeokuta, Makurdi and Umudike), those of Technology (Akure, Bauchi, Effurun, Minna, Owerri, Yola and the state owned ones) remain within their mandates, the first generation universities (Ibadan, Lagos, OAU, Nsukka, Ahmadu Bello and Benin) and those of Usman Danfodio, Jos and Maiduguri can specialize in postgraduate courses. As for the other conventional universities, he suggested that six universities (one in each of Nigeria's six geographical zones) can specialize in the arts, another six in the Social Sciences, six in Education, six in Medicine and related fields, six in Engineering and related fields and so on. New universities can be compelled to specialize in one way or the other. By so doing, resources, human and material, can be better utilized instead of this approach of "jack of all trades, and master of none." Imogie (2007) supported this plan of action although he wants such rationalization to be based on "existing student enrolment, NUC Accreditation Results, geographical spread, and proprietorship." He suggested

further that all sub-degree, ordinary diploma and certificate courses should be rationalized out of the university system and shifted to the appropriate Polytechnics or Colleges of Education. No doubts, this will reduce the pressure on the universities and their enrolment figures.

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