

Academic and Non-Academic Determinants of Student Satisfaction in Muslim Higher Education

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Abstract: *This study aims to analyze the influence of Academic Aspect and Non-Academic Aspect on student satisfaction among Muslim undergraduate students at a university in Jakarta. The study employed a quantitative approach using Partial Least Squares Structural Equation Modeling (PLS-SEM) with WarpPLS 6.0. Data were collected through questionnaires distributed to 238 final-year students selected using purposive sampling. The results indicate that both Non-Academic Aspect and Academic Aspect have positive and significant effects on student satisfaction. These findings suggest that the quality of academic experiences, administrative services, campus facilities, and institutional support play important roles in shaping students' educational experiences and satisfaction within higher education institutions. Academic quality reflected through lecturer competence, learning processes, and curriculum relevance contributes positively to students' perceptions of institutional quality.*

Abstrak : *Penelitian ini bertujuan untuk menganalisis pengaruh Academic Aspect dan Non-Academic Aspect terhadap kepuasan mahasiswa pada mahasiswa sarjana Muslim di sebuah universitas di Jakarta. Penelitian ini menggunakan pendekatan kuantitatif dengan metode Partial Least Squares Structural Equation Modeling (PLS-SEM) menggunakan WarpPLS 6.0. Data dikumpulkan melalui kuesioner yang disebarakan kepada 238 mahasiswa tingkat akhir yang dipilih menggunakan teknik purposive sampling.*

Hasil penelitian menunjukkan bahwa Non-Academic Aspect dan Academic Aspect memiliki pengaruh positif dan signifikan terhadap kepuasan mahasiswa. Temuan ini menunjukkan bahwa kualitas pengalaman akademik, layanan administrasi, fasilitas kampus, dan dukungan institusi berperan penting dalam membentuk pengalaman pendidikan dan kepuasan mahasiswa di perguruan tinggi. Kualitas akademik yang tercermin melalui kompetensi dosen, proses pembelajaran, dan relevansi kurikulum berkontribusi positif terhadap persepsi mahasiswa mengenai kualitas institusi.

Keywords : *Student Satisfaction; Academic Quality; Non-Academic Services; Higher Education; Educational Experience*

INTRODUCTION

Higher education is regarded as one of the most important instruments for the social and economic development of a nation (Yusoff et al., 2015). Higher education institutions not only play a role in creating and disseminating knowledge, but also in developing human resources with the competencies, creativity, and competitiveness required in the era of globalization. Over the last few decades, globalization has intensified competition among higher education institutions at both national and international levels (Rust & Kim, 2012). Consequently, universities are increasingly required to attract

prospective students, retain existing students, and strengthen institutional reputation amid a highly competitive environment.

The changing landscape of higher education has also increased institutional awareness regarding the importance of student orientation as the primary consumers of educational services. Students are considered a central element in the success of higher education institutions because institutional sustainability and competitiveness are strongly influenced by student satisfaction with the services provided (Yusoff et al., 2015). Student satisfaction has become an important indicator in assessing institutional quality, as satisfied students tend to develop more positive perceptions of the institution and evaluate educational services more favorably (Bell, 2022).

Previous studies have demonstrated that student satisfaction is a multidimensional phenomenon influenced by various factors (Alves & Raposo, 2007; Gruber et al., 2010; Oliver, 2015). In the context of higher education, academic and non-academic service quality are frequently identified as the two primary dimensions associated with student satisfaction (Nguyen et al., 2024; Kanwar & Sanjeeva, 2022). Academic aspects include lecturer quality, learning processes, curriculum, teaching methods, and program characteristics. Meanwhile, non-academic aspects involve administrative services, physical facilities, campus environment, supporting technologies, and student services.

The importance of academic and non-academic aspects has become increasingly evident due to growing competition among universities. Higher education institutions continuously strive to improve service quality in order to meet students' needs and expectations. Several studies have found that academic quality and non-academic services are major predictors of student satisfaction (Amoako et al., 2023; Ghansah et al., 2019; Wong & Chapman, 2023). Universities that are able to provide positive learning experiences and adequate institutional support tend to achieve higher levels of student satisfaction.

Student satisfaction reflects students' overall evaluations of the educational experiences and services provided by higher education institutions. Therefore, improving academic quality and non-academic support services has become essential for universities in creating positive educational experiences and enhancing institutional quality perceptions among students.

Although numerous studies have investigated factors influencing student satisfaction, research examining the role of academic and non-academic aspects in shaping student satisfaction remains relevant, particularly within the continuously evolving higher education environment. Previous studies have also demonstrated that both academic and non-academic quality contribute significantly to students' perceptions and educational experiences within higher education institutions.

This study is grounded in previous research emphasizing the importance of academic and non-academic quality in shaping student satisfaction in higher education institutions (Nguyen et al., 2024;

Moslehpour et al., 2020). This study is expected to contribute theoretically to the development of higher education management literature and provide practical implications for universities in improving academic and non-academic services to enhance student satisfaction and educational experiences. Accordingly, this study aims to examine the influence of academic aspect and non-academic aspect on student satisfaction among Muslim students at a university in Jakarta.

Student satisfaction is considered one of the most important indicators in evaluating the quality of higher education services. Previous studies have shown that student satisfaction is influenced by various factors related to both academic and non-academic experiences during their studies at higher education institutions. Navarro et al. (2005) argued that factors influencing student satisfaction may vary depending on the university context. Appleton-Knapp & Krentler (2006) identified institutional factors such as lecturer quality, feedback, clarity of learning materials, and class size, as well as personal factors including individual characteristics and learning styles, as determinants of student satisfaction.

Ali et al. (2016) classified these factors into two major dimensions, namely academic aspect and non-academic aspect. In addition, consultation and interaction between lecturers and students also play an important role in enhancing student satisfaction (Jereb et al., 2018). Furthermore, Arif et al. (2013) stated that educational and administrative factors are the primary predictors of student satisfaction. These factors include program characteristics, support services, the quality of human resources, training, and extracurricular activities provided by the institution. Therefore, student satisfaction is influenced not only by the quality of classroom learning, but also by the overall institutional service quality in creating positive educational experiences for students.

Through factor analysis, Abdullah (2005) identified four major factors influencing student satisfaction, namely academic aspects, non-academic aspects, reliability, and empathy. Academic aspects are associated with lecturer attributes, program quality, consultation, communication, and academic feedback. Meanwhile, non-academic aspects relate to administrative services, information security, respect toward students, and overall service quality. Abdullah (2006) also emphasized that program structure, policies and procedures, service accessibility, and institutional reputation are important determinants of student satisfaction.

Recent studies by Afriansyah et al., (2025) and Pratiwi et al., (2024) found that lecturer competence, curriculum quality, infrastructural facilities, and support services are important dimensions of service quality influencing student satisfaction. Therefore, student satisfaction can be considered a multidimensional phenomenon shaped by both academic quality and non-academic services provided by higher education institutions.

Academic aspect represents one of the most important dimensions influencing student satisfaction in higher education. Abdullah (2005) defined academic aspect as lecturer attributes as well as the

relevance, flexibility, reputation, and quality of academic programs. Abdullah (2006) further explained that the academic dimension emphasizes lecturer competence, academic staff capability, and the availability of academic facilities and resources. Douglas et al. (2006) also classified the academic dimension as academic and pedagogical quality, including lecturers' qualifications, competence, attitudes, and teaching styles.

Within the higher education context, academic quality reflected through lecturer competence, clarity of instruction, academic support, and effective learning processes plays an important role in shaping students' learning experiences and overall satisfaction. Positive academic interactions enable students to better understand course materials, engage more actively in learning activities, and perceive greater value from the educational services provided by the institution. Several studies also conceptualized academic aspect as program quality, program outcomes, curriculum content, and program quality assessment (Weerasinghe & Fernando, 2018; Wilkins & Balakrishnan, 2011). Duarte et al. (2012) argued that the better the academic quality perceived by students, the higher the level of student satisfaction toward the institution.

Abdullah (2005) explained that non-academic aspect encompasses various forms of administrative support, including examination administration, facilitation of students' administrative needs, record management, and other administrative activities. Furthermore, Abdullah (2006) emphasized that student services also include individual attention, complaint handling, staff responsiveness, service hours, communication, and counseling services provided by administrative staff. In addition to administrative services, physical facilities such as classrooms, libraries, and learning equipment are also categorized as non-academic factors influencing students' experiences in higher education (Picus et al., 2005).

Non-academic aspect plays an important role in shaping student satisfaction. Slow administrative processes, inconsistent information, and unresponsive staff services may create negative experiences and reduce students' perceptions of institutional quality. In contrast, efficient, accurate, and responsive non-academic services can enhance students' overall educational experiences. Helgesen and Nasset (2007) emphasized that high-quality non-academic services enhance students' perceptions of institutional quality and contribute to higher levels of student satisfaction. Therefore, higher education institutions need to ensure the quality of administrative services, campus facilities, information accessibility, and service responsiveness in order to provide better educational experiences and improve student satisfaction.

Based on the theoretical framework and findings of previous studies, this study proposes the following hypotheses:

H1: Non-Academic Aspect has a positive and significant effect on Student Satisfaction.

H2: Academic Aspect has a positive and significant effect on Student Satisfaction.

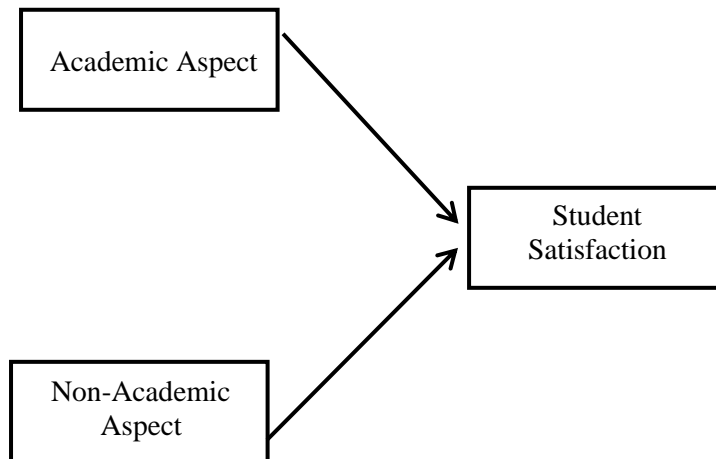


Figure 1. Research model

METHOD

This study empirically examines the influence of academic and non-academic factors on student satisfaction in higher education. The study investigates three main variables, namely Academic Aspect (AA), Non-Academic Aspect (NAA), and student satisfaction. The conceptual research model focusing on academic and non-academic determinants of student satisfaction was developed based on previous studies by (Fakhrudin et al., 2025; Bahadur et al., 2024; Moslehpour et al., 2020). The conceptual framework is presented in Figure 1

This study employed a purposive sampling technique by involving final-year undergraduate Muslim students from a university in Jakarta as research respondents. The respondents were selected based on the consideration that final-year students have gained sufficient experience in interacting with various academic and non-academic services throughout their study period. Therefore, they were considered capable of providing more comprehensive evaluations regarding their academic experiences, non-academic services, and overall satisfaction with the higher education institution.

According to the guideline proposed by Hair et al. (2019), PLS-SEM analysis generally requires a minimum sample size of 100 respondents to adequately analyze the research model. This study involved 238 respondents, indicating that the sample size exceeded the recommended minimum threshold for model testing.

The conceptual research framework was analyzed using WarpPLS 6.0 as a Partial Least Squares Structural Equation Modeling (PLS-SEM) software (Kock, 2021). The analysis was conducted through two main stages, namely measurement model evaluation and structural model evaluation (Hair et al.,

2022). In the first stage, the measurement model was assessed to ensure construct reliability and validity. Reliability was evaluated using composite reliability and Cronbach's alpha, while validity was assessed through convergent validity and discriminant validity. In addition, common method bias was examined using full collinearity VIF, and all values were below the threshold of 3.3, indicating the absence of serious bias.

Furthermore, the structural model was evaluated using the coefficient of determination (R^2) to assess the model's explanatory power for endogenous variables. After the model met the required evaluation criteria, hypothesis testing was conducted using p-values. A hypothesis was considered supported when the p-value was lower than 0.05 (Hair et al., 2022).

RESULTS AND DISCUSSION

The measurement model evaluation was conducted through the assessment of convergent validity, construct reliability, and discriminant validity. Convergent validity was evaluated based on outer loading values and Average Variance Extracted (AVE) (Hair et al., 2022). The results indicate that all indicators demonstrated adequate and significant loading values on their respective constructs. Furthermore, the AVE values for all constructs exceeded the recommended threshold of 0.50, with values of 0.545 for Non-Academic Aspect (NAA), 0.551 for Academic Aspect (AA), 0.760 for Student Satisfaction (SS). As presented in Table 1 confirm that all constructs satisfied the criteria for convergent validity (Hair et al., 2022).

Table 1. Factor Loadings, Reliability and Validity Test

| Indicator | Loading | Average Variance Extracted | Composite Reliability | Cronbach's Alpha | VIF |
|-----------|---------|----------------------------|-----------------------|------------------|-------|
| NAA1 | 0.729 | | | | |
| NAA2 | 0.686 | | | | |
| NAA3 | 0.624 | | | | |
| NAA4 | 0.828 | | | | |
| NAA5 | 0.754 | 0.545 | 0.905 | 0.879 | 3.111 |
| NAA6 | 0.781 | | | | |
| NAA7 | 0.789 | | | | |
| NAA8 | 0.693 | | | | |
| AA1 | 0.696 | | | | |
| AA2 | 0.797 | | | | |
| AA3 | 0.653 | 0.551 | 0.859 | 0.794 | 2.928 |
| AA4 | 0.805 | | | | |
| AA5 | 0.750 | | | | |
| SS1 | 0.872 | 0.760 | 0.941 | 0.921 | 4.113 |

| | |
|-----|-------|
| SS2 | 0.925 |
| SS3 | 0.876 |
| SS4 | 0.805 |
| SS5 | 0.878 |

Note: NAA: Non-Academic Aspect, AA: Academic Aspect, SS: Student Satisfaction
Source: Authors' data analysis using WarpPLS

Construct reliability was assessed using Composite Reliability and Cronbach's Alpha (Hair et al., 2022). As shown in Table 1 all constructs achieved Composite Reliability values above the recommended threshold of 0.70, namely 0.905 for Non-Academic Aspect (NAA), 0.859 for Academic Aspect (AA), 0.941 and Student Satisfaction (SS). Similarly, Cronbach's Alpha values also exceeded the minimum threshold of 0.70, with values of 0.879 (NAA), 0.794 (AA) and 0.921 (SS). These findings confirm that all constructs in this study are reliable and demonstrate strong internal consistency (Hair et al., 2022).

Furthermore, convergent validity was evaluated by examining the indicator loading values and the Average Variance Extracted (AVE). According to Hair et al. (2022), an indicator is considered to meet the convergent validity criterion when it has an outer loading value greater than 0.70. However, indicators with outer loading values ranging from 0.40 to 0.70 may still be retained if they are theoretically relevant and contribute adequately to the construct. As presented in Table 1, all indicators demonstrated outer loading values above 0.40. Therefore, all indicators in this study were considered valid and capable of adequately representing their respective constructs. These findings indicate that the constructs used in this study fulfilled the required validity criteria.

Table 2. Goodness-of-Fit Model

| Index | Criterion | Result | Status |
|-------|-----------|--------|----------------|
| APC | <0.05 | <0.001 | Model accepted |
| ARS | <0.05 | <0.001 | Model accepted |
| AVIF | <5 | 2.714 | Model accepted |

Source: Authors' data analysis using WarpPLS

Table 3. R-squared coefficients

| R-squared coefficients | Student Satisfaction |
|------------------------|----------------------|
| | 0.599 |

Source: Authors' data analysis using WarpPLS

The analysis results show that the APC value of 0.359 ($p < 0.001$) and ARS value of 0.674 ($p < 0.001$) were statistically significant, indicating strong relationships among variables and adequate explanatory power of the research model (Hair et al., 2022). In addition, the AVIF value of 2.714, which

is below the recommended threshold, indicates that the model is free from multicollinearity issues. Therefore, as presented in Table 2, the research model demonstrates good model fit and is considered appropriate for hypothesis testing (Kock, 2021).

“The R-squared value presented in Table 3 indicates that Student Satisfaction was explained by the research model at a reasonably strong level, with a value of 0.599. These findings suggest that the model possesses adequate predictive capability in explaining the variance of the endogenous construct.

This study developed two hypotheses to be empirically tested. The analysis results indicate that both proposed hypotheses were positively and significantly supported. A summary of the hypothesis testing results is presented in Table 4, whereas a detailed discussion of each hypothesis (H1–H2) is provided in the following section.

Table 4. Direct Effect Hypothesis Testing

| | Hypothesis | Path Coefficient | P-value | Result |
|----|--|-------------------------|----------------|---------------|
| H1 | Non-Academic Aspect → Student Satisfaction | 0.475 | <0.001 | Accepted |
| H2 | Academic Aspect → Student Satisfaction | 0.344 | 0.003 | Accepted |

Source: Authors’ data analysis using WarpPLS

The Effect of Non-Academic Aspect on Student Satisfaction

The findings reveal that Non-Academic Aspect has a positive and significant effect on student satisfaction. This result indicates that the quality of non-academic services and institutional support contributes to creating positive learning experiences and enhancing students’ satisfaction toward higher education institutions. Students perceived that campus facilities, including toilets, classrooms, parking areas, and laboratories, were adequate and supported by clean, comfortable, and well-organized learning environments. Such conditions create a supportive atmosphere that enhances students’ comfort throughout the learning process.

In addition to physical facilities, student satisfaction is also influenced by the quality of administrative services provided by the institution. Students perceived that administrative staff delivered services fairly without discrimination, completed administrative processes within the promised time, and possessed adequate knowledge regarding student services. The responsiveness of faculty leaders in addressing student complaints, the timely dissemination of academic and administrative information, and the sense of safety within the campus environment further strengthened students’ positive experiences toward the institution. These findings support previous studies conducted by (Kardoyo et al., 2020; Yang & Sigdel, 2023; Fakhrudin et al., 2025).

The Effect of Academic Aspect on Student Satisfaction

This study found that Academic Aspect has a positive and significant effect on student satisfaction. The findings indicate that the quality of academic experiences perceived by students plays an important role in shaping positive evaluations toward higher education institutions. Students perceived that lecturers treated all students fairly without discrimination, thereby creating a more equitable and conducive academic atmosphere throughout the learning process.

Furthermore, students considered that lecturers were able to provide examination results and assignment feedback clearly and promptly. The role of academic advisors in responding to students' problems also contributed positively to student satisfaction. From the learning perspective, students perceived that course materials were delivered in an understandable manner and that the curriculum was relevant to labor market demands. These findings demonstrate that the quality of academic interaction and the relevance of learning experiences are important factors in improving student satisfaction. The findings are consistent with previous studies by (Kalim et al., 2022; Hwang & Choi, 2019; Hassan et al., 2019).

CONCLUSION

This study aims to examine the influence of Non-Academic Aspect and Academic Aspect on student satisfaction in higher education institutions. The findings indicate that Non-Academic Aspect has a positive and significant effect on student satisfaction. This result suggests that the quality of campus facilities, administrative services, institutional responsiveness, and a comfortable and safe campus environment contribute positively to students' educational experiences during their studies. In addition, Academic Aspect was found to positively and significantly influence student satisfaction. Positive academic experiences, such as understandable learning processes, fair treatment from lecturers, academic advisor support, and curricula relevant to labor market needs, enhance students' positive perceptions toward higher education institutions. The findings highlight that academic experiences play a central role in shaping overall student satisfaction within higher education institutions. Furthermore, the study indicates that non-academic support contributes to creating a supportive and conducive learning environment that strengthens students' educational experiences. Therefore, higher education institutions should not only focus on improving supporting facilities and administrative services, but also prioritize enhancing the quality of academic experiences to improve student satisfaction comprehensively. This study has several limitations. First, the respondents were limited to Muslim undergraduate students at one university in Jakarta, which may limit the generalizability of the findings. Second, the study employed a cross-sectional design that may not fully capture changes in student perceptions over time. Therefore, future studies are encouraged to involve broader samples and different institutional contexts to obtain more comprehensive findings.

REFERENCES

- Abdullah, F. (2005). HEdPERF versus SERVPERF The quest for ideal measuring instrument of service quality in higher education sector. *Quality Assurance in Education*, 13(4), . 305-328. <https://doi.org/10.1108/02634500610641543>
- Abdullah, F. (2006). The development of HEdPERF: A new measuring instrument of service quality for the higher education sector. *International Journal of Consumer Studies*, 30(6), 569–581. <https://doi.org/10.1111/j.1470-6431.2005.00480.x>
- Afriansyah, D., Persada, R., & Susanto, A. (2025). Lecturer Performance, Academic Service Quality, Availability Of Facilities On Student Satisfaction At Stain Kepulauan Riau. *MUDIR (Jurnal Manajemen Pendidikan)*, 7(2), 248–259.
- Ali, F., Zhou, Y., Hussain, K., Nair, P. K., & Ragavan, N. A. (2016). Does higher education service quality effect student satisfaction, image and loyalty? A study of international students in Malaysian public universities. *Quality Assurance in Education*, 24, 70–94.
- Alves, H., & Raposo, M. (2007). Conceptual model of student satisfaction in higher education. *Total Quality Management and Business Excellence*, 18(5), 571–588. <https://doi.org/10.1080/14783360601074315>
- Amoako, G. K., Ampong, G. O., Yaa, A., Gabrah, B., Heer, F. De, & Antwi-adjei, A. (2023). Service quality affecting student satisfaction in higher education institutions in Ghana. *Cogent Education*, 10(2), 1–18. <https://doi.org/10.1080/2331186X.2023.2238468>
- Appleton-Knapp, S. L., & Krentler, K. A. (2006). Measuring Student Expectations and Their Effects on Satisfaction: The Importance of Managing Student Expectations. *Journal of Marketing Education*, 28(3), 254–264. <https://doi.org/10.1177/0273475306293359>
- Arif, S., Ilyas, M., & Hameed, A. (2013). Student satisfaction and impact of leadership in private universities. *The TQM Journal*, 25(4), 399–416. <https://doi.org/10.1108/17542731311314881>
- Bahadur, G. C. S., Gurung, S. K., Poudel, R. L., Yadav, S., Bhattacharjee, A., & Dhungana, B. R. (2024). The effect of higher education service quality on satisfaction among business students in India and Nepal. *Cogent Education*, 11(1), 2393521. <https://doi.org/10.1080/2331186X.2024.2393521>
- Bell, K. (2022). Increasing undergraduate student satisfaction in Higher Education: the importance of relational pedagogy. *Journal of Further and Higher Education*, 46(4), 490–503. <https://doi.org/10.1080/0309877X.2021.1985980>
- Douglas, J., Douglas, A., & Barnes, B. (2006). Measuring student satisfaction at a UK university. *Quality Assurance in Education*, 14(3), 251–267. <https://doi.org/10.1108/09684880610678568>
- Duarte, P. O., Raposo, M. B., & Alves, H. B. (2012). Using a Satisfaction Index to Compare Students' Satisfaction During and After Higher Education Service Consumption. *Tertiary Education and Management, January*, 1–24. <https://doi.org/10.1080/13583883.2011.609564>
- Fakhrudin, A., Fatmawati, I., & Suyanto, M. (2025). Amwaluna : Jurnal Ekonomi dan Keuangan Syariah The Influence of Academic Service Quality on Student Loyalty : Mediating Effects of Student

Satisfaction. *Amwaluna: Jurnal Ekonomi Dan Keuangan Syariah*, 9(1), 69–83.

- Ghansah, B., Andoh, J. S., Nkrumah, K., Gbagonah, P., & Okogun-Odompley, J. N. (2019). The Determinant of Student Satisfaction in Academic and Administrative Services in Private Universities. *International Journal of Applied Management Sciences and Engineering*, 6(2), 58–73. <https://doi.org/10.4018/IJAMSE.2019070104>
- Gruber, T., Fub, S., Voss, R., & Glaeser-Zikuda, M. (2010). Examining Student Satisfaction with Higher Education Services Using a New Measurement Tool. *International Journal of Public Sector Management*, 23(2), 105–123.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)-Third Edition* (Third Edit). SAGE Publications, Inc.
- Hassan, S., Shamsudin, M. F., Hasim, M. A., Mustapha, I., Jaafar, J., Adruthdin, K. F., Shukri, A., Karim, S., & Ahmad, R. (2019). Mediating Effect Of Corporate Image And Students ' Satisfaction On The Relationship Between Service Quality And Students ' Loyalty In Tvet HLIs. *Asian Academy of Management Journal*, 24(Supp. 1), 93–105.
- Helgesen, Ø., & Nettet, E. (2007). Images, Satisfaction and Antecedents: Drivers of Student Loyalty? A Case Study of a Norwegian University College. *Corporate Reputation Review*, 10(1), 38–59. <https://doi.org/10.1057/palgrave.crr.1550037>
- Hwang, Y.-S., & Choi, Y. K. (2019). Higher education service quality and student satisfaction, institutional image, and behavioral intention. *Social Behavior and Personality: An International Journal*, 47(2), 1–12. <https://doi.org/10.2224/sbp.7622>
- Jereb, E., Jerebic, J., & Urh, M. (2018). Revising the Importance of Factors Pertaining to Student Satisfaction in Higher Education. *Organizacija*, 51(4), 271–285. <https://doi.org/10.2478/orga-2018-0020>
- Kalim, U., Tran, P. Q. B., Bibi, S., & Khamphouvong, L. (2022). Impact of Academic and Non-Academic Service Quality on International Students Satisfaction in Chinese Universities. *Journal of Education and Learning*, 11(6), 86–95. <https://doi.org/10.5539/jel.v11n6p86>
- Kanwar, A., & Sanjeeva, M. (2022). Student satisfaction survey : a key for quality improvement in the higher education. *Journal of Innovation and Entrepreneurship*, 11(27), 3–10. <https://doi.org/10.1186/s13731-022-00196-6>
- Kardoyo, Pitaloka, L. K., Rozman, & Hapsoro, B. B. (2020). Analyzing Universities Service Quality to Student Satisfaction; Academic and Non-Academic Analyses. *International Journal of Higher Education*, 9(1), 126–132. <https://doi.org/10.5430/ijhe.v9n1p126>
- Kock, N. (2021). WarpPLS user manual : Version 7.0. In *ScriptWarp Systems*. ScriptWarp Systems TM.
- Moslehpour, M., Chau, K. Y., Zheng, J. J., Hanjani, A. N., & Hoang, M. (2020). The mediating role of international student satisfaction in the influence of higher education service quality on institutional reputation in Taiwan. *International Journal of Engineering Business Management*, 12(100), 1–16. <https://doi.org/10.1177/1847979020971955>
- Navarro, M. M., Iglesias, M. P., & Torres, P. R. (2005). A new management element for universities:

- Satisfaction with the offered courses. *International Journal of Educational Management*, 19(6), 505–526. <https://doi.org/10.1108/09513540510617454>
- Nguyen, H. V., Vu, T. D., Yaseen, A., & Saleem, M. (2024). The influence of service quality on student satisfaction and student loyalty in Vietnam: the moderating role of the university image. *Journal of Trade Science*, 12(1), 37–59. <https://doi.org/10.1108/JTS-12-2023-0032>
- Oliver, R. L. (2015). *Satisfaction: A Behavioural Perspective on the Consumer* (Second Edi). Routledge.
- 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), 272–284.
- Rust, V. D., & Kim, S. (2012). The Global Competition in Higher Education. *World Studies in Education*, 13(1), 5–20. <https://doi.org/10.7459/wse/13.1.02>
- Weerasinghe, I. M. S., & Fernando, R. L. S. (2018). Critical factors affecting students' satisfaction with higher education in Sri Lanka. *Quality Assurance in Education*, 26(1), 115–130. <https://doi.org/10.1108/QAE-04-2017-0014>
- Wilkins, S., & Balakrishnan, M. S. (2011). Assessing student satisfaction in transnational higher education. *International Journal of Educational Management*, 27(2), 143–156. <https://doi.org/10.1108/09513541311297568>
- Wong, W. H., & Chapman, E. (2023). Student satisfaction and interaction in higher education. *Higher Education*, 85(5), 957–978. <https://doi.org/10.1007/s10734-022-00874-0>
- Yang, C., & Sigdel, B. (2023). The Impact Of Higher Education Service On Institutional Brand In Thailand : The Mediating Role Of Chinese Students ' Satisfaction. *The EURASEANs: Journal on Global Socio-Economic Dynamics*, 6(43).
- Yusoff, M., McLeay, F., & Woodruffe-Burton, H. (2015). Quality Assurance in Education Dimensions driving business student satisfaction in higher education. *Quality Assurance in Education*, 23(1), 86–104.