

**USING ASSESSMENT FOR THE IMPROVEMENT OF  
TERTIARY EDUCATION IN NIGERIA: THE JOINT  
ADMISSIONS AND MATRICULATION BOARD (JAMB)  
ROLE.**

**BY**

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## **ABSTRACT**

*To achieve the aspiration and aims of Nigerian National Policy on Tertiary Education, it becomes imperative to ensure that only qualified entrants are admitted into the available vacancies in the tertiary institutions. Prior to 1978, the disorderliness in the university admissions system and its attendant problems led to the establishment of the Joint Admissions and Matriculations Board (JAMB) via Act No 2 of 1978, to conduct selection examinations into Nigerian tertiary institutions.*

*Since inception, the Board has made several efforts to improve the tertiary education admission processes. These efforts have positively improved the views of the public, candidates, parents and the government of the Board. These efforts among others recently led to the re-appraisal of the post-selection examination which was introduced.*

*This paper looks at these efforts/steps for improvement and the implications on the tertiary institutions in Nigeria.*

## **1.0 INTRODUCTION**

Tertiary education is the education given after secondary education in Universities, Colleges of Education and Polytechnics, including those institutions offering correspondence courses (FRN, 2004).

The goals of tertiary education among others are to:

- a. contribute to national development through high level relevant manpower training;
- b. develop and inculcate proper values for the survival of the individual and society and
- c. acquire both physical and intellectual skills which will enable individuals to be self-reliant and useful members of the society.

The combined effect of the Acts that established the Joint Admissions and Matriculation Board (JAMB) in Nigeria, section 5 of the JAMB Act, No. 33 of 1989 as amended by JAMB Act, No. 4 of 1993 provides for the functions of the Board, as:

*the general control of the conduct of matriculation examinations for admissions into all Universities, Polytechnics (by whatever name called) in Nigeria”*

By Section 5 (2) of the JAMB Act, No. 33 of 1989, it is provided that JAMB shall be responsible for determining matriculation requirements and conducting examinations leading to undergraduate admissions and also for admissions to National Diploma and Nigeria Certificate in Education courses. In line with this mandate, JAMB is serving as a catalyst to achieving the goal of tertiary education in Nigeria.

## **2.0 ASSESSMENT IN EDUCATION**

The demands of today's world require students to learn many skills. A knowledge-based, highly technological economy requires students to master higher-order thinking skills that will enable them see the relationships among seemingly diverse concepts. These abilities –the ability to recall, analyse, compare, infer and evaluate are the skills of a literate twenty-first-century citizen.

Assessment is at the heart of education. Test scores of assessment are used to gauge students’ academic strengths and weaknesses. Communities rely on these scores to judge the quality of their educational system while state and federal lawmakers use these same measure to determine whether public schools meet the goals and aspirations of those who set them. Thus, testing forms the bedrock of educational assessment and represents a commitment to high academic standards and school accountability.

Since assessment plays such an important and significant part in the future of students, there is no doubt that any assessment system will determine what

students learn and the way in which they do this. Hence, assessment will also determine the way in which we teach and what we teach, as assessment is not just about grading and examinations, it is also about getting to know our students, the quality of their learning and understanding to their benefit. Thus, assessment is without doubt one of the major "drivers" of the teaching-learning processes which shows assessment as an essential companion to learning.

## **2.1 Admissions Procedures before the Establishment of JAMB**

As at October, 1974 when there were just six universities in the country, each of these Universities conducted its own entrance examination at its own dictate, admitted its own students. Cases of multiple applications by prospective undergraduates who applied to more than one university accrued. Thus, there were multiple offers of admission from different universities. Consequently, such candidates deprived other qualified candidates of places in those universities whose offers were declined. This led to the establishment of JAMB in 1978 which was primarily set up to ensure uniform standards for the conduct of matriculation examinations and the placement of suitably qualified candidates into the nation's tertiary institutions.

## **3.0 EFFORTS OF THE BOARD TO IMPROVE TERTIARY EDUCATION**

Since the Board's examinations form the basis of selecting prospective candidates into tertiary institutions in Nigeria, the examinations should be seen to be consistent with the goals and emphasis of tertiary education. As the emphasis of university education is reviewed constantly and redefined in line

with the challenges of modern times, the emphasis of the Boards examinations is equally reviewed from time to time to keep pace with these ever changing developments.

### 3.1 Syllabus Review

The Board constantly develops and reviews the syllabi for its University Matriculation Examination (UME) and Monotechnics, Polytechnics and Colleges of Education Matriculation Examination (MPCEME) in conjunction with the Nigerian Educational Resource Development Centre (NERDC) and other stakeholders to ensure it remains relevant and meets the current educational needs.

### 3.2 Brochure Review

The brochure which is a product of collaborative efforts of the Board and the subscribing tertiary institutions contains necessary information on all courses run by tertiary institutions in Nigeria. This is being reviewed regularly in conjunction with the National Universities Commission (NUC), National Board for Technical Education (NBTE) and National Commission for Colleges of Education (NCCE).

**Table 1; Some Remarkable Innovations Made by the Board since Inception**

<b>Year</b>	<b>Old Practice</b>	<b>New Practice</b>
1980	Registration done by manually completing registration forms.	Introduction of Optical Mark Readable (OMR) which made data capturing easier
1994	Four (4) different OMR sheets for the four subjects attempted.	Introduction of a single answer sheet per candidate with provisions for all the subjects being attempted.

1997	Paper cartons being used for the packaging of examination materials.	Introduction of metal boxes for the packaging of examination materials. This served to prevent tampering and damage to the examination materials during rain and transportation.
1998	Open ended script which can be swapped.	Customized answer script, question paper booklets. This made cheating and giraffying difficult.
2002	Checking of examination number, centres done manually. This is susceptible to misplacement of information or giving wrong examination numbers/centres.	Online services which has enabled UME/MPCEME candidates to check their examination number/centres through the internet.
2003	Examination documents were without the image of the candidates. Susceptible to impersonation.	Introduction of image integration into the examination documents i.e. embossment of candidate's passport photograph in the attendance register and examination notice. This has tremendously reduced cases of impersonation.
2006	Manual registration is cumbersome in that the candidates had to come physically to the Board to register and submit registration document.	Introduction of e-registration whereby applicants resident anywhere in the world can register for the Board's examinations. This has reduced cost, human traffic to Board's premises and also ensures accuracy and reliability of information.
2007	Metal boxes being used. It is bulky and made storage difficult for the custodian of examination materials.	Security bag replaced metal boxes. This is for easy, convenient transportation and storage in the bank premises.

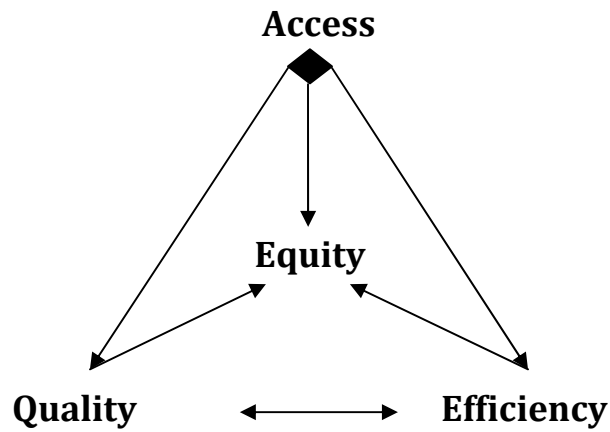
2007	Some even registered a day to the examination. This made adequate preparation difficult.	Deadline for registration given by the Board strictly enforced. This has helped in preparing adequately for the examination.
2007	These centres were used for checking those whose information on examination was not available.	Abolition of special/stand by/checking centres which had been turned into fraudulent centres for the cheats.
2007	Examination materials were left for weeks at the custodian after examinations. The possibility of pilfering could not be ruled out.	Retrieval of examination materials right from the examination day. This is to forestall any form of post-examination malpractice
2007	Release of the Board's results always delayed for up to 3 and 4 months in the past.	Prompt release of the examination result 2007 UME – 3 weeks 2007 MPCEME – 11 days 2008 UME – 11 days 2008 MPCEME – 7 days 2009 UME –4 days 2009 MPCEME-3 days
2008	Result slip sent by post. Some got lost in transit.	Commencement of online result slips, admission letters and Change of course.

## 4.0 ATTRIBUTES OF JAMB'S IMPROVEMENT STRATEGIES

Four major essential attributes of education system have been identified to describe the improvement through JAMB's assessment. These attributes are: Access to University Education; Quality of JAMB's Assessment Instruments; Efficiency of the Board's Activities through Collaboration Efforts and Equity of Educational Opportunities.

This is represented schematically below

**Fig. 1.**



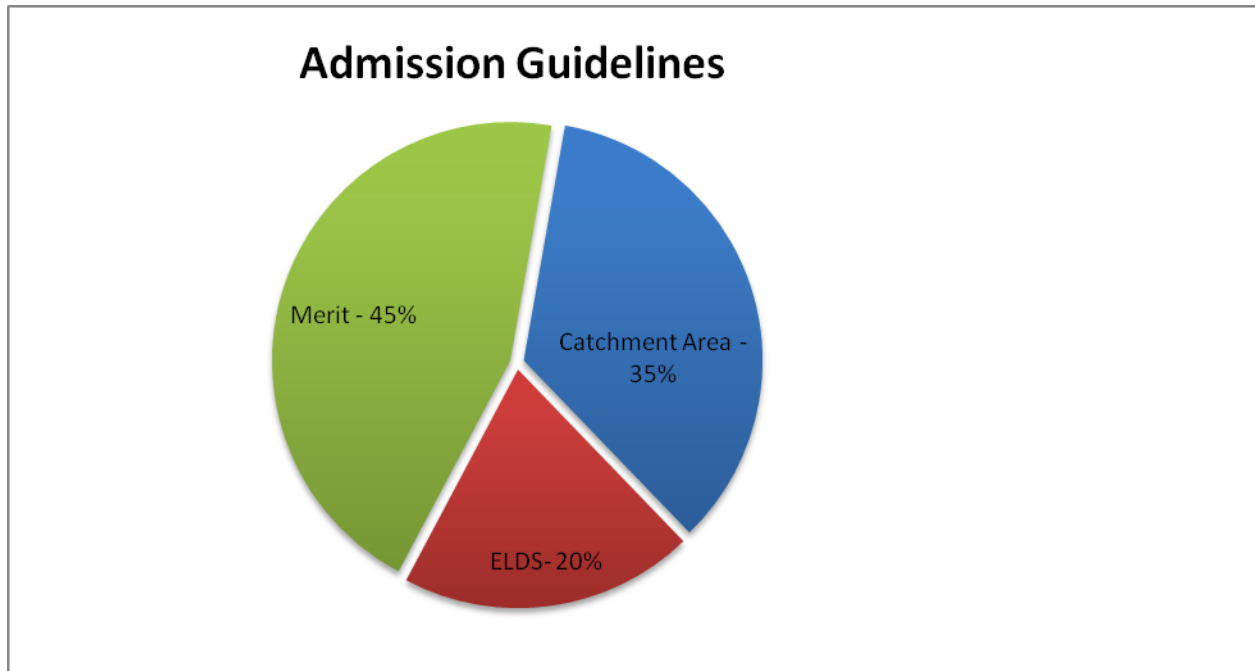
### 4.1 Access to University Education

#### 4.1.1 Admission Guidelines

Entry into universities in Nigeria is through a competitive selection examination called Universities Matriculation Examination (UME). The Board conducted its first selection examination into Nigerian Universities in 1978. The Board normally offers admissions to prospective candidates on the recommendations of universities following approved guidelines. Decisions on admissions in Nigeria are guided by government approved guidelines.



**Fig. 2. Pie Chart Showing Admission Guidelines**



The guidelines stipulate that for Federal Universities, the admissions are split into 45% on merit (i.e. 45% of the candidates who applied for a particular course irrespective of their state of origin, gender, religious belief, family background or any other factor) 35% on catchment area – the catchment area criterion is supposed to take care of candidates who could not meet up with merit cut off points but whose states of origin are contiguous to the state of the university in question. The quota for these candidates is shared among all (the states for Federal Universities and all the local governments for the State Universities) that form the catchment area for the institutions and 20% for Educationally Less Developed States (ELDS).

The Educationally Less Developed States (ELDS) criterion is applicable to the (23 out of 36) states of the Federation that have been described as being educationally less developed. 20% of the total intake in every university is expected to be reserved for candidates from these states, provided they meet certain minimum requirements.

#### **4.1.2 The Unified Tertiary Matriculation Examination (UTME) for Education in Nigeria.**

As part of efforts to widen doors of opportunities to tertiary education in Nigeria, the Board is introducing the UTME. The Board's main statutory mandate centres on the conduct of both the UME and MPCEME. These examinations which are both selection tests in multiple choice formats are organized and taken at two different periods every year.

The purpose of the UTME is to combine the UME and MPCEME into one examination. The transformation of these two examinations into one is proposed for 2010.

#### **4.1.3 Advantages of UTME**

1. Reduction of cost and time of preparations, examination administration and processing of admissions of candidates for the Board.
2. Reduction of cost of registration for parents and candidates since they will only pay for one examination instead of two.
3. Removal of the existing dichotomy between University and Polytechnic graduates.
4. Increase enrolment for Polytechnics and Colleges of Education.
5. Expansion of the spectrum of choice from the current two (2) to six (6) i.e. (2 University choices, 2 Polytechnics and 2 Colleges of Education) etc.

#### **4.1.4 Implications for Technical and Vocational Education**

- Increase in enrolment.
- Removal of dichotomy between University and Polytechnic graduates as a result of the introduction of B.Tech in the Polytechnics.
- Realization of vision 20 -2020.
- Availability of technical and vocational instructors, etc.

#### **4.1.5 Implications for Teacher Education**

- Increase in enrolment for the realization of the MDG's and EFA goals.
- Increase in quality of teachers.
- Restoration of the dignity of teachers.

- Improvement in Teacher/Student ratio, etc.

## **4.2 Quality of Jamb's Assessment Instruments**

In her efforts to improve tertiary education in Nigeria, the following assessment measures have been employed by the Board.

### **4.2.1 Study Skills Essential for Good Performance at the University Level.**

In 2002, the Board conducted a research on the *Identification and Appraisal of Academic skills that are essential for good performance at University level in Nigeria*. At the end of the study, a factor analysis of the specific behaviours yielded three (3) major factors. These are:

**Factor I: Abstract Reasoning Skills/Competencies (ARS)**

**Factor II: Science Process Skills/Competencies (SPS)**

**Factor III: Language Communication Skills/Competencies (LCS)**

Unique feature of these results is a prototype taxonomy consisting of plausible domains that each consists of specific observable/measurable behaviours in which teaching, learning and assessment can be profitably organized.

The study identified the entry behaviour that could help the Board in refocusing and redefining JAMB syllabi and its examinations in ensuring that candidates who get admitted into the university through her examination possess the required skills for university education in specific disciplines.

This has helped the Board's examinations perform its role in assessing the effectiveness of teaching and learning in the Nigerian educational system. This

also serves as the basis for evaluating university education in the country. That is, the Nigerian undergraduate programmes emphasize/enhance the acquisition of the prerequisite skills and competencies identified, as well as determine how well the university education has succeeded in equipping students with essential skills. Furthermore, the study recommends how best university education can provide students with optimum academic attainment vis-a-vis the roles the Board has to play in achieving this goal. This thus, gives a boost to high confidence in the skills/competencies identified as critical behavior for performance in the universities. Focusing items on these behaviours is an important way for the Board to assure high predictive validity for the selection examination. The identification of the three domains and the inherent behaviours points to an orientation in the university education towards high order thought processes. Consequently, the present UME and MPCEME Syllabi were structured along those findings.

#### **4.2.2 Annual determination of cut-off points for admission into tertiary institutions.**

Another important attribute to the improvement of tertiary education in Nigeria is the determination of cut-off points for admissions. The decision of National cut-off point is based on the improvement of performance of candidates over the years as can be seen in the table overleaf.

**Table 2. National average scores and cut-off points by years**

<b>Year</b>	<b>National average score</b>	<b>N of candidates (%)</b>	<b>Cut-off point</b>
2007	200	377,050 (45.54%)	160
2008	200	448,338 (46.83%)	170
2009	203	536,535 (47.80%)	180

### **4.2.3 Factor Analysis**

This is a method for reducing a large number of variables (tests, scales, items, persons, etc.) to smaller number of presumed underlying units called factors. Factors are usually derived from the inter-correlations among variables. If it is among five variables, for example, one zero or non-zero, no factor can emerge. On the other hand, if the five variables are substantially correlated, one or more factors can emerge.

In 2008, the Board carried out factor analysis of its 2007 UME. This was to assess the quality of its examinations, the result of which showed that:

- JAMB should continue to set tests with those subsets that showed high correlation, while those subsets that attracted low relationships with the factors identified should be reviewed.
- Again here, assessment has helped in improving “tertiary education” activities. This time, the “tertiary education” is JAMB.

#### 4.2.4 Combating Examination Malpractice

The Board employs various strategies to combat examination malpractice such as use of National Security and Civil Defense Corps (NSCS), independent monitors, etc. This has led to drastic reduction in the number of recorded malpractice as can be seen from the table below.

**Table 3. Data on UME Malpractice and the Nature**

S/ N	Nature Of Malpractice	2005		2006		2007		2008		2009	
		UME	MPCEME	UME	MPCEME	UME	MPCEME	UME	MPCEME	UME	MPCEME
1	No e-Registration Slip	1,289	185	808	86	2,006	85	1,687	102	813	118
2	Absconding with Answer scripts	161	257	1,783	256	670	31	297	40	171	31
3	Spying/copying from prepared answers	6,314	3,007	3,419	217	2,362	1,604	1,187	271	1,165	134
4	Impersonation	226	81	216	22	253	74	152	69	333	89
5	Swapping of examination documents	248	139	455	31	144	209	45	119	217	44
6	No Registration Detail	-	-	69	-	-	-	3	-	27	-
7	Violent/Unruly to examiners	2,783	15	1,150	30	749	234	2,521	81	170	459
8	Lateness to examination hall without valid reasons	5,511	2,829	4,178	587	1,0470	256	3,549	313	1,215	485
9	Use of GSM phone	66	112	198	47	1,139	372	2,647	523	6,225	1,500
10	Smuggling out of Question papers/Answer sheets	974	367	601	186	257	149	860	52	160	23

11	Colluding with other candidates/examiners/external agents	8,2312	4,474	42,737	1,080	255	87	1,366	78	1,343	462
12	Leaving examination hall without permission	44	3	19	-	47	5	49	3	81	7
13	Absent with script	2	-	2	-	4	-	2	-	1	-
14	Wide-spread cheating	41,042	11,797	50,224	1,620	591	2,700	18,437	1,740	3,816	2,034
15	Incomplete result	20,797	-	2642		30,155		25,552		0	
<b>TOTAL</b>		161,769	23,266	108,501	4,182	49,102	5,906	58,354	3,391	15,737	5,386
<b>N</b>		1,030,670	196,643	893,259	174,251	1,028,988	167,935	1,172,313	311,529	1,184,759	342,907
<b>%</b>		15.70	11.83	12.15	2.40	4.77	3.52	4.98	1.09	1.33	1.57

### 4.3 Efficiency of the Board’s Activities through Collaborative Efforts.

At every stage of the Board’s activities, relevant bodies and organizations are involved. This is to lend credence to those activities. For example, the table below shows the activities and relevant bodies involved in JAMB’s assessment procedures.

**Table 4. JAMB’S Activities in Collaboration with Relevant Bodies**

S/N	ACTIVITIES	RELEVANT BODIES
1.	Syllabus Review/Development	Nigerian Educational Research and Development Centre (NERDC), Tertiary institution lecturers, Secondary school teachers, Subject officers from JAMB.
2.	Brochure Review	National Universities Commission (NUC), National Council for Colleges of Education (NCCE), National Board for Technical Education (NBTE), Tertiary institution

		Lecturers, JAMB admission officers.
3.	Test Development	Universities, Polytechnics, Monotechnics, Colleges of Education lecturers, Subject Officers from JAMB. The items are produced under secured environment.
4.	Test Administration	Universities, Polytechnics, Colleges of Education Lecturers and Non-teaching Staff, Secondary School Administrators and Staff are involved in the administration of JAMB examinations. Universities, Polytechnics, Colleges of Education, Secondary Schools are usually used as venues for JAMB examinations. Facilities and infrastructures of these host institutions are used. To educate the officials (coordinators, supervisors, instructors) on how to carry out their activities, instructions are burnt into CD.
5.	Admission Procedures	NUC, NBTE and NCCE provide admission quotas to guide the Board and the institutions concerned in the joint selection exercises.
6.	Monitoring of Admissions	The Board periodically visits tertiary institutions to ensure compliance with the decisions on admissions by the Board and NUC, NBTE and NCCE.

#### 4.4 Equity of Educational Opportunities

Equity is based on the principle that essentially all children can learn and should be provided with equal opportunities to do so, irrespective of their background. JAMB took cognizance of specific needs of all persons irrespective of language, gender, religion, (dis)ability, etc. In view of this, JAMB has given opportunities to different categories of persons. This is being enforced during admission.



#### 4.4.1 Foreign-based Candidates

The UME is taken not only in Nigeria but also by Nigerians in the Diaspora: South Africa, Saudi Arabia, Ghana, Cameroun and the Republic of Benin. Other Nigerians and foreigners, particularly from sister African countries, also access Nigerian tertiary institutions through the Direct Entry application route. For example, the following candidates wrote UME in the foreign centres as indicated overleaf between 2007 and 2009.

**Table 5. Foreign Centres and No of Candidates**

<b>FOREIGN CENTRES</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>ACCRA, GHANA</b>	<b>2</b>	<b>-</b>	<b>2</b>
<b>CAMEROUN</b>	<b>142</b>	<b>146</b>	<b>147</b>
<b>COTONOU, REPUBLIC OF BENIN</b>	<b>18</b>	<b>31</b>	<b>33</b>
<b>JEDDAH, SAUDI ARABIA</b>	<b>1</b>	<b>4</b>	<b>3</b>
<b>JOHANNESBURG, SOUTH AFRICA</b>	<b>-</b>	<b>-</b>	<b>9</b>
<b>LONDON</b>	<b>5</b>	<b>4</b>	<b>-</b>
<b>TOTAL</b>	<b>168</b>	<b>185</b>	<b>194</b>

#### 4.4.2 Disadvantaged Candidates

As part of the Board's efforts to give opportunities to all categories of people, the disadvantaged were not left out. The following blind candidates and prisoners partook in JAMB's Universities Matriculation Examination (UME) as indicated overleaf

#### 4.4.2a Blind Candidates

**Table 6: Blind Candidates**

<b>YEAR</b>	<b>FEMALE</b>	<b>MALE</b>	<b>TOTAL</b>
2005	33	76	109
2006	34	79	113
2007	57	128	185
2008	30	56	86
2009	18	52	70

#### 4.4.2b Inmate Candidates

**Table 7: Inmate Candidates**

<b>CENTRE</b>	<b>2006</b>		<b>2007</b>		<b>2008</b>		<b>2009</b>	
	<b>UME</b>	<b>MPCEME</b>	<b>UME</b>	<b>MPCEME</b>	<b>UME</b>	<b>MPCEME</b>	<b>UME</b>	<b>MPCEME</b>
<b>Ikoyi Prison</b>	<b>7</b>	<b>4</b>	<b>23</b>	<b>-</b>	<b>16</b>	<b>-</b>	<b>13</b>	<b>-</b>
<b>Kaduna (Borstal Trading Institute)</b>		<b>-</b>	<b>-</b>		<b>-</b>		<b>33</b>	<b>-</b>

#### **4.5. Public Perceptions of the Post Universities Matriculation Examination (P-UME)**

Amatareotubo in the article “*Post-UME screening; Matters Arising*” of 30 June, 2006 said that the post-UME screening exercise is a means of enhancing the Vice-Chancellor and other Administrative Officers of the institutions by giving them power to be in control of the admissions of candidates into institutions while stressing that when JAMB gives admission, it ensures that in spite of the cheating; only those with the highest and best scores get admission by centralizing the process.

Luke Onyekakeyah of *The Guardian, Tuesday August 26, 2008* said that Post-UME conducted by Universities in Nigeria, has been an avenue of ripping hapless students and their parents and that students have been going through untold hardship and pains before getting their results. He further said that candidates are made to sit for two post-UME examinations in their 1<sup>st</sup> and 2<sup>nd</sup> choice of Universities, and thus go through the same rigor twice and pay double charges and yet no guarantee that the candidates would be offered admission.

Biodun Oyeleye in the *Nigerian Compass, Wednesday September 10, 2008* corroborated that it is not justifiable for a candidate to write a second examination after he/she has passed the first one that is appropriately titled UME and recognised by the law as passing such test is no guarantee of admission, that the major factor pushing the Post UME test is the financial gain accruable to each university from the exercise.

In the words of Otunba Ayodele Osunmakinde in the *Daily Independent of Wednesday 24 June, 2009*; “JAMB is the sole giver of admission to prospective University candidates in the country, and not the Universities as it is now. Post-UME screening should be abolished as it is now a veritable platform for unscrupulous universities staff to extort money from parents and guardians”. And that post-UME now encourages ethnicity, favouritism, patronage and other human factor that will be a cog in the new admission policy.

He also said that if the Federal Government wants to scrap JAMB because of examination malpractice, other examination bodies like WAEC, NECO have to be

equally scrapped because examination fraud takes place at all level of educational system, including tertiary institutions.

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