Munaddhomah: Jurnal Manajemen Pendidikan Islam
e-ISSN: 2775-2933
Volume 7, Issue 2, 2026, pp. 386-399

Determinants of Student Satisfaction in Higher Education: Evidence from Indonesian Islamic Universities

Ahmad Fauzan [*1], Sri Ilham Nasution [2], Misdarwati [3]

[1, 2, 3] *Universitas Islam Negeri Raden Intan Lampung, Indonesia*
e-mail corresponding: ahmad.fauzan@radenintan.ac.id

Submitted: 07-08-2025 Revised : 28-03-2025 Accepted: 25-05-2025

ABSTRACT. Student satisfaction is an important benchmark for evaluating the quality of higher education services. This study aims to analyze the influence of teaching quality, educational facilities, social interaction, and faculty leadership on student satisfaction. The method used is a quantitative, survey-based approach. Data were collected through a structured questionnaire distributed to university students and analyzed using SmartPLS 4 to explore the direct and indirect relationships among variables. The study's findings indicate that teaching quality and faculty leadership have a significant, positive influence on student satisfaction. Although educational facilities are theoretically relevant, they pose ongoing challenges in practice. Social interaction contributes significantly to students' emotional and psychological well-being. Furthermore, faculty leadership mediates the relationship between input variables and student satisfaction, confirming the strategic role of leadership in improving the quality of educational services. The implications of this study emphasize the importance of strengthening visionary and participatory faculty leadership, improving the quality of student-oriented teaching, and managing an inclusive academic social environment as key strategies for sustainably improving student satisfaction and the quality of higher education. This study contributes to the theoretical refinement of student satisfaction as a multidimensional construct in Indonesian higher education.

Keywords: Student satisfaction, teaching quality, educational facilities, social interaction, faculty leadership

https://doi.org/10.31538/munaddhomah.v7i2.2390

How to Cite Fauzan, A., Nasution, S. I., & Misdarwati, M. (2026). Determinants of Student Satisfaction in Higher Education: Evidence from Indonesian Islamic Universities. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 7(2), 386–399.

INTRODUCTION

Student satisfaction is one indicator of a higher education institution's success in providing optimal services (Chaman & Siddiqui, 2023; Khoo et al., 2017; Lestari et al., 2025; Pandita & Kiran, 2023; Wangid et al., 2025). Student satisfaction reflects not only academic success but also the overall experience of attending college (Goegan & Daniels, 2021; Pandita & Kiran, 2023; Wijaya et al., 2025). Satisfied students tend to achieve higher levels of achievement, are more loyal, and have a positive impression of the institution (Kairat et al., 2024; Melean Romero et al., 2024). However, in reality, creating student satisfaction requires meeting various aspects related to leadership, teaching quality, educational facilities, and good social interactions (Adeoye et al., 2025; Amalia, 2026; Balqis et al., 2025; Ezzani et al., 2023; Yuliana et al., 2025). One important factor influencing student satisfaction is faculty leadership (Elshami et al., 2021; Hamilton, 2021). Visionary, responsive, and participatory leaders can create a dynamic and conducive academic environment

(Muneeb et al., 2023). Effective leadership at the faculty level plays a crucial role in guiding the vision, mission, and development strategies of the institution, which directly impact students (Daulay et al., 2024; Leal Filho et al., 2025; Musrifah et al., 2024; Tasker-mitchell & Attoh, 2019). However, a gap is often found between students' expectations of leadership and the reality they experience, such as slow decision-making or a lack of transparency in managerial processes (Desmiati et al., 2023; Mariani et al., 2024; Ningsih et al., 2025). Therefore, the issue of student satisfaction is crucial for scientific study and publication, both from a qualitative and quantitative perspective. Qualitatively, various student complaints are still found regarding the discrepancy between expectations and the reality they experience in the educational process. Meanwhile, quantitatively, student satisfaction can be measured through perceptions of service quality, learning effectiveness, adequacy of facilities, and the quality of interactions within the academic environment. Thus, this phenomenon holds strong significance for further research.

The second factor that plays a significant role is teaching quality (Rembielak & Marciniak, 2021). Teaching quality encompasses the lecturer's competence in delivering the material, the learning methods employed, and the ability to provide academic guidance (Enes et al., 2024; Fathir, 2026; Haqqi et al., 2025; Madkan et al., 2025; Muhtadin, 2025). Students expect intense interaction and the relevance of the material taught to developments in industry or related fields. However, in practice, many students still complain about monotonous teaching methods or a lack of innovation in the teaching and learning process, leading to a decline in their academic satisfaction (Lestari et al., 2025; Wijaya et al., 2025). Furthermore, educational facilities are a critical aspect in supporting the learning process. Adequate facilities, such as comfortable classrooms, well-equipped laboratories, up-to-date libraries, and good access to technology, are crucial for creating an effective learning environment. However, many higher education institutions face budget constraints, resulting in suboptimal facility provision. This gap often triggers student dissatisfaction, especially when their learning needs are not supported by adequate facilities and infrastructure. Social interaction is also a key factor influencing student satisfaction. Positive interactions between students and faculty, peers, and administrative staff can create an environment that supports academic and personal development (Asikainen et al., 2021; Dou et al., 2018; Tuttle & Carter, 2022). Students who feel valued, heard, and emotionally supported by those around them tend to report higher levels of satisfaction. However, limited or infrequent social interactions often lead to feelings of isolation and discomfort, negatively impacting the overall student experience.

These four variables are interrelated and form a higher education ecosystem oriented toward student satisfaction. Strong leadership will drive improvements in teaching quality, develop facilities, and strengthen social interactions. Ultimately, the synergy between these factors is a key determinant of high and sustained student satisfaction. Although numerous studies have examined the factors influencing student satisfaction, a gap remains between student expectations and the reality experienced by students in many higher education institutions. This gap manifests itself in various forms, such as: (1) The quality of teaching is expected to be innovative and interactive, but in reality, it tends to be monotonous and less adaptable to changing times. (2) Educational facilities are expected to be modern and comprehensive, but are often inadequate and outdated compared to student needs. (3) Social interactions are expected to be warm and supportive, but in reality, many students still feel they receive insufficient attention. (4) Faculty leadership, which is ideally responsive and transparent, is still perceived in some places as slow and bureaucratic.

A number of previous studies have discussed student satisfaction from various perspectives. (Wong & Chapman, 2023) have examined satisfaction and interaction in higher education in the Western world, (Al-Alak & Alnaser, 2012) highlight the relationship between student satisfaction and service quality, (Gu & Lu, 2023) examine the influence lecture quality to student satisfaction. Furthermore, several studies have identified leadership, teaching quality, educational facilities, and social interactions as factors influencing student experience. However, existing literature has not sufficiently explained how faculty leadership plays a more comprehensive role in shaping student satisfaction, particularly in the context of Islamic higher education in

Indonesia (Aziz & Amir, 2025; Indasari, 2026; Indra et al., 2025; Irham, 2025; Kosim et al., 2024; Louw, 2024). In other words, previous research tends to discuss these factors partially, while a more integrative relationship, particularly the strategic position of faculty leadership in influencing teaching quality, facilities, social interactions, and ultimately, student satisfaction, remains understudied. This constitutes a research gap in this paper. Based on this gap, this paper aims to address the shortcomings of previous studies by focusing its analysis on the influence of faculty leadership, teaching quality, educational facilities, and social interactions on student satisfaction in the context of Islamic higher education in Indonesia. The focus of this paper differs from previous research because it not only identifies influential factors but also positions faculty leadership as a strategic variable in creating a higher education ecosystem that supports student satisfaction. Thus, this paper is expected to provide theoretical contributions to the development of student satisfaction studies, as well as practical contributions to higher education administrators in formulating policies to improve the quality of educational services.

The main argument tested in this paper is that student satisfaction is not formed singly, but rather is influenced simultaneously by faculty leadership, teaching quality, educational facilities, and social interactions. More specifically, this paper starts from the hypothesis that visionary, responsive, and participatory faculty leadership will contribute positively to improving teaching quality, optimizing educational facilities, and creating more supportive social interactions, which ultimately increase student satisfaction. Thus, this paper aims to prove that student satisfaction is the result of the synergy of various institutional and social factors, not solely the result of the quality of learning in the classroom.

METHOD

This study employed a quantitative research design using a survey-based approach to examine the factors influencing student satisfaction in higher education. The design allowed for a numerical description of the relationships between variables based on student perceptions (Thornberg et al., 2022).

The population of this study comprised undergraduate students enrolled in ten study programs at the Faculty of Islamic Education and Teacher Training, Raden Intan State Islamic University of Lampung, during the even semester of the 2022/2023 academic year. A total of 100 students were selected as respondents using a purposive sampling technique to ensure representation across programs.

Data were collected using a structured questionnaire developed based on theoretical indicators of student satisfaction. The instrument included items measuring four independent variables—teaching quality, educational facilities, social interaction, and faculty leadership—and one dependent variable, namely student satisfaction. Each item uses a 4-point Likert scale (1 = Not Satisfied, 2 = Quite Satisfied, 3 = Satisfied, 4 = Very Satisfied) to capture student responses.

The operational definition of student satisfaction in this study refers to the extent to which students' academic and non-academic expectations are fulfilled. Faculty leadership, instructional quality, campus facilities, and peer interactions were operationalized based on validated dimensions from previous studies.

Data analysis was conducted using path analysis by using SmartPLS 4 to identify both direct and indirect effects of exogenous variables on student satisfaction. The analysis employed F-tests and t-tests to assess the significance of model paths, following the procedures outlined by (Sellami et al., 2017). This approach enabled the identification of mediating effects, particularly the role of faculty leadership in influencing student satisfaction.

RESULT AND DISCUSSION

Result

An initial conceptual model was developed before the indicator validity testing to ensure the accuracy of the research constructs. At this stage, all indicators developed based on the initial theoretical and instrument studies were retained and incorporated into the measurement model.

Latent variables X1, X2, and X3 served as exogenous variables, each measured by several indicators (X1.1–X1.11, X2.1–X2.9, and X3.1–X3.9). Variable Z served as a mediating variable measured by indicators Z.1–Z.9, while variable Y was an endogenous variable measured by indicators Y.1–Y.9. This diagram also shows the structural relationships of X1, X2, and X3 with Y, both directly and through Z, as well as the presence of three moderating effects (moderating effects 1, 2, and 3) that influence the relationship to variable Y.

Overall, this diagram represents the initial conceptual and structural model of the research, which is still hypothetical. Therefore, a validity test is necessary to ensure that each indicator truly reflects the latent construct being measured before further model testing and structural analysis are conducted. The diagram before the validity test shows:

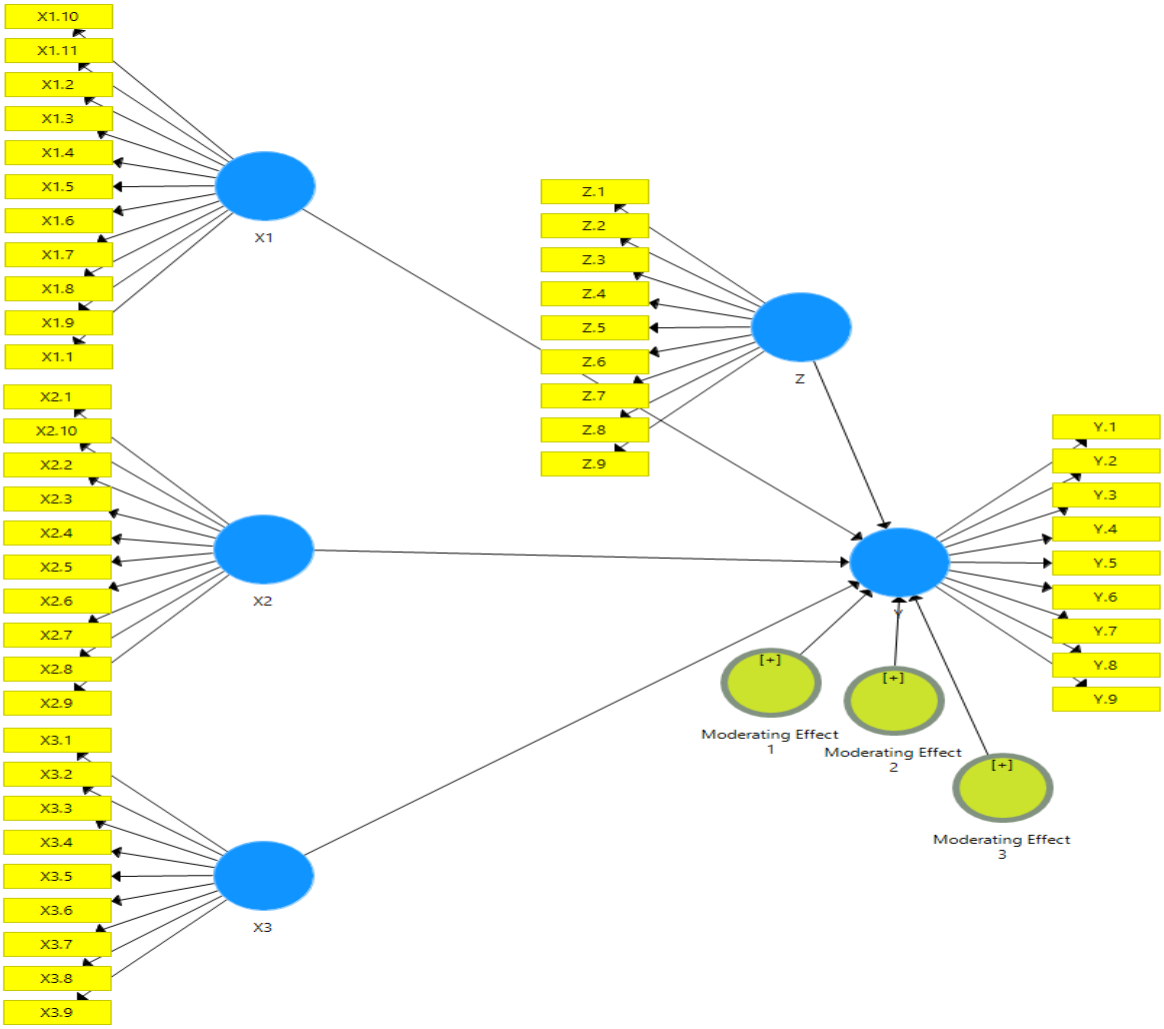

Figure 1. Diagram before the validity test

The post-validation test diagram illustrates the conceptual model after indicator validity testing using loading factor values. At this stage, only indicators meeting the validity criteria (loading factor ≥ 0.50) were retained in the model, while invalid indicators were eliminated. This was done to ensure that each latent construct was measured accurately and reliably.

The test results showed that all indicators in variables X1, X2, Z, and Y had loading factor values above the minimum threshold; all items in these variables were declared valid. Meanwhile, for variable X3, several indicators with loading factor values below 0.50 were removed, and only indicators meeting the criteria were retained in the model. Thus, the measurement model became more parsimonious and more accurately reflected the latent construct.

Structurally, this diagram shows the direct relationships between X1, X2, and X3 with Y, as well as the indirect relationship through variable Z as a mediator. The path coefficient values displayed in the diagram indicate the direction and strength of the influence between the variables after the instrument was declared valid. Furthermore, the presence of three moderating effects indicates that the relationship between variable Y is also influenced by moderating variables, enabling this model to explain more complex relationships. Overall, the post-validation test diagram demonstrates that the research model has met construct validity requirements and is ready for further analysis, such as reliability testing, path significance testing, and comprehensive structural model evaluation. The post-validity test diagram shows:

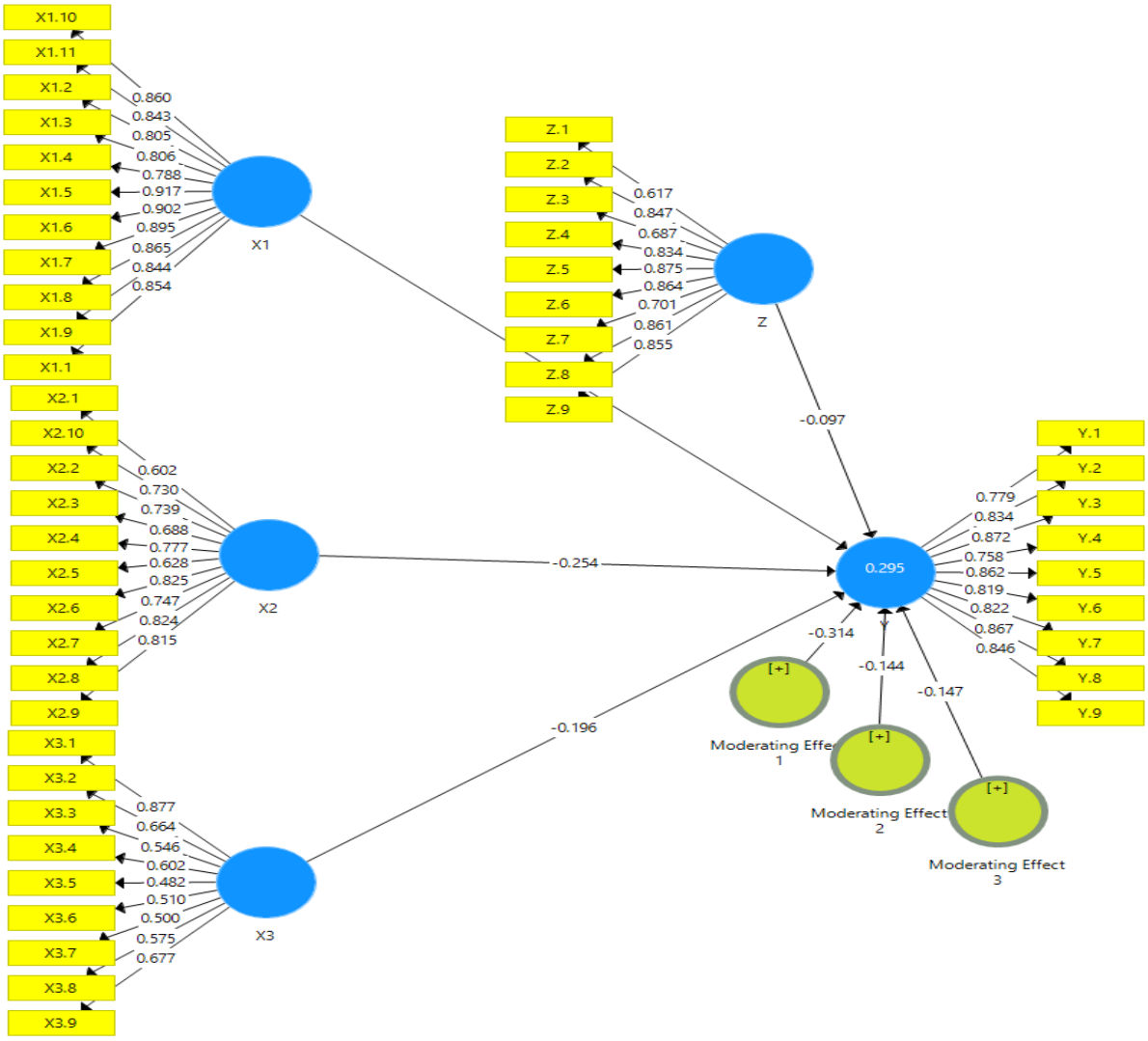

Figure 2. Diagram after validity test

Based on the results of the validity test, most indicators in each research variable have a loading factor value > 0.50, so they are declared valid and suitable for use. All indicators in variables X1, X2, Z, and Y meet the validity criteria with relatively high loading factor values, indicating that these items are able to measure the constructs being studied accurately. However, in variable X3, several indicators do not meet the validity criteria, namely X3.3, X3.5, X3.6, X3.7, and X3.8, because they have loading factor values < 0.50. Therefore, these indicators need to be eliminated or revised before further analysis is carried out. Overall, the research instrument is considered valid

and can be used in the next testing stage. The results of the validity test can be seen in the following table:

Tabel 1. Validity Test

					Information
X1.1	0.854				Valid
X1.2	0.805				Valid
X1.3	0.806				Valid
X1.4	0.788				Valid
X1.5	0.917				Valid
X1.6	0.902				Valid
X1.7	0.895				Valid
X1.8	0.865				Valid
X1.9	0.844				Valid
X1.10	0.860				Valid
X1.11	0.843				Valid
X2.1		0.602			Valid
X2.2		0.793			Valid
X2.3		0.688			Valid
X2.4		0.777			Valid
X2.5		0.628			Valid
X2.6		0.825			Valid
X2.7		0.747			Valid
X2.8		0.824			Valid
X2.9		0.815			Valid
		0.730			Valid
X3.1			0.877		Valid
X3.2			0.664		Valid
X3.3			0.546		Tidak Valid
X3.4			0.602		Valid
X3.5			0.483		Tidak Valid
X3.6			0.510		Tidak Valid
X3.7			0.500		Tidak Valid
X3.8			0.575		Tidak Valid
X3.9			0.677		Valid
Z.1				0.617	Valid
Z.2				0.847	Valid
Z.3				0.687	Valid
Z.4				0.834	Valid
Z.5				0.875	Valid
Z.6				0.864	Valid
Z.7				0.701	Valid
Z.8				0.861	Valid
Z.9				0.855	Valid
Y.1				0.779	Valid
Y.2				0.834	Valid
Y.3				0.870	Valid
Y.4				0.758	Valid
Y.5				0.862	Valid
Y.6				0.819	Valid
Y.7				0.822	Valid
Y.8				0.867	Valid

Y.9	0.846	Valid

The reliability and convergent validity of the measurement model were assessed using Cronbach's Alpha, Composite Reliability (ρc), and Average Variance Extracted (AVE). The results indicate that all constructs demonstrate satisfactory internal consistency, with Cronbach's Alpha values ranging from 0.852 to 0.963, exceeding the recommended threshold of 0.70. Similarly, Composite Reliability (ρc) values for all constructs are above 0.70, confirming strong construct reliability.

Regarding convergent validity, the AVE values for X1 (0.729) although the AVE value for X3 (0.497) is marginally below the recommended threshold, it remains acceptable given its adequate Cronbach's Alpha and Composite Reliability values, consistent with prior methodological recommendations. Overall, the findings confirm that the measurement model satisfies the reliability and convergent validity requirements and is suitable for subsequent structural model analysis. The results are described as follows:

Table 2. Reliability Test Table

	Cronbach's Alpha	**Composite Reliability (rho_a)**	**Composite Reliability (rho_c)**	**Average Variance Extracted (AVE)**
Moderating Effect 1	0.991	1.000	0,851	0.095
Moderating Effect 2	0.987	1.000	0.986	0.449
Moderating Effect 3	0.960	1.000	0.782	0.152
X1	0.960	1.000	0.782	0.729
X2	0.963	0.984	0.967	0.549
X3	0.852	0.829	0.854	0.497
Y	0.943	0.948	0.952	0.688
Z	0.953	0.432	0.935	0.617

The R-squared value of 0.311 indicates that the independent variables in the model are able to explain 31.1% of the variation in the dependent variable (Y). Meanwhile, the Adjusted R Square value of 0.261 indicates that after adjusting for the number of predictors in the model, the contribution of the independent variables in explaining the variation in Y is 26.1%. This finding indicates that the model has moderate explanatory power, while the remainder is influenced by other factors outside the research model:

Table 3. R-squared

R Square

	R- Square	**R Square Adjusted**
Y	0.311	0.261

Hypothesis testing and moderation testing look as follows:

Table 4. Hypothesis Testing and Moderation Testing

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Value
Moderating Effect 1 → Y	-0.304	-0.028	0.226	1.348	0.178
Moderating Effect 2 → Y	-0.139	-0.132	0.205	0.677	0.499
Moderating Effect 3 → Y	-0.222	-0.022	0.255	0.872	0.383
X1 → Y	-0.033	-0.052	0.113	0.295	0768
X2 → Y	-0.265	-0.237	0.085	3.127	0.002
X3 → Y	-0.181	-0.146	0.155	1.169	0.243
Z → Y	-0.097	-0.058	0.123	0.786	0.432

The results of the structural model indicate that only one direct path exhibits a statistically significant effect on the dependent variable (Y). Specifically, the path X2 → Y shows a negative and significant relationship ($\beta = -0.265$; $t = 3.127$; $p = 0.002$), supporting the proposed hypothesis. In contrast, the effects of X1 → Y ($\beta = -0.033$; $t = 0.295$; $p = 0.768$) led to the rejection of the corresponding hypothesis.

With regard to moderation analysis, none of the interaction terms demonstrated a significant effect on Y. The results show that Moderating Effect 1 → Y ($\beta = -0.304$; $t = 1.348$; $p = 0.178$), Moderating Effect 2 → Y ($\beta = -0.139$; $t = 0.677$; $p = 0.499$), and Moderating Effect 3 → Y ($\beta = -0.222$; $t = 0.872$; $p = 0.383$) failed to reach the significance threshold ($p > 0.05$). These findings indicate that the moderator does not significantly change the relationship between the independent variables and the dependent variable.

Overall, the empirical evidence suggests that the proposed model is primarily driven by the direct effect of X2 on Y, while the moderating role of Z is not supported. This implies that the influence of the independent variables on Y operates independently of the moderating mechanism tested in this study.

Discussion

The findings of this study confirm that student satisfaction at Islamic higher education institutions is influenced by a combination of academic and non-academic factors, but the strength of these influences does not always align with common theoretical expectations. Conceptually, student satisfaction can be interpreted through the lens of expectation-disconfirmation (satisfaction occurs when experiences exceed/align with expectations) and the service quality approach, where students assess the quality of learning interactions, leadership, facilities, and campus social experiences as a package of experiences that shape their final evaluation (Ahmad & Syihabuddin, 2025; Wale, 2024; Wang & Huang, 2025). In your manuscript, the focus variables are clear: faculty leadership, teaching quality, educational facilities, and social interactions (through construct Z) are linked to student satisfaction. Recent literature also emphasizes that satisfaction strongly intersects with institutional recommendation intentions and loyalty, so a discussion should link the research findings to implications for institutional reputation and continued student enrollment (Kairat et al., 2024; Wong & Chapman, 2023).

In terms of measurement quality, the author has conducted validity and reliability tests, but there are some caveats that need to be emphasized in the discussion as interpretational caveats. Several indicators were declared invalid (e.g., X3.3; Z1; Z2), and the AVE for X3 was recorded at 0.497 (slightly below the 0.50 threshold), while several other constructs met reliability criteria (e.g., Cronbach's alpha and composite reliability were within an adequate range). Within the framework of modern satisfaction research, weaknesses in facilities or social interaction indicators can make the influence of these variables appear weak, not because they are actually weak, but because the constructs are not yet measurably stable. This is important to clarify so that readers understand that non-significant results can stem from measurement issues, not simply conceptual irrelevance.

In the structural model, the explanatory power for student satisfaction is moderate: the R-square for Y (student satisfaction) is 0.311. This means that approximately 31.1% of the variation in satisfaction can be explained by the variables in the model, while the remainder likely comes from other determinants (e.g., perceived value, institutional image, quality of administrative services, digital support, academic load, or psychological well-being). The most crucial thing to discuss is that only the path X2 → Y is significant, with a negative coefficient (β = −0.265; p = 0.002), while the other direct paths (X1 → Y; X3 → Y; Z → Y) are not significant. Theoretically, the negative direction of teaching quality on satisfaction needs to be treated as a finding that requires explanation, not simply reported.

This negative trend often emerges in satisfaction research when there is an expectation mismatch or when students perceive increased learning quality as more demanding, for example, due to task intensity, assessment standards, or active learning methods that have not yet been internalized as enjoyable. In the post-pandemic learning context, several studies have shown that satisfaction is strongly influenced by how students assess the order, clarity of material, feedback, and learning design, especially during learning mode transitions (Elshami et al., 2021). Furthermore, e-learning quality management confirms that perceived quality is often influenced by usability, technical support, and cognitive load; when the load increases without adequate support, satisfaction can decline even though academic quality is perceived to increase (Rembielak & Marciniak, 2021). Therefore, the discussion should recommend reexamining the direction of the scale/indicator (e.g., potential reverse coding, item redactions with perceived difficulty, or response bias) to ensure that the negative β represents a substantive phenomenon, not a measurement artifact. For faculty leadership, the literature over the past five years has emphasized that academic leadership indirectly impacts the student experience: through a culture of quality, faculty support, strengthened evaluation systems, and improved learning services. However, in your model, the path X1 → Y is insignificant, so the discussion should focus on two possibilities: (a) leadership operates through unmodeled intervening variables (e.g., academic climate, quality of administrative services, or learning support), or (b) student perceptions of faculty leadership are not closely aligned with their daily experiences, thus weakening their impact on satisfaction. Research on faculty assessment and reflective practice suggests that leadership/quality assurance changes are only felt by students when they are translated into consistent classroom practices (Hamilton, 2021). Furthermore, you need to align the narratives across sections of the manuscript: the abstract mentions faculty leadership as a positive and mediating influence, but the results of the structural model presented do not support the claim of a direct path or a Z → Y path. A robust discussion would highlight this tension as an opportunity for model improvement and reporting clarity, rather than glossing over it. Regarding educational facilities (X3), the insignificant path X3 → Y should be read in conjunction with the validity of the facility indicators (e.g., X3.3 is invalid) and the borderline AVE. Substantively, many studies have found that facilities tend to act as hygiene factors: they do not necessarily increase satisfaction if they are considered standard, but can decrease satisfaction if they are inadequate. In the sustainable campus literature, student satisfaction is strongly influenced by the organizational and social dimensions of campus practices (including service governance and campus life experiences), while other aspects can appear weaker if students perceive them as background rather than core experiences (Pedro et al., 2025). Therefore, the discussion should emphasize that strengthening facilities needs to be directed at aspects that directly support learning (access to learning resources, classroom comfort, technology support), while at the same time, the measurement instrument for facilities needs to be improved to truly capture dimensions relevant to students.

The role of social interaction (Z) in your model is also insignificant (Z → Y p = 0.432), and all moderating effects are insignificant. In fact, strong international evidence suggests that the quality of interactions and belonging correlate with satisfaction, particularly during the initial transition to college and in learning contexts that require collaboration (Wong & Chapman, 2023). The absence of a Z effect in your study could be due to (a) the indicators of social interaction being

unstable (Z1 and Z2 not being valid), (b) their effects operating through intermediary variables such as engagement or peer support, or (c) the variation in social experiences across the sample being relatively homogeneous. Studies on the quality of teacher-student relationships and peer support suggest that interactions often "enter" satisfaction through psychological pathways such as motivation, engagement, and social support, rather than always as a simple direct effect (Thornberg et al., 2022; Tuttle & Carter, 2022).

The most immediate practical implication of the findings is the need to prioritize improvements in the aspect most directly related to the student experience: teaching practices. Since X2 was the only significant but negative predictor, program/faculty leaders need to ensure that improvements in teaching quality go beyond academic standards and translate into clear, structured, supportive, and student-friendly learning experiences (e.g., transparent assessment rubrics, prompt feedback, proportional workloads, and active learning supported by mentoring). Lessons from research on learning in the new normal era emphasize the importance of learning designs that balance academic demands and support (Elshami et al., 2021), as well as the importance of managing e-learning systems to minimize technical friction and student confusion (Rembielak & Marciniak, 2021). At the same time, satisfaction improvement strategies should continue to target non-academic services, as satisfaction is linked to recommendations and institutional reputation (Kairat et al., 2024).

Theoretically, this study contributes by demonstrating that, in the context of Islamic universities in Indonesia, the determinants of satisfaction can be non-linear and strongly influenced by how the construct is defined and operationalized. With an R-square of 0.311 and a sample size of 100 respondents, these findings indicate significant room for model enrichment, such as incorporating institutional image, perceived value, administrative service quality, or digital experience quality, which in recent research often serve as a link between service quality and loyalty intentions. Furthermore, the literature highlights that satisfaction is not solely an academic evaluation, but a combination of academic, social, and institutional support experiences; even in satisfaction-interaction studies, the quality of campus relationships and social experiences can be important explanatory factors for variations in satisfaction (Wong & Chapman, 2023). Therefore, future research should consider these findings as a baseline, requiring richer models and more rigorous measurement.

Recommendations for further research should be specific. First, instrument refinement for facilities and social interactions should be conducted: revise invalid items, retest, and ensure consistent scale direction to avoid inverse coefficients. Second, expand the design: sample across study programs/faculties or across PTKIs, and conduct a longitudinal study to see whether policy changes (lecturer training, LMS improvements, facility upgrades) actually change satisfaction over time. Third, test alternative models: if leadership does not have a direct impact, test more plausible mediation (e.g., leadership → quality climate/lecturer support → teaching quality → satisfaction) and multi-group analysis (year, gender, learning mode). Fourth, add qualitative data (interviews/FGDs) to explain why "teaching quality" is perceived to decrease satisfaction, whether due to workload, lecturer communication style, or mismatched expectations. With these steps, future research can make a stronger contribution to student satisfaction theory and quality improvement policies at PTKIs.

CONCLUSION

This study concludes that teaching quality (X2) is the most significant determinant of student satisfaction (Y) compared to other variables. Its impact is greater than expected and appears to be negatively related. This finding challenges the common assumption that improved teaching quality automatically increases satisfaction; in the context studied, perceived "higher" teaching quality can also be perceived by students as more demanding (e.g., more demanding assignments, stricter assessment standards, or learning methods that are not yet comfortable for them), thus opening up a new discussion about expectation-experience mismatch. Meanwhile, faculty leadership (X1), educational facilities (X3), and social interaction as a moderating construct (Z) did not show a significant influence on satisfaction, suggesting that student satisfaction in this case is more "determined by core learning experiences" than by the assumed structural or social factors.

In terms of scientific contribution, this study strengthens the student satisfaction literature that places learning experiences as the primary determinant, but also challenges the validity of findings that state that faculty leadership, facilities, and social interaction always have a direct influence on satisfaction. This study also introduces modeling that tests social interaction as a moderating variable within the PLS-SEM framework in the context of the higher education institution studied, thus enriching the discussion on how social factors may operate indirectly or conditionally. However, this study has limitations: the sample size is relatively small and focuses on a specific case/setting, thus limiting generalizability; variations in respondent data (e.g., differences in study programs/years), as well as demographic characteristics (gender, age), have not been analyzed in depth. Therefore, further research is recommended using larger samples, more diverse institutional contexts, and including additional variables (e.g., quality of administrative services, perceived value, academic load, and learning support) to gain a more comprehensive understanding of student satisfaction.

REFERENCES

Adeoye, M. A., Baharun, H., & Munawwaroh, I. (2025). Transformational Leadership in Education: Harmonising Accountability, Innovation and Global Citizenship. *Kharisma: Jurnal Administrasi Dan Manajemen Pendidikan*, *4*(1), 14–30. https://doi.org/10.59373/kharisma.v4i1.68

Ahmad, F., & Syihabuddin, M. A. (2025). Utilization of the E-Exam Application in Evaluating Student Learning Outcomes at Madrasah Aliyah Fathul Ulum Gabus, Grobogan Regency. *Interdisciplinary Journal of Social Sciences*, *2*(1), 13–22. https://doi.org/10.59373/ijoss.v2i1.103

Al-Alak, B. A., & Alnaser, A. S. M. (2012). Assessing the relationship between higher education service quality dimensions and student satisfaction. *Australian Journal of Basic and Applied Sciences*, *6*(1), 156–164.

Amalia, E. R. (2026). Leadership Dynamics in Islamic-Based Schools: A Systematic Review of Southeast Asia (2015–2025). *At-Tadzkir: Islamic Education Journal*, *5*(1), 1–21. https://doi.org/10.59373/attadzkir.v5i1.231

Asikainen, H., Blomster, J., Cornér, T., & Pietikäinen, J. (2021). Supporting student integration by implementing peer teaching into environmental studies. *Journal of Further and Higher Education*, *45*(2), 162–182. https://doi.org/10.1080/0309877X.2020.1744541

Aziz, M. B., & Amir, A. N. (2025). Evaluating Value-Based Vocational Education Using Logic Model: A Qualitative Inquiry in Islamic Higher Education. *Tafkir: Interdisciplinary Journal of Islamic Education*, *6*(3), 700–715. https://doi.org/10.31538/tijie.v6i3.1969

Balqis, S. N., Usman, N., & Ismail. (2025). Partnership in Participative Leadership and Organizational Communications: Factors Shaping Junior High School Teacher Performance. *Tafkir: Interdisciplinary Journal of Islamic Education*, *6*(1), 213–225. https://doi.org/10.31538/tijie.v6i1.1372

Chaman, M., & Siddiqui, D. A. (2023). How Islamic Leadership Traits of Truthfulness, Advocacy, Trustworthiness, and Wisdom, Effects Employees' Life Satisfaction Performance: The Mediatory Role of Employee Engagement and Organizational Citizenship Behavior. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.4432155

Daulay, B., Haidir, & Firmansyah. (2024). The influence of managerial competence and achievement motivation on the leadership effectiveness of high school principals. *Cakrawala Pendidikan*, *43*(2), 411–421. https://doi.org/10.21831/cp.v43i2.61912

Desmiati, Kusnadi, E., & Yunus, A. (2023). Principal's managerial competence in developing religious culture in smp 19 n merangin district, Jambi province. *Attaqwa: Jurnal Ilmu Pendidikan Islam*, *19*(2), 223–236. https://doi.org/10.54069/attaqwa.v19i2.611

Dou, R., Brewe, E., Potvin, G., Zwolak, J. P., & Hazari, Z. (2018). Understanding the development of interest and self-efficacy in active-learning undergraduate physics courses. *International Journal of Science Education*, *40*(13), 1587–1605. https://doi.org/10.1080/09500693.2018.1488088

Elshami, W., Taha, M. H., Abuzaid, M., Saravanan, C., Al Kawas, S., & Abdalla, M. E. (2021). Satisfaction with online learning in the new normal: Perspective of students and faculty at medical and health sciences colleges. *Medical Education Online*, *26*(1). https://doi.org/10.1080/10872981.2021.1920090

Enes, U. O. R., Asha, L., & Wanto, D. (2024). Optimization of Facilities and Infrastructure Management in Improving the Quality of Learning at Madrasah Ibtidaiyah. *Kharisma: Jurnal Administrasi Dan Manajemen Pendidikan*, *3*(2), 149–160. https://doi.org/10.59373/kharisma.v3i2.54

Ezzani, M. D., Brooks, M. C., Yang, L., & Bloom, A. (2023). Islamic school leadership and social justice: An international review of the literature. *International Journal of Leadership in Education*, *26*(5), 745–777. https://doi.org/10.1080/13603124.2021.2009037

Fathir, M. A. (2026). Identity Crisis in The Midst of Urban Modernity: The Dynamics of Juvenile Delinquency, Religious Institutions, and Inequality of Family Supervision. *Adiluhung: Journal of Islamic Values and Civilization*, *2*(1), 39–51. https://doi.org/10.59373/bpvf3060

Goegan, L. D., & Daniels, L. M. (2021). Academic Success for Students in Postsecondary Education: The Role of Student Characteristics and Integration. *Journal of College Student Retention: Research, Theory and Practice*, *23*(3), 659–685. https://doi.org/10.1177/1521025119866689

Gu, Q., & Lu, G. (2023). Factors influencing the satisfaction level of college students in China: Literature analysis based on grounded theory. *Frontiers in Psychology*, *13*(January), 1–12. https://doi.org/10.3389/fpsyg.2022.1023420

Hamilton, M. K. (2021). Introspective Faculty Assessment of Self Leadership. *SAGE Open*, *11*(3). https://doi.org/10.1177/21582440211031902

Haqqi, I. S. T. A., Darim, A., & Yaqin, A. (2025). Strategic Management of Madrasah Heads in Improving the Quality of Graduates at Madrasah Aliyah. *Journal of Education and Learning Innovation*, *2*(1), 27–39. https://doi.org/10.59373/jelin.v2i1.78

Indasari, N. L. (2026). Modelling Acceptance of Artificial Intelligence Technology among Pre-service Teachers in Islamic Higher Education. *At-Tadzkir: Islamic Education Journal*, *5*(1), 22–39. https://doi.org/10.59373/attadzkir.v5i1.241

Indra, H., Handrianto, B., Supraha, W., & Rusydi, I. (2025). Islamic Higher Education, Its Dynamics and Role From Time to Time. *Tafkir: Interdisciplinary Journal of Islamic Education*, *6*(2), 402–419. https://doi.org/10.31538/tijie.v6i2.1726

Irham, I. (2025). Policies and patterns of integration of science and religion in Indonesian Islamic higher education. *Higher Education*, *90*, 1311–1328. https://doi.org/10.1007/s10734-024-01378-9

Kairat, K., Lee, S. J., & Jang, J. M. (2024). The determinants of recommendation intention and student satisfaction in private higher institutions: Empirical evidence from Kazakhstan. *Journal of Marketing for Higher Education*. https://doi.org/10.1080/08841241.2024.2350390

Khoo, S., Ha, H., & McGregor, S. L. T. (2017). Service quality and student/customer satisfaction in the private tertiary education sector in Singapore. *International Journal of Educational Management*, *31*(4), 430–444. https://doi.org/10.1108/IJEM-09-2015-0121

Kosim, M., Kustati, M., Sirait, W. R., Fajri, S., Febriani, S. R., Mufti, M., & Perrodin, D. D. (2024). Developing a Religious Moderation-Based Curriculum Module for Laboratory Madrasah Tsanawiyah in Islamic Higher Education. *Jurnal Pendidikan Islam*, *10*(2), 350–362. https://doi.org/10.15575/jpi.v10i2.39163

Leal Filho, W., Sigahi, T. F. A. C., Anholon, R., Rebelatto, B. G., Schmidt-Ross, I., Hensel-Börner, S., Franco, D., Treacy, T., & Brandli, L. L. (2025). Promoting sustainable development via stakeholder engagement in higher education. *Environmental Sciences Europe*, *37*(1). https://doi.org/10.1186/s12302-025-01101-0

Lestari, I., Hardhienata, S., & Sunaryo, W. (2025). Enhancing Organizational Citizenship Behavior Through Job Satisfaction Mediation: The Role of Spiritual Beliefs, Cooperation, and organizational Justice. *Tafkir: Interdisciplinary Journal of Islamic Education*, *6*(2), 550–562. https://doi.org/10.31538/tijie.v6i2.1915

Louw, J. M. (2024). Immorality on Campus: Declining Values Among Students in Higher Education Institutions. *Journal of Education and Learning*, *13*(5), 235. https://doi.org/10.5539/jel.v13n5p235

Madkan, M., Mumtahana, L., & Ardianto, A. (2025). Implementation of Democratic Values in Islamic Education Learning: Perspectives and Approaches to Improve the Quality of Education. *Adiluhung: Journal of Islamic Values and Civilization*, *1*(1), 1–15. https://doi.org/10.59373/adiluhung.v2i1.107

Mariani, A., Warlizasusi, J., Usman, M. U. K., & Harahap, E. K. (2024). Principal Supervision in Improving the Quality of Learning Administration Services at the State Islamic Elementary School. *Kharisma: Jurnal Administrasi Dan Manajemen Pendidikan*, *3*(2), 135–148. https://doi.org/10.59373/kharisma.v3i2.53

Melean Romero, R. A., Carhuancho Mendoza, I. M., Guerrero Bejarano, M. A., Ponce Yactayo, D. L., Saravia Ramos, G. D. P., Nolazco Labajos, F. A., Muñoz Ccuro, F. E., & Bravo Chávez, O. J. (2024). Service quality, loyalty building and institutional image at a university in Lima, Peru using structural equations. *Frontiers in Education*, *9*. https://doi.org/10.3389/feduc.2024.1365219

Muhtadin. (2025). Cost-Free Policy and the Pursuit of Quality Education: An Exploratory Study in Islamic Secondary Education. *Journal of Islamic Education Research*, *6*(3), 353–366. https://doi.org/10.35719/jier.v6i3.516

Muneeb, D., Khattak, A., Wahba, K., Abdalla, S., & Ahmad, S. Z. (2023). Dynamic capabilities as a strategic flexibility enabler: Organizational responsiveness to COVID-19. *Journal of Asia Business Studies*, *17*(4), 824–849. https://doi.org/10.1108/JABS-01-2022-0023

Musrifah, Shah, S. A. A., Rokhman, M., & Aprilianto, A. (2024). Effective Leadership in Improving the Quality of Education in Madrasah Tsnawiyah. *Kharisma: Jurnal Administrasi Dan Manajemen Pendidikan*, *3*(2), 97–111. https://doi.org/10.59373/kharisma.v3i2.55

Ningsih, I. R., Darim, A., Srinio, F., & Jannah, S. (2025). Principal's Leadership Strategies in Enhancing Students' Religious Competence: A Case Study at Madrasah Aliyah. *Attaqwa: Jurnal Ilmu Pendidikan Islam*, *21*(2), 82–92. https://doi.org/10.54069/attaqwa.v21i2.999

Pandita, A., & Kiran, R. (2023). The Technology Interface and Student Engagement Are Significant Stimuli in Sustainable Student Satisfaction. *Sustainability*, *15*(10), 7923. https://doi.org/10.3390/su15107923

Rembielak, G., & Marciniak, R. (2021). The Value of Postgraduate Students Opinions in the Quality Management of Academic E-Learning. *Foundations of Management*, *13*(1), 183–194. https://doi.org/10.2478/fman-2021-0014

Sellami, A., El-Kassem, R. C., Al-Qassass, H. B., & Al-Rakeb, N. A. (2017). A path analysis of student interest in STEM, with specific reference to Qatari students. *Eurasia Journal of Mathematics, Science and Technology Education*, *13*(9), 6045–6067. https://doi.org/10.12973/eurasia.2017.00999a

Tasker-mitchell, A., & Attoh, P. A. (2019). *The Mediating Effect of Faculty Trust in Principals on the Relationship Between Servant Leadership Practices and Organizational Health*. (5), 1–40. https://doi.org/10.1177/1052684619884784

Thornberg, R., Forsberg, C., Hammar Chiriac, E., & Bjereld, Y. (2022). Teacher–Student Relationship Quality and Student Engagement: A Sequential Explanatory Mixed-Methods Study. *Research Papers in Education*, *37*(6), 840–859. https://doi.org/10.1080/02671522.2020.1864772

Tuttle, M., & Carter, E. W. (2022). Examining peer support arrangements for students with visual impairment. *British Journal of Visual Impairment*, *40*(2), 222–239. https://doi.org/10.1177/0264619620972150

Wale, B. D. (2024). Artificial intelligence in education: Effects of using integrative automated writing evaluation programs on honing academic writing instruction. *Cakrawala Pendidikan*, *43*(1), 273–287. https://doi.org/10.21831/cp.v43i1.67715

Wang, C., & Huang, X. (2025). Beyond the call of duty: Effects of school learning culture, teacher self-efficacy, and informal learning on organizational citizenship behavior. *Studies in Educational Evaluation*, *85*, 101459. https://doi.org/10.1016/j.stueduc.2025.101459

Wangid, M. N., Sari, W. J., Pratiwi, C., & Atmoko, A. (2025). Student Awareness, Utilization, and Satisfaction with Guidance and Counseling Services in Indonesian High Schools. *Jurnal Ilmiah Peuradeun*, *13*(2), 1446–1476. https://doi.org/10.26811/peuradeun.v13i2.2080

Wijaya, N. P. N. P., Gaffar, V., Widjajanta, B., Andriana, D., & Buana, D. M. A. (2025). Decoding E-Experience in Educational Technology: The Mediating Role of E-Trust and E-Satisfaction in Continuance Intention. *Online Learning In Educational Research (OLER)*, *5*(2), 245–258. https://doi.org/10.58524/oler.v5i2.608

Wong, W. H., & Chapman, E. (2023). Student satisfaction and interaction in higher education. In *Higher Education* (Vol. 85, Issue 5, pp. 957–978). Springer. https://doi.org/10.1007/s10734-022-00874-0

Yuliana, L., Prasojo, L. D., Akalili, A., & Firdaus, F. M. (2025). Development of a learning leadership model for vocational high school principals to foster student well-being within the framework of Merdeka Belajar. *Cakrawala Pendidikan*, *44*(1), 1–8. https://doi.org/10.21831/cp.v44i1.78373