ARE UTME AND PUTME GOOD PREDICTORS OF STUDENTS’ ACADEMIC PERFORMANCE IN THE UNIVERSITY? THE CASE OF KADUNA STATE UNIVERSITY, KADUNA, NIGERIA.

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ABSTRACT
This paper has investigated the extent to which the Joint Admission and Matriculation Board’s (JAMB) Unified Tertiary Matriculation Examination (UTME) and Kaduna State University Post Unified Tertiary Matriculation Examination (PUTME) are predictors of students’ academic performance in Kaduna State University, Kaduna, Nigeria. The data on the student’s scores for JAMB’s UTME, and PUTME, were collected from Kaduna State University’s (KASU) Information Communication Technology and Management Information System. The study also employed field survey using a well-structured questionnaire administered to the students to collect data on their Cumulative Grade Point Average (CGPA) and other information. Purposeful sampling was adopted in selecting 240 students. This study used descriptive and inferential statistics for data analysis. The study revealed that candidates scored higher in PUTME than in UTME. The mean score of students in PUTME stood at 249.60, which is higher than the UTME mean scores of 208.24. The result of the scores for UTME reveals that the highest mean score has been increasing over the years with the highest individual score being recorded in 2015. The study also revealed a significant relationship between UTME and PUTME at 0.05%. The prediction of students’ CGPA from their performance in UTME and PUTME in KASU reveals that UTME and PUTME are good predictors of students’ final class of degree. In this study, JAMB UTME and KASU PUTME when taken separately, significantly predict student’s CGPAs in KASU. The study concludes that UTME and PUTME can be described to be the predictors of student’s academic performance in KASU.

Keywords: Academic, Performance, KASU, Predictor, PUTME, Scores, JAMB’s UTME.

INTRODUCTION
Kaduna State University was established in 2005. Since 2014/2015 academic session, the Kaduna State University (KASU) discontinued the Post Unified Tertiary Matriculation Examination (PUTME) for students admitted into KASU, thus, advancing Unified Tertiary Matriculation Examination (UTME) of Joint Admission and Matriculation Board (JAMB) as sole criterion for admitting students into KASU. This is in spite of the fact that several studies had found significant disparities between candidates’ (a) UTME and PUTME scores (Afolabi, Mabayoje, Togun and Oyedeyi, 2007; Omirin, 2007; Ifedili and Ifedili, 2010; Ajala, 2010; Umo and Ezeudu, 2010; Akintola, 2013; Ayuba, 2015; Oladejo, 2016) and (b) UTME scores and performance of students at 100 levels (Bangboye, Ogunnowo, Badru and Adewoye, 2001; Kale, 2004; Ojinnike, 2009; Igwe and Adikwu, 2012; Joe, Kpolovie, Osonwa and Iderima, 2014) and (c) UTME scores and their final Cumulative Grade Point Average (CGPA) scores in the university (Uhuanmuangho and Ogunbedeniyi, 2004; Salahu and Murtala, 2005; Ohioma and Salau, 2007; Eze, 2014; Okobai, 2015). This has brought to the front burner the critical question: Is UTME a reliable predictor of academic performance of KASU Students? Providing an objective answer to this question is the problem of this study. Disparity between students’ UTME score and performance in the university led to the PUTME. This generated a lot of criticism prompting the need to investigate the relationship between UTME and PUTME scores. The Unified Tertiary Matriculation Examination (UTME) used by the Joint Admissions Matriculation Board (JAMB) for admitting students into Universities in Nigeria has been severely criticized as a poor instrument for predicting academic performance of students. The critiques results shown disparities, which is a better predictor of students’ performance in the university between: have cited wide

i. The UTME and Post Unified Tertiary Matriculation Examination (PUTME) screening scores; and

ii. UTME scores and progress/performance of especially those candidates with exceptionally high UTME scores (Agbomoh and Dimowo, 1985; Ogonor and Olubor, 2002).

The persistence and veracity of the criticisms eventually compelled the managements of the Universities in Nigeria to introduce the PUTME screening exercise to complement UTME. This development has also evoked intense criticism, generally from the public, but particularly from parents of prospective students. Expectedly, the two admission criteria have become subjects of various studies. Whereas, majority of the exploratory studies reported statistically significant differences between UTME and PUTME scores, based on the Student-T test; the Pearson Product Moment Correlation Coefficient (rp) of the two sets of scores was only weak but it was also inverse and insignificant (Umo and Ezeudu, 2006; Patrick, 2010; Tosanwumi, 2011; Eze, 2014; Uhuanmuangho and Ogunbedeniyi, 2014).

Igwe and Adikwu (2012) found a significant relationship between students’ scores in three examinations, namely: UTME, PUTME, and 100-Level Psychology course, Faculty of Agriculture, Federal University of Agriculture, Makurdi, and thus concluded that the UTME has a predictive validity for performance in the university. Idika (2015) has investigated parents’ concern about the use of computer-based-testing (CBT) for UTME in Cross River State. Other studies have extended their examination to the relationships that exist between UTME/PUTME scores and the Cumulative Grade Point Average (CGPA) of students in various programmes. These include Tosanwumi (2011) who conducted a survey and reported that there existed a negative correlation between score obtained by candidates...
in the UTME and their respective CGPA as against the positive correlation that was found between PUTME and CGPA of the same set of students. Similarly, Joe, Kpolovie, Osonwa and Iderima (2014) compared the CGPA of graduates admitted through UTME, PUTME and Preliminary Programmes of Basic Studies Programme of School of Science Laboratory Technology, University of Port Harcourt and found that graduates admitted through the UTME/PUTME did better. This finding has introduced another dimension to the relative strength of UTME/PUTME as performance predictor debate. Also Eze (2014) used the ‘p and Partial Correlation Coefficient to examine the strength of UTME as a predictor of students’ final grades in the Faculty of Health Sciences and Technology, University of Nigeria, and found that UTME was a poor predictor of students’ final grades in the faculty. Unyenmuangho and Ogubadejini (2014) adopted Pearson correlation to compare the relative strength of UTME and PUTME as performance predictor in five faculties at the University of Benin. The study revealed a very low but statistically significant negative correlation between UTME and PUTME scores. The study therefore concluded that high marks in UTME did not reflect the academic performance of students that were admitted based on merit only from UTME scores, therefore such admission criterion could not bring into the university the best qualified students.

A major shortcoming of virtually all the studies reviewed is their limited scope in time and/or coverage. For instance, Umo and Ezeudu correlated UTME and PUTME scores for the 2006/2007-admission exercise of the University of Nigeria, Nsukka in nine (9) programmes in the science, social science, and engineering faculties. Akinola (2013) covered four (4) admission years: 2007/2008-2010/2011 but confined to only the Department of Computer Science, University of Ibadan. Eze (2014) examined the relative strength of UTME and PUTME as academic performance predictor. Patrick (2010) studied the performance of only 214 students admitted into science education through PUTME screening through 2005/2006 to their 300-level year, 2007/2008, in four departments -Biology, Chemistry, Mathematics and Physics in Delta State University, Abraka, and found no significant correlations in the CGPA scores of students admitted through the two sets of criteria.

Joe et al. (2014) analyzed academic performance of graduates admitted through UTME/PUTME and the Preliminary programmes Certificate, Basic Studies and School of Science Laboratory Technology, University of Port Harcourt. Results showed that graduates who were admitted through the preliminary programmes performed significantly better than their counterparts who were admitted through the UTME/PUTME in all the faculties except in Agricultural Science and Engineering. Oyakawa (2009) has analyzed JAMB’s UTME and PUTME scores of biological science students of Federal University of Technology, Minna, and found a very weak and insignificant relationship between the two. Ayuba (2015) did a comparative analysis of PUTME in KASU using fuzzy logic. The study found that the CGPA of students that had very good performance in mathematics and physics in the PUTME are higher compared to those that scored fail either physics or mathematics but were offered admission into Mathematical sciences programme in KASU. Finally, the reviewed literature has shown that there are gaps yet to be filled in understanding the predictors of good academic performance in Universities in Nigeria. Also the other indicators of academic performance such mean program completion time, rate of withdrawal from programs, rate of inter-programme transfers and rate of withdrawal from University as a result of poor academic performance have not been studied. The researchers attempted to use various techniques to investigate and also document the relationship existing between the results of students in one examination and the other. The major lacunae or gap is such that a systematic study has never been conducted for a new University like that of Kaduna State University, which is the essence of this study.

Therefore, this study is aimed at investigating the extent at which JAMB UTME and PUTME is a predictor of students’ academic performance in Kaduna State University, Kaduna, Nigeria. The following objectives will be used to achieve the aim of this study to assess the relationship between students’ scores in UTME and PUTME and their overall performance in KASU, to examine the relationship (if any) between the performance of students in UTME and PUTME IN 2008, 2009, 2010, and 2015 in KASU. And also to assess the performance of KASU Students in UTME, PUTME and CGPA, and to examine the extent the JAMB/UTME a predictor of the students’ academic performance in KASU.

MATERIALS AND METHOD:

Brief History of Kaduna State University

Kaduna State University (KASU) is a state owned institution. KASU was established under the Kaduna State Law Number 3 promulgated on 21st May 2004. The promulgation was a consequence of the obvious and felt need to boost higher education in the State and in Nigeria. Kaduna State University has two campuses, one in Kaduna town and the other in Kafanchan. Academic activities commenced in 2005/2006 academic session at Kaduna campus with 3 Faculties, 17 Academic Departments, 19 Undergraduate Programmes and a College of Basic Studies. At present, the University has 2 Colleges, 2 Schools, 8 Faculties, 51 Academic Departments, 32 Undergraduate Programmes and 54 Postgraduate Programmes in the 2 campuses. According to Directorate of University Advancement-KASU (DU-KASU) (2018) the university has a student population of 17,372 with 13785 undergraduates and 3587 Postgraduate students. It has 8 faculties; Faculty of Arts (2012), Faculty of Sciences (4963), Faculty of Social and Management Science (4311), Faculty of Medicine (163) Faculty of Environmental Science (1301), Faculty of Agriculture (437), Faculty of Pharmaceutical Science (314) and Faculty of Continuing Education (284). At the Postgraduate level, the Faculty of Social and Management Science has the highest number of student (2392) and Faculty of Arts has the least (325). According to statistics on number of applicants for admission into Nigerian Universities by Joint Admissions and Matriculation Board for 2017, KASU was the second most-sought-after State University in Nigeria (DU-KASU, 2018).

The main campus is located in Kaduna Metropolis, which lies between Latitudes 10° 22′ N and 10° 40′ N of the equator and Longitudes 07° 20′ E and 07° 28′ E of the Greenwich meridian. The climate is tropical continental comprising of dry harmattan northeast winds and warm, humid southwest winds that usher in the rainy seasons. Vegetation is typically guinea savannah woodland and Sudan savannah grassland. The metropolis comprises of four local government areas (LGAs) namely; Kaduna North, Kaduna South with segments of Chikun and Igabi LGAs. The four Local Government Areas have a combined population of about 1.56 million (KDSA, 2017). The city is experiencing rapid population growth which is believed to be responsible for the increased pressure on public services, infrastructure and challenges such as solid waste management.

Data collected and analysis

The investigation depended exclusively on documentary data mainly recordings of student’s scores for JAMB’s UTME, Post UTME, and CGPA collected from KASU Information Communication Technology and Management Information System (ICT/MIS), which covered all
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The highest mean scores is 206.75 in UTME 2010 while PUTME 2010 has the lowest mean scores of 158.89 (see Table 5).

Table 1: Correlation of UTME and PUTME 2008, 2009, 2010 and 2015 in KASU

<table>
<thead>
<tr>
<th></th>
<th>UTME 2008</th>
<th>UTME 2009</th>
<th>UTME 2010</th>
<th>UTME 2015</th>
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<tbody>
<tr>
<td>UTME 2008</td>
<td>Pearson Correlation 1.02 0.658 0.364</td>
<td>0.968</td>
<td></td>
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<tr>
<td></td>
<td>Sig. (2-tailed) 0.041</td>
<td>0.008</td>
<td>0.002</td>
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<td>N 494</td>
<td>494</td>
<td>494</td>
<td>494</td>
</tr>
<tr>
<td>UTME 2009</td>
<td>Pearson Correlation 0.02 0.076</td>
<td>0.008</td>
<td>0.776</td>
<td>0.008</td>
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<tr>
<td></td>
<td>Sig. (2-tailed) 0.658</td>
<td>0.008</td>
<td>0.008</td>
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<td></td>
<td>N 494</td>
<td>1232</td>
<td>1232</td>
<td>1232</td>
</tr>
<tr>
<td>UTME 2010</td>
<td>Pearson Correlation 0.041 0.776</td>
<td>0.008</td>
<td>0.662</td>
<td>0.008</td>
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<tr>
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<td>Sig. (2-tailed) 0.364</td>
<td>0.123</td>
<td>0.008</td>
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<td>1232</td>
<td>1232</td>
</tr>
<tr>
<td>UTME 2015</td>
<td>Pearson Correlation 0.002 0.008</td>
<td>0.004</td>
<td>0.826</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed) 0.868</td>
<td>0.776</td>
<td>0.008</td>
<td>0.008</td>
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<tr>
<td></td>
<td>N 494</td>
<td>1232</td>
<td>1232</td>
<td>1232</td>
</tr>
<tr>
<td>PUTME 2008</td>
<td>Pearson Correlation 0.409</td>
<td>0.012</td>
<td>0.05</td>
<td>0.056</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed) 0.968</td>
<td>0.728</td>
<td>0.008</td>
<td>0.008</td>
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<td>N 494</td>
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</tr>
<tr>
<td>PUTME 2009</td>
<td>Pearson Correlation 0.006 0.326</td>
<td>0.002</td>
<td>0.019</td>
<td>0.002</td>
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<tr>
<td></td>
<td>Sig. (2-tailed) 0.006</td>
<td>0.002</td>
<td>0.002</td>
<td>0.002</td>
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<td></td>
<td>N 494</td>
<td>1232</td>
<td>1232</td>
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<tr>
<td>PUTME 2010</td>
<td>Pearson Correlation 0.027 0.037</td>
<td>-0.026</td>
<td>0.318</td>
<td>0.037</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed) 0.027</td>
<td>0.037</td>
<td>0.037</td>
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<td></td>
<td>N 494</td>
<td>1232</td>
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<td>1232</td>
</tr>
<tr>
<td>PUTME 2015</td>
<td>Pearson Correlation 0.047 0.016</td>
<td>-0.019</td>
<td>0.474</td>
<td>0.474</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed) 0.047</td>
<td>0.016</td>
<td>0.016</td>
<td>0.016</td>
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<td></td>
<td>N 494</td>
<td>1232</td>
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</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed)

Performance in UTME, PUTME, and CGPA

The result also reveals that the UTME 2010 has the highest mean scores of 206.75 while UTME 2008 has the lowest mean scores of 195.56 as shown in Figure 2. UTME 2015 has the highest individual score of 298 followed by UTME 2008 with 289 while UTME 2009 has
the highest individual score of 275. This shows that candidate best individual scores in 2015 and students of 2009 had the lowest scores.

Figure 7: UTME SCORES IN 2008, 2009, 2010, and 2015.
Source: Computed From KASU MIS Records (2018)

The mean scores of candidates in PUTME 2008 has scores of 187.85 while PUTME 2010 has the lowest mean scores of 158.89. This implies that the students did better in 2008 than 2009 2010 and 2015 as shown in Figure 3. PUTME 2015 has the highest maximum scores of 340 followed by UTME 2010 with 318 while UTME 2008 has the lower maximum score of 292. This implies that students' best individual scores in 2015 and students of 2008 had the lowest maximum scores.
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The prediction of students’ CGPA from their performance in UTME and PUTME in KASU reveals that UTME and PUTME are good predictors of students’ final class of degree. In this study UTME and PUTME when taken separately, significantly predict students’ CGPA of 100L, 200L, and 300L in KASU as shown in Table 5. In the same way, the studies by Ubokobong (1993), Itsuokor (1994), Ojerinde and Kolo (2007) and Adeyemi (2011) revealed findings consistent with the present one. These findings have revealed that UTME and POST-UTME in their separate works have positive and significant relationship and predictive strength with CGPA and First Year Grade Point (FYGP). The finding of this study is not in agreement with those of Obioma and Salau (2007) and Margaret (2012) who in their separate work found that students’ entry qualification such as UTME and PUTME does not significantly predict students’ CGPA.

### Conclusion

The findings of this study have shown that UTME and PUMTE can be described as the predictor of students CGPA in KASU. They further revealed that UTME, which is followed closely by PUMTE, predicts academic performances among students in KASU. This might be the reason why the management of KASU stopped the conduct of PUMTE after 2015 and use JAMB’s UTME as the sole examination to gain admission into KASU.

### Acknowledgement

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