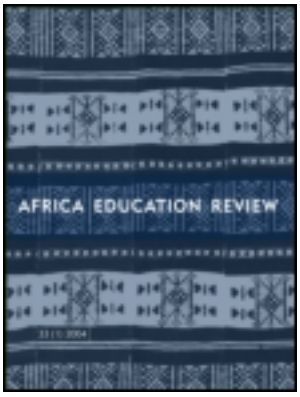

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Massification of University Education in Nigeria: Private Participation and Cost Challenges

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Massification of university education in Nigeria: Private participation and cost challenges

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Abstract

This study investigated the massification of university education in Nigeria as a result of the reforms in the education subsector that led to private participation in the provision of university education from 1999. The question of the study hinges on the percentage of access and if the increased number of universities has led to increased access. Using a checklist based on the objectives of university education and some policies of the Nigerian government such as sixty percent admission for science and technological based courses and forty percent for art and humanity based courses, the massification was examined in view of meeting the manpower needed for technological development of Nigeria. Suggestions were proffered on the inherent challenges of the massification of university education in Nigeria.

Keywords: massification, human capital, access, enrolment, science/arts dichotomy

Introduction

The massification of education concept is part of the continuum of the demand and supply forces behind the provision of education. When the demand is high but supply is limited to a privileged few, we have the first point on the continuum which is elite education. Elite education system is based on the aristocratic ideal where shaping the mind and character of a ruling or wealthy class that can afford it, prepares them for special roles in the society resulting

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in low supply of education with limited access. The second point on the continuum is the mass supply of education based on the meritocracy ideal where education is made affordable to those who demand for it resulting in high supply of education with mass access. The next point on the continuum is universal supply of education whereby the whole population are required to have education for rapid social and technological change, (Trow, 2007) and (Arthur, Brennan and Weert, 2007). Inbuilt in the concept of universal access is the democratic ideal where equality of education opportunities is made available to all members of the society who demand for it. This implies the extension of access beyond half of the population to a situation in which access to some form of postsecondary education is universally available throughout life, in homes and workplaces. The development of the new information and communication technologies (ICT) resulting in globalization and knowledge based economies creates new possibilities and problems for higher education access as cross border higher education has become part of the General Tariff on Trade and Services (GATS). So what is the state of higher education on this continuum globally and locally (in the Nigerian context).

Globally, Trow (2000) noted that the history of higher education since the Second World War both in the United States and Europe has been that of increase in access and its consequences. In Europe, the growth was initially beyond the tiny numbers enrolled in a few European universities before the war to the 30 to 40 per cent of the age grade currently enrolled in all forms of postsecondary education. The growth has been through increase of the elite universities which were the model copied by the new emerging colonial states in Asia and Africa and partly through the creation of non university sectors and institutions such as open universities typified by correspondence courses offered by University of London.

UNESCO (2005) reported that enrolments in higher education almost doubled between the early 1970s and 1990s, the estimated number of students rising from 28 to 69 million, and reaching the figure of 122 million in 2002. The report projected that the student population could reach 150 million in 2025. This trend is not confined to the wealthy countries. In Africa, Asia and Latin America, strong population growth has helped to swell numbers at the primary and secondary levels, thereby boosting enrolments in higher education, although to a lesser extent than in Europe or North America. Thus, while enrolment ratios in the wealthy countries rose from 2.2 per cent in the 1960s to 59 per cent in 2002 in Europe and from 7.2 per cent to 55 per cent in North America, rates in the least developed countries barely increased from 1.3 per cent to 4

per cent. In Latin America, they increased from 1.6 per cent to 29 per cent. Thus one finds a marked disparity between rich and poor countries as regards participation in higher education.

As noted by Woodridge (2005), in the developed economies, massification has been going on for some time. The proportion of adults with higher educational qualifications in the OECD countries almost doubled between 1975 and 2000, from 22% to 41%. But most of the rich countries are still struggling to digest this huge growth in numbers. And now massification is spreading to the developing world. China doubled its student population in the late 1990s, and India is trying to follow suit. Australia has started a massification of its higher education to boost the number of Australians aged 25 to 34 with bachelor degrees from 32% of the population to 40% over the next 15 years - an enormous challenge given it would mean producing an additional 550,000 graduates by 2025 - and perhaps require more than 20 new universities.

It is well known that the United States has the most successful system of higher education in the world based on its central structural characteristics system. According to Woodridge (2005), the system has almost a monopoly on the world's best universities and also provides access to higher education for the bulk of those who deserve it. He noted that the success of American higher education is not just a result of financial independence from the state but they are what Sir Ashby in 1971 (in McConnell and Berdahl,1973) termed as 'bewildering complexity' as American higher education combines the elite and mass patterns as it adapts its institutions to the full range of backgrounds, abilities and interests of students with appropriate standards to each kind from Princeton and Yale to Kalamazoo community college, (Woodridge 2005).

The European higher education is still under going changes from elite to mass with little progress towards universal access. According to Trow (2005) European systems are moving towards American models since it is better adapted, normatively and structurally, to the requirements of a "post-industrial".

Most colonized countries modeled their higher education system to that of their colonial masters so the Nigerian higher education system at first was elitist but with the demand for technological development, it has no choice than to join the race for massification. Woodridge (2005) gave four reasons for massification of higher education. The first is the democratization of higher education which has made it possible for the demand of education to cut across classes, ethnicity and any other limiting factor. The second is the rise of the knowledge economy as physical resources are being replaced by knowledge.

The third is globalization as death of distance is transforming academia with a revolution in cross border education. The fourth is competition as traditional universities are being forced to compete for students and research grants.

Theoretical Anchorage

The ultimate dream of every nation is universal access at all levels of education as education is the bedrock for economic development as highlighted in the human capital theory propounded by Schulz in the 1960's, Olaniyan and Makinde (2008). According to Psacharopoulos (1993) the theory came to its fortes in the early 1960's in the works of Schultz in 1961, Becker in 1964 where they examined the relationship between earnings and education. Psacharopoulos and Woodhall (1985) noted that it has been amply demonstrated that investment in human capital is a major means by which nations develop and sustain economic growth. Lambropoulos and Psacharopoulos (1992) in an empirical study noted that education is a form of investment that yields high private and social returns. Denison (1979) referred to in Carnoy, Levin, Nugent, Sumra, Torres, and Unsicker (1982), found out in an empirical study that expenditures on education seem to explain about 23% of the 1909-1929 growth rate per- person employee income and 42% between 1929 and 1957 and he concluded that additional education played a significant role in increasing U.S. material growth.

According to Samuel (1987), human capital is defined as the provision of skilled labour force strengthened by educational training. It involves meaningful training which enables an educated person acquire specific skill necessary for his efficient functioning in the society. Adedeji (2002), notes that human capital theory emphasizes how education increases the productivity and efficiency of workers by increasing the level of cognitive skills possessed by the work force. He cites also the work of Schultz, Becker and Mincer as introducing the notion that people invest in education to increase their stock of human capital. The provision of education is seen as a productive instrument in human capital which the proponent of the theory considers as equally or even more worthwhile than that of the physical capital. So higher education has become a veritable tool for achieving accelerated growth and development. According to Adedeji (2002) the rationale behind higher education is based on three main arguments: First, the new generation must be given the appropriate parts of the knowledge, which has already been accumulated by previous generation. Second, the new generation should be taught how existing knowledge can be used to develop new products, to introduce new processes and production

methods, and improve the efficiency of organization in business, government and social classes. Third, that people must be encouraged to develop entirely new ideas, products, processes and method through creative processes. He emphasized that while the general expectation of what higher education should lead to, are highlighted in the Nigerian Policy, the main expectations are that it should provide experts and specialists in various fields who would stay and work for the benefit of the nation; it should produce individuals who would make responsible citizens and have better commitments to the development of the nation as it provides the needed manpower in all sectors of the economy in Nigeria. The special role played by universities in providing human capital has prompted Tarrant (2009) to note that developing and developed nations around the world were investing heavily in the expansion of their higher education systems because they recognise the important role played by universities in social and economic development of any nation. Poverty eradication programmes, sustainable economic development programmes, agriculture and food supply programmes - all these programmes to get countries out of extreme poverty require a cadre of skilled and educated people and it's from higher education that those are going to come.

Higher Education in Nigeria

Historically in Nigeria, the development of capital needed for accelerated economic development led to the setting up of the Ashby Commission in 1960 to look into the higher education needs on the eve of independence, Ugwuonah and Omeje (1998). Following the report of the Commission, the Nigerian government set up universities in each of it three regions. The first indigenous university was set up on the land grant philosophy of the USA of equality and service with the motto of dignity in labour. From 1960 to 2000, the number of universities increased from 1 to 45 while students' enrolment concomitantly rose from 939 to 526,780. To illustrate this point, whereas it took thirty years for 36 public universities to emerge, it has in contrast, taken less than ten years for over 30 private universities to take-off. These are direct consequences of the acceptance by government, of the findings of an administrative commission (Federal Government of Nigeria (FGN), 1992). The establishment of private universities was enabled by Decree No.16 of 1985 as amended by Decree No 9 of 1993. The enabling environment for this legislative action was provided by the fact that data from very reliable sources had shown that the rate of unsatisfied demand for university education in Nigeria was increasing geometrically without geometrical concurrent positive development in the areas of physical growth and infrastructural facilities(Joint Admissions and Matriculation Board

(JAMB), 1997-1999: 2001; 2004. Education Sector Analysis, 2003 in Ahunanya and Osakwe 2007). Verifiable evidence has been adduced to show that this 'admission denial rate' has of recent increased to 89.97%.

Statement of problem

Access to university education in Nigeria is by passing the university matriculation examination (UME) conducted by Joint Admissions and Matriculation Board (JAMB) which sets a pass mark then sends the candidates to their universities of first choice where a post-JAMB exams are conducted to screen the final intakes based on the 60/40 % ratio for science and arts subjects to accelerate technological development. The National Universities Commission (NUC) actually determines the student carrying capacity of the universities and gives the courses the students will be assigned to based on their accreditation.

Trow (2005) suggested a way to classify the higher education in a country according to its enrollment rate of some certain age level. 15% marks the elite stage of higher education, between 15% and 50%, the stage of higher education massification, and over 50%, the stage of universal higher education. Using this as a benchmark, access to Nigerian universities was analyzed between 2002 and 2006 (study period)

Purpose of the study

The study sets out to find out if there is massification in university education in Nigeria based on the access (demand) and supply from 2003 to 2007. Also if the access is based on the 60/40% ratio in science and arts needed for technological development as well as to investigate if the participation of private universities has led to increased access. Finally, to find out who bears the cost of the private participation.

Research Questions

1. What is the percentage of access based on the demand for university education in Nigeria under the years of study?
2. What is the percentage of students granted access in science in order to meet the 60/40% dichotomy under the years of study?
3. How has the establishment of private universities led to more access in university admissions in Nigeria?

Research Hypotheses

1. There is no significant difference between demand and supply of admission into Nigerian universities from 2002 to 2006.
2. There is no significant difference between the number of students admitted into Science courses and those admitted into Arts from 2002 to 2006.

Methodology

Research Design and Population:

The descriptive survey research design was adopted for the study with holistic sampling as all the universities admission applications from 2002 to 2007 were collated for analysis.

Source of Data:

Primary data was collected from the office of JAMB in Abuja which is in charge of admission.

Method of Data Analysis: Descriptive statistics made up of means, percentages and t-test statistical tools were used in analyzing the data.

Results

Research Questions

Table 1 to 4 present the data analysis and results on demand and supply of admission into Nigerian universities from 2002 to 2006 sessions; percentage of science to arts courses admitted from 2002-2007 sessions; number of students admitted into public and private universities from 2002 to 2007 sessions and fees payable (per session,) in selected universities in Nigeria (As at October, 2006).

Table 1: Demand and supply of admission into Nigerian University from 2002 to 2007

Years	Demand	Admitted	% Admitted
2002/2003	985,602	105,491	10.70
2003/2004	1,046,103	104,991	10.03
2004/2005	735,410	125,663	17.08
2005/2006	744,717	77,950	10.46
2006/2007	684,075	100,971	14.76

Source: Secondary Data from JAMB

Table 1 above shows that from 2002/2003 to 2006/2007 sessions, the increases in admissions did not reach massification percentage but only in the 2004/2005 session did the admissions exceed 15% with 17.08%. The lowest admission percentage being 10.03% in 2003/2004 session.

Table 2: Percentage of science to Arts courses admitted from 2002-2007 sessions

Years	Science	Arts	Percentage of Science Students
2002/2003	44,805	60,686	42.47
2003/2004	44,648	60,343	42.52
2004/2005	50,409	75,254	40.11
2005/2006	34,360	43,590	44.07
2006/2007	51,545	49,426	51.04

Source: Secondary Data from JAMB

Table 2 shows that admission to science and art courses still tilted to arts courses with the percentage of science students falling below the 60% stated in the policy of education. Therefore the policy on 60% /40% art/science dichotomy was not followed in the admission of students in the study period.

Table 3: Number of students admitted into public and private universities from 2002 to 2007 sessions.

Years	Public	Private	% Admitted to Private Universities
2002/2003	68,613	981	1.42
2003/2004	117,551	817	0.69
2004/2005	121,972	3,701	3.03
2005/2006	77,947	3,427	4.39
2006/2007	81,584	6,722	8.23

Source: Secondary Data from JAMB

Table 3 indicates that admissions into private universities when compared with admissions into public universities are very low so they may not contribute much to the massification of university admissions.

Table 4: Fees payable (per session,) in selected universities in Nigeria (As at October, 2006).

S/N	Name of University	Ownership	Tuition fee per annum
1	Lagos State University	State	N15,000 – 35,000*
2	Olabisi Onabanjo University	State	N11,000 – 14,000*
3	Ladoke Akintola University of Technology	State	N6,000-11,000*
4	Crescent University	Private	N311,000*
5	Igbinedion University	Private	N230,000-377,000*
6	The Bells University	Private	N400,000*

Source: Ahunanya and Osakwe (2007) *N=Nigerian Naira. N178.00=$1 (as at October, 2006).

Test of Hypotheses

Tables 5 to 7 present the results of the tests of hypotheses.
Hypotheses 1: There is no significant difference between demand and supply of admission into Nigerian universities from 2003 to 2007.

Table 5: Mean scores, standard deviation and t-test of difference between demand and supply of admission into Nigerian universities from 2003 to 2007

	Mean	Std deviation	t-calculated	t-tabulated	Remarks
Demand	839,181	164,321	10.067*	2.571	Significant
Admitted	103,013	16,995			

*Significant at 0.05 level.

Table 5 shows that the mean score for demand from the 2002/2003 to 2006/2007 session into Nigerian universities was 839,181 with standard deviation of 164,321, while mean admission for the period was 103,013 with standard deviation of 16,995. The t-calculated value of 10.067 which is greater than the t-tabulated value of 2.571 suggests that there is significant difference between demand and supply of admission into Nigerian universities. The null hypothesis which states that there is no significant difference between demand and supply of admission is rejected.

Hypothesis 2: There is no significant difference between the number of students admitted into Science courses and those admitted into Arts from 2003 to 2007.

Table 6: Mean scores, standard deviation and t-test of difference between the number of students admitted into Science courses and those admitted into Arts from 2003 to 2007.

	Mean	Std deviation	t-calculated	t-tabulated	Remarks
Science	45,153	6,807	2.848*	2.571	Significant
Arts	57,859	12,160			

*Significant at 0.05 level

Table 6 shows that an average of 45,153 student were admitted into Science courses between the 2002/2003 session to 2006/2007 session, while an average of 57,859 students were admitted into the Arts courses. The t-calculated value of 2.848 which is greater than the t-tabulated value of 2.571 suggest that there is significant difference between the number of entrants into Science courses and Arts courses. Based on the analysis, the null hypothesis which states that there is no significant difference between the number of students admitted into Science and those admitted into Arts is rejected.

Discussion

From the analysis of Table 1, the percentages of access based on the demand for university education in Nigeria under the years of study is 10.70% (2002), 10.03% (2003); 17.08% (2004); 10.46% (2005) and 14.46% (2006). It could be averred that despite the increase in the number of universities in Nigeria, there is no substantial increase in access. In fact the test of hypothesis confirms this by rejecting the null hypothesis that state that there is no significant difference between demand and supply of admission. Therefore, there is significant

difference between demand and supply with demand being higher than supply of admission into the Nigerian universities. This supports what Adediran (2008) called retrogressive access when he analyzed that there are 92 degree awarding institutions in the country, comprising 27 federal universities, 31 state universities and 34 private universities. Yet it is astonishing that the 17 additional universities between 2006 and 2008 can only translate into spaces for just 5,677 candidates. In the last academic year, (2008/2009), 1 million candidates applied to take the UME, out of which 500,000 met the benchmark set by JAMB and 153,000 were offered admission i.e 15%. When asked in an interview if Nigeria has too many universities, Okojie (2008), the present Executive Secretary of National Universities Commission pointed out that out of the 92 universities, only 16 have over 4,000 students, the rest are small universities just growing. According to Okojie (2008) there are 1,196,000 students in the entire Nigerian university system and about one million students applying for university education every year. Out of this figure, the universities cannot admit more than 200,000 candidates because of having few facilities. Tarrant (2009) noted that participation rates in higher education in sub-Saharan Africa were about 5%, well behind rates in the mid-40s and 30s in the developed world. While reporting on Benin higher education crisis, Sawahar (2009), said that despite increase in the number of public and private universities in that country that private universities admitted only about 20% of total enrolments in the system. In Mexico, *Bezerra, Massei, Schulze-Halberg and Stypinski (2011),* noted that the government provides about 67% of tertiary education in the country despite the increase in the establishment of private, for profit higher education institutions.

On the Science/ Arts dichotomy policy put in place to boost the study of sciences and technology to meet the demands for technological development of the nation, it is distressing that JAMB and its regulating agency NUC are not working towards the goal of the policy because there is no year that this dichotomy was followed. The rejection of the null hypothesis with greater percentage of students being admitted for Arts than for science within the study period further confirms the finding. Most of the private universities are not offering courses in science and engineering. According to Okojie (2008), out of the private universities established only 3 are offering engineering courses making a mockery of the need for technological development. According to *Bezerra, Massei, Schulze-Halberg and Stypinski (2011),* the Mexican government reduced the space for admission into traditional careers courses in Arts, Humanities and Social Sciences and created more technical

and technological institutions to tackle the science/arts dichotomy needed for technological development.

The establishment of private universities has not led to increased access. This could be related to the finding that the cost of private participation is born by parents as the fees paid in private universities which is higher than that of the public universities, could not be afforded by the average Nigerian students. Most of them will rather go to public universities where the fees are less with little or no facilities to get university education. This also calls for questioning the quality of education they get. Compared with public universities, the fees regime of most private universities in Nigeria as noted by Erinosho (2007), is in the range of N300, 000 to N500,000 per session unlike the less than N50,000 payable in public universities. Ahunanya and Osakwe (2007) are of the opinion that most private universities are profit oriented unlike their state counterparts.

Recommendations

Based on the findings of the study the following recommendations are made:

1. The carrying capacity of public universities must be increased to take in more than 15% of admission demands for university education. The implication of increasing the carrying capacity is increased funding to expand the infrastructure and develop the human capacity of workers in Nigerian universities.
2. The regulatory authorities must enforce the 60/40 science/arts ratio policy in admissions into the universities. This must be done if the universities are to meet the expectations of the society in producing scientists and technologists needed for the technological development of Nigeria. Erring university should be penalized. A situation where our oil industry is manned mainly by foreigners with no capacity building in terms of Nigerian personnel could be rectified if the dichotomy is strictly followed in accessing university education.
3. Private universities can be encouraged to increase their access by governmental interventions in financing of basic infrastructures like libraries and books as the graduates of these universities also contribute to the development of the nation.
4. The establishment of more open universities can be an avenue for massification of university education in Nigeria as presently there is only one open university in Nigeria.

Conclusion

The demand and supply of admission into Nigerian universities from 2002 to 2006 sessions and the extent of adherence to the 60/40 science/arts ratio policy have been the focus of this study. The finding that only in the session of 2006/2007 did the admissions exceed 15% of the demand has implication for the expansion of the carrying capacity of these universities with proper funding from the government.

The second finding of the non-adherence to the 60/40 science/arts ratio by the universities under the years of study is an indictment of the regulatory authorities and may contribute to non-production of scientists and technologists in near future needed for Nigerian accelerated technological development.

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