

UNDERSTANDING THE EFFECTS OF SOME ACADEMIC FACTORS ON THE STUDENT ACADEMIC PERFORMANCE IN INFORMATION SYSTEMS PROGRAMME: A CASE STUDY OF AMERICAN UNIVERSITY OF NIGERIA

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Abstract. Many studies have been carried out to investigate the factors affecting college students' academic performance. The main purpose of this study is to gain an understanding on the academic factors affecting the academic performance of information systems (IS) students in Nigeria. The success rate of IS student in Nigeria universities is low compared to universities outside Nigeria. The number of universities that offer IS as a major are few, a developing country like Nigeria is yet to understand the importance of IS. Therefore, people pay little or no attention to that field of study, which creates countless factors that could affect the IS. The survey methodology was used to study the academic factors affecting the success of IS students in Nigeria universities. A structured survey questionnaire was used to generate data. Statistical Package for the Social Sciences (SPSS) was used as a tool for the data analysis. The results of this study offer an important insight into the academic factors that affect the academic performance of students in the department of IS at undergraduate level.

Keywords: Information systems, Academic factors, Students performance.

1 Introduction

Student are the most important assets of schools and universities, as they have no worth without students. The social and economic development of a country is linked with the amount of quality graduates its universities produce. The students' academic achievement shapes them into graduates who would become great leaders, making them responsible for the country's economic and social development [1].

Educational institutions are highly interested in recruiting students who are most likely to succeed on their academic program. Universities have the professional and ethical responsibility to produce well educated, knowledgably and skilled IS professionals who should be competent enough to adapt to the dynamic growing market. To achieve this goal, university require efficient and reliable indicators of academic success that ensures they enroll candidate with the potential to succeed academically and become skillful IS professionals. There is proof that certain academic factors such as Academic Interaction, learning skills, study habit, school environment, availability of teaching materials, availability of learning materials, and faculty assessment could predict the success of IS students on their academic programs [2].

Quite a number of research's has been carried out to identify the predictors of academic performance of students in various professional programs. However, the majority of such studies were carried out in developed countries, limited research has been carried out to identify the predictors of success of IS students in Nigeria. IS education in Nigeria is provided through a four-year Bachelor Degree programme. At the end of each year student transition in a different stage of learning experience, every examination written in the academic year determines their ability to successfully complete the major. Student who met the requirement to successfully complete the major after four-years are awarded with a Bachelor Degree in IS [2].

This study would be conducted to understand how certain academic factors can affect the academic performance of IS student in a four-year bachelor degree programme in Nigeria Universities. IS which being a major that prepares student to be successful IS professionals, through a program that combines technical computing knowledge, skills and techniques with relevant business knowledge. At the end of the program student also get to build management skills and they are suited to take on roles in management, business systems analysis, IT consulting, data analytics and IT implementation. In Nigeria, as of this year 2022, there is a total of nine university offering IS as a major [3].

The fourth Sustainable Development Goal (SDG) of the United Nations is to "provide inclusive and equitable quality education and promote opportunities for lifelong learning for all." [4]. Previous studies have proof that quality education is very complex, one of its key components is academic performance of students. Several studies have been carried out to

assess the academic performance of students and the factors affecting students' performance. The academic performance of student is dependent on a combination of many variables, like the academic factors. Understanding what are the academic factors affecting the academic performance of IS student in Nigeria and associating how it affects IS Students was what this research seeks to achieve. Therefore, we pose the following research questions:

- RQ1: What is the association between academic factors and academic performance of IS students in Nigeria universities?
 - RQ2: Which academic factors can predict the academic performance of IS students in Nigeria universities?
- The rest of this paper is organized as follows: Sect. 2 consist of the literature review and conceptual framework. Section 3 discusses the methodology. Section 4 presents the research findings and discussion. Section 5 presents the conclusion.

2 Literature Review

2.1 Definition of Key Concepts

The main concept of this study is the key variable academic performance, this is because academic performance generally refers to how well a student is excelling and achieving their short or long-time educational goals; and it determines the failure or success of an academic institution [5].

Academic performance has been defined by so many authors from different point of views. According to [13], academic performance is the knowledge gain by students over a specific period of time, which is mark by the instructor. This authors also said that these are goals set to achieve by students are measured using assessment and examination results. [14] also said the academic performance is the measurable and observable behavior of student towards academic related activities over a certain period of time. It also consists of scores obtained by a student in assessments such as class exercise, assignment, presentation, mid semester and end of the semester examination.

The above definition given by these authors, shows that the definition of academic performance in its simplest meaning is based on measurable outcomes such as class exercise, assignment, presentation, mid semester and end of the semester examination. Based on this, the operational definition of academic performance in this study, is the result obtained by IS student in Nigeria universities by the end of a semester.

2.2 The Academic Factors Contributing to Academic Performance

Numerous research has been carried out in various countries to determine the factors that influence students' academic performance at various levels. In Nigeria, [15] found out that insufficient facilities including classrooms, labs, electricity, water supply, playing fields, staff offices, and hostels have an impact on students' academic performance in southwest Nigeria. A study conducted by [16] in Benin revealed that Students who have a lot of work to do and assignment become stressed, which can prevent them from allocating enough time for other study-related activities. Academic stress has a negative effect on students' academic performance as well as their physical and psychological health. Additionally, [14] found that class size has a significant effective on the motivation students feel towards attending classes and towards their studies. The study also revealed that student may easily get distracted during class time as large classes are often noisy and rowdy which leads to discouragement. Students may also lose their attention from what the teacher is trying to educated them on about because of their far distances from the board, which makes the teachers voice less audible and the writings on the board on unclear. Also student of Sohar university are greatly influenced by personal factors which have greatly impact to their academic performance. Students also perceived that institutional related factors pose a great effective to their academic performance as they prefer quiet and comfortable university environment. Students also believe that teachers using a variety of teaching skills have a more positive effect to their academic performance. This is because different student performs well in their academics when suitable teaching skills is used to teach them.

Moreover, students are more interested in specializations that would be “interesting”, provide them with “job security”, and “pay them well”. Some studies discovered that the main reasons students do not choose the IS specialization are that they are ‘not interested’, ‘find another specialization more interesting’; or feel that ‘IS is too difficult. Furthermore, the study also found out that students who specialize in IS were motivated by a general “interest in technology”, “success in the area (self-efficacy)”, “job prospects”, and “potential income” [6].

The discussion above proves that academic performance of students in general and IS students is influenced by a combination of academic factors which includes: Academic Interaction, learning skills, study habit, school environment, availability of teaching, availability of learning materials, and faculty assessment. There is a research gap in terms of

understanding how certain academic factors affect the IS students' performance. Several conducted studies on student academic performance focus on general academic factors rather than the context of IS.

2.3 Conceptual Framework

For this research we would be considering three important factors that could have the most effect on IS students enrolled in the American university of Nigeria. These variables are also the independent factors of the research, they include, class assessment, student study habits and faculty assessment. All the above-mentioned independent variables can possibly affect the dependent variable which is the academic performance (CGPA) of IS students. Authors of previous research have used these factors to explain how they affect the academic performance of student in various fields of study but first a brief explanation of what these factors imply would be useful.

Independent variables. Class assessment: this refers to the methods used to evaluate the learning progress and improvement of a student in a particular class. It may include different forms of assessment such as quizzes, project, presentations, assignments, class attendance and examinations.

Faculty Assessment: it refers to the evaluation of an instructor's teaching effectiveness and his/her cognitive quality. It may consist of factors such as communication skills, attitude towards duties, knowledge on the course or subject, accessibility or support given to students.

Student study habits: consists of a student behavior, dedication, strategies or approaches student use in engaging with their academic materials. This may include activities such as regular studying, proper time management, attending study sessions or tutorial sessions, note taking and active class participation.

Dependent variable. Academic performance: is the total achievement of a student in their educational pursuit or the extent as to which a student has successfully met the learning standards set by the educational institution. Most times it is measured using grades, grade point average (GPA), or other methods that indicates mastery of the subject matter.

2.4 Proposed relationship between dependent and independent variables

Class Assessment and Academic Performance. The hypothesis is that class assessment has an effect on academic performance, a well aligned assessment which has accurately measure all learning outcomes should positively influence academic performance of IS students. [17] conducted a study which investigated the relationship between classroom assessment methods and the academic performance of medical student. The study used class assessment to examine the impact of different assessment types (multiple choice question and short answer question) on student overall performance [17]. I decided to use the factor class assessment in this research to examine how it impacts academic performance of IS students because it has been used by previous study. It also makes up the sum of learning and determines the grade a student may be scored by at the end of the semester, the grade can either affect the CGPA or GPA positively or negatively.

Faculty Assessment and Academic Performance. The quality of instructors and their ability to effectively engage with student and provide them with support can affect their academic performance. A positive faculty assessment that measures all learning outcomes should correspond with a higher academic performance. [7] Conducted a study which investigated the relationship between faculty assessment and student academic achievement in higher education institutions in Iraq. This study used faculty assessment/faculty evaluation to examine how the factor affects student academic performance in higher institutions [7]. I decided to use the factor faculty assessment in this research to examine how it impacts academic performance of IS students because it has been used by previous authors. Also, because every semester, the American University of Nigeria holds a faculty assessment/faculty evaluation on every class across all departments to examining the instructors and the student performance.

Student study habit and academic performance. Habits and behaviors adopted by students plays a very Important role in their academic performance. Study habits such as regular study and active learning can positively influence academic performance. [8] Conducted a study which investigated the impact of student study habits on academic performance of university students. This study used student study habits to examine how the factor affects academic performance of university student [8]. I decided to use the factor student study habits in this research to examine how it can impact academic performance of IS students because it has been used by previous author. Also, because the American university of Nigeria has several infrastructures and resource in place to accommodate and support student study habits.

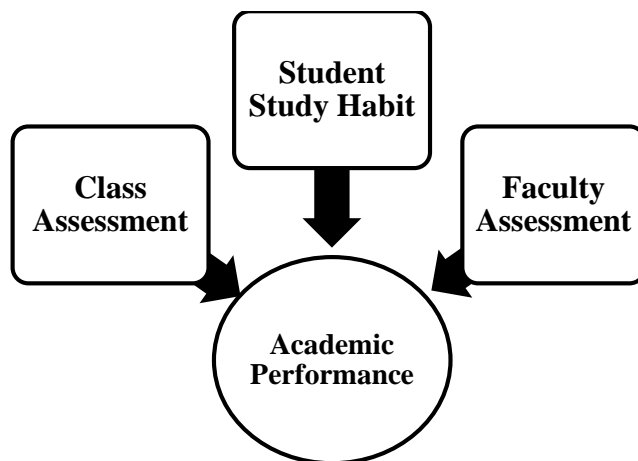


Fig. 1. Conceptual Framework

3 Methodology

The Survey methodology was used to study the academic factors affecting the success of IS students in Nigeria universities. A structured survey questionnaire was used to generate primary data. To provide a description of all the process involved in conducting the research, several stages were adopted.

3.1 Study population, sampling, and data collection techniques

The population of this study consists of all currently enrolled IS student at the American University of Nigeria, Adamawa state. Available statistical data suggest that there are 1035 student enrolled at the American University of Nigeria majoring in different departments. However, there is a total of 100 undergraduate student studying IS at the American University of Nigeria, 70 males and 30 females (Source: American University of Nigeria Registry, Fall 2022). The sample of the study was randomly selected IS undergraduate student at the American University of Nigeria. The sample was made up of males and females, between the age of 16 – 20 years in their first year – 100 level, middle years 200 – 300 levels and final year - 400 level. The sample size also included 80 IS student from the entire population, in the American University of Nigeria. 80 questionnaires were distributed amongst IS student.

Questionnaire Design. Referring to [18], which held the view that student academic performance can be linked with the use of library and the hours they dedicate to studying this research operationalized academic performance as how well IS student performs and some academic factors can influence academic performance. Further, many researchers around the world have measured the student academic performance through CGPA. [19] is amongst many who used GPA to measure academic performance because their main focus was in the student performance for a particular semester. To ensure the content validity of the questionnaire used to assess each construct depicted in the figure, some items regarding the measurement of constructs were adapted from previous studies and carefully reworded to fit the academic performance context. Past studies suggested that a good scale might result from not only pertinent literature, but also from professional comments. Therefore, this research has gone through rewording and review by my supervisor. The selection and rewording of items were based on three criteria: student's attitude towards their study, source of motivation and participation in academic activities. As a result, the formal questionnaire was organized into two sections, comprised of 24 questions. The first section contained 4 questions used to as a means of identification on where to categorize the respondent. The second section contained 20 question used to evaluate how academic factors are likely to affect academic performance. A sample of the questionnaire used to generate primary data can be found in the appendix section. The extent of existence for all variable in the research field was measured on a five-point Likert scale, ranging from, strongly disagree to strongly agree. Ranging from 1 to 5 strongly disagree (1), disagree (2), neutral (3), agree (4), strongly agree (5) [10].

3.2 Method for Data Analysis

Statistical Package for the Social Sciences (SPSS) was used as a tool for the data analysis. SPSS is widely coveted due to its straightforward and English-like command language and impressively thorough user manual. It provides a plethora of basic statistical functions, some of which include frequencies, cross-tabulation, chi-square, reliability, factor-analysis and bivariate statistics [9]. Until recently, SPSS is used by various researchers for complex statistical data analysis, including the multiple and simple regression analysis. Thus, in this paper, the SPSS was used to conduct a multiple linear regression analysis on the data that was collected. Multiple linear regression is a statistical method used to analyze variable and test the relationships between one dependent variable and multiple independent variables. The independent variables of the study include the academic factors such as student study habit, class assessment, faculty assessment, and student academic performance. The basic form of regression model that captures these variables are presented as follows:

- Predictor, explanatory or independent variables (x)
- Response, outcome, or dependent variable (y)
- Constant or Intercept (β_0)
- Error term (ϵ)
- X's slope or (β_1)

$$y = \beta_0 + \beta_1 \times 1 + \beta_2 \times 2 + \beta_3 \times 3 + \epsilon \quad (1)$$

Where, β_0 is the y intercept and refers to the estimated value of y when x is equal to 0. The coefficient β_1 is the regression coefficient and denotes the estimated increase in the dependent variable for every unit increase in the independent variable. The symbol ϵ is a random error component and signifies imprecision of regression indicating that, in actual practice, the independent variables cannot perfectly predict the change in any dependent variable.

3.3 Ethical Consideration

Ethical considerations in research are a set of principles that guide a research designs and practices. These principles may include voluntary participation, informed consent, anonymity, confidentiality, potential for harm, and results communication. An approval was gotten from the AUN institutional review board to carry out this study. A consent was also stated in the questionnaire for everyone to read before they proceed to answering the questions on the questionnaire. The Identity and the image of the respondents will be protected. This is done for any study that is not within the school, in order to ensure the security of the researcher. A faculty approval is also gotten before the data collection. This study took into consideration a number of ethical issues as it pertains to this research. On the issue of non-maleficence, this study ensured that the data collection process did not pose any threat to the academic schedule and plans of the respondents which informed the printed-out copy which the respondents filled at their convenience. Also, to ensure that the principle of informed consent was adhered to, the researcher did not coerce or induce any respondent into participating in the data collection process. As such, all respondents willingly took part in the study. To ensure privacy and confidentiality, the questions included in the questionnaire did not include the name or identity of the respondents. The implication of this is that respondents were at liberty to fill in the questionnaire under anonymity. In terms of data storage, the collected data was stored in a sealed-up envelope and place under watchful eye. The collected data was not divulged to anyone except the second author of this research for the purpose of verifying and authenticating the collected data.

3.4 Validity of Research Instrument

The validity of the research instrument is the tool used to assess the reliability of the findings based on information gathered from the participants, who are IS students. The validity of research instruments often evaluates whether the collected data accurately reflects the constructs. The instrument is evaluated depending on how well it predicts the data. After entering the data into SPSS, the statistical tool that will be used in this study, the validity will be evaluated. If a set of data measures what it is intended to measure, it is said to be valid.

3.5 Reliability of Research Instrument

The reliability of Research Instrument is the test of the ability of the consistent performance of the instrument in use. Consistency measures how consistently accurate a result is while utilizing a specific tool for statistical analysis.

Reliability also refers to an instrument's capacity to take measurements repeatedly under the same circumstances. It demonstrates the reliability in getting outcomes. Using the same instrument, a researcher or another researcher will get the same results, according to credible data. It also demonstrates that the responses are consistently assessing what the researcher wants to measure. After entering the data into SPSS, the instrument's reliability will be determined. Cronbach's alpha or composite reliability are used to determine the dependability. The majority of structural equation modeling research use composite reliability to assess the instruments' internal consistency [9].

4 Research Findings

4.1 Descriptive Analysis

Table 1. Descriptive Analysis (Source: Author's Computation using SPSS 14)

	N	Minimum	Maximum	Mean	Std. Deviation
Gender distribution	80	1.00	2.00	1.3375	.47584
Age distribution	80	1.00	4.00	2.5375	.85601
Level distribution	80	1.00	4.00	3.1875	.96906
Marital status distribution	80	1.00	3.00	1.0750	.30914
Valid N (listwise)	80				

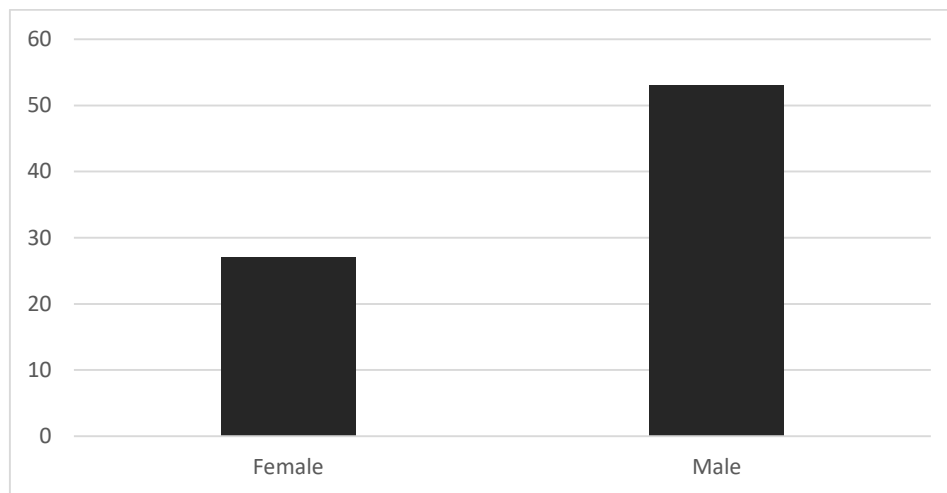


Fig. 2. Sex of Respondents (Source: Author's Questionnaire 2023)

Figure 2 above shows the sex of the respondents. The number of male respondents is 53 and the number of female respondents is 27.

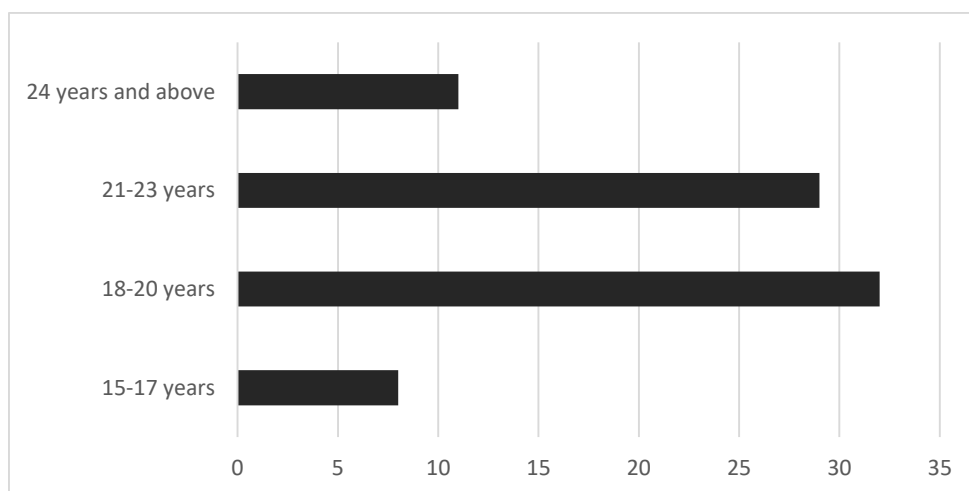


Fig. 3. Age of Respondents (Source: Author's Questionnaire 2023)

Figure 3 above shows the age of the respondents. The number of respondents age 24 years and above is 11, the number of respondents age 21-23 years is 29, the number of respondents age 18-20 years is 32. The number of respondents age 15-17 years 8.

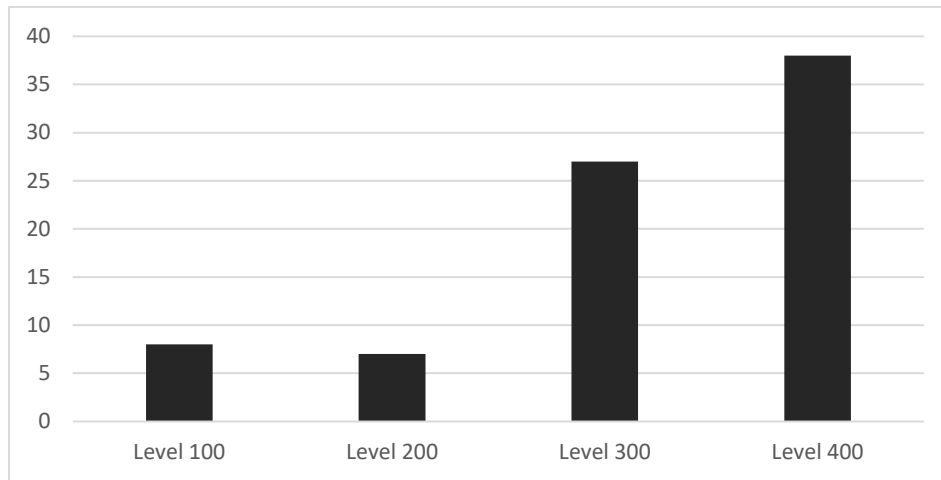


Fig. 4. Current level of Respondents (Source: Author's Questionnaire 2023).

Figure 4 above shows the respondents level of education. The number of respondents that are still in their first year is 8, the number of respondents that are in their Second years is 7, the number of respondents that are in their third year 27, the number of respondents that are in their fourth year is 38.



Fig. 5. Marital Status of Respondents (Source: Author's Questionnaire 2023)

Figure 5 above shows the marital status of respondents, the number of respondents that are divorced is 1, the number of respondents that are married is 4, the number of respondents that are single is 75.

4.2 Predictive Analysis (Regression Analysis and Results)

Components of the Regression Output.

Table 2. Variable Table (Source: Author's Computation using SPSS)

Variables Entered/Removed ^b			
Model	Variables Entered	Variables Removed	Method
1	CAllog10, FAllog10, SSHlog10 ^a	.	Enter

a. All requested variables entered.
b. Dependent Variable: CGPAlog10

The table presents the variables entered and removed from a regression model predicting CGPA. Three predictor variables, CA, FA, and SSH were entered into the model using the "Enter" method. No variables were removed from the model. The dependent variable, CGPA, is the variable being predicted by the three predictor variables.

Table 3. Test for the Impact of the Independent Variables (FA, CA, & SSH) on The Dependent Variable (CGPA). (Source: Author's Computation using SPSS)

Variables	Coefficients	Standard Error	t - Stat	P-value
<i>Intercept</i>	1.348	0.094	3.683	0.000
<i>FA</i>	0.120	0.110	-1.092	0.278
<i>CA</i>	0.338	0.170	1.992	0.050
<i>SSH</i>	0.193	0.074	2.603	0.011
<i>R</i>	0.438			
<i>R Square</i>	0.192			
<i>Adjusted R Square</i>	0.160			
<i>Durbin-Watson</i>	1.824			
<i>Standard Error</i>	0.590			
<i>F-Statistics</i>	6.021			
<i>P-Value</i>	0.01			

From table 3, the coefficient of determination R^2 shows that 19.2% of the impact on CGPA can be explained by the three independent variables (FA, CA, & SSH). This implies that FA, CA, and SSH can be effectively used to control CGPA. Additionally, the F-statistics (6.021) has probability less than 5%, which indicate that the independent variables (FA, CA, & SSH) in the model have significant impact on CGPA from IS student in Yola, Adamawa state, Nigeria. The Regression equation for the impact of each of the independent variables (FA, CA, & SSH) on CGPA from IS student enrolled at the American university of Nigeria is represented in the equation below:

$$CGPA = 1.348 + 0.120FA + 0.338CA + 0.193SSH \quad (2)$$

However, the contributions and significance of FA, CA, and SSH in the model is used to test the hypothesis using the t-test. The hypothesis is tested with the coefficient and the t-values.

Hypothesis is Tested with the Academic Factors on Academic Performance.

- H0: There is no effect of academic factors on academic performance of IS students in Nigeria universities.

- H1: There is an effect of academic factors on academic performance of IS students.

On the basis of the beta coefficients, the model shows that student study habit causes a 19% positive variation in the academic performance of IS student and t-value is also significant. Class assessment also causes a 33% variation in the academic performance of IS student the direction is a positive direction. Here t-value is also significant. So, this proves that we can accept the H1 which states that “There is no effect of academic factors on academic performance of IS students in Nigeria universities.”

Hypothesis is Tested with the Academic Factors that Predict Academic Performance.

- H0: There is no academic factors that can predict the academic performance of IS students in Nigeria universities.
- H1: There are academic factors that can predict the academic performance of IS students in Nigeria universities.

The results of the research reveal that the second hypothesis is been supported, also the beta coefficients and significant t-values for the academic factors (student study habit and class assessment) suggests that they are predictors of academic performance. Therefore, the null hypothesis (H0) is rejected and the alternative hypothesis (H1) is accepted.

4.3 Discussion of Findings

This study was carried out to explore academic factors affecting the academic performance of IS student in Nigeria Universities. The research was conducted on the IS department of a private university in Nigeria, (the American University of Nigeria) Yola, Adamawa state. Two hypotheses were used in the study to examine the effect of the independent variable on the dependent variable. By using the appropriate statistical package to analyze primary data it was found that class assessment, competency and student study habit are factors that affect the academic performance of IS student. Student study habit and class assessment shows a positive impact on the academic performance of IS student and Faculty Assessment shows a different relationship on the academic performance of IS student but the significant level is high. So, it indicated that the student study habit and class assessment are important factors that affect the academic performance of IS student. Faculty assessment affect the academic performance of IS student, when the instructors are competent it may increase academic performance when they are not competent it can decrease academic performance. In a more detailed explanation the standardized coefficient for FA is -0.127, indicating that for every one-unit increase in FA, the CGPA is predicted to decrease by 0.127 standard deviations, after accounting for the influence of other variables.

5 Conclusion

The results of this study offer an important insight into the academic factors that affect the academic performance of students in the department of IS at undergraduate level. Previous research on academic performance suggest that precollege performance variables can serve as an important predictor of student university success [11]. This may vary across different field and across student at different level and that might explain part of the disagreement between researchers.

Researchers had different result on previous studies about the effect of class attendance on academic performance ([12] [13]), this study contributes to that line of research and coincides with most of their results. This research showed that class attendance (class assessment (comprises of class participation, class attendance class quiz, project and exams)) has an effect on academic performance of IS student. By monitoring the student study habit and class assessment of IS student administration may be able to identify student with poor academic performance, the factor leading to poor academic performance and how to help IS student increase their academic performance at the university.

5.1 Limitations

There was certain limitation in regards to this study. Firstly, the sample size taken in this study was small, that is only eighty (80) IS student. If this study was to be carried out again on a large sample size, I think the results might be improved than existing study. Second limitation of the study, the study was carried out on one state/city i.e. Adamawa state/Yola. I also believe that including other relative factors that affect the academic performance of IS student can improve the results.

5.2 Suggestions and Recommendations

The academic performance of IS student can be improved if the administration of the university, create reading club and encourage the instructors to persuade student into making using of the resources the club may have to offer. That way student can spend a few hours in the club session during the weekends or their leisure time, this would gradually build on their reading/studying habit. Class assessments (comprises of class participation, class attendance class quiz, project and exams) is a very important factor to good academic performance. The administration of the university can help the students by encouraging tutoring session between students, extra activities to earn bonus points and creation of incentive programs.

References

- [1] N. J. K. A. S. Ali, "The Factors Influencing Students' performance at Universiti Teknologi MARA Kedah, Malaysia," Canadian Research & Development Center of Sciences and Cultures, p. Vol.3 No.4, 2009.
- [2] P. B. Naylor, "Association between Academic and Non-academic Variables and Academic Success," School of Health and Related Research, p. 157, 2009.
- [3] "List of Universities in Nigeria that offers Information Systems," 18 October 2022. [Online]. Available: samphina.com.ng.
- [4] "United Nations Development Program," p. p.7, 2017.
- [5] A. & A. B. Narad, "Academic Performance of Senior Secondary School Students: Influence of Parental Encouragement and School Environment,," Open Journal of Social Science, pp. 45-47, 2016.
- [6] A. A. Ndede-Amadi, "Student Interest in the IS Specialization as Predictor of the Success Potential of New Information Systems Programmes within the Schools of Business in Kenyan Public Universities," International Journal of Information Systems and Social Change, p. pg. 64, 2016.
- [7] J. K. Tariq, "The Effect of Faculty Evaluation on Student Academic Achievement in Higher Education Institutions," 2019.
- [8] I. & Jabbar, "The Impact of Study Habits on the Academic Performance of University Students," 2017.
- [9] Alchemer, "alchemer.com," 21 May 2021. [Online]. Available: <https://www.alchemer.com/resources/blog/what-is-spss/>.
- [10] A. G. Kolo, "Influence of Psychosocial Factors on Student's Academic Performance in One of college of Education," Malaysian Journal of Social Sciences and Humanities (MJSSH), vol. 13, pp. 1-10, 2017.
- [11] G. Vaquera, "Pre-college Factor Impacting Persistence at a Diverse University," Journal of College Student Retention Research Theory and Practice, pp. 425-436, 2008.
- [12] B. Saloua, "Improve Student Success Through Their Realities,," Procedia - Social and Behavioral Science, p. 174, 2015.
- [13] A. L. K. Hoffmann, "Class Attendance and University performance," Governance and Economic Development Research, p. 286, 2016.
- [14] Narad, A. and Abdullah, B., 2016. Academic performance of senior secondary school students: Influence of parental encouragement and school environment. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, 8(2), pp.12-19.
- [15] Yusuf, T.A., Onifade, C.A. and Bello, O.S., 2016. Impact of class size on learning, behavioral and general attitudes of students in secondary schools in Abeokuta, Ogun State Nigeria. *Journal of Research Initiatives*, 2(1), p.12.
- [16] Olufemi, O.T., Adediran, A.A. and Oyediran, W.O., 2018. Factors affecting students' academic performance in colleges of education in Southwest, Nigeria. *British Journal of Education*, 6(10), pp.43-56.
- [17] Ijeoma, O.B. and Oladipo, A.I., 2019. Efficacy of systematic desensitization therapy on academic boredom among adolescents in Edo State secondary schools. *Journal of Educational and Social Research*, 9.
- [18] Masoumi, D., 2021. Situating ICT in early childhood teacher education. *Education and Information Technologies*, 26(3), pp.3009-3026.
- [19] Young, K.S., 1999. Internet addiction: Evaluation and treatment. *Bmj*, 319(Suppl S4).
- [20] Galiher, S., 2006. Understanding the effect of extracurricular involvement. *A Research Project Report M. Ed., Indiana University, South Bend*.