

## EFFECT OF INSTITUTIONAL INFRASTRUCTURE ON PRODUCTION OF GRADUATES OF SOUTH EAST UNIVERSITIES

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### Abstract

*The study examined the effects of Institutional Infrastructure on production of graduates of five (5) South East Universities in Abia and Imo States. The specific objectives are the effect of the laboratories on student performance and the effect of lecture halls on student performance in South East universities. The study was conducted using a survey design methodology. The study adopts primary source of data where a well structured questionnaire was used to collect data. The data were analysed using Simple Regression analysis using SPSS version 21. Findings show that laboratories have a significant positive effect on student performance with a p-value (0.000) less than Alpha (0.05), while lecture halls have a significant positive effect on student performance. We, therefore, concluded that institutional infrastructure have significant positive effect on academic performance. We recommend that, higher institution managements should endeavour to improve on institutional infrastructure since it has significant positive effect on academic performance.*

**Keywords:** *Students, Academic, Infrastructure, Institutional, Performance*

### INTRODUCTION

Education has long been recognized as a panacea for nations' ills. This is especially true of higher education. A good higher education system is required for a nation's overall prosperity. However, in Nigeria, tremendous growth in the higher education sector has made the administration of higher education institutions complex. As the pinnacle of the educational pyramid, the country's universities have critical capacity-building roles to play. Greater attention is being focused on quality assurance as a critical factor in ensuring educational relevance. Cabal (Oni and Alade, 2010) posits that the objectives or goals of establishing a university differ from one society to another. Generally, it is a basic assumption that universities are, by definition and long-established tradition, meant to be places where all learning activities are governed by creative skepticism, constant questioning, disputations, and argumentation.

Overshooting the carrying capacity of most Nigerian universities is foiling the realization of these objectives. Adedipe (2007) described carrying capacity as the maximum number of students that a university can sustain for quality education based on its human and material resources. Therefore, infrastructure is among the important operational inputs in any instructional programme. It constitutes elements that are necessary for teaching and learning; and is vital in the development of qualitative university education. Ejiogu (1997) noted four important factors in an attempt to balance the qualitative and quantitative growth of the education system in Nigeria. These range from the quality and number of infrastructure (in form of buildings, machinery, and equipment) through the usage to the

maintenance of the infrastructure. Okebukola (2005) pointed out that the stress put on the universities in terms of demand and the limited expansion in physical facilities and academic staff to cater to this demand has taken a great toll on the quality of programmes in the institutions. Subair (2011) thus submitted that the quality of output (graduates) is a function of infrastructure that determines the students' learning environment and their motivation to learn. Therefore, if the quality is to be ensured in the nation's universities, the infrastructural base of the system needs to be improved upon.

### **Statement of the Problem**

It is an established fact that education is the bedrock of development of any given society and the provision of the needed infrastructure especially in the South East institutions of learning would automatically culminate into the training of students that can compete with their counterparts in the developed economies where these infrastructures are adequately provided. However, there is infrastructural inadequacy in our higher institutions of learning in the south east, as evidently reported by National Universities Commission (2004) in their communiqué of the presidential visitation panel that looked into the operations of Federal Universities between 1999 and 2003. They maintained that physical facilities at the universities were inadequate and in deplorable conditions, which negates the tenets of the university system where research, teaching and learning should be top notch. Specifically, the required laboratory equipment is inadequately provided, and lecture halls are not sufficient enough to accommodate the students who are supposed to learn under conducive atmosphere. In view of these scenarios, the researcher was spurred to embark on this study, in order to ascertain the effect of institutional infrastructure on academic performance of students of south east universities, with the firm believe that the findings and recommendations of this study would add to the existing body of knowledge in this area of study and fill the gap in the provision of institutional infrastructure, as highlighted above

### **Objective of the study**

The main objective of this study is to examine the effect of institutional infrastructure on Academic Performance in South East Universities. The specific objectives are,

- i. To examine the effect of the laboratories on student performance in South East Universities.
- ii. To evaluate the effect of lecture halls on student performance in South East Universities

### **Hypotheses of the study**

- i. Laboratories have no significant positive effect on student performance in South East universities.
- ii. Lecture halls have no significant positive effect on student performance in South East universities.

## **RELATED LITERATURE REVIEW**

### **Conceptual Review**

#### ***Infrastructure***

Infrastructure is a key tool to function effectively in places of endeavours. A university does not operate in a vacuum. Infrastructure in a way makes a university. A university should be able to provide the basic infrastructure that facilitate learning, recreation, library, conveniences, furniture etc. and make them available in all areas in the

university environment. Ezeokoli and Ayodele (2014) and Parasuraman, Zeithaml and Berry (1988) referring this as tangibles, pointed out that they are the appearance of physical facilities, equipment and communication materials needed in service marketing. Tangibles can act as invitation to the prospective students to try out the university. Tangibles are important for setting up a clear transmission of knowledge in the teaching and learning process with the presence of well-equipped facilities like laboratories, libraries well stocked with textbooks etc.

A survey of the literature shows that several concepts have been used to explain infrastructure. Among such concepts are the “school plant”, “learning resources”, “physical resources” and “educational resources”, to mention but a few (Subair, 2008; Ehiamentalor, 2001). In specific terms, Ehiamentalor (2001) described infrastructure as the operational inputs of every instructional programme and constitutes elements that are necessary for teaching and learning. Such include buildings, laboratories, machinery, furniture, and electrical fixtures. These must be functional in relation to other aspects of the community, such as health centres, libraries, and good roads, and must be large enough to allow for expansion as enrolments expand. In the same vein, Osagie (2003) opines that infrastructure represents the aesthetic picture of the school conveyed by the position of structures in relation to one another. It also represents the empirical relevance of the totality of the school environment for the realization of the school business (teaching/learning). He asserted in specific terms that school plants comprise landscape, trees, lawns, hedges, accompanying paths, playgrounds, buildings, security facilities, and utilities. However, a well-equipped and well-maintained physical plant can make learning a more pleasant experience and discourage early drop-outs. It can as well attract better-quality teachers. In summary, therefore, infrastructure can be viewed as the totality of all that goes into education such as classrooms, lecture theatres, laboratories, libraries, electricity, water, health centre, sports and recreation centres, ICT, machines and furniture put therein, with the intention of facilitating teaching-learning.

### ***Academic Performance***

The role of primary education is to lay the foundation for further education and if a good foundation is laid at this level, there are likely to be no problems at subsequent levels. Different people at different times have passed the blame for poor performance in primary school to pupils because of their low retention, parental factors, association with wrong peers, low achievement, and the like (Aremu & Sokan, 2003; Aremu & Oluwole (2001). Poor academic performance, according to Aremu (2000) is a performance that is adjudged by the examiner and some other significantly as falling below an expected standard. Poor academic performance has been observed in schools especially public primary schools (Adesemowo, 2005). Aremu (2000) stresses that academic failure is not only frustrating to the pupils and the parents, but its effects are also equally grave on society in terms of the dearth of manpower in all spheres of the economy and politics.

### ***Libraries***

The library is an essential factor in the teaching-learning process. It forms one of the most important educational services. The educational process functions in a world of books. The chief purpose of a school library is to make available to the pupil, at his easy convenience, all books, periodicals, and other reproduced materials which are of interest and value to him but which are not provided or assigned to him as basic or supplementary textbooks (Gada et al. 2018). The importance of libraries has been demonstrated by the government when she expressed in the National Policy on Education (NPE) that every state

Ministry needs to provide funds for the establishment of libraries in all her educational institutions and to train librarians and library assistants. As a resource, it occupies a central and primary place in any school system. It supports all functions of school teaching and provides service and guidance to its readers. According to Martin (2021), a library must be up-to-date while allowing access to older materials. It must be properly supported financially to fund materials and services among others (Gada et al. 2018).

### **Lecture Halls**

Zainuddin & Subri (2018) indicate that the condition of school buildings is an important aspect of the learning process. For example, teachers are able to leave their teaching aids in classrooms with lockable doors and windows for as long as they wish. Those who are forced to pull them down at the end of every day feel unmotivated to use them. Arshad et al. (2019) noted that congestion within classrooms affects the teaching /learning environment. The quality and adequacy of physical facilities and equipment have a direct bearing on the quality of education. A school with inadequate classrooms will be forced to accommodate more students than recommended. This will exert a lot of pressure on resources such as teachers who may compromise their methodology as part of the adaptive mechanism (Arshad et al. 2019; Zainuddin & Subri, 2018). The lack of basic facilities like laboratories has compromised the teaching of science subjects. Topics that are meant to be taught practically are taught theoretically as part of an adaptive mechanism by teachers due to inadequate resources to enable effective teaching of the same. This ends up affecting negatively students' performance reducing their competitiveness for opportunities whose placement is pegged on performance in such subjects (Mayama, 2012; Lumuli, 2009). This study proposes to establish the state of physical facilities in public primary schools in order to evaluate how it is impacting on academic performance of learners. The government has directed huge sum of money to finance education and in particular to raise performance and quality education for all.

Studies examine classroom grouping methods, including ability grouping of students, single-sex classrooms, and cooperative learning groups. Past studies have found that classrooms with highly cooperative groups appear to have students with more positive perceptions of fairness in grading, stronger class cohesion, and a higher degree of social support, as well as higher achievement scores. Female students have been found to prefer collaborating with other students when studying and resolving problems and they have a stronger preference for teacher support than male students. Primary school environments tend to use collaborative strategies more frequently and have higher levels of teacher involvement and support than are found in secondary schools. Research on single-sex classrooms has been more divided in terms of academic outcome research. Some studies found that girls do better in mathematics and Sciences, particularly when separated from male students. Other studies found no achievement differences between genders when either in single-sex or mixed-sex classrooms.

### **Theoretical Framework**

#### **Action Theory**

Every investment has expected future results. To achieve these results, one requires certain sustained efforts. Effectiveness of infrastructural funding would rely heavily on the theory of action. This theory posits that more resources are the most effective means to improve achievement. It was proposed by Coleman James (1986), as an organizing principle to bring together the beliefs and actions of individuals towards a collective goal. In primary school infrastructure funding, there is need to find means for more resources in order to

achieve educational goals. Before this is done, the funding agents need to understand the influence of infrastructure on academic performance in order to provide for enough funds to each institution. Public investment in schooling has increased more than ten folds since the last few years in an effort to achieve MDG (Ochola et al, 2007). There was a major backlog of infrastructure provision and a shortage of which has in many cases suffered from lack of investment over a number of years. The aims of this theory are to mobilize communities, local organizations and other stakeholders to provide support in improving and maintaining existing infrastructure. This cooperation will bring more resources which will result in effectiveness.

### **Empirical Review**

Subair, Tayo, Comfort, Adebakin & Azeez, (2012) investigated the place of infrastructure in maintaining quality in Nigerian universities. Using a 20-item self-designed questionnaire and Available Infrastructure Checklist (AIC), data were collected from a random sample of 800 final year students drawn from federal (300) and state (500) universities in the country. The data were analysed using the T-test statistic and descriptive statistics. It was found that there is no significant difference in infrastructural development between the state and federal universities. Thus, it is recommended that government increases funding towards development of the infrastructure. It is also recommended that universities adhere to appropriate standards of infrastructure maintenance and enrol only those students for whom they have adequate facilities.

Oladebinu, Amos and Oyediran (2018) conducted a study on the Factors Affecting Students' Academic Performance in Colleges of Education in Southwest, Nigeria. Four hundred and eighty students from six Colleges of Education were randomly selected for this study. Data collected were analyzed with descriptive and inferential statistics. The results obtained showed that 52.4% of the respondents were between 20 – 24 years of age and are predominantly female (67.6%) and were supported by family/guardian (88.9%). Also, results of parental background revealed that the parents were married (63.8%), educated (68.2%), and earned average income of ₦60,604.5/month. The study concludes that students' factors, parental background, school factors, and teachers' factors have serious influence on students' academic performance. It is hereby recommended that school facilities should be adequately provided; Colleges of Education should be given appropriate attention and funding while government should provide alternative power supply by purchasing generator plant for Colleges of Education.

Zilungile and Cape (2019) research on the Students' Perceptions of Availability of Infrastructure and Resources in a Faculty of Education: A Transformative Agenda. A purposive sample of 254 Bachelor of Education students was used. Quantitative data were collected through close-ended questionnaires using the Likert scale with five categories. For data analysis, descriptive statistics were performed on each question in the questionnaire to determine the mean score and the distribution of scores, which were presented in the form of bar graphs. Results revealed that the majority of students perceived availability of infrastructure and resources negatively. Since infrastructure and resources influence teaching and learning, transformation of the teaching and learning spaces needs to be prioritized to provide high quality education and success of all students.

Nwosu & Uba (2019) researched on the Perceived Influence of Infrastructural Facilities and Classroom Management in Secondary Schools in Port Harcourt City, Rivers State. A correlation research design was adopted for the study. A correlation research design was adopted by the researcher. The study was carried out in Port Harcourt city Local

Government Area of Rivers State of Nigeria. The population of the study comprised 1,280 teachers as respondents from senior secondary schools in the Port Harcourt city Local Government Area of Rivers State. The sample size for the study comprised 384 teachers selected from senior secondary schools in the Port Harcourt city Local Government Area of Rivers State. The sample size is 30% representation of the population. The simple random sampling was adopted for the study. A structured instrument titled “Infrastructural Facilities and Classroom Management Questionnaire (IFCMQ)” was used to elicit data for the study. To validate the instrument, the questionnaire was taken to two experts. To ascertain the internal consistency of the instrument, the test- retest reliability method was adopted which yielded the result of 0.78. Mean scores were used to analyze the research questions while Z-test will be used to analyze the hypotheses at 0.05 level of significance. Based on the findings, it was revealed that there is a relationship between the state of infrastructural facilities and classroom management in senior secondary schools in Rivers State.

**METHODOLOGY**

The study was conducted using a survey design methodology. Because of the nature of the research, this method uses a questionnaire to characterize and/or anticipate some phenomenon by asking questions. In order to determine the impact of service quality on students' happiness, a cross-section of students from the several chosen universities of interest in the South-East of the Abia and Imo States were researched. Undergraduate students from a few particular federal, state, and private universities in the South East were the study's population, with an emphasis on ABSU, MOUAAU, FUTO, IMSU, and GUU. The population is finite but too large for total adoption, which is why the Faculty of Business Administration/Management Sciences/School of Management Technology was chosen. The units of analysis are the students of the Faculty of Business Administration or Management Sciences (from 200 level and above). With the exception of the 100 level students, these 200 level and above students were chosen because they have service experience at numerous institutions and can eloquently describe their degree of satisfaction, if any, with the university, when filling out the questionnaire. The researcher used the most recent data that was collected from Faculty officers in each university's business faculties. As there are 5,688 people in the population, the Taro Yamane Formula will be used to determine the sample size. Tables and straightforward percentages were used to evaluate the data, and simple regression analysis (SRA) in SPSS version 21 was used to test the hypotheses.

$$n = \frac{N}{1 + N (e^2)} \quad \text{was used to determine the sample size}$$

Where:

- n = Sample size to be determined
- N = Population
- e = error margin (5% or 0.05)

Computing, we have

$$n = \frac{5688}{1 + 5688 (0.05)^2}$$

$$n = \frac{5688}{1 + 5688 (0.0025)}$$

$$n = \frac{5688}{1 + 14.22} = \frac{5688}{15.22}$$

$$n = 373$$

The direct effect research models for this study are of the form:

$$SP = f(LAB+ LEH) \dots\dots (1).$$

Where:

SP is Student Performance;

LIB is Libraries;

LEH is Lecture Hall

The explicit specification of the models results in models 2-3 as shown below:

$$SP = \alpha + \beta_1 LIB + \epsilon_i \dots\dots (2).$$

$$SP = \alpha + \beta_2 LEH + \epsilon_i \dots\dots (3).$$

$\alpha$  and  $\beta$  are metric coefficient and intercept while  $\epsilon_i$  is the error term that is designed to capture the effect of variables not included in the models.

#### Decision Rule:

To validate (accept) or nullify (reject) any stated hypothesis, attention was paid to the P- values. Therefore, the null hypotheses will be rejected where the SPSS p-values are less than alpha (0.05) and the alternative hypotheses accepted.

### DATA PRESENTATION AND ANALYSIS

#### Questionnaire Distribution and Analysis

Table 1 below shows how the copies of the questionnaire were distributed, retrieved and used.

**Table 1: Questionnaire Distribution**

University	Number of Copies Distributed	Number of Copies Retrieved and Used	Not returned	Percentage of Valid/Used Copies
<b>ABSU</b>	72	61	11	19.93
<b>MOUUAU</b>	157	129	28	42.16
<b>IMSU</b>	100	84	16	27.45
<b>FUTO</b>	34	22	12	7.19
<b>Gregory</b>	10	10	0	3.27
<b>Total</b>	<b>373</b>	<b>306</b>	<b>67</b>	<b>100</b>

*Source: Field Survey, 2019*

Table 1 shows that out of the 373 copies of the questionnaire distributed to respondents, 306 copies were retrieved, representing an 82% response rate. However, out of the total number distributed, 67 copies were not returned. For the individual institutions, out of 72 copies distributed in ABSU, 61 copies were retrieved; while 11 copies were not. 157 copies were distributed in MOUUAU, out of which 129 copies were retrieved while 28 copies were lost. In IMSU, 100 copies were distributed while 84 copies were retrieved and 16 copies lost. Of the 34 copies of the questionnaire issued out in FUTO, 22 copies were retrieved; while 12 copies were lost. Finally, all 10 copies distributed at Gregory University were retrieved and used.

Therefore, further analyses were based on the copies retrieved and found valid.

**Table 2: Demographics of respondents**

Categories	Frequency	Percentage
<b><u>Gender</u></b>		
Male	117	38.00
Female	189	62.00
<b><u>Age Bracket</u></b>		
18-20	113	36.93
21 - 25	171	55.88
26 - 30	17	5.56
31 years and above	5	1.63
<b><u>Marital Status</u></b>		
Single	253	83.00
Married	46	15.00
Not Disclosed	07	02.00
<b><u>Level of Study</u></b>		
200	98	32.00
300	116	38.00
400	92	30.00

*Source: Field Survey, 2019*

Table 2 showed that there were a total of 117 (38%) male respondents and 189 (62%) female respondents. In terms of their age brackets, the table shows that a total of 113 (37%) respondents, 171 (56%) respondents, 17 (6%) respondents, and 5 (2%) respondents were within the ages of 18 – 20, 21 – 25, 26 – 30 and 31 years and above, respectively. Also, data presented in the table show that a total of 253 (83%) respondents were single. 46 (15%) respondents were married; while 7 (2%) respondents could not disclose their marital status. On their levels of study, 98 (32%) respondents, 116 (38%) respondents, and 92 (30%) respondents were in 200 level, 300 level and 400 level, respectively.

### **Analyses of Research Variables**

In this section of the study, all the questions in the questionnaire that are directly related to the objectives and hypotheses of the study were analyzed using tables and simple percentages.

**Table 3: Responses on School Laboratories**

Statement	SA	A	UN	D	SD	TOTAL
Library are well equipped	88	75	36	88	19	306
Furniture in library are adequate	126	135	24	15	6	306
The library is stocked with an adequate number of up-to-date, relevant reading materials	144	117	30	12	3	306
Conveniences and leisure facilities are available.	117	126	36	18	9	306
<b>Total</b>	<b>475</b>	<b>453</b>	<b>126</b>	<b>133</b>	<b>37</b>	<b>1224</b>
<b>Average</b>	<b>119</b>	<b>113</b>	<b>32</b>	<b>33</b>	<b>9</b>	<b>306</b>
<b>Percentage</b>	<b>39</b>	<b>37</b>	<b>10</b>	<b>11</b>	<b>3</b>	<b>100</b>

*Source: Field Survey, 2019*

Table 3 showed that on average 119 (39%) respondents strongly agreed, 113 (37%) respondents agreed, 32(10%) respondents were indifferent, 33 (11%) respondents disagreed, and 9 (3%) respondents strongly disagreed on the questions relating to institutional infrastructure.



**Table 4: Responses on Lecture Halls**

Statement	SA	A	UN	D	SD	TOTAL
Classrooms are adequate	186	96	15	5	4	306
Furniture in classrooms is adequate	167	92	23	17	7	306
Lectures hall are adequately prepared	174	94	21	12	5	306
Lecturers are always available after lectures for counselling	145	122	17	14	8	306
<b>Total</b>	<b>672</b>	<b>404</b>	<b>76</b>	<b>48</b>	<b>24</b>	<b>1224</b>
<b>Average</b>	<b>168</b>	<b>101</b>	<b>19</b>	<b>12</b>	<b>6</b>	<b>306</b>
<b>Percentage</b>	<b>55</b>	<b>33</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>100</b>

*Source: Field Survey, 2019*

Table 4 showed that on average, 168 (55%) respondents strongly agreed, 101 (33%) respondents agreed, 19 (6%) respondents were indifferent, 12 (4%) respondents disagreed, and 6 (2%) respondents strongly disagreed on the questions relating to teaching output in the institutions.

### Tests of Hypotheses

Following the rules of SRA, all nine independent variables measuring Poor Institutional Infrastructure have been taken separately against the single dependent variable, student (performance).

#### Test of Hypothesis One

**H<sub>0</sub>:** Laboratories have no significant positive effect on student performance in South East Universities.

**H<sub>1</sub>:** Laboratories have significant positive effect on student performance in South East Universities.

This hypothesis was tested using data in Tables 1 and 2. The SPSS output is presented below:

Descriptive Statistics			
	Mean	Std. Deviation	N
student performance	4.27	.952	306
laboratories	4.1667	.93124	306

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.944 <sup>a</sup>	.890	.890	.316	2.191

*a. Predictors: (Constant), laboratories*

*b. Dependent Variable: Student Performance*

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	246.163	1	246.163	246.776	.000 <sup>b</sup>
	Residual	30.324	304	.100		
	Total	276.487	305			

*a. Dependent Variable: student performance*

*b. Predictors: (Constant), Laboratories*

Model		Coefficients <sup>a</sup>			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	.252	.083		3.035	.003
	Laboratories	.965	.019	.944	49.677	.000

a. **Dependent Variable:** student performance

**Interpretation**

The R-value in the model summary table shows a simple correlation of 0.944, which shows a very strong positive correlation. The R<sup>2</sup> value shows how much of the total variation in the dependent variable (student performance) can be explained by the dependent variable (laboratories). The table shows that 89% variation in the students' (student') performance could be explained by laboratories. This is equally high. With a sig (p-value) of (0.000) which is less than Alpha (0.05) and a t-value of 47.677, the overall regression model, therefore, statistically predicts the outcome of the variables (That is, it is a good fit). Besides, the DW value (2.191) which is higher than the lower bound in tables indicates the absence of serial autocorrelation.

**Decision**

Since the p-value (0.000) is less than Alpha (0.05), that is 0.000<0.05, and t calculated (49.677) is greater than t tabulated (1.960), we, therefore, reject the Null Hypothesis and accept the Alternative Hypothesis which implies that there is a significant relationship between laboratories and students' performance.

**Test of Hypothesis Two**

**H<sub>0</sub>:** Lecture halls have no significant positive effect on student performance in South East Universities

**H<sub>1</sub>:** Lecture halls have significant positive effect on student performance in South East Universities.

This hypothesis was tested using data in Tables 4.4 and 4.12. The SPSS output is presented below:

Descriptive Statistics			
	Mean	Std. Deviation	N
Student Performance	4.27	.952	306
Lecture Halls	4.3660	.91079	306

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.951 <sup>a</sup>	.905	.905	.294	2.303

a. **Predictors:** (Constant), Lecture halls

b. **Dependent Variable:** Student performance

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	250.243	1	250.243	2898.708	.000 <sup>b</sup>
	Residual	26.244	304	.086		
	Total	276.487	305			

a. **Dependent Variable:** Student performance

b. **Predictors:** (Constant), Lecture halls

		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.071	.082		-.860	.390
	Lecture halls	.995	.018	.951	53.840	.000

*Dependent Variable: Student Performance.*

### Interpretation

The R-value in the model summary table shows a simple correlation of 0.951, which shows a very strong positive correlation. The R<sup>2</sup> value shows how much of the total variation in the dependent variable (student performance) can be explained by the independent variable (teaching output). The table shows that a 90.5% variation in student performance is explained by teaching output. This is equally high. With a sig (p-value) of (0.000) which is less than Alpha (0.05) and a t-value of 53.840, the overall regression model, therefore, statistically predicts the outcome of the variables (That is, it is a good fit). Besides, the DW value (2.303) which is higher than the lower bound in tables indicates the absence of serial autocorrelation.

### Decision

Since the p-value (0.000) is less than Alpha (0.05), that is  $0.000 < 0.05$ , and t calculated (53.840) is greater than t tabulated (1.960), we, therefore, reject the null hypothesis and accept the alternative hypothesis which implies that there is a significant relationship between Lecture halls and student performance.

### SUMMARY OF FINDINGS

The following major findings were made in this study:

- i. The study reveals that a significant relationship exists between laboratories and student performance. This implies that the adequacy of the classrooms, available furniture in classrooms, library facilities, conveniences, and leisure facilities have a significant influence on student performance (return to run a postgraduate program, recommend their institutions to others, contribute to the Alumni and defend their institutions anywhere).
- ii. The study equally found that there is a significant relationship between the quality, of course, content/instructional material, and university student performance. Thus, whether the course content is comprehensive, up-to-date, and available in non-exploitative terms, will influence student performance with their institutions.

### CONCLUSION

The study is based on the effect of institutional Infrastructure on Academic Performance in South East Universities. Based on the findings, laboratories have a significant positive effect on student performance. Also lecture halls have significant positive effect on students' performance. We, therefore, concluded that institutional infrastructure have a significant positive effect on Academic Performance in South East Universities.

### RECOMMENDATIONS

We recommend that higher institutional managements should endeavour to improve on Institutional Infrastructure since it has significant positive effect on academic

performance. Following the findings of this study, the following recommendations are made:

- i. Higher institutions' managements in Nigeria should endeavour to continuously improve on their laboratories since they have significant positive effect on student performance.
- ii. High institutions' managements should endeavour to build conducive lecture halls that have significant positive effect on students' performance.

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