

Problems and Prospects of Post-UME/UTME in Nigerian Universities

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Abstract- Post-UME/UTME is a screening / examination that each candidate seeking for admission into any tertiary institution in Nigeria has to undergo in order to test candidate's ability due to various forms of examination malpractices persisting in Joint Admission and Matriculation Board (JAMB), National Examination Council (NECO) and West African Examination Council (WAEC). The study highlighted some of the problems associated with post-UME/UTME as pointed out by some individuals opposing the adoption of post-UME/UTME, contributions of some individuals supporting the exercise were also narrated and different analyses on the performance of candidates in JAMB examination (UTME scores) and post-UTME (post-UTME scores) were carried out. The results of paired t-test between UTME score and post-UTME score shows that there is a significant difference between the means of the two scores. The study has also discovered the use of arithmetic mean is not significantly different from weighted arithmetic mean with arbitrary values of 0.4 and 0.6 on utme score and post-utme score respectively.

Index Terms: utme-score post-utme score,paired t-test,sample,arithmeticmean,weighted arithmetic mean, arbitrary values.

I. INTRODUCTION

The Joint Admission and Matriculation Board (JAMB) was established in 1978 to conduct entrance examination known as Unified Tertiary Matriculation Examination (UTME) for candidates seeking for admission into Nigerian tertiary institutions. Before the screening examination (post-UME) was introduced by the Federal Government of Nigeria, candidate who obtained the required number of "O" level credits and got the JAMB cut-off marks may be automatically be shortlisted for admission by his/her university of choice. Later this procedure of admission was found to be inadequate as a result of poor performance of students in their respective institutions of learning due to persistent malpractice in JAMB, West African Examination Council (WAEC) and National Examination Council (NECO). Therefore, with hope to sanitize the system of admission especially into Nigerian universities and put an end to the problem of admitting wrong students, the Federal Government of Nigeria introduced post-UME examination. The research highlights on the significant contributions of post-UME later known as post-UTME examination towards admission and some problems attributed to it.

Problems persisting in post-UME/UTME

The post-UME screening was introduced in 2005 by the former Minister of education, Mrs. Chinwe Nora Obaji following the Universities outcry against the credibility of the examination conducted by JAMB. (Owoade, 2010). Since its inception, it has been facing accusations by some concerned citizens. These might be due to the following reasons: Exorbitant charges by the universities higher than what has been approved by the federal government, inviting candidates more than the universities carrying capacity, influence of Admission Officers and Vice Chancellors in admitting candidates.

The Federal Government of Nigeria through the federal ministry of education has directed that no university should charge more than one thousand naira per candidate for the post-utme examination, but it is clear that this directive has become just a mere statement. (Makinde, 2009)

Mr. Samson Positive a former member of house of representative from Bayelsa West had raised a motion titled "Illegal subjection of subjection of candidates to examination by universities after JAMB". The rationale behind this motion is to eliminate alleged exploitation of candidates seeking for admission into universities who are compelled to pay prohibitive charges for post-utme/utme examination. In 2009 the university of jos charged each candidate two thousand three hundred naira as against one thousand naira where at least 30,000 candidates were invited while the university has the capacity to admit 4,000

candidates. In 2016/2017 post-utme screening, Kwara State University (KWASU) invited 12,225 candidates while the university has the capacity to admit not more than 25% of the invited candidates. In related issue, in 2015/2016 post-utme examination, Bayero University, Kano (BUK) invited over 60,000 candidates for the exercise while the university admission capacity is not more than 5,000. In line with this the Vice Chancellor of the university Prof. Yahuza Bello said “there was no point of raising the hope of students by inviting an outrageous number to write post-utme knowing fully the admission carrying capacity of the institution”. In a similar reaction, Prof. Fidellis Ogah a former Vice chancellor of Ebonyi State University (EBSU) said he has refused to bow pressure to conduct post-utme because most universities have turned it to goldmine. (Busayo, 2010). Charging candidates higher than the approved one thousand naira to write post-utme examination is a common practice to most Nigerian universities because in 2016/2017 most of the universities charged each candidate between two thousand to five thousand naira.

Why Universities and other Institutions adopt post-UME/UTME

Examination malpractice and other fraudulent attitudes in WAEC, NECO and JAMB examinations are not something strange in Nigeria. Many cases of examination malpractices have been reported almost every year. Being a phenomenon that could not be arrested or inability of the stake holders to restore decency in the school leaving certificate examinations mostly conducted by WAEC and NECO and in the Unified Tertiary Examination (UTME), the Nigerian Universities adopt a screening examination for candidates who have scored at least 180 points in the UME, this is post-UME. Meanwhile other higher institutions of learning also find it necessary to adopt the screening exercise as JAMB result becomes one of the entry requirements into all institutions of learning in Nigeria and the screening exercise is termed as post- Unified Tertiary Matriculation Examination (post-UTME).

To mention some few instances about the incredibility of JAMB, The University of Education, Ikere-Ekiti conducted its first post-UME in 2008 essay examinations, it was discovered that the results of the post-UME test especially the essay examination has helped exposed the inadequacies of some candidates. Most of the candidates who scored 200 marks and above in JAMB performed below expectation in the essay test. It is discovered that 87 out of the sampled 200 candidates scored 40% and above representing 43.5% while the remaining 113 representing 56.5% scored below 40%. (Busayo, 2010). According to (Owoade, 2010), Dr. Isac Nwaogwugwu, a lecturer in the Department of Economics, University of Lagos in one of his lectures to the distance learning students said “Post-UME screening shows the true knowledge of candidates which UME has failed to show, he added that the second best student in UME some years ago was admitted into University of Lagos but was later rusticated because of his educational imbalance. Prof. Aize Obayan, Vice Chancellor, Covenant University said in 2005, candidates who scored 300 points and above in JAMB were admitted but most of them were asked to withdraw later because they could not cope. (Edukugho, 2011).

In some cases, Invigilators and Supervisors contribute immensely in examination malpractice during WAEC, NECO and JAMB examinations which makes it easier for the candidates to score high marks and these turned out to be incredible and justifies their involvement in examination malpractice when those candidates were call upon for post-UME examination by their universities of choice. According to (Omoeihe, 2013) students these days go into the examination halls full of confidence not because they have prepared for the examination but they know the evil invigilators will take token amount to give them the answers to the questions. In July, 2012, the Director General of National Orientation Agency (NOA) Mrs. Mike Omeri announced that Nigeria had been ranked number one on the World’s examination malpractice index. In the May/June 2012 School Certificate Examination conducted by NECO, a total of 615,010 cases of examination malpractice were recorded and this was high compared to 439,529 cases of malpractice in 2011. (Omoeihe, 2013). It is believed that many of the examination centres have turned into market centres, where candidates who can afford bargain for grades. According to Terseer, (2010) in some examination centres during JAMB examination unauthorized materials are allowed into the examination halls through collaboration with some examiners. Sometimes some examiners worked out problems for the candidates.

II. RESEARCH QUESTIONS

1. The research is limited to Kano University of Science and Technology, Wudil, and intends to find out the solutions to the following:
2. Should the university continue to adopt post-UTME examination as measure of admitting credible candidates?
3. Does the arithmetic mean of UTME score and post-UTME score provide a good measure of assessing the candidates?

III. DATA AND METHODS

Data

The result of 870 candidates comprising of jamb aggregate score and post-utme score is obtained from Management Information System of Kano University of Science and Technology, Wudil. The average of jamb aggregate score i.e utme score and post-utme score of each candidate is obtained. Each candidate being described by 3 variables: UTME score (X) which is out of 400 points, post-UTME score (Y) which is also out of 400 points and average of post-UTME and UTME score (Z). After the data imputation, a sample of size 45 is drawn by simple random sampling without replacement drawn using computer random number generator of Minitab version 14 as follows:

The item calculator is selected followed by item random data, then sample from column, where the sample size is specified and the two storage columns were specified and sampling without replacement is selected after the command the sample of size 45 were automatically provided. This are labeled as X and Y respectively. Following same procedures another sample of size 45 is drawn from the variables X and Z.

Methods

Descriptive statistics: comparisons of scores for the variables X, Y and Z.

In the interface calculator, at the first stage the number of applicants belonging to each of the following ranges $180 \leq X \leq 190$, $190 < X \leq 200$ and $X > 200$ are obtained by specifying the storage columns one after the other for the operations sum ($180 \leq X$ And $X \leq 190$), sum ($190 < X$ And $X \leq 200$) and sum ($X > 200$). Other comparisons with 3 mentioned ranges of X are made simultaneously with some ranges of Y. Some of these operations include sum ($180 \leq X$ And $X \leq 190$ And $Y < 50$), sum ($180 \leq X$ And $X \leq 190$ And $50 < Y$ And $Y < 100$) e.t.c.

Weighted arithmetic mean

With the same statistical software, the weighted arithmetic mean for 45 paired samples of X and Y are obtain as follows

An arbitrary weights of $w_1 = 0.4$ and $w_2 = 0.6$ is assign to the values of x and y respectively. Each pair of values of x and y is multiplied by w_1 and w_2 respectively and the sums $w_1x_i + w_2y_i$ for each of the 45 pairs is obtained. The weighted arithmetic mean

$$\frac{w_1x_i + w_2y_i}{w_1 + w_2}$$

for each of the 45 pairs, W.A= are executed.

Paired sample t-test: t-test for repeated measures

The research set up the null and alternative hypotheses to test for the difference between the pairs sample values of X and Y respectively as follows:

$H_0 : \mu_d = 0$ that is, there is no difference in mean population values of X and Y.

$H_1 : \mu_d \neq 0$ that is, there is difference in mean population values of X and Y. The values of all computational formulae are accomplished under the Minitab version 14 command. Where μ_d is the mean difference in population values of X and Y, 5% level of significance is chosen and the difference between paired values of the sample x and y is given by the quantity $d_i = x_i - y_i$ for

$$\bar{d} = \frac{\sum_{i=1}^n d_i}{n}$$

$i=1, \dots, 45$. The mean of the difference between paired values is obtained. The standard error of the mean of the differences,

$S.E(\bar{d}) = \frac{Sd}{\sqrt{n}}$ where Sd is the standard deviation of the differences between paired values, the calculated value of t , $t = \frac{\bar{d}}{S.E(\bar{d})}$ is t statistic compared with the p- value with degrees of freedom n-1, that is 44. The calculated value of t is accomplished with the aid of Minitab 14 as follows: In the interface containing the paired t-test and confidence interval the columns containing samples x and y are selected, and then followed by the selection of the tool options. In the interface “options”, confidence level of 95%, the test mean of 0.0 and alternative not equals to 0 were specified. With these selections the value of t statistic, p-value and 95% confidence limits were automatically produced.

IV. RESULTS

Table1: Results for the comparisons of ranges of X and Y values.

| Ranges | Number of observations |
|----------------------------|------------------------|
| 180<=X<=190 | 306 |
| 190<X<=200 | 190 |
| X>200 | 374 |
| 180<=X<=190 and Y<50 | 10 |
| 180<=X<=190 and 50<=Y<100 | 172 |
| 180<=X<=190 and 100<=Y<180 | 95 |
| 180<=X<=190 and Y=180 | 0 |
| 180<=X<=190 and Y>180 | 29 |
| 190<X<=200 and Y<50 | 13 |
| 190<X<=200 and 50<=Y<100 | 115 |
| 190<X<=200 and 100<=Y<180 | 39 |
| 190<X<=200 and Y=180 | 0 |
| 190<X<=200 and Y>180 | 23 |
| X>200 and Y<50 | 35 |

Table 2: Values of weighted arithmetic mean and Arithmetic mean

| Sn | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| W.A | 96.8 | 183.6 | 165.2 | 124.4 | 170.4 | 136.4 | 214.8 | 122.0 | 113.6 |
| A.R | 111.0 | 191.5 | 178.5 | 139.5 | 181.0 | 148.5 | 214.5 | 132.5 | 126.0 |
| Sn | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| W.A | 134.8 | 106.4 | 174.0 | 134.8 | 170.0 | 228.8 | 155.6 | 202.8 | 138.4 |
| A.R | 144.5 | 123.0 | 183.5 | 144.5 | 174.5 | 224.0 | 162.5 | 199.5 | 147.0 |
| Sn | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| W.A | 112.4 | 133.2 | 211.2 | 132.8 | 135.6 | 172.0 | 108.4 | 112.8 | 114.4 |
| A.R | 126.5 | 148.5 | 212.0 | 148.0 | 143.5 | 177.0 | 123.5 | 125.0 | 127.0 |
| Sn | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| W.A | 135.2 | 125.6 | 208.4 | 115.6 | 135.6 | 126.4 | 109.2 | 121.6 | 127.6 |
| A.R | 147.0 | 137.0 | 206.5 | 126.5 | 147.5 | 140 | 122.5 | 132.0 | 137.5 |
| Sn | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| W.A | 146.8 | 124.8 | 135.6 | 132.0 | 165.2 | 132.0 | 139.2 | 180 | 143.6 |

Table 3: Result of paired t-test of utme and post-utme score

| Variable | Sample size | Mean | St. Dev | T-value | P-value |
|----------|-------------|--------|---------|---------|---------|
| X | 45 | 205.69 | 25.07 | 23,57 | 0.0000 |
| Y | 45 | 94.93 | 23.11 | | |
| X-Y | 45 | 110.76 | 32.92 | | |

Table 4: Result of paired t-test of weighted arithmetic (W) arithmetic mean (A)

| Variable | Sample size | Mean | St. Dev | T-value | P-value |
|----------|-------------|---------|---------|---------|---------|
| W | 45 | 145.98 | 32.06 | -1.94 | 0.059 |
| A | 45 | 153..93 | 28.08 | | |
| W-A | 45 | -7.96 | 27.52 | | |

V. DISCUSSION

From the result of table 1 306 candidates scored between 180 to 190 points inclusive in utme examination. But 10 of them scored less than 50 points,out of which 172 scored 50 to less than 100 points, 95 of them obtained 100 to less than 180 points and only 29 out of the 306 candidates scored above 180 points in post-utme examination. It is discovered that 190 candidates scored higher than 190 and exactly 200 points in utme examination. Out of this population 13 scored less than 50 points, 115 of them scored exactly 50 to less than 100 points, 39 got exactly 100 to less than 180 points while 23 of them scored higher than 180 points in post-utme examination. Out of the 374 candidates who scored more than 200 points in utme examination, 35 of them scored less than 50 points, but 205 of them

obtained exactly 50 to less than 100 points, 96 scored exactly 100 to less than 180 points, and 38 scored above 180 points in post-utme examination.

In general out of the 306 candidates who scored between 180 to 190 points inclusive in utme examination 59.47% scored less 50 to less than 100 points in post-utme. Among the 190 candidates who scored more than 190 to exactly 200 points in utme examination 120 of them scored less than 50 to less than 100 points in post –utme exams representing 67.37%. 374 candidates obtained higher than 200 points in utme exams but 240 of them scored less than 50 to less than 100 points in post-utme examination representing 64.17%.

From the result of table 2 the values of arithmetic mean are higher than that of weighted arithmetic mean. Based on descriptive techniques the arithmetic mean does not provide a good measure of average because with higher score utme exams but have low marks in post-utme may be selected by his/her university of choice which might be a wrong selection.

The result of table 3 indicates that the mean number of performance of utme and post-utme score is significant with a p-value of 0.000 at 0.05 level of significance. But the result of table 4 shows that there is no significant difference between weighted arithmetic and arithmetic mean at 0.059 level of significance. But care should be taken using arithmetic mean in assessing candidates as there is no point to given equal consideration to what the universities doubt its credibility and what is regarded as credible.

In conclusion it is revealed by this study that post-utme is the only known available measure of admitting right candidates into the university. Since the university adopts post-utme care should be taken in using arithmetic mean which is commonly used by most of the Nigerian universities since there is point to assign equal weight to what we have doubt about its credibility.

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