



Comparative and Contextual Influences of Admission Mode and School Location on Undergraduate Students' Cumulative Grade Point Average (CGPA) Performance in Nigerian Universities

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ABSTRACT

This study examined the relationship among school location, Unified Tertiary Matriculation Examination (UTME) scores, Post-Unified Tertiary Matriculation Examination (PUTME) scores and undergraduate students' Cumulative Grade Point Average (CGPA) performance in universities. The study adopted a correlational research design. The population comprised 1,265 undergraduate students admitted into the Faculty of Education of Delta State University, Abraka, and Cross River State University, Calabar, during the 2019/2020 academic session. A sample of 622 undergraduate students, representing 49% of the population, was selected through probability sampling using balloting with replacement from three departments in each university. Data were obtained from students' UTME and PUTME scores and their CGPA records. The instruments used for determining UTME and PUTME scores had face and content validity, while their stability was established using the test-retest method with 50 students outside the study area. Data were analysed using Pearson Product Moment Correlation and multiple correlation/regression techniques with SPSS at the 0.05 level of significance. The findings revealed that there was no significant relationship between students admitted through PUTME and those admitted through UTME in their CGPA performance ($r = 0.043$, $p = 0.060$, 95% CI [-0.036, 0.121]). However, school location had a significant relationship with undergraduate students' CGPA performance ($F(1, 620) = 42.962$, $p < 0.001$, $\eta^2 = 0.065$). The study also established a significant relationship between UTME and PUTME scores and students' CGPA performance ($R = 0.531$, $R^2 = 0.282$, $F(2, 446) = 87.579$, $p < 0.001$). It was concluded that while mode of admission alone did not significantly differentiate students' academic performance, school location and admission examination scores were important factors associated with undergraduate students' CGPA performance. The study recommended the consideration of multiple admission criteria and improved academic support across university locations..

Keywords: UTME, PUTME, school location, CGPA, undergraduate students, university admission.

INTRODUCTION

The pursuit of academic excellence in higher education remains a central objective for universities worldwide, as the quality of graduates produced directly influences national development and global competitiveness. In Nigeria, the assessment of undergraduate students' academic performance is predominantly measured through the Cumulative Grade Point Average (CGPA), which serves as a comprehensive indicator of students' learning outcomes, intellectual development, and readiness for the labour market or postgraduate studies (Edun, et al., 2026). The CGPA, typically computed on a 5-point scale, reflects students' consistent academic engagement across multiple semesters and is widely regarded as the most reliable metric for evaluating university-level achievement (Uba, & Tivde, 2025). Given its significance, understanding the factors that influence undergraduate students' CGPA performance has become a subject of considerable scholarly interest, particularly in the context of Nigeria's evolving university admission policies and the diverse institutional environments in which students pursue their degrees.

Nigeria operates a tripartite admission system into its universities, comprising the Senior Secondary School Certificate Examination (SSCE), the Unified Tertiary Matriculation Examination (UTME), and the Post



Unified Tertiary Matriculation Examination (PUTME). The UTME, conducted nationally by the Joint Admissions and Matriculation Board (JAMB), serves as the primary standardized entrance examination that assesses candidates' readiness for university-level studies. Since 2006, university authorities have additionally conducted the PUTME as a supplementary screening exercise for candidates who have successfully passed both the SSCE and UTME. This dual-examination admission framework was instituted to enhance the selection process by providing universities with an additional layer of assessment beyond the national standardized test. However, the predictive validity and comparative efficacy of these two admission mechanisms in determining students' subsequent academic performance have remained subjects of ongoing debate among educational researchers and policymakers.

In this study, mode of admission refers to the specific pathway through which students gained admission into the university. It was operationalised into two categories: UTME-Only Admission and UTME/PUTME Admission. UTME-Only Admission refers to students who were admitted on the basis of their Unified Tertiary Matriculation Examination (UTME) scores and Senior Secondary School Certificate Examination (SSCE) results without participating in the Post-Unified Tertiary Matriculation Examination (PUTME) screening exercise. Such students satisfied the national minimum cut-off mark and other institutional admission requirements based primarily on their UTME performance. On the other hand, UTME/PUTME Admission refers to students who, in addition to obtaining the required UTME and SSCE results, participated in and successfully passed the Post-Unified Tertiary Matriculation Examination (PUTME) screening conducted by the admitting university. Thus, these students underwent both the national standardised examination and the institution-specific screening exercise before gaining admission.

In this study, school location refers to the geographical setting of the university campus where students pursued their undergraduate studies. It was operationalised into two categories: urban and rural locations. An urban location refers to a university situated within or in close proximity, specifically within 10 kilometres, to a state capital or major metropolitan area characterised by a high population density of more than 500,000 residents. Such locations are typically associated with relatively developed infrastructure, including paved road networks, reliable electricity supply, internet connectivity, and access to diverse educational resources such as public libraries, research centres, and professional development opportunities. In contrast, a rural location refers to a university situated outside a state capital or major metropolitan centre, generally in an area characterised by a population density of fewer than 500,000 residents, relatively limited infrastructural development, restricted access to modern amenities, and fewer educational resources within the immediate environment.

It is important to note that this study focused on the location of the university campus, not students' secondary school location or their residential location during university studies. The classification of Delta State University, Abraka (situated in Abraka, a semi-urban community in Ethiope East Local Government Area) and Cross River State University, Calabar (located in Calabar, the capital city of Cross River State) was based on these operational criteria. Abraka was classified as a rural location due to its population of approximately 50,000 residents, limited infrastructure, and distance from major metropolitan centers, while Calabar was classified as an urban location given its status as a state capital with a population exceeding 500,000 and well-developed infrastructure.

CGPA refers to the weighted average of grade points earned by a student across all semesters of study, computed on a 5-point scale, as recorded in the official academic transcripts obtained from the Examinations and Records units of the respective universities. A growing body of empirical evidence has examined the relationship between pre-entry examination scores and undergraduate academic achievement in Nigerian universities. Studies conducted across various institutional contexts have yielded mixed findings regarding the predictive power of UTME and PUTME scores. Research by Dogo et al. revealed that candidates consistently scored higher in PUTME than in UTME, with mean scores of 249.60 and 208.24 respectively, while also establishing that both examinations significantly predict students' final class of degree (Dogo, et al., 2021). Similarly, Edun et al. (2026) found that UTME and PUTME scores are significant predictors of academic achievement across federal, state, and private universities in Southwest Nigeria, with UTME demonstrating stronger predictive power in federal universities compared to state and private institutions. These findings



highlight the distinct predictive contributions of PUTME assessments and the critical role of standardized entry examinations like UTME in higher education (Aremu, 2020).

Despite these insights, comparative studies examining performance differences between students admitted through UTME only and those admitted through the UTME/PUTME combination have produced divergent conclusions. Some investigations have suggested that the academic performance of graduates admitted through UTME/post-UTME was higher than that of their counterparts admitted through UTME only (Obineche, et al., 2024), while others have reported no significant difference in academic performance between these two admission cohorts (Imasuen, & Ebuwa, 2020). These inconsistent findings underscore the need for further empirical investigation into whether the mode of admission specifically, whether students were admitted through PUTME in addition to UTME has a meaningful bearing on subsequent CGPA performance in Nigerian universities.

Beyond admission mechanisms, the contextual factor of school location has emerged as another potentially influential determinant of undergraduate academic performance. School location, typically categorized as urban or rural, encompasses a range of environmental conditions including access to educational resources, quality of instructional facilities, availability of library and laboratory infrastructure, and proximity to lecture halls and administrative services (Raymond & Ngwu, 2026). Research conducted in Cross River State, Nigeria, revealed that urban students performed significantly better than their rural counterparts in core subjects. Similarly, studies examining residential location effects have found that on-campus resident students performed better academically than off-campus resident students, with residence having a significant positive impact on academic outcomes (Ovat, et al., 2021). These findings suggest that geographical and locational factors may shape students' learning experiences and, consequently, their CGPA attainment. However, the influence of school location on undergraduate students' CGPA performance in Nigerian universities has received comparatively less scholarly attention than admission-related factors, creating a gap in the literature that warrants exploration.

The intersection of admission mode and school location as concurrent influences on undergraduate CGPA performance represents a particularly underexplored area of inquiry. While individual studies have examined the predictive validity of UTME and PUTME scores or the influence of locational factors on academic performance, limited research has simultaneously investigated how these two dimensions admission pathway and institutional location—interact to shape students' cumulative academic outcomes. Furthermore, existing studies have often focused on single institutions or specific regions, limiting the generalizability of their findings across Nigeria's diverse university landscape. The comparative dimension of examining whether students admitted through different mechanisms (UTME versus PUTME) exhibit differential CGPA performance, and whether such performance varies by school location, remains insufficiently addressed in the Nigerian higher education literature.

This study, therefore, sought to address these research gaps by examining the comparative and contextual influences of admission mode and school location on undergraduate students' CGPA performance in Nigerian universities. Specifically, the study investigates whether there is a significant relationship between students admitted through PUTME and their counterparts admitted through UTME in terms of CGPA performance. It further examines whether undergraduate students' CGPA performance differs significantly based on school location, and whether there is a significant relationship in CGPA performance between students based on their UTME and PUTME scores. By adopting a comparative and contextual analytical framework, this research aims to contribute empirical evidence that can inform admission policy decisions and institutional strategies for enhancing undergraduate academic outcomes in Nigerian universities. The significance of this study is underscored by the critical role that CGPA plays in students' academic and professional trajectories. High academic achievement is crucial for students' future success, as it determines admissions into reputable postgraduate programs, influences scholarship and financial aid opportunities, impacts employability and career prospects, and enables the development of critical thinking, problem-solving, and communication skills. Within the Nigerian university system, where the UTME and PUTME play crucial roles in assessing students' readiness for undergraduate studies, understanding the relationship between admission mechanisms,

institutional contexts, and academic performance is essential for fostering a culture of excellence and competitiveness.

Statement of the Problem

How admission mode and the school's location relate to undergraduates' CGPA in Nigerian universities is not fully understood. Nigerian universities use UTME and PUTME scores when admitting students. Yet studies do not agree on a key point. Some reports suggest PUTME admits do better than UTME admits, while others find no clear edge. School location also matters in earlier education. Still, researchers have not looked closely at how location links to undergraduate CGPA in Nigerian universities. In addition, it is not clear whether admission mode and school location work together. Few studies have tested both at the same time to see how they shape CGPA. This work tries to fill those gaps. It examines how admission mode and school location relate to undergraduates' CGPA in a set of Nigerian universities. It also looks at how the context of location may change the pattern seen for admission mode.

Hypotheses

Based on the research questions, the following hypotheses were formulated to guide the study.

1. There is no significant relationship between students admitted into the Universities through Post Unified Tertiary Matriculation Examination (PUTME) and their counterparts admitted through Unified Tertiary Matriculation Examination (UTME) in terms of their Cumulative Grade Point Averages (CGPAs) performance.
2. There is no significant relationship in Undergraduate students' Cumulative Grade Point Average (CGPA) performance based on School location in the Universities
3. There is no significant relationship in Cumulative Grade Point Averages (CGPAs) performance between Undergraduate students on Unified Tertiary Matriculation Examination (UTME) and Post Unified Tertiary Matriculation Examination (PUTME) scores in Universities

REVIEW OF LITERATURE

The study consists of three independent variables and one dependent (problem) variable as represented in figure 1

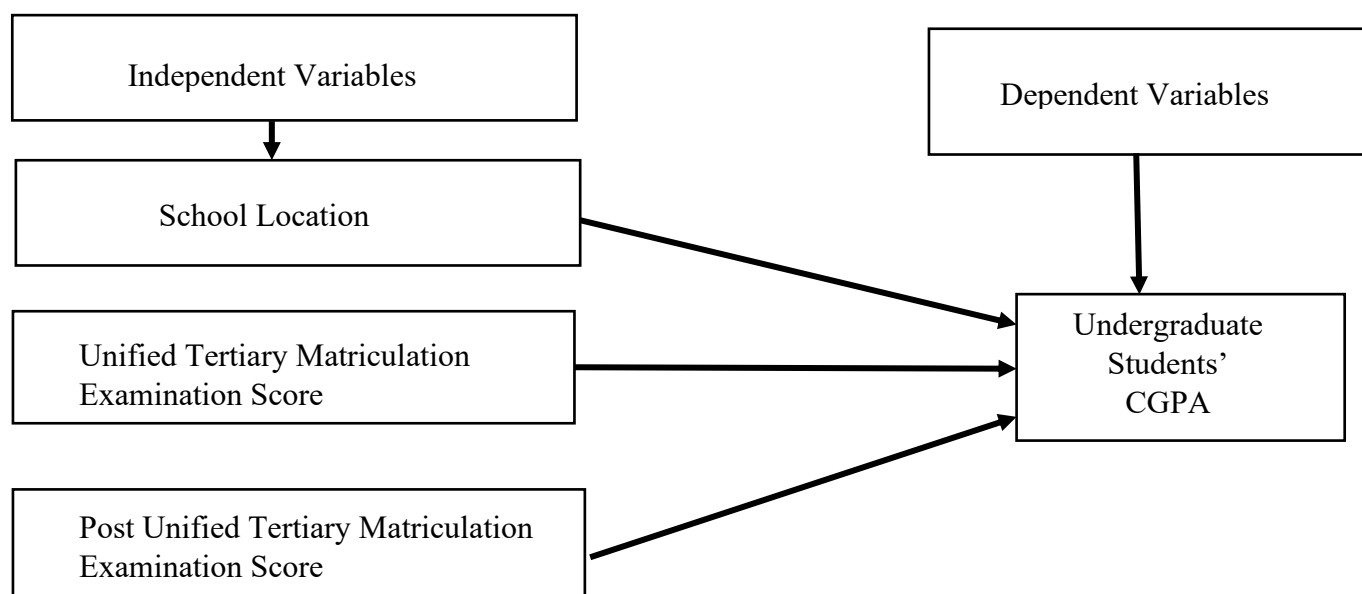


Fig 1: Conceptual Structural Design of the Study



The independent variables are School Location, Unified Tertiary Matriculation Examination score, and Post-Unified Tertiary Matriculation Examination score, while the dependent variable is undergraduate students' Cumulative Grade Point Average (CGPA). With the indication of the pointing arrows in the conceptual structural design of the study, the researcher assumes that the solution variables will have direct relationship with the problem variable. This, then, shows that, the researcher assumes that there are relationships that exist among School Location, Unified Tertiary Matriculation Examination score and Post Unified Tertiary Matriculation Examination score and Undergraduate students' CGPA which needs confirmation; this was the footing of the present study.

Godwin (2012) posited that Joint Admission and Matriculation Board (JAMB) mode of selection was more effective compared to the Continuing Education mode (Post Unified Tertiary Matriculation Examination (PUTME)) and as such, recommended that JAMB mode (Unified Tertiary Matriculation Examination (UTME)) of admission be used exclusively for future admission exercise into Nigerian Universities. Fegha (2023) revealed that students admitted through Post Unified Tertiary Matriculation Examination (PUTME) performs better than their counterparts admitted into the University through Unified Tertiary Matriculation Examination (UTME) in their Cumulative Grade Point Averages (CGPAs).

Isemede (2021) revealed that there was a significant level of influence of School location on academic achievement in Basic Technology. Euginia et al. (2024) that School location significantly influenced students' achievement in reading. It shows that school location proved to be a predictor of students' achievement in reading. Josiah et al. (2024) was equally in agreement that School location predicted Secondary School students' academic performance in Esan North East Local Government Area of Edo State. Mgbomo et al. (2024) showed that students' performance in Urban Schools was better than their counterparts in Rural Schools. Between Urban and Rural Schools there was a significant difference in students' performance.

Bala et al. (2019) revealed a significant relationship between Unified Tertiary Matriculation Examination (UTME) and Post Unified Tertiary Matriculation Examination (PUTME) that the prediction of students' Cumulative Grade Point Averages (CGPAs) from their performance in UTME and PUTME in kaduna State University, kaduna (KASU) revealed that UTME and Post UTME are good predictors of students' final class of degree. Fegha (2023) showed that Post Unified Tertiary Matriculation Examination (PUTME) and Unified Tertiary Matriculation Examination (UTME) are predictors of first year Cumulative Grade Point Average (CGPA) in Adekunle Ajasin University, Akungba - Akoko. Afu et al. (2017) however revealed that the correlation Coefficients were low/negative relationship between Unified Tertiary Matriculation Examination (UTME) and Cumulative Grade Point Average (CGPA) for First Year final examination performance in the four departments. The Post Unified Tertiary Matriculation Examination (PUTME) and First Year examination for the four departments revealed that correlations coefficients between Post UTME and CGPA for the four departments (English, Economics, Education and Accounting Departments of the University of Abuja) were negative/low, positive/low and positive/moderate coefficients. However, that using the students' performance in these two examinations (UTME and PUTME) for University admission should be reviewed by stakeholders in education sector.

RESEARCH METHODS

Research Design

The study adopted a correlational research design. The design was considered appropriate because the study examined the relationships among variables that occurred naturally and were not manipulated by the researcher. According to Shona (2019), correlational research design is appropriate for determining the extent to which two or more variables are related without manipulating the variables under investigation. Specifically, the study examined the relationship among school location, undergraduate students' Unified Tertiary Matriculation Examination (UTME) scores, Post-Unified Tertiary Matriculation Examination (PUTME) scores and their Cumulative Grade Point Average (CGPA) performance in the universities. Since the researcher relied on existing examination scores and academic records and had no control over the variables, the correlational research design was considered suitable for achieving the purpose of the study.



Population of the study

The population of the study comprised all undergraduate students admitted into the Faculty of Education of Delta State University, Abraka, and Cross River State University, Calabar, during the 2019/2020 academic session. The total population was 1,265 undergraduate students, comprising 840 students from Delta State University, Abraka, distributed across nine departments, and 425 students from Cross River State University, Calabar, distributed across five departments. At Delta State University, Abraka, the population comprised 89 students in Library and Information Science, 158 in Science Education, 110 in Guidance and Counselling, 84 in Business Education, 12 in Vocational Science, 101 in Educational Management and Foundation, 245 in Social Science Education, 8 in Human Kinetics, Recreation and Sport Science Education, and 33 in Health and Safety Education, giving a total of 840 students. At Cross River State University, Calabar, the population comprised 110 students in Educational Management, 10 in Human Kinetic, Sport and Health Education, 145 in Language Arts and Social Science Education, 102 in Education Foundation and Counselling, and 58 in Psychology and Science and Technology Education, giving a total of 425 students. The population figures were obtained from the offices of the Deputy Vice Chancellor (Academics) of the respective universities.

Sampling Procedure

A probability sampling technique was employed for the study to ensure that eligible members of the population had a known opportunity of being selected. The sampling procedure was carried out in three stages. First, the study population was stratified according to institution. The population comprised 1,265 undergraduate students, distributed between Delta State University, Abraka, with 840 students, and Cross River State University, Calabar, with 425 students. The two institutions therefore constituted the primary strata for the sampling process. At the second stage, three departments were selected from each university using simple random sampling through the balloting method without replacement. This procedure gave each department within the respective university an equal chance of selection and ensured that no department was selected more than once. At Delta State University, Abraka, the selected departments were Business Education, with a population of 84 students; Guidance and Counselling, with 110 students; and Science Education, with 158 students. These departments had a combined population of 352 students. At Cross River State University, Calabar, the selected departments were Educational Management, with 110 students; Education Foundation and Counselling, with 102 students; and Psychology and Science and Technology Education, with 58 students, giving a combined population of 270 students. At the third stage, participants were selected from the identified departments through balloting with replacement. The names of eligible students were written individually on slips of paper and placed in a container. The slips were thoroughly mixed, after which a slip was randomly drawn. The selected student's name was recorded, and the slip was returned to the pool before the next draw. This procedure was repeated until the required number of participants was obtained. Balloting with replacement ensured that every student retained an equal probability of being selected at each draw and provided a randomised procedure for obtaining the required participants. Consequently, all the students in the six selected departments constituted the study sample. As presented in Table 2, the sample comprised 352 students from Delta State University, Abraka, and 270 students from Cross River State University, Calabar, giving a total sample of 622 undergraduate students. The 622 students represented approximately 49.2% of the total population of 1,265 undergraduate students.

Instrumentation

The instruments used for the study were the improvised Unified Tertiary Matriculation Examination (UTME) Use of English questions for the 2019/2020 academic session and the Delta State University Post-Unified Tertiary Matriculation Examination (PUTME) past questions and answers for the 2019/2020 academic session for Social Science and Management. The UTME items were obtained from the Joint Admissions and Matriculation Board (JAMB) 2019 examination questions, while the PUTME materials were obtained from Delta State University, Abraka. The instruments were used to determine the UTME and PUTME scores of the sampled students.



Validity of Instruments

The instruments used to determine the UTME and PUTME scores were subjected to face and content validation. The UTME instrument was developed by JAMB, while the PUTME instrument was constructed by Delta State University, Abraka, using a test blueprint or table of specifications. In addition, the researcher's supervisors and two experts in Measurement and Evaluation from the Department of Guidance and Counselling in the sampled universities examined the items to determine their relevance, adequacy and appropriateness for measuring the intended variables. Based on the experts' judgements, the instruments were considered valid for the study.

Reliability of Instruments

The reliability coefficient for the UTME instrument was not made available by JAMB. Similarly, the reliability information for the PUTME instrument was not made available by Delta State University, Abraka. However, the researcher established the stability of the instruments over time using the test-retest method of reliability. The instruments were administered twice to 50 undergraduate students of the Federal University of Petroleum Resources, Effurun, at an interval of two weeks. The students used for the reliability exercise were not part of the main study. The scores obtained from the two administrations were correlated using the Pearson Product Moment Correlation Technique (PPMCT) to determine the stability of the instruments. The reliability coefficients obtained were $r = 0.78$ for UTME and $r = 0.74$ for PUTME, indicating acceptable stability over time.

Data Collection Procedure

Data for the study were obtained from the admission and academic records of the sampled undergraduate students. The UTME and PUTME scores of all the sampled students were collected from the Directorates of Admissions and Statistics of the sampled universities. The undergraduate students' Cumulative Grade Point Average (CGPA) was obtained from the Examinations and Records units of the respective universities. The researcher obtained the necessary permission from the relevant authorities before accessing the records. The data collection was carried out by the researcher with the assistance of two research assistants.

Data Analysis

The data collected for the study were analysed using the Statistical Package for the Social Sciences (SPSS). Pearson Product Moment Correlation Coefficient (r) was employed to determine the relationship between school location and students' Cumulative Grade Point Average (CGPA), as well as the relationship between students' UTME scores and their CGPA performance. Multiple correlation analysis (R) was used to determine the joint relationship between students' UTME and PUTME scores and their CGPA performance. Multiple regression analysis was further employed to determine the extent to which UTME and PUTME scores jointly and individually predicted students' CGPA performance and to test the statistical significance of the predictive relationship.

All the hypotheses formulated for the study were tested at the 0.05 level of significance. The decision rule was to reject the null hypothesis where the obtained probability value (p -value) was less than 0.05 and to retain the null hypothesis where the p -value was greater than or equal to 0.05. Effect sizes were reported where applicable to indicate the practical magnitude of the observed relationships, with Cohen's criteria of 0.10, 0.30, and 0.50 interpreted as small, medium, and large effects, respectively. Where appropriate, 95% confidence intervals were also reported to provide an estimate of the precision and reliability of the statistical findings.

RESULTS AND DISCUSSION

Research Question 1

What is the comparative achievement of students admitted into the University with Post-UTME and those admitted only through UTME?

Table 1

Comparing the Pearson Product Moment Correlation Coefficient (r) and Coefficient of Determination (r²) of the Relationship between UTME Scores and Undergraduate Students' CGPAs in Universities in South-South Region of Nigeria

Variable	N	Mean	Std. Deviation	r	r ²	Decision
UTME	622	198.87	16.76	0.427	0.18	Positive relationship
CGPA	622	3.04	0.59			
PUTME	622	49.07	12.96	0.306	0.18	Positive relationship
CGPA	622	3.04	0.59			

Table 1 showed the Pearson Correlation (R) and Coefficient of Determination (R²) on the extent to which UTME and Post-UTME scores relate among undergraduate students' CGPAs performance in Universities. There was a moderate positive relationship between UTME scores and students' CGPAs (R = 0.531, 95% CI [0.461, 0.596]). The coefficient of determination (R² = 0.282) showed that UTME and Post-UTME scores jointly account for approximately 28.2% of the variance in CGPA performance among undergraduate students. Thus, UTME and Post-UTME scores relate to students' CGPA performance to a moderate extent in Universities within the South-South region of Nigeria.

Hypothesis 1

There is no significant relationship between students admitted into the University through Post UTME and those admitted only through UTME in their CGPAs performance in Universities.

Table 2: Pearson Product Moment Correlation Coefficient on student admitted into the Universities through Post UTME and those admitted only through UTME in their CGPA performance.

Model		Sum of Squares	Df	Mean Square	F	Sig.	r	95% CI
Utme	Regression	38.982	1	38.982	138.390	.060	0.043	[-0.036, 0.121]
	Residual	174.645	620	.282				
	Total	213.628	621					
Putme	Regression	19.952	1	19.952	63.871	.060	0.043	[-0.036, 0.121]
	Residual	193.676	620	.312				
	Total	213.628	621					

$\alpha = 0.05$ Remark: Null hypothesis not rejected; Effect size (r = 0.043) is negligible

Table 2 showed the F-values 138.390 and 63.871 and a p-value of 0.060. Analyzing the null hypothesis at an alpha level of 0.05, the p-value of 0.060 was greater than the alpha level of 0.05. The correlation coefficient (r = 0.043) indicated a negligible relationship between admission mode and CGPA performance, with the 95% confidence interval [-0.036, 0.121] including zero. Hence, the null hypothesis was accepted. This implied that there was no significant relationship between students admitted into the University through Post-UTME and those admitted only through UTME in their CGPAs performance in Universities.

Research Questions 2

To what extent does school location of undergraduate students relate to CGPAs performance in the Universities?

Table 3

Pearson Product Moment Correlation Coefficient (r) and Coefficient of Determination (r²) of the Relationship between School Location and Undergraduate Students' CGPAs in Universities

Variable	N	Mean	Std. Deviation	r	r ²	Decision
School Location	622	1.4341	0.49603	0.255	0.07	Positive relationship
CGPA	622	3.0398	0.58652			

Table 3 showed a Pearson Product Moment Correlation Coefficient (r) value of 0.255, indicating a low positive relationship between school location and CGPA. The coefficient of determination (r² = 0.07) revealed that school location contributes approximately 7.0% to the variation in CGPA. This implied students' school locations have a weak relationship with their academic performance.

Hypothesis 2

There is no significant relationship in Undergraduate students' CGPAs performance based on School location in the Universities.

Table 4:

Pearson Product Moment Correlation Coefficient on undergraduate students' CGPAs performances and school location.

Model		Sum of Squares	df	Mean Square	F	Sig.	η ²
1	Regression	13.844	1	13.844	42.962	.000 ^b	0.065
	Residual	199.784	620	.322			
	Total	213.628	621				

α = 0.05 Remark: Null hypothesis rejected; Effect size (η² = 0.065) is small to medium

The result in Table 5 revealed the F-value of 42.962 and a p-value of 0.000. The p-value was less than the alpha level of 0.05 at which the null hypothesis was tested. The effect size (η² = 0.065) indicated that school location accounted for approximately 6.5% of the variance in CGPA performance, representing a small to medium effect. Therefore, the null hypothesis which states "there is no significant relationship in undergraduate students' CGPAs performance based on School Location in the Universities" was not accepted. This indicated that there is a significant relationship between undergraduate students' CGPAs performance based on School Location in the Universities.

Research Question 3

To what extent do UTME scores and Post-UTME scores relates among undergraduate students' CGPAs performance in Universities?

Table 5

Multiple Correlation (R) and Coefficient of Determination (R²) on the extent to which UTME scores and Post-UTME scores relates among undergraduate students' CGPAs performance in Universities

Variables	N	Mean	Std. Deviation	R	R ²	R ² %	Decision
UTME	449	198.87	16.76				

Post UTME	449	49.10	12.95	0.531	0.282	28.2	moderate Positive relationship
CGPA	449	3.04	.59				

Table 5 showed the Pearson Correlation (R) and Coefficient of Determination (R^2) on the extent to Which UTME and Post-UTME scores relates among undergraduate students' CGPAs performance in Universities. There was a moderate positive relationship between UTME scores and students' CGPAs ($R = 0.531$). The coefficient of determination ($R^2 = 0.282$) showed that UTME and Post-UTME scores jointly account for approximately 28.2% of the variance in CGPA performance among undergraduate students. Thus, UTME and Post-UTME scores relate to students' CGPA performance to a moderate extent in Universities within the South-South region of Nigeria.

Hypothesis 3

There is no significant relationship in CGPAs performance between Undergraduate students on UTME and Post UTME scores in Universities.

Table 6:

Multiple regression on CGPAs performance between Undergraduate students on UTME and Post UTME scores in Universities.

Source	Sum of Squares	df	Mean Square	F	Sig.		
Regression	43.505	2	21.752	87.579	0		
Residual	110.774	446	0.248	—	—		
Total	154.279	448	—	—	—		
Coefficients							
Model	Predictor	B	Std. Error	Beta	t	Sig.	95% CI
1	(Constant)	-0.734	0.299	—	-2.452	0.015	[-1.322, -0.146]
1	UTME	0.015	0.001	0.439	10.922	0	[0.012, 0.018]
1	POST-UTME	0.015	0.002	0.325	8.083	0	[0.011, 0.019]

$\alpha = 0.05$ Remark: Null hypothesis rejected; $R = 0.531$, $R^2 = 0.282$, Adjusted $R^2 = 0.279$

Table 6 showed a F-value of 87.579 and a p-value of 0.000. Testing the null hypothesis at an alpha level of 0.05, the p-value of 0.000 was less than the α -value of 0.05. Since the p-value was less than the α -value, the null hypothesis was rejected. The multiple correlation coefficient ($R = 0.531$) indicated a moderate relationship between the predictor variables (UTME and PUTME scores) and CGPA performance. The coefficient of determination ($R^2 = 0.282$) showed that UTME and PUTME scores jointly accounted for 28.2% of the variance in CGPA performance. This revealed that there is a significant relationship in CGPAs performance between undergraduate students on UTME and Post-UTME scores in the Universities. The unstandardized regression coefficient (B) for predicting undergraduate students' CGPAs performance in the Universities from UTME was 0.015 (95% CI [0.012, 0.018]) and Post-UTME was 0.015 (95% CI [0.011, 0.019]). The standardized coefficients (β) were 0.439 for UTME and 0.325 for POST-UTME, indicating that UTME scores had a slightly stronger unique contribution to predicting CGPA than PUTME scores. Both predictors were significant at an alpha level of 0.05 ($t = 10.922$, $p < 0.001$ for UTME; $t = 8.083$, $p < 0.001$ for PUTME).



DISCUSSION OF FINDINGS

The finding in hypothesis 1 revealed that there is no significant relationship between students admitted into the Universities through Post Unified Tertiary Matriculation Examination (PUTME) and their counterparts admitted through Unified Tertiary Matriculation Examination (UTME) in terms of their Cumulative Grade Point Averages (CGPAs) performance. This was justified by the result from the analysis which showed that the p-value of 0.060 is greater than the alpha level of 0.05 at which the null hypothesis was tested. The effect size ($r = 0.043$) was negligible, indicating that the mode of admission had virtually no practical significance in predicting CGPA performance. This result is at variance with Godwin (2012) who posited that Joint Admission and Matriculation Board (JAMB) mode of selection was more effective compared to the Continuing Education mode (Post Unified Tertiary Matriculation Examination (PUTME)) and as such, recommended that JAMB mode (Unified Tertiary Matriculation Examination (UTME)) of admission be used exclusively for future admission exercise into Nigerian Universities. Also, in disagreement was the investigation carried out by Fegha (2023) that revealed that students admitted through Post Unified Tertiary Matriculation Examination (PUTME) performs better than their counterparts admitted into the University through Unified Tertiary Matriculation Examination (UTME) in their Cumulative Grade Point Averages (CGPAs).

The finding in hypothesis 2 indicated that there was significant relationship in Undergraduate students' Cumulative Grade Point Average (CGPA) performance based on School location in the Universities. The result of the analysis revealed that the alpha level of 0.05 was greater than the p-value of 0.000 at which the null hypothesis was analyzed. The effect size ($\eta^2 = 0.065$) indicated that school location accounted for approximately 6.5% of the variance in CGPA performance, representing a small to medium effect. The finding was in agreement with Isemde (2021) whose study revealed that there was a significant level of influence of School location on academic achievement in Basic Technology. Also, in consistent with the result was the study carried out by Euginia et al. (2024) that School location significantly influenced students' achievement in reading. It shows that school location proved to be a predictor of students' achievement in reading. Josiah et al. (2024) was equally in agreement that School location predicted Secondary School students' academic performance in Esan North East Local Government Area of Edo State. In agreement still was Mgbomo et al. (2024) whose result showed that students' performance in Urban Schools was better than their counterparts in Rural Schools. Between Urban and Rural Schools there was a significant difference in students' performance.

The result in hypothesis 3 indicate that there was significant relationship in Cumulative Grade Point Averages (CGPAs) performance between Undergraduate students on Unified Tertiary Matriculation Examination (UTME) and Post Unified Tertiary Matriculation Examination (PUTME) scores in Universities. This finding came to be from the result of the analysis that indicated that the p-value of 0.000 was less than the α -value of 0.05 at which the null hypothesis was tested. The multiple correlation coefficient ($R = 0.531$) indicated a moderate relationship, with UTME and PUTME scores jointly accounting for 28.2% of the variance in CGPA performance. In agreement with the finding was Bala et al. (2019) whose study revealed a significant relationship between Unified Tertiary Matriculation Examination (UTME) and Post Unified Tertiary Matriculation Examination (PUTME) that the prediction of students' Cumulative Grade Point Averages (CGPAs) from their performance in UTME and PUTME in Kaduna State University, Kaduna (KASU) revealed that UTME and Post UTME are good predictors of students' final class of degree. Still, in line with the result is the study carried out by Fegha (2023) whose result showed that Post Unified Tertiary Matriculation Examination (PUTME) and Unified Tertiary Matriculation Examination (UTME) are predictors of first year Cumulative Grade Point Average (CGPA) in Adekunle Ajasin University, Akungba-Akoko. But on the other hand, the finding was in disagreement with Afu et al. (2017) whose study revealed that the correlation Coefficients were low/negative relationship between Unified Tertiary Matriculation Examination (UTME) and Cumulative Grade Point Average (CGPA) for First Year final examination performance in the four departments. The Post Unified Tertiary Matriculation Examination (PUTME) and First Year examination for the four departments revealed that correlations coefficients between Post UTME and CGPA for the four departments (English, Economics, Education and Accounting Departments of the University of Abuja) were negative/low, positive/low and positive/moderate coefficients. However, that using the students' performance



in these two examinations (UTME and PUTME) for University admission should be reviewed by stakeholders in education sector.

CONCLUSION

Based on the findings of the study, it was concluded that the mode of admission through UTME or PUTME alone did not significantly differentiate undergraduate students' CGPA performance in the universities. This implies that neither admission through PUTME nor admission through UTME alone could be regarded as producing superior academic performance among the students. However, school location was found to have a significant relationship with students' CGPA performance, indicating that the geographical location of the university may be an important factor associated with students' academic outcomes. Furthermore, a significant relationship was established between students' UTME and PUTME scores and their CGPA performance, suggesting that performance in these admission examinations provides useful information about students' subsequent academic performance at the university level. Overall, the findings indicate that while the mode of admission alone may not significantly account for differences in students' CGPA, school location and students' performance in UTME and PUTME are important factors associated with their academic performance in the universities.

RECOMMENDATIONS

Based on the findings and conclusions of the study, the following recommendations were made:

1. University admission authorities should not rely exclusively on the mode of admission (UTME or PUTME) when assessing students' suitability for university admission, since no significant difference was established in the CGPA performance of students admitted through either route.
2. Universities should strengthen academic support across different school locations by providing adequate learning facilities, qualified lecturers, functional libraries, laboratories and other instructional resources, particularly where location-related factors may affect students' academic performance.
3. JAMB and university admission authorities should continue to consider UTME and PUTME scores in the admission process, as the study established a significant relationship between students' performance in these examinations and their subsequent CGPA performance. However, these scores should be complemented with other relevant admission criteria to provide a more comprehensive basis for student selection.

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