

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY: APPLIED BUSINESS AND EDUCATION RESEARCH

2024, Vol. 5, No. 12, 5328 – 5336

<http://dx.doi.org/10.11594/ijmaber.05.12.28>

Research Article

Student Satisfaction in Student Affairs and Services: Ordinary Least Squares Model Insights

Melanie R. Albarracin^{1*}, Rhea Jane L. Caynila², Glazalle Marie Manzanades³, Christel Kate Segovia⁴

¹Information Technology Department, Cebu Technological University, Argao Campus 6021, Cebu, Philippines

²College of Arts and Sciences, Cebu Technological University, Argao Campus 6021, Cebu, Philippines

³College of Hospitality Management and Tourism, Cebu Technological University, Argao Campus 6021, Cebu, Philippines

⁴Office of Student Affairs and Services, Cebu Technological University, Argao Campus 6021, Cebu, Philippines

Article history:

Submission 09 September 2024

Revised 07 December 2024

Accepted 23 December 2024

*Corresponding author:

E-mail:

melanie.albarracin@ctu.edu.ph

ABSTRACT

Assessing student satisfaction is essential for boosting institutional efficacy and service quality. This research examines the factors influencing student satisfaction with the services offered by the Office of Student Affairs and Services (OSAS) at Cebu Technological University - Argao Campus. The study gathered data from 242 students using a survey questionnaire and used Ordinary Least Squares (OLS) model analysis to measure the impact of personnel competency and professionalism, service experience and interaction, and service commitment and environmental factors on overall satisfaction. The findings emphasize the significance of having knowledgeable, competent, and compassionate staff, as they suggest that personnel competency and professionalism greatly influence student satisfaction. The result also stresses the importance of service experience and interaction, indicating that higher education institutions should prioritize being responsive to student inquiries, providing a safe campus environment, and promoting open communication with students. Additionally, the study highlights the importance of environmental factors and service commitment, arguing that improving student satisfaction requires operational enhancements such as quicker service, easy navigation, and facility maintenance. Addressing these issues could lead to higher satisfaction levels, aligning with the university's goal of creating a welcoming and engaging learning environment.

Keywords: *Student Satisfaction, Student Affairs and Services, OLS Model Analysis, Personnel Competency and Professionalism*

How to cite:

Albarracin, M. R., Caynila, R. J. L., Manzanades, G. M., & Segovia, C. K. (2024). Student Satisfaction in Student Affairs and Services: Ordinary Least Squares Model Insights. *International Journal of Multidisciplinary: Applied Business and Education Research*. 5(12), 5328 – 5336. doi: 10.11594/ijmaber.05.12.28

Introduction

Educational institutions need to assess and understand student satisfaction with their services. A comprehensive analysis of satisfaction factors allows institutions to better meet students' expectations by delivering improved services. Yanova (2015) stresses the importance of measuring student satisfaction to evaluate the quality of education and ensure that institutions provide a seamless and valuable experience. According to Micabalo, Cano, and Montilla (2020), well-provided services often exceed students' expectations, increasing overall satisfaction. In addition, Ludeman (2021) emphasized the significance of student affairs and services as vital components of higher education. Improving the student experience from admission to graduation necessitates these services. Consequently, student contentment with student affairs and services significantly impacts the effectiveness and reputation of educational institutions.

Initially established in American education, Student Affairs and Services (SAS) are now crucial to global higher education (Ciobanu, 2013). Higher education institutions (HEIs), according to Batool, Qureshi, and Raouf (2010), have to make sure that their student affairs and services are inclusive of firm advising services, conveniently available, supportive of learning objectives, and sensitive to the requirements of their students. Various support programs and services are available in student affairs to help students achieve their academic, social, and personal goals. These services encompass information dissemination, housing, food services, scholarship and financial assistance, career services, health, counseling, admissions, discipline, economic enterprise development, and other resources directly supporting students in higher education. Participating in leadership programs, cultural events, sports teams, community service, and volunteer work is highly encouraged for students as they provide valuable opportunities for personal growth, skill development, and a sense of belonging within the campus community. Events such as intramural, foundation days, college days, and cultural festivals foster a friendly campus culture that embraces diversity and tolerance and

enhances the overall college experience (Aristovnik et al., 2020).

A supportive environment significantly contributes to students' overall development in higher education. Recognizing this, the Commission on Higher Education (CHED) established a distinct unit to ensure adequate facilities and services. CHED Memorandum Order No. 9, series of 2013, is the foundation for planning, administering, and monitoring these services and activities, emphasizing their importance for student development. As a result, institutions of higher learning have planned and implemented activities and services in alignment with this directive. One of the most challenging facets of student affairs is offering valuable resources to students. Moreover, in the study of Salandanan, Buenvenida, and Bando (2021), there is a significant relationship between the students' affairs services in terms of Information and Orientation Services, Guidance and Counseling Services, Student Training, Student Organizations and Activities, Admission Services, Scholarships, and Financial Assistance (SFA), and the effectiveness and efficiency of student affairs services. These services should be carried out effectively.

Many SAS programs are readily available at the university. However, some students lack awareness of the full range of student development and welfare services (Gervacio & Pascual, 2019). This has led to these students being misinformed and making mistakes that prevented them from utilizing the programs and services. This serves as benchmark data for the SAS unit to spread awareness about the available programs and services, enabling students to use them and be satisfied. To assess the performance of services such as institutional student programs, student development, and student welfare, universities conduct surveys to measure student satisfaction with the Office of Student Affairs and Services.

Student Affairs and Services (OSAS). This method provides valuable insights into how students perceive the university's student services, showing how smoothly and efficiently the educational process, particularly the co-curricular programs and student support services, is operating. Trowler and Trowler (2010)

indicate that contented students are more likely to participate actively in their education, which enhances their academic and personal lives.

In its pursuit to better enhance instruction and student services, Cebu Technological University - Argao Campus actively leverages feedback as a powerful tool to pinpoint and address areas needing improvement. This proactive approach contributes to establishing a highly supportive and enriching learning environment. Furthermore, the university's SAS programs consistently evaluate and identify areas requiring development to better meet student needs. Following each semester, rigorous analysis of student feedback, surveys, and discussions takes place to gain valuable insights into student experiences and concerns. This process, aligned with its vision and mission, grants the university a comprehensive overview of campus facilities, institutional student services, and programs dedicated to student growth and welfare throughout the semester. Encouraging student involvement fosters collaboration between students and administration, creating a platform for suggestions and criticisms.

Researchers like Abdullahi and Wan Yusoff (2019, as cited in Yap et al., 2022) found that student satisfaction can be perceived as a reflected contemplation of life experience; it refers to the subjective evaluation of their learning experiences related to educational activities. While a general sense of student satisfaction toward university services is often discussed in many studies, it does not provide a sufficient argument for how these components—personnel competency, service experience, and service commitment—uniquely impact satisfaction with OSAS services. Moreover, while some research acknowledges the role of materials and resources, it possibly does not further assess how these aspects aid in improving service quality and, in turn, lead to student satisfaction. This study aims to address these deficiencies by systematically testing how these variables influence student satisfaction and providing a better contextual understanding of how OSAS can improve its services and continue to fulfill the needs of its students.

Ciobanu (2013) stated that supporting and enhancing the student experience (academic,

social, welfare, and support) will help the students become more confident throughout their stay in the university. Students bring to higher education institutions a variety of learning styles, instructional delivery preferences, and social-emotional needs. Further, students acquire the best when various individual and group learning experiences are accessible (Fletcher & Sriram, 2024).

In establishing the influence of factors on student satisfaction on the student services provided by the Office of Students Affairs and Services, the following hypotheses were proposed:

Null Hypotheses:

H₀: Improving student satisfaction with the services provided by the Office of Student Affairs and Services is not significantly influenced by personnel competency and professionalism, service experience and interaction service commitment, and environmental factors.

Alternative Hypotheses:

H₁: Personnel competency and professionalism positively influence students' satisfaction with the services provided by the OSAS.

H₂: Service experience and interaction factors positively influence students' satisfaction with the services provided by the OSAS.

H₃: The provision of facilities and resources, along with service commitment, enhances the effectiveness of student satisfaction with the services provided by the OSAS.

This paper is structured into four main sections. First, it outlines the theoretical framework for understanding students' overall satisfaction and presents the development of the hypotheses. Next, the methods and empirical findings are then described in detail, with a discussion of the significance of each finding. Finally, the study's limitations and a summary of the results are covered in the paper's conclusion.

Methods

A questionnaire was adapted from the university's Client Satisfaction Survey and administered via Google Forms between June and July 2024, receiving responses from 242 students who had availed themselves of the services

provided by OSAS. The questionnaire was divided into three sections: study information and consent, demographics and student services utilized, and student satisfaction. The participants provided informed consent following ethical research guidelines. Most respondents—61.8% of the population—were female, the largest group, followed by 34.1% male respondents. The LGBTQ+ community represented 2.8%, and those who preferred not to disclose their gender accounted for 1.3%. This demographic breakdown provides context for understanding the types of inquiries received at the OSAS. Notably, 57.3% of queries pertained to enrollment, reflecting the primary service utilized by students. Financial assistance and scholarship queries comprised 8.5% and 18.7% of all queries, respectively. Other available services at OSAS include "Admission Queries," "Request for Good Moral Certificates and Other Document Requirements," "Consultation (health, clinic, guidance, student discipline)," and "Submit Scholarship Requirements."

The current research measured student satisfaction using three independent variables and a 4-point Likert scale ranging from "strongly disagree" to "strongly agree." First, descriptive statistics were computed to obtain percentages, mean, and standard deviation. Regression analysis was performed afterward. Both analyses were conducted using Jupyter Notebook, a web-based interactive computing platform. The Ordinary Least Squares (OLS) model for parameter estimation was used, as OLS minimizes the sum of the squared differences between observed and predicted values (Hair et al., 2019). The OLS regression model was estimated to assess the effect of the independent variables on the student satisfaction variable (y_{1y_1}). The study utilized R-squared (R^2) and adjusted R^2 values to avoid overfitting by penalizing models with unnecessary predictors in their model fit.

The F-statistic calculated the general significance of the model against a model containing no predictors. A high F-statistic accompanied by a small p-value indicates that the model fits the data better than one with only the intercept. According to Wooldridge (2013), a model fits

well if it has a high F-statistic and a small p-value compared to one with only intercepts. Model diagnostics were conducted to ensure the normality of residuals and the absence of autocorrelation, ensuring the model's reliability. This approach also controlled for issues of multicollinearity, heteroscedasticity, and outliers, as suggested by Fox (2015).

Result and Discussion

To better contextualize how OSAS can enhance its services and meet the needs of its students, this section presents the study's findings on how certain variables—such as personnel competency and professionalism, service experience and interaction, and service commitment—uniquely impact satisfaction with OSAS services.

Table 1 illustrates the different factors impacting student satisfaction. The highest mean score is 3.542, suggesting that students are most satisfied with the efficiency of personnel and the overall services provided by the OSAS. This indicates that stakeholders consistently observe these aspects. The factor "Personnel Competency and Professionalism" has a mean score of 3.528, reflecting relatively higher satisfaction with the competency and professionalism of the personnel. Pratiwi, Noor, and Rozikin (2024) stated that competency elements of education personnel have a positive and significant influence on student satisfaction.

The average standard deviation (0.643) across all factors reflects moderate variability in student satisfaction, indicating that while overall satisfaction is positive, individual experiences differ to some extent.

Service Experience and Interaction (Std = 0.691) factor has the highest standard deviation, indicating that student experiences and interactions with services vary widely. Some students might have had significantly different experiences than others. The slightly higher mean scores for Personnel Competency and Professionalism and Satisfaction on Personnel Efficiency and Overall Services highlight these as strengths within the OSAS. These areas could be leveraged to further improve student satisfaction.

Table 1. Factors Impacting Student Satisfaction

Factors	Mean	SD	Interpretation
Service Commitment and Environmental Factors	3.483	0.628	The students always carefully observed the factor being evaluated.
Service Experience and Interaction	3.461	0.691	The students always carefully observed the factor being evaluated.
Personnel Competency and Professionalism	3.528	0.635	The students always carefully observed the factor being evaluated.
Overall Satisfaction on OSAS Services	3.542	0.618	The students always carefully observed the factor being evaluated.

The OSAS might focus on improving service experience and interaction consistency to reduce variability and ensure that all students have equally positive experiences. The OSAS should continue to build on its personnel efficiency, competency, and professionalism strengths, possibly using these areas as models to enhance other aspects of student services. The relatively high variability in-service experience and interaction warrants further investigation to understand the root causes and develop strategies to ensure more uniform satisfaction across all students.

Personnel Competency and Professionalism

Personnel competency and professionalism are essential for student satisfaction. This is because competency and professionalism include not just knowledge and academic abilities but also how well they perform needed tasks, as well as compassion and awareness of the rules and policies of the universities.

Table 2 indicates the OLS regression model of student satisfaction (y1) and various aspects of personnel competency and professionalism, such as knowledge, capability, empathy, presentability, honesty, and knowledge of rules

and procedures (independent variables). The model explains 64.8% of the variance in student satisfaction, according to the R-squared (0.648). This indicates a high match and a considerable impact of personnel competency and professionalism variables on student satisfaction. This is supported by the model's substantial F-statistic value (71.84) and extremely low p-value (2.50E-50).

The university should prioritize ensuring staff members are competent, compassionate (empathetic), and aware of policies and procedures to increase student satisfaction, as these elements substantially impact satisfaction. Capable of Performing the Needed Tasks (Capability) (coef = 0.2888, p = 0.000) demonstrated a substantial positive and statistically significant effect, indicating that personnel's perceived competency significantly impacts students' satisfaction. An additional noteworthy favorable impact emphasizes empathy's role in influencing students' satisfaction (coef = 0.2231, p = 0.000). Knowledge of the university's rules and procedures had a substantial beneficial impact (coef = 0.2871, p = 0.000), demonstrating the importance of knowing and sharing policies and procedures for student satisfaction.

Table 2. Impact of Personnel Competency and Professionalism on Students' Satisfaction

Student satisfaction (y1)	coef	std err	t	P> t	[0.025	0.975]
const	0.372	0.162	2.29	0.023	0.052	0.692
Knowledge	0.1283	0.067	1.911	0.057	-0.004	0.261
Capability	0.2888	0.059	4.866	0	0.172	0.406
Empathy	0.2231	0.062	3.61	0	0.101	0.345
Presentability	0.106	0.074	1.429	0.154	-0.04	0.252
Honesty	-0.13	0.081	-1.611	0.109	-0.289	0.029
Knowledge of Rules and Procedures	0.2871	0.078	3.665	0	0.133	0.441

Student satisfaction (y1)	coef	std err	t	P> t	[0.025	0.975]
Omnibus:	172.726	Durbin-Watson:	1.879		R-squared:	0.648
Prob(Omnibus):	0	Jarque-Bera (JB):	3489.707		Adj. R-squared:	0.639
Skew:	-2.488	Prob(JB):	0		F-statistic:	71.84
Kurtosis:	20.965	Cond. No.:	60.1		Prob (F-statistic):	2.5E-50
Log-Likelihood:	-102.13	AIC:	218.3		BIC:	242.7

Although "Knowledgeable and Provide Clear Helpful Answers (Knowledge)" is borderline significant, enhancing this area could potentially boost its impact on student satisfaction. While generally important, factors like presentability and honesty/credibility may not be the key drivers of satisfaction in this context. The model diagnostics show some deviation from normality in the residuals (as indicated by Omnibus, Jarque-Bera, Skew, and Kurtosis), which could affect the reliability of the estimates. However, the Durbin-Watson value of 1.879 suggests no significant autocorrelation, indicating model stability and the absence of severe multicollinearity confirms that the predictors are not excessively correlated.

Service Experience and Interaction

The findings of a regression analysis that looked at how different characteristics of the service experience interacted with student satisfaction are shown in Table 3. Student satisfaction is the dependent variable, and the independent variables are the following: opportunities for feedback, courteous communication, ease of handling inquiries, notice of attention to queries, comfort in addressing concerns, and a sense of safety and security in the workplace.

The baseline level of student satisfaction when all independent variables are zero is indicated by the intercept of 0.6033. This coefficient indicates a relevant baseline satisfaction level and is statistically significant ($p < 0.05$). The investigation found three important predictors of student satisfaction. First, notice that attention to queries (coef = 0.1675, $p=0.001$) became a significant factor, suggesting that students appreciate a setting in which their problems are resolved efficiently and sympathetically. Second, comfort in addressing concerns indicates that creating a supportive environment for resolving student concerns is critical. Finally, a sense of safety and security in the office (coef=0.2545, $p=0.001$) demonstrates that ensuring safety and security strongly contributes to student satisfaction. These factors suggest that institutions should create secure, responsive, supportive service environments to boost student satisfaction effectively. However, variables such as ease of handling queries ($p=0.872$) and speedy service delivery ($p=0.262$) are not statistically significant. This implies that while these factors might influence satisfaction, their impact is less pronounced or overshadowed by other factors.

Table 3. Impact of Service Experience and Interaction on Student Satisfaction

Student satisfaction (y1)	coef	std err	t	P> t	[0.025	0.975]
const	0.6033	0.161	3.755	0	0.287	0.92
Ease of handling queries	0.007	0.044	0.161	0.872	-0.079	0.093
Notice attention to queries	0.1675	0.059	2.859	0.005	0.052	0.283
Speedy and quality in the service delivery	0.0668	0.059	1.123	0.262	-0.05	0.184
Opportunities for feedback	0.1182	0.071	1.664	0.097	-0.022	0.258
Courteous communication	-0.0201	0.06	-0.337	0.736	-0.138	0.097
Comfort in addressing concerns	0.2445	0.073	3.369	0.001	0.102	0.388

Student satisfaction (y1)	coef	std err	t	P> t 	[0.025	0.975]
Sense of safety and security in the office	0.2545	0.079	3.218	0.001	0.099	0.41
Omnibus:	151.205	Durbin-Watson:	1.945	R-squared:	0.603	
Prob(Omnibus):	0	Jarque-Bera (JB):	2556.175	Adj. R-squared:	0.591	
Skew:	-2.107	Prob(JB):	0	F-statistic:	50.55	
Kurtosis:	18.388	Cond. No.	58.5	Prob (F-statistic):	2.40E-43	
Log-Likelihood:	-117.49	AIC:	251	BIC:	278.9	

The model shows a moderate to good fit with an R-squared score of 0.603, indicating that it explains 60.3% of the variance in student satisfaction. Even after considering the number of predictors, the adjusted R-squared of 0.591, which is close to the R-squared, demonstrates the model's effectiveness in explaining variability. The high F-statistic and its very low p-value (2.40E-43) highlight the model's statistical significance, showing that the predictors are significantly related to student satisfaction. However, the highly significant Omnibus and Jarque-Bera (JB) tests indicate that the residuals deviate from normality, which could affect the validity of some inferences. Despite this, the Durbin-Watson statistic 1.945 suggests no significant autocorrelation, meaning the residuals are independent. The negative skew (-2.107) and high kurtosis (18.388) further indicate deviations from normality, potentially impacting the robustness of the regression results.

Service Commitment and Environmental Factors

Service commitment, which reflects the university's dedication to excellence, and environmental factors such as campus facilities and atmosphere all have an impact on how satisfied students are and collectively shape their overall experience. Table 4 indicates that the dependent variable is significantly predicted by three factors, all of which have positive coefficients: "Reasonable time dedicated to the

service," "Easily locate the office or facility with the help of signage," and "Maintains essential facilities reflecting its commitment to student needs." The variable "Fairness in providing client services" is not essential regarding predictive power.

The intercept is statistically significant ($p < 0.05$), indicating a baseline level of 0.5877 for the dependent variable when all predictors are zero. The variable "Reasonable time dedicated to the service" has a significant positive effect ($p < 0.05$), with a one-unit increase in time leading to a 0.3441 increase in the dependent variable, underscoring its importance in service commitment. Similarly,

"Easily locate the office or facility with the help of signages" is statistically significant ($p < 0.05$), where effective signage is associated with a 0.2314 increase in the dependent variable. The "Maintains essential facilities reflecting its commitment to student needs" variable is also significant ($p < 0.05$), showing that better-maintained facilities positively influence the dependent variable. Researchers [17] revealed that the satisfaction derived from customer experience is due to the connecting set of factors integrated into the educational environment: technological, psychological, and instructional. Thus, a safe environment, committed staff, or student-friendly policies are manifestations of the interplay of factors that satisfy a customer.

Table 4. Impact of Service Commitment and Environmental Factors on Student Satisfaction

Student satisfaction (y1)	coef	std err	t	P> t	[0.025	0.975]
const	0.5877	0.178	3.301	0.001	0.237	0.938
Reasonable time dedicated to the service	0.3441	0.064	5.344	0	0.217	0.471
Fair in providing the services to clients	0.0962	0.067	1.433	0.153	-0.036	0.228
Easily locate the office or facility with the help of signage	0.2314	0.078	2.984	0.003	0.079	0.384
Maintains essential facilities reflecting its commitment to student needs	0.1818	0.061	2.978	0.003	0.062	0.302
Greets and communicates with respect	-0.0201	0.06	-0.337	0.736	-0.138	0.097
Omnibus:	157.656	Durbin-Watson:	2.011	R-squared:	0.551	
Prob(Omnibus):	0	Jarque-Bera (JB):	2877.933	Adj. R-squared:	0.543	
Skew:	-2.209	Prob(JB):	0	F-statistic:	72.28	
Kurtosis:	19.342	Cond. No.	47.1	Prob (F-statistic):	6.679E-40	
Log-Likelihood:	-131.62	AIC:	273.2	BIC:	290.7	

The findings suggest that universities should focus on operational improvements—timely service, straightforward navigation, and facility maintenance—to enhance student satisfaction effectively. These factors directly impact students' daily experiences and perceptions of the institution. Aligning with prior studies on service quality in educational settings [18], these results highlight the critical role of managing the tangible aspects of service delivery.

During their education, students prioritize educational services, emphasizing the value of staff services (such as responsiveness, efficiency, appearance, assistance, and communication) and support facilities (such as libraries, classrooms, and food services). To raise the caliber of services provided in higher education, these elements ought to be given top priority [19]. Addressing inconsistencies and improving these areas can lead to substantial gains in satisfaction. While fairness remains important, it should be integrated with broader service enhancements to maximize its effect. Universities must continually evaluate and

refine these operational aspects to foster a supportive, student-centered environment that meets evolving expectations.

The model explains a moderate portion of the variance in the dependent variable (R-squared = 0.551), suggesting a good fit overall. However, the Omnibus and Jarque-Bera tests indicate issues with normality in the residuals, which may impact the model's reliability. The F-statistic confirms the overall model fit is strong. The Durbin-Watson statistic, close to 2, suggests no autocorrelation in the residuals, which is ideal for model stability. With an adjusted R-squared value supporting the fit, the Jarque-Bera test's high and low p-values further emphasize significant deviations from normality in the residuals.

Conclusion

The study emphasizes how important personnel competency and professionalism, service experience and interaction, and service commitment and environmental factors are in molding student satisfaction with the OSAS. The findings show that students prefer

competent service and accommodating, responsive, and safe service environments. Addressing heterogeneity in-service experiences and improving staff skills may increase student satisfaction even further. While this study provides insightful information, the results may not be as broadly applicable due to its singular institution-specific focus.

References

- Amoako, I., & Asamoah-Gyimah, K. (2020). Indicators of students' satisfaction of quality education services in some selected universities in Ghana. *South African Journal of Higher Education*, 34(5), 61–72.
- Aristovnik, A., Keržič, D., Ravšelj, D., Tomažević, N., & Umek, L. (2020). Impacts of the COVID-19 Pandemic on Life of Higher Education Students: A Global Perspective. *Sustainability*, 12(20), 8438. <https://doi.org/10.3390/su12208438>
- Ciobanu, A. (2013). The role of student services in improving the student experience in higher education. *Procedia - Social and Behavioral Sciences*, 92, 169–173.
- Fletcher, M., & Sriram, R. (2024). The overlooked influence of advising and supporting upon leadership in student affairs. *Journal of Student Affairs Research and Practice*, 1–19.
- Fox, J. (2015). *Applied regression analysis and generalized linear models* (3rd ed.). Sage Publications.
- Gervacio, M. O., & Pascual, J. M. (2019). Students' awareness and satisfaction on student affairs and services. *QSU Research Journal*, 8(1).
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis*. Hampshire, United Kingdom: Cengage Learning.
- Ludeman, R. B. (2021). Student affairs and services in higher education: Emerging from the 19th and 20th centuries to the present. *Journal of Higher Education Policy and Leadership Studies*, 2(4), 175–178. <https://doi.org/10.52547/johepal.2.4.175>
- Micabalo, K. G., Cano, J. B., & Montilla, R. D. (2020). University performance satisfaction: A student experience in the Philippines. *Asian Journal of Engineering and Applied Technology*, 9(2), 29–35.
- Pratiwi, C., Noor, I., & Rozikin, M. (2024). The influence of education personnel competence on student satisfaction in educational services in higher education. *Indonesian Journal of Educational Research and Review*, 7(2).
- Salandan, F. H., Buenvenida, L. P., & Bandy, M. M. (2021). Predictors of the effectiveness and efficiency of student affairs and services (SAS) among higher education institutions (HEIs). *International Journal of Management, Entrepreneurship, Social Science and Humanities*, 4(2), 99–117.
- Trowler, V., & Trowler, P. (2010). Student engagement evidence summary. *The Higher Education Academy*, 11(1), 1–15.
- Wooldridge, J. M. (2013). *Introductory econometrics: A modern approach* (5th ed.). South-Western Cengage Learning.
- Yanova, N. (2015). Assessment of satisfaction with the quality of education: Customer satisfaction index. *Procedia-Social and Behavioral Sciences*, 182, 566–573.
- Yap, J. B. H., Hew, Q. L. T., & Skitmore, M. (2022). Student learning experiences in higher education: Investigating a quantity surveying programme in Malaysia. *Construction Economics and Building*, 22(1), 1–20. <https://doi.org/10.5130/AJCEB.v22i1.7835>