

Effectiveness of University Matriculation Examination and Post-University Matriculation Examination on the Academic Performance of Nigerian Undergraduate Students

(A Case Study of Adekunle Ajasin University, Akungba-Akoko, Nigeria)

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Abstract

This is a case study that examines the relative effectiveness of University Matriculation Examination (UME) and Post University Matriculation Examination (Post-UME) on the final year academic performance of students admitted to Adekunle Ajasin University Akungba Akoko in 2004-2005 and 2005-2006 sessions, being the last set of students admitted with UME and first set admitted with Post-UME respectively. This is a descriptive research design of ex-post facto type. The population consists of the entire students admitted into this university for the two sessions. The researcher made use of a proforma to collect the scores of 2005-2006 candidates on their UME, Post-UME and class of degrees at the 2008-2009 final year examination. This same proforma was also used to collect the scores of 2004-2005 students on their UME and class of their degrees in the 2007-2008 final year examination. Using Pearson product moment correlation and t-test statistics to analyze data, findings show that there is a low relationship between students' score in UME and Post-UME. More so, Post-UME was more effective than the UME but the difference was so little. It was recommended that:

1. JAMB should be saddled with the responsibility of conducting pre-qualifying examination whereby universities should be allowed to conduct a Post-UME screening
2. For the Post-UME screening, students should only be tested on their level of coherence in the English language through essay writing and oral interviews in addition to objective tests.
3. A bench mark of 180 is recommended for calling students for Post-UME screening.

Keywords: UME, Post-UME, JAMB

Introduction

University Matriculation Examination (UME) is an examination conducted by the Joint Admission and Matriculation Board (JAMB) on yearly basis for the sole purpose of selecting and placing suitably qualified candidates into the Nigerian universities (Omodara, 2004). Before the inception of JAMB, individual university in Nigeria conducted their own entrance examination, but this had a lot of challenges among which were the issue of multiple applications, general untidiness or uncoordinated system of university admission, and high cost implication for the candidates. Others include the pattern or enrolment in the universities which clearly showed that majority of the universities drew the bulk of their students from their immediate geographical neighbourhoods (catchment areas).

In response to these problems, the Federal Government of Nigeria established JAMB in 1977 as a centralized examination body saddled with the responsibility of conducting placement examinations into Nigerian higher institutions of learning. The first examination of this body was conducted in 1978. Since then, entrance examination into Nigerian universities had continued to be handled by JAMB. The population of potential applicants into Nigerian universities had exploded such that competition to enter into Nigerian universities had been a source of concern to parents as well as these applicants. Desperate candidates adopted different examination malpractices in order to secure admission into degree programmes of their choice

JAMB has been criticized over the years for its inability to organize credible entrance examination that has integrity. Post-UME was introduced by some Nigerian universities in 2006 barely few months after the release of UME results and the attendant criticisms that trailed it by some academics, opinion leaders and entire populace. These universities were of the opinion that they could no longer rely solely on JAMB scores for the selection of their students but rather want another examination to act as a means of reducing incompetent applicants. Nwanze (2005) in his own criticism reported that 4,422 out of 34,892 candidates who scored 200 and above out of a total of 400 marks in UME conducted by JAMB passed the Post-UME tests at University of Benin. He went further to state that 1,181 candidates whose names were on the JAMB merit list sent to the university passed the Post-UME at Uniben. The only valid and logical conclusion arrived at by Nwanze is that JAMB result is unreliable for testing students' real ability.

Makanjuola (2005) in his own submission on why Post-UME is necessary, claimed that at Obafemi Awolowo University (OAU) Ile-Ife, some of the students who scored high marks in UME did not even turn up for Post-UME. While not calling for complete scrapping of JAMB, Makanjuola said that Post-UME would provide an alternative to JAMB's monopoly. In addition to these claims and counter-claims, several studies on the predictive validity of UME by Omodara (2003), Oluwatayo (2003) confirmed the low predictive power of UME. Negative and inverse correlation of UME scores with some external criterions was also investigated by Adeyemo (2008).

According to Obasanjo (2006) in one of his addresses titled: "University is not for all", posited that it was in a bid to reposition the university education that the government introduced the Post-UME and carried out the audit of all universities in the country to determine their true worth. To Obaji (2005), the then minister for education in Nigeria, on the reason why the Federal Government backs Post-UME screening, narrated further the true stand of former President Obasanjo and his ministers and claimed that the real situation is that indeed, the country is faced with a grave situation in the quality of students selected by JAMB, like somebody who scored 290 or 300 in UME but cannot spell LAGOS or LAWYER and cannot answer basic questions posted to him.

Commenting on whether to scrap JAMB or not, Mimiko (2006), in one of his papers titled: "How relevant is JAMB to university admission?" lamented that JAMB has declined consistently in its credibility, integrity and reliability on its performance; thus, it had enjoyed little or no respect among Nigerians. Mimiko went further to blame the desperation of going to higher school on students who connive with their parents to secure admission. He opined that advent of private universities and pre-degree programmes have contributed in no small measure to the irrelevance of JAMB. Mimiko concluded by calling for the sustenance of the Post-UME screening exercise, which he described as an advancement of the frontiers of autonomy of the universities. Complementing the view of Mimiko was Afemikhe (2007) who narrated his experience from University of Benin, opined that the previous two years since the inception of Post-UME, have witnessed tremendous results. The pass rate of the students has improved and Post-UME students' involvement in examination related problems have not been found.

Despite good reasons given by some people in defense of Post-UME, some people still spoke in defense of JAMB. Onyechere (2005) ascertained that Post-UME screening is illegal. To Onyechere, examination malpractices in Nigeria is a universal societal problem and not the problem of JAMB. He believed that since we have limited spaces for all these candidates and private universities are for the children of the rich, then, the students will be in a desperate mood to secure admission at all cost. He warned with caution that if our response to malpractice in JAMB examination is to scrap JAMB, then we should be talking about scrapping WAEC, NECO and all the institutions of higher learning.

Commenting further on the legality of Post-UME, Okebukola (2009), the then executive secretary of National University Commission (NUC) said that universities conducting multiple-choice objective test for their Post-UME have derailed from the manner the examination was conceived. To him, when Post-UME was initiated, the screening exercise was meant to test candidates' coherence in the English language through essay writing and oral interviews.

Majority of empirical studies at the disposal of this researcher are all given their support for the sustainability to the Post-UME for its effectiveness to select credible candidates into Nigerian universities today. Umo and Ezeudu (2010) examined the relationship between UME scores Post-UME scores at the University of Nigeria Nsukka for 2006/2007. Low correlation was obtained between the UME scores and the Post-UME scores. Accusing fingers was pointing at the JAMB for contributing enormously to the low

level of correlation due to examination malpractice. Among the recommendations of the duo was that candidates who scored highly in JAMB and very low in Post-UME screening should be interrogated and handed over to the law enforcement agents provided they were unable to provide sufficient answers for the disparity.

Busayo (2010) while trying to compare the scores of UME and Post-UME students at The University of Education (TUNEDIK) Ikere Ekiti reported that 56.5 percent who failed the Post-UME screening would have been admitted automatically, were it not for the Post-UME screening that exposed their lapses. A detail of this analysis as reported by Busayo is as shown in tables 1a and 1b.

Table 1a shows that 87 of the sampled 200 candidates representing 43.5 percent did well in the Post-UME (essay) screening. Chika, Ifedili and Ifedili (2010), conducted the assessment of UME and Post-UME at the University of Benin. The major finding showed the supremacy of Post-UME over UME in selecting the best candidates for university education. Only 11.66% of candidates who passed UME and presented themselves for Post-UME scored 50% and above. Among the first year students of 2004-2005 (i.e. the last set of UME), 14.23% passed all their first year courses, 66.94% students had carryover while 18.80% were in probation. For 2005-2006 students (i.e. the first set of Post-UME), in their first year results, 39.65% passed all their courses, 53.80% had carryovers while 6.54% were in probation.

Taking a contrary stand, Ajao (2010) examined the influence of Post-UME on the achievement of science education students in Delta State University. Findings showed that no significance difference in the CGPA was found between UME and Post-UME scores of the sampled students. The irony of it all was that there is a decline in the performance of students admitted with Post-UME screening.

Statement of the Problem

Researcher of this study was of the opinion that candidates who possessed ordinary level requirements and attained high level of performance in UME are judged capable of pursuing certain courses of study successfully in the universities and hence are admitted to pursue courses in the universities. The bone of contention nowadays in academic parlance is that not all students who were admitted into the universities are able to cope with the academic standard of the universities. Some performed woefully in tests, end of semester examination, some dropped out of the university, some ended up changing to another course, in some cases, some spent extra years before they could graduate and therefore ended up with poor grades. With the introduction of Post-UME, some researches at the disposal of this present researcher were all pointing to the fact that there has been tremendous improvement on the performance of undergraduate students; while few studies were at variance. No single study up till now ever investigated the effectiveness of UME and Post-UME on the final year results of candidates. The problem of this study therefore, is ascertaining the relative effectiveness of UME and Post-UME in the academic performance of final year students of Nigerian universities.

Purpose of the Study

The main purpose of this study is to find out if there has been any tremendous improvement in the academic performance of candidates admitted by Post-UME in their final year results over their counterparts admitted with only UME. Against this background, the following research questions were raised:

1. Will there be any relationship in the scores obtained by students in UME and their Post-UME?
2. Will there be any difference in the final performance of students admitted with UME and Post-UME?

Research Hypotheses

The following hypotheses were generated to provide solutions to the problems of this study:

H01: There will be no significant relationship in the scores obtained by students in UME and Post-UME.

H02: There will be no significance difference in the final performance of students admitted with UME and Post-UME

Methodology

Design of the Study

The design employed for this study was ex-post facto research design. The design was most suitable and appropriate for the study since the past records and results of the students were used in reaching conclusions about the students' learning outcome.

Population and Sample

The population for this study was the last set of UME candidates and the first set of Post-UME candidates admitted into Adekunle Ajasin University, Akungba Akoko, Nigeria. More specifically, the researcher made use of secondary data to select the entire candidates that were admitted in 2004-2005 by writing only UME and the entire candidates that took part in the Post-UME screening of the university in 2005-2006

Method of Data Collection and Analysis

A proforma was designed to collect the final year results of candidates that entered the university in 2004-2005 and graduated in 2007-2008. More so, this same proforma was also used to collect the UME scores, Post-UME scores and final year class of degrees of students that entered the university in 2005-2006 but graduated in 2008-2009. Pearson product moment correlation and t-test statistics were used to analyze the extracted data. The two hypotheses were tested at 0.05 level of significance.

Results

H₀₁: There will be no significant relationship in the scores obtained by students in UME and Post-UME.

Table 2 shows low correlation in virtually all the departments and faculties for the 2005-2006 session. 0.17 was obtained as the overall correlation between UME and Post-UME scores for the period under review.

H₀₂: There will be no significant difference in the final performance of students admitted with UME and Post-UME.

From table 5, the value of t calculated is 2.36 and the value of t table is 1.960. Since the value of t-calculated is greater than the value of t-table, the hypothesis which stated that there will be no significance difference in the final performance of students admitted with UME and Post-UME is hereby rejected at 0.05 level of significance. It shows that there is a significant difference in the performance of students admitted with UME and Post-UME.

Discussion of Findings

From the analysis of data shown above, low correlation between UME and Post-UME scores displayed in table 2 is an indication that not all the candidates that obtained high marks (i.e. above 200) in UME also obtained the same corresponding high marks in the Post-UME. This finding was supported by the early findings of Umo and Ezeudu (2010) who noticed low correlation between UME and Post-UME scores at UNN and also Busayo (2010) who reported that 56.5 percent of the students who scored above 200 failed the Post-UME screening at UniBen.

Hypothesis 2 as being analyzed in table 4 and 5 further shows that the level of significance difference between UME and Post-UME students in their final year academic performance is another condemnation of the JAMB for its inability to conduct credible examination. From the table 5, the mean performance of Post-UME students (2.99) is bigger than the mean performance of UME students (2.89). This shows that candidates admitted with Post-UME are now performing well in their academics than the students admitted with only UME. This supported the earlier findings of Afemikhe (2007), Chika, Ifedili and Ifedili (2010) which reported that students admitted with Post-UME also performed better in their first year examination than their counterparts admitted with the only UME. This finding was also at variance with the finding of Ajaja (2010) who reported no significance difference in the achievement of UME and Post-UME scores of candidates.

Conclusion

The only logical conclusion that can be drawn from this study is that UME is still necessary but no longer sufficient, reliable, credible, adequate, and capable of selecting credible and competent candidates for university admission in Nigeria.

Recommendations

The following recommendations are made:

1. JAMB should not be scrapped as being proposed in some quarters. Instead, JAMB should be saddled with the responsibility of conducting pre-qualifying examination whereby universities should be allowed to conduct a Post-UME screening, as this will make students sit tight and shun all forms of examination malpractices.
2. Since little improvement on the performance of Post-UME students over the UME students was noticed, for the Post-UME screening tests to select credible students, students should only be tested on their level of coherence in the English language through essay writing and oral interviews in addition to objective questions.
3. A cut-off point of 200 in UME as a bench mark for calling students for Post-UME screening exercise is not adequate. We have cases where most of the students that scored below 200 in UME performed better in Post-UME than the students that score above 200. Majority of the students that scored above 200 might be as a result of examination malpractices. No wonder Umo and Ezeudu were even calling for the arrest and prosecution of students that scored high marks in the UME but low marks in Post-UME if they failed to account for the disparity in their performance in the two examinations. As they recommended cut-off points of 160, the present researcher recommended 180.
4. Admission of candidates should be based on their average performance in both UME and Post-UME (i.e. UME SCORE + POST-UME SCORE)

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Table 1a: Candidates who passed (scored 40 percent and above) in the Post-UME (essay) screening test.

	Score Range	No of Candidates	Percentage (%)
1.	200 & above	87 passed out of 200	43.5
2.	190-199	51 passed out of 125	40.8
3.	180-189	52 passed out of 125	41.6
4.	170-179	15 passed out of 50	30
	Total	205 passed out of 500	155.9

Table 1b: Candidates who failed (scored below 40 percent) in the Post-UME (essay) screening Test.

	Score Range	No of Candidates	Percentage (%)
1.	200 & above	113 failed out of 200	56.5
2.	190-199	74 failed out of 125	59.2
3.	180-189	73 failed out of 125	58.4
4.	170-179	35 failed out of 50	70
	Total	295 failed out of 500	244.1

Table 2: Correlation between UME and Post-UME scores of candidates for 2005-2006

FACULTY	DEPARTMENT	NO. OF STUDENTS	CORRELATION.(r)	REMARK
ARTS & EDUCATION	ENGLISH STUDIES	81	0.36	S
	HIST & INT STUDIES	35	0.21	NS
	LINGUISTICS	14	0.48	S
	PHILOSOPHY	29	0.54	S
	MASS COMM	79	0.41	S
	ENG. EDUCATION	4	0.9	NS
	MATHS EDUCATION	2	1	S
	BIOLOGY EDU	5	0.44	NS
	G&C EDUCATION	12	0.3	NS
	ACCOUNTING EDU	31	0.77	S
	EDUCATION FOUND	15	0.42	NS
	POL. SCIENCE EDU	19	0.24	NS
	EDU MANAGEMENT	18	0.77	NS
LAW	LAW	98	0.51	S
	TOTAL NO OF STUDENTS	344	0.39	S
	EBF	5	0.6	NS
	GEOLOGY	6	0.42	NS
	CHEM & IND. CHEM	37	0.46	S
SCIENCE	COMPUTER SCIENCE	146	0.47	S
	IND. MATHS	11	0.57	S
	MCB	67	0.48	S
	PHYSICS & ELECTRONICS	19	0.47	NS
	TOTAL NO OF STUDENTS	291	0.42	S
	ACCOUNTING	81	0.36	S
	BANKING AND FINANCE	35	0.47	S
	BAMS	14	0.38	S
	ECONOMICS	29	0.29	S

SOCIAL AND MGT SCIENCES	GEOG & PLAN. SCIENCES	79	0.03	NS
	PSYCHOLOGY	4	0.64	S
	POL SCI & PUB. ADMIN	2	0.46	S
	SOCIOLOGY	5	0.54	S
	TOTAL NO OF STUDENTS	1296	0.17	S
Total number of candidates for 2005-2006 UME and Post-UME =			2029	
Overall correlation of UME and Post-UME for 2005-2006 =			0.17	
Remark			Significant	

Note: S = Significant; NS = Not Significant

Table 3: Comparative analysis of class of grades of the final year UME and Post-UME students

FACULTY	SESSION	NO. OF 1 ST CLASS	NO OF 2 ¹	NO OF 2 ²	NO OF 3 RD CLASS	NO OF PASS
EDU	2007/2008	0	55	307	175	2
	2008/2009	0	68	200	73	1
ARTS	2007/2008	1	123	283	135	10
	2008/2009	0	32	101	84	4
LAW	2007/2008	0	12	25	4	1
	2008/2009	0	5	41	19	2
SCIENCE	2007/2008	4	111	303	165	23
	2008/2009	8	134	310	126	4
SOCIAL & MGT	2007/2008	5	141	415	165	6
	2008/2009	0	168	347	108	1

Source: Third convocation ceremony brochure of Adekunle Ajasin University, Akungba Akoko held between March 10th – 11th 2011

Table 4: Analysis of the class of grades summary

SESSION	1 ST CLASS	2 ¹	2 ²	3 RD CLASS	PASS	TOTAL
2007/2008	10	442	1333	644	42	2471
2008/2009	8	407	999	410	12	1836

Table 5: Test of significance difference between UME and Post-UME performance of students at the final year examination.

VARIABLE	n	X	SD	df	t-cal	t-table
2007/2008	2471	2.89	0.72	4305	2.36	1.960
2008/2009	1836	2.99	0.70			

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