

Exploring the Relationship between Trust, Academic Service Quality, and Student Satisfaction in the Faculty of Teacher Training and Education

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ABSTRACT

Student satisfaction refers to the level of contentment experienced by students regarding various aspects of their educational experience, including the quality of academic services and student trust in development opportunities. This satisfaction is an essential indicator of educational institutions' success in meeting students' expectations and needs. This study aims to analyze and understand the determinants of student trust and the quality of educational services (tangible, empathy, reliability, responsiveness, assurance) on student satisfaction at the Faculty of Education and Teacher Training (FKIP) of Pattimura University, Ambon. This study adopts a quantitative approach to explore the relationship between independent and dependent variables. Utilizing a simple random sample, every member of the population has an equal chance of being selected from the 120 respondents analyzed using SPSS version 27. The hypothesis testing shows that Student Trust, Tangible, Reliability, Responsiveness, and Assurance were accepted; Empathy was rejected. Independent variables influence 56.1% of the dependent variable. The abstract's conclusion states that the independent variables explain 56.1% of the variation in the dependent variable, student satisfaction. Elaborate slightly on what this implies about the relationship between service quality dimensions and student satisfaction.

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1. INTRODUCTION

Progressive and reliable higher education institutions play a crucial role in providing certainty in every aspect of their academic services. Service is the key to building trust and satisfaction among students. Progressive institutions tend to clarify administrative processes, educational activities, and information about the offered curriculum (Twum & Pephrah, 2020). Progressive institutions prioritize the development of an inclusive academic community, offer solid academic guidance, and facilitate interaction between students and faculty (Tinto, 2012; Dananjaya, 2023). Furthermore, progressive

institutions tend to adopt cutting-edge technology to enhance the certainty of academic services (Haleem et al., 2022). Student satisfaction is the primary focus of this research, as it serves as a benchmark for the institution's success in meeting students' expectations and needs through providing quality academic services. Student satisfaction results from integrating academic service quality and establishing trust from students towards the institution. This study is expected to address these aspects, serving as a foundation for the future development of the Faculty of Education and Teacher Training (FKIP) at Pattimura University.

Trust refers to a firm belief or confidence in the abilities or integrity of an individual or entity. In higher education, trust refers to students' belief in the institution, faculty, and the education system (Maister et al., 2021). Service quality refers to the standards or characteristics of services provided by a particular organization or entity (Giantari et al., 2022). In the service context, quality is defined by consumers and perceived as a result of comparing desired expectations and perceptions of service performance. Therefore, when a university consistently exceeds students' expectations in providing educational services, it not only creates satisfaction but can also enhance its image and reputation (Fan et al., 2022). Student satisfaction refers to the perceived level of satisfaction experienced by students regarding their educational experience at a particular institution (Darus et al., 2016). It includes teaching quality, facilities, academic support, and the learning environment. Student satisfaction is often regarded as a critical indicator of an institution's success in meeting students' expectations and needs and creating a positive educational experience.

Gaining students' trust is crucial to higher education development. Trust is an essential element in the relationship between students and educational institutions. Institutions capable of building trust can enhance student engagement in the learning process and overall development (Maister et al., 2021). Trust forms a strong foundation for building a harmonious relationship between students and faculty in higher education (Bormann et al., 2021). Institutions need to understand that trust is not given but must be earned and maintained through continuous efforts in the context of educational development in higher education. Inclusive strategies, such as student participation in decision-making or evaluation of academic services, can also help build and sustain this trust (Soliman & Waziry, 2017).

Trust influences interaction dynamics and is vital in interpersonal, business, and organizational relationships. Trust is built on three critical dimensions: ability, benevolence, and integrity. The first dimension, ability, highlights the importance of an individual or entity's competence, skills, and technical credibility (Qin & Men, 2023). Furthermore, benevolence becomes an equally important aspect of building trust. Benevolence encompasses goodwill, willingness to help, and concern for the interests of others (Putro et al., 2022). Integrity is also considered a crucial dimension of trust. Integrity reflects the alignment between words spoken and actions taken (Rockstuhl et al., 2023).

Service quality has long been a primary focus in the service industry. Service quality can be measured through customers' perceptions of the difference between expectations and actual experiences. When a service provided by an entity exceeds consumer expectations, it can be considered the "best outcome" that creates higher satisfaction (Tsamwa et al., 2022). In higher education, service quality is highly significant for universities. Universities that can provide quality educational services that meet students' needs and expectations have a greater chance of gaining a competitive advantage in the education market (Tojiboeva et al., 2022). Understanding consumer expectations of services emphasizing the best outcomes in service quality is crucial, so universities must actively explore and understand students' expectations regarding their educational experiences (Fan et al., 2022).

Numerous studies indicate that the quality of academic services significantly contributes to student satisfaction in higher education. One aspect of measuring academic service quality is from students' perspective, considering elements such as faculty availability, learning facilities, curriculum, and academic support (Darus et al., 2016). Additionally, high-quality academic service correlates closely with student retention and positive perceptions of educational institutions (Permana et al., 2020). According to Amoako et al. (2023), interaction between faculty and students is critical to determining academic service quality. This interaction can influence students' perceptions of learning

quality, resulting in higher satisfaction with the academic services provided by the university. As highlighted by Ulfah (2019), high-quality academic services significantly impact student satisfaction, which, in turn, influences their interest in actively participating in the educational process, such as contributing in class, interacting with faculty, and engaging in academic activities outside class. It demonstrates the importance of academic service quality in creating a supportive and satisfying educational environment for students.

Pattimura University, established in 1963, has evolved into one of Indonesia's leading educational institutions in Maluku. In this context, the Faculty of Education is vital in preparing future educators. Offering a diverse range of education, research, and development programs, the faculty actively contributes to enhancing the quality of education in the region. The interaction between faculty and students, the academic support provided and the development of relevant curricula are crucial aspects of the academic services emphasized at Pattimura University. Adequate learning facilities, efficient administrative services, and sufficient resources also significantly support students' learning experiences. All these efforts aim to achieve the primary goal: building students' trust and enhancing their satisfaction with their educational experience at Pattimura University. By strengthening positive interactions between faculty and students and providing a conducive academic environment tailored to students' needs, the university strives to create a supportive atmosphere, foster confidence, and strengthen the bond between students and the institution. It will reinforce the university's position as an educational institution committed to providing the best academic services and nurturing quality educational professionals for the future.

In addition, a curriculum relevant to the latest developments in education, adequate resources to support the learning process, and implementing mentoring programs that assist students in completing their studies are crucial. Students' trust in the academic services of the faculty can also be enhanced through consistent service delivery, effective communication between faculty and students, and prompt responses to student needs. This trust can be reflected in evaluations and positive feedback provided by students regarding the quality of academic services they receive. Given the significance of these aspects, further study is needed to analyze and examine students' trust and the quality of educational services regarding student satisfaction at the Faculty of Education, Universitas Pattimura Ambon. This study has the potential to significantly contribute to existing knowledge or practical implications for educational administrators and policymakers. With a deeper understanding of the factors influencing student satisfaction, educational administrators and policymakers can make more informed decisions to improve the quality of academic services and enhance the overall educational experience for students. It can help increase student retention, strengthen the institution's reputation, and ultimately improve the quality of education offered by Universitas Pattimura Ambon.

2. METHODS

The research adopts a quantitative approach to investigate the relationship between independent and dependent variables within the context of students at the Faculty of Teacher Training and Education (FKIP) of Pattimura University in Ambon. In this research series, a simple random sampling method was employed, where every member of the population had an equal chance of being selected to form a sample consisting of 120 respondents, to represent the student population of FKIP at the university. This method ensures that each member of the population has an equal probability of being chosen, thus creating a more representative sample from the larger population. It helps reduce bias and enhances confidence in the generalization of research findings. The statistical method used is multiple regression analysis, enabling the evaluation of the relationship between one dependent variable and several independent variables. Six independent variables will be assessed against one dependent variable.

The validation process of the research instrument consisting of a 29-item 5-point Likert scale questionnaire was systematically and carefully conducted before being used in this study. This

validation involved several vital steps to ensure the instrument's accuracy, reliability, and validity in data collection. Firstly, content validity was conducted by evaluating each item in the questionnaire by experts or specialists in the relevant field. This step helped ensure that the items accurately represented the concepts to be measured in the study. Next, construct validity was evaluated to ensure the questionnaire measured the intended constructs. Exploratory or confirmatory factor analysis was conducted to identify whether the items belonged to the expected factors according to the study's conceptual framework, considering Pearson's product-moment correlation coefficient exceeding 0.3 and the significance correlation value reaching the level of 0.01. Reliability testing using Cronbach's alpha coefficient was used to evaluate how consistently the items measured the same concepts. High-reliability values indicate that the questionnaire is reliable. Finally, before being used in the study, the questionnaire was piloted on a small sample of a similar population to evaluate readability, comprehension, and consistency.

The collected data will be analyzed using SPSS statistical software version 27, serving as the primary tool for processing and analyzing statistical data for this research. The main objective is to test hypotheses to determine the impact of independent variables on the dependent variable. Steps taken to achieve this goal include analyzing the research instrument's validity and reliability to ensure the questionnaire's reliability and validity. This research follows a comprehensive methodological approach with systematic steps to ensure the reliability of the multiple regression analysis. An initial crucial step is to conduct classic assumption tests on the data used.

Normality tests are the first step to ensure the distribution of variables used in the regression model. If the variable distribution is not normal, data transformation steps or alternative analysis methods may be considered to maintain the validity of the analysis. Furthermore, multicollinearity tests are conducted to evaluate the level of correlation between independent variables in the regression model. This step is essential as multicollinearity can disrupt the interpretation of regression analysis results. Autocorrelation tests are also a focus of this research to check for dependencies between values in time series. Corrective steps or alternative regression models must be considered when autocorrelation is detected.

Additionally, heteroskedasticity tests are an essential step in this research. Heteroskedasticity can indicate that the variability of prediction errors is not constant, which could affect parameter estimation accuracy in the regression model. If heteroskedasticity is detected, variable transformation or robust regression methods can be applied to address this issue.

The F-test measures the overall significance of the multiple regression model. The formula, which is the ratio between the variability explained by the model and the unexplained variability, can be expressed as $F = (\text{Variability explained by the model}) / (\text{Variability unexplained by the model})$. If the resulting F-value is significant, it indicates that at least one independent variable significantly affects the dependent variable in the regression model. Meanwhile, the t-test, also known as the test of individual significance, aims to evaluate the relationship between independent variables individually concerning the dependent variable in the model. Its formula relates to each independent variable's regression coefficient (β) and standard error (SE). The t-value can be calculated as $t = \beta / SE$, and a higher absolute t-value signifies a more significant relationship between the independent and dependent variables.

The results of the F-test and t-test provide valuable insights into interpreting the strength and direction of the relationships between the modeled variables. A significant F-value indicates that at least one independent variable collectively influences the dependent variable. Meanwhile, the t-test results enable the assessment of the relative contribution of each independent variable to the dependent variable. Variables with higher t-values indicate a more significant individual influence on the dependent variable. However, it is crucial to remember that the statistical test results provide information solely on the statistical significance of the relationships between variables. Accurate interpretation requires consideration of the context and theory behind the variables. Moreover, using

F and t-tests should be accompanied by clinical or contextual evaluation to obtain a more comprehensive understanding of the relationships between variables in the multiple regression model.

3. FINDINGS AND DISCUSSION

3.1 Validity and Reliability

The validity and reliability of the instruments used in this research are crucial in ensuring the accuracy and reliability of the obtained data. The 29 instruments used in this study underwent rigorous evaluation by experts in relevant fields. This step aimed to ensure that each item in the questionnaire covers concepts to be measured representatively. The validity of these instruments was confirmed by considering Pearson's product-moment correlation coefficient exceeding 0.3 and the significance correlation value reaching the level of 0.01. The validation results confirmed that the instruments used effectively measure variables, exhibit a strong correlation among the measured variables, and yield trustworthy results. In addition to validity, reliability is also the primary focus of this study. Both independent and dependent variables were reliable, with Cronbach's Alpha values exceeding 0.6. It indicates the consistency of the instruments in measuring the same constructs each time they are used. The reliability of the instruments in producing consistent data ensures that the obtained results can be relied upon and accurately represent the measured variables. Table 4.1. shows the results of the reliability analysis.

Table 1. Reliability Test Results

Variable	Cronbach's Alpha Value	Description
Student trust (X1)	.782	Reliable
Physical evidence (X2)	.802	Reliable
Empathy (X3)	.765	Reliable
Reliability (X4)	.787	Reliable
Responsiveness (X5)	.803	Reliable
Assurance (X6)	.742	Reliable
Student satisfaction (Y)	.799	Reliable

The table above outlines the Cronbach's Alpha values for variables related to student trust (X1-X6) and student satisfaction (Y). Cronbach's Alpha is a metric of item sets' reliability and internal consistency employed within a research framework. A higher Cronbach's Alpha value signifies a more dependable and consistent set of items. Each variable is explained as follows:

1. Student Trust (X1): The alpha value of .782 indicates that the item set measuring student trust is reasonably reliable and consistent.
2. Physical Evidence (X2): With an alpha value of .802, the item gauging physical evidence (e.g., facilities, infrastructure, etc.) demonstrates sufficient reliability.
3. Empathy (X3): The alpha value of .765 suggests that the item set assessing empathy from service providers towards students is adequately reliable.
4. Reliability (X4): An alpha value of .787 indicates that the item set evaluating the reliability of provided services is sufficiently dependable.
5. Responsiveness (X5): With an alpha value of .803, the item set measuring the promptness of service providers in responding to student needs exhibits satisfactory reliability.
6. Assurance (X6): The alpha value of .742 implies that the item set measuring student confidence in the quality of provided services is reasonably reliable.
7. Student Satisfaction (Y): A Cronbach's Alpha value of .799 indicates that the item set measuring student satisfaction levels is adequately reliable.

These explanations illuminate the reliability and consistency of the variables under scrutiny, furnishing valuable insights for enhancing educational service quality and enriching student experiences.

In research that delineates the effects of each variable, including negative impacts such as reliability, a deeper exploration of why a particular variable (for example, reliability) negatively affects student satisfaction can provide actionable insights. Understanding the underlying causes of these negative perceptions can be crucial for practical applications and educational service improvements. For instance, if service reliability is perceived as low by students, it can lead to dissatisfaction due to uncertainty or failures in fulfilling promises made by the educational institution. It could be caused by the system's inability to consistently deliver reliable services or communication breakdowns between service providers and students.

3.2 Classical Assumption Test

This research has met the criteria of the classical assumption test, indicating the absence of multicollinearity among independent variables. It was obtained through evaluation results showing Variance Inflation Factor (VIF) values less than ten and Tolerance values greater than 0.10. These findings signify the absence of significant multicollinearity issues among the independent variables in the regression analysis. Thus, the classical assumptions in regression analysis, such as independence, normality, homoscedasticity, and the absence of multicollinearity, have been fulfilled, ensuring the reliability of the regression analysis results in this study.

Table 2. Results of the Multicollinearity Test

Variable	VIF Value
Student trust (X1)	2.69
Physical evidence (X2)	6.18
Empathy (X3)	8.82
Reliability (X4)	5.54
Responsiveness (X5)	7.95
Assurance (X6)	4.78

The results of this study indicate that the assumption of heteroskedasticity has been met, as evidenced by the residual spread pattern showing no specific or regular pattern. It is distinctly illustrated in the plot displaying residuals that lack homogeneity, demonstrating inconsistent variability across the range of predicted values. This condition reveals the irregularity in the residual spread, signifying the absence of a specific pattern in residual variability. Thus, the assumption of heteroskedasticity in the regression model has been fulfilled, allowing for further analysis while considering this condition in interpreting results and drawing conclusions from the conducted regression analysis. It can be observed in the following plot.

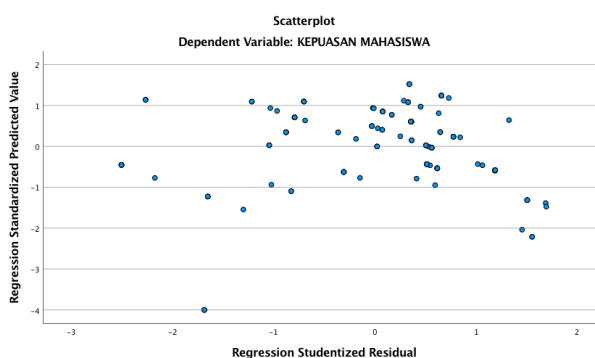


Figure 1. Scatterplot Heteroskedasticity Test

The regression model used in this study also meets the normality assumption, indicating that the resulting residual data follows a normal distribution. The prediction errors from the regression model are symmetrically distributed around the mean value of zero. The normality test results showed that the residual data points are centred around the middle line on the Quantile-Quantile (Q-Q) plot, demonstrating a residual distribution that closely aligns with the reference line of a normal distribution. Therefore, this regression model is deemed suitable for predicting student satisfaction based on its independent variables, considering that the normality assumption has been met. It ensures the reliability of the model in predicting data and performing accurate estimations, as depicted in the following figure:

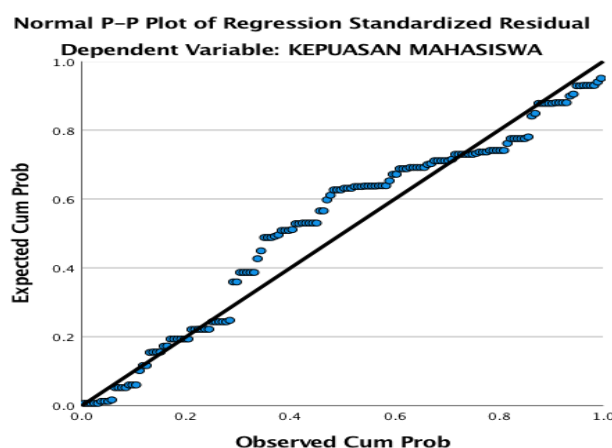


Figure 2. Normality Test Results

3.3 Results of Multiple Linear Regression Analysis

The results of Multiple Linear Regression analysis, as shown in Table 3, provide insights into the statistical method used to measure the relationship between a single dependent variable and two or more independent variables simultaneously. This analysis evaluates the strength and significance of the relationships between these variables concerning the dependent variable. The output of multiple linear regression yields coefficients for each independent variable, indicating the extent of the average change in the dependent variable expected due to a one-unit change in the independent variable while holding the other independent variables constant.

Table 3. Multiple Regression Coefficients

Model	Coefficients				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.652	1.302		2.038	.043
Student trust (X1)	.192	.059	.297	3.263	.001
Physical evidence (X2)	.298	.150	.273	1.983	.049
Empathy (X3)	.064	.196	.054	.327	.744
Reliability (X4)	-.560	.145	-.505	-3.875	.000
Responsiveness (X5)	.351	.161	.341	2.184	.031
Assurance (X6)	.450	.155	.350	2.892	.004

a. Dependent Variable: Kepuasan Mahasiswa

From the table, the regression equation can be obtained as:

$$Y = 2.652 + 0.192X1 + 0.298X2 + 0.064X3 - 0.560X4 + 0.351X5 + 0.450X6 + e$$

The constant value of student satisfaction at 2.652 indicates that if variables X1, X2, X3, X4, X5, and X6 are all zero, the level of student satisfaction will reach 2.652. It signifies a positive influence of the independent variables on the dependent variable. The regression coefficient $b_1 = 0.192$ illustrates the extent of student confidence's contribution to student satisfaction with a positive direction of influence at FKIP Universitas Pattimura Ambon. Furthermore, $b_2 = 0.298$ demonstrates the significant impact of educational service quality in the physical evidence dimension on student satisfaction with a positive correlation. Similarly, $b_3 = 0.064$ indicates the contribution of educational service quality in the empathy dimension to student satisfaction with a positive correlation. However, $b_4 = -0.560$ shows a significant negative impact of educational service quality in the reliability dimension on student satisfaction. On the other hand, $b_5 = 0.351$ and $b_6 = 0.450$ represent the positive contributions of educational service quality in the responsiveness and assurance dimensions, respectively, towards enhancing student satisfaction. These coefficients reflect the diverse degrees and directions of influence from various dimensions of educational service quality on student satisfaction at FKIP Universitas Pattimura Ambon.

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.749a	.561	.543	1.999

A. Predictors: (Constant), Assurance X6, Responsiveness X5, Student trust X1, Physical evidence X2, Reliability X4, Empathy X3

B. Dependent Variable: Student satisfaction

Based on the R Square value or coefficient of determination of 0.561 from Table 4, it can be concluded that approximately 56.1% of the variation or diversity in student satisfaction can be explained by the six independent variables included in the regression model. These independent variables encompass student trust and the quality of educational services across physical evidence, empathy, reliability, responsiveness, and assurance. These factors significantly influence student satisfaction at FKIP Universitas Pattimura Ambon. Meanwhile, about 43.9% of student satisfaction is explained by other factors not included or examined in this research.

3.4 Results of Hypothesis Testing

Based on the coefficient analysis in Table 5, it can be concluded that various independent variables have different impacts on student satisfaction at FKIP Universitas Pattimura Ambon. The student trust variable (X1) has a coefficient of 0.297 with a significance value (Sig.t) of $0.001 < 0.05$, indicating a significant favourable influence on student satisfaction, thus accepting H1. Similarly, the educational service quality variable in the physical evidence dimension (X2), with a coefficient of 0.273 and a significance of $0.049 < 0.05$, also demonstrates a significant positive impact on student satisfaction, hence accepting H2. However, the service quality variable in the empathy dimension (X3) shows a coefficient of 0.054 with a significance of $0.744 > 0.05$, indicating that this variable does not significantly affect student satisfaction, thus rejecting H3. The service quality variable in the reliability dimension (X4) exhibits a coefficient of -0.505 with a significance of $0.000 < 0.05$, affirming a significant negative impact on student satisfaction, therefore accepting H4.

Table 5. Anova

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	730.501	6	121.750	30.477	.000b
	Residual	571.259	143	3.995		
	Total	1301.760	149			

A. Dependent Variable: Student satisfaction

B. Predictors: (Constant), Assurance X6, Responsiveness X5, Student trust X1, Physical evidence X2, Reliability X4, Empathy X3

The test results in the table above indicate that the F-significance value is 0.000, less than 0.05. It signifies that the independent variables collectively or simultaneously significantly influence the dependent variable. Both student trust and the quality of educational services across dimensions such as physical evidence, empathy, reliability, responsiveness, and assurance collectively impact student satisfaction at FKIP Universitas Pattimura Ambon. Therefore, it can be concluded that hypothesis H7 is accepted, confirming that these variables collectively affect student satisfaction. The combination of these aspects plays a crucial role in determining student satisfaction in the educational environment of FKIP Universitas Pattimura Ambon.

The extent to which the findings above can be generalized to other institutions is an important consideration. Several unique factors in the context of FKIP Universitas Pattimura Ambon may not directly apply to other institutions. Firstly, the specific characteristics of the educational environment at FKIP Universitas Pattimura Ambon may differ from other institutions, such as organizational culture, administrative structure, or internal policies. These can influence the dynamics of the relationships among the variables under study. Secondly, local or regional factors, including local culture, student demographics, and social environment characteristics, can also affect how students perceive their trust and satisfaction with educational services. Thirdly, differences in curriculum, teaching methods, or educational policy priorities in other institutions can influence the relevance of the findings. Approaches that are successful in one educational environment may only sometimes be easily applicable elsewhere with adjustments. Therefore, before generalizing the findings, it is essential to conduct further research to understand whether these unique factors can be accurately translated to other institutions or require further adaptation and evaluation.

Discussion

One crucial assumption is multicollinearity, which assesses the level of correlation among independent variables. When significant multicollinearity exists, interpreting the individual effects of independent variables becomes challenging, and coefficient estimates can become unstable. In this context, when the model meets this assumption, we can have additional confidence that the independent variables contribute independently to predicting student satisfaction. Additionally, assumptions regarding heteroskedasticity and normality are also crucial to consider. Heteroskedasticity, indicating that residual variability is inconsistent across the range of predicted values, can lead to inaccuracies in standard estimates and significance tests. It can result in errors in interpreting the reliability of regression coefficients.

Students' trust in their educational institutions significantly shapes their perception and satisfaction with the academic and non-academic services provided. Research findings indicate that the regression coefficient is 0.297 with a sig. t value of $0.001 < 0.05$ signifies the extent of the contribution of students' trust to their satisfaction, demonstrating a positive influence. The relationship between students' trust and their satisfaction with educational services can provide a better understanding of factors that statistical models may not capture. Although student trust significantly influences satisfaction, there is still a significant percentage of variance in student satisfaction that cannot be explained by this variable alone. It suggests that other factors influencing student satisfaction have yet to be included in the model. Identifying and discussing potential additional variables that may affect student satisfaction, such as social environment, cultural, or institutional factors, can guide future research directions. By incorporating these additional variables into the model, we can build a more comprehensive model of student satisfaction that can better explain the variability in student satisfaction.

Faith forms the foundation of a strong customer relationship, where satisfaction is the primary outcome of reliable interactions between organizations and consumers (Kotler & Keller, 2015). In this context, high trust in educational institutions leads to higher satisfaction. A study by Susan et al. (2023) highlights the importance of trust in the higher education environment, influencing students' perceptions of the quality of educational services provided. According to Ruiz-Martínez et al. (2019),

trust is a significant mediator in the relationship between satisfaction and loyalty, resulting in long-term support for institutions. Trust in educational institutions provides a solid basis for student satisfaction, contributing to increased loyalty and interest in academic and non-academic campus activities (Ismanova, 2019). Therefore, it is crucial to focus on building and maintaining students' trust as a pivotal element in enhancing their satisfaction with the educational institution.

The influence of tangible evidence in higher education environments significantly impacts student satisfaction. Research findings indicate that the tangible evidence dimension holds a value of Sig. t 0.049 < 0.05, signifying that this variable significantly affects student satisfaction. Tangible evidence encompasses infrastructure, facilities, and resources that directly influence students' perceptions of the quality of their learning experience. It stands out as a prominent factor in students' assessment of the quality of educational services (Wijenayaka, 2020). This viewpoint is supported by McDonald (2019), who suggests that adequate tangible evidence can influence students' decisions in choosing a higher education institution and impact their desire to remain within the campus environment. However, Rajabalee Santally (2021) emphasizes that tangible evidence is just one of several factors influencing student satisfaction. Despite its importance, effective management and providing good services are necessary alongside tangible evidence to impact student satisfaction significantly.

Empathy is an essential aspect of the educational environment that impacts student satisfaction. Research findings indicate that the dimension of empathy holds a Sig. t value of 0.744 > 0.05, suggesting that the empathy variable does not influence student satisfaction. This finding contradicts the research by Bell (2022), which emphasizes that a teacher's ability to understand, feel, and respond to students' feelings and perspectives positively contributes to enhancing student satisfaction in the teaching-learning process. The presence of positive emotional involvement between teachers and students can create a supportive learning environment and foster a conducive atmosphere for academic development and psychological well-being. Awareness of students' needs and the responsibility to understand their challenges are essential for teachers in building empathetic relationships.

The influence of reliability on student satisfaction is a crucial aspect in evaluating the quality of education in higher institutions. Research findings demonstrate that the reliability dimension holds a Sig. t value of 0.000 < 0.05, indicating that this variable significantly impacts student satisfaction. The instruments utilized include the teaching abilities of lecturers, their genuine interest in solving students' problems, punctuality in conducting classes, and the university maintaining accurate academic records. Reliability illustrates how an institution consistently delivers educational services, encompassing teaching, assessment, and administration, ultimately affecting student satisfaction (Najimdeen et al., 2021). Trust in service reliability influences consumers' perceptions of satisfaction (Lu et al., 2022). Trust in the reliability of a service is a crucial factor affecting consumer satisfaction. In the context of higher education, students' trust in the institution's reliability to provide consistent and dependable services significantly contributes to the level of satisfaction.

The influence of responsiveness on student satisfaction is a critical aspect affecting their perception of service quality in the higher education environment. Research results indicate that the dimension of responsiveness holds a Sig. t value of 0.031 < 0.05, signifying its significant impact on student satisfaction, with indicators such as faculty and staff availability to assist students. Responsiveness refers to an institution's ability to provide prompt and accurate service in response to student needs. Effective responsiveness includes efficient communication, willingness to assist, and swift responses to student queries and requests (Aboubakr & Bayoumy, 2022). This factor significantly affects student satisfaction, as expressed by Abu-Rumman Qawasmeh (2022) in their study, which found that responsiveness plays a crucial role in enhancing student satisfaction with higher education services.

The influence of assurance in the context of higher education plays a crucial role in determining student satisfaction. Research findings reveal that the assurance dimension (Assurance) holds a significant value of Sig. t 0.004 < 0.05, indicating its impact on student satisfaction. This dimension encompasses indicators such as the academic credentials of instructors, approachable and courteous faculty and staff, instructors' communication skills during lectures, and staff knowledge of regulations

and procedures. Studies conducted by Chan et al. (2022) emphasize that quality assurance significantly contributes to customer satisfaction, specifically among students in higher education institutions. Within the academic environment, assurance aspects influencing student satisfaction include resource availability, teaching quality, and alignment between what the educational institution promises and what it delivers. Students who perceive assurance in these aspects tend to experience higher satisfaction in their learning experiences (El et al., 2006).

Trust and the quality of educational services significantly shape student satisfaction in higher education institutions. Research findings reveal a coefficient value of 0.297 with a significance value of $0.001 < 0.05$, indicating that student trust positively influences the quality of educational services. Trust, as a critical element in the institution-student relationship, encompasses students' belief in the institution's integrity, commitment, and capability to meet their expectations and needs. Trust forms the foundation of a solid consumer-company relationship. In the educational context, trust in the institution influences students' perceptions of the quality of educational services provided (Kajenthiran & Sivarajah, 2022). The established trust between students and educational institutions significantly determines the services provided and is a pivotal factor in evaluating service quality. Students who trust educational institutions' transparency, openness, and commitment will feel more satisfied with the services rendered (Adetayo et al., 2022).

Research findings indicate that student trust positively influences the quality of educational services and has significant implications in a negative context. When trust between students and educational institutions is low, various detrimental issues may arise for both parties. In relationships lacking trust, students may feel sceptical or unsure about the educational institution's integrity, commitment, and capability to meet their expectations and needs. It can lead to decreased motivation to learn, a tendency to feel dissatisfied with the educational services provided, and a decline in the quality of interaction between students and academic staff. Furthermore, distrust can create an environment not conducive to learning, where students may feel uncomfortable or unsafe participating actively in the educational process. It can hurt academic achievement and students' personal development. In a negative context, the lack of trust between students and educational institutions can also lead to tension, conflict, or even loss of the relationship between both parties. It can affect the educational institution's reputation and public perception of it. Therefore, it is essential to improve and strengthen trust between students and educational institutions to prevent the negative consequences of a lack of trust in the educational context.

4. CONCLUSION

The conclusion drawn from the study emphasizes the importance of trust, physical evidence, reliability, assurance, and empathy in the context of student satisfaction within higher education institutions. High trust in educational institutions forms a strong foundation for student satisfaction, while adequate physical evidence, reliability, and assurance of the quality of educational services also play crucial roles. However, findings regarding the influence of empathy on student satisfaction need to be more consistent. While trust, physical evidence, reliability, and assurance significantly impact student satisfaction, empathy in the educational environment requires further research and understanding. Institutions need to pay attention to factors influencing student satisfaction in the context of higher education development. Building and maintaining student trust, providing adequate physical evidence, improving reliability and assurance of educational service quality, and enhancing empathy in interactions between faculty and students can significantly increase student satisfaction and improve the quality of their learning experiences. Understanding the roles and influences of these variables allows educational institutions to devise more effective strategies for enhancing student satisfaction and creating a higher quality, supportive learning environment.

REFERENCES

- Aoubakr, R. M., & Bayoumy, H. M. M. (2022). Evaluating educational service quality among dentistry and nursing students with the SERVQUAL model: A cross-sectional study. *Journal of Taibah University Medical Sciences*, 17(4), 648–657. <https://doi.org/https://doi.org/10.1016/j.jtumed.2022.01.009>
- Abu-Rumman, A., & Qawasmeh, R. (2022). Assessing international students' satisfaction with a Jordanian university using the service quality model. *Journal of Applied Research in Higher Education*, 14(4), 1742–1760. <https://doi.org/10.1108/JARHE-05-2021-0166>
- Adetayo, A., Senathirajah, A. R. B. S., Devasia, S. N., & Haque, R. (2022). Modelling Consumer Perception of Service Quality in Banks. *Res Militaris*, 12(2), 1357–1373.
- Amoako, G. K., Ampong, G. O., Gabrah, A. Y. B., de Heer, F., & Antwi-Adjei, A. (2023). Service quality affecting student satisfaction in higher education institutions in Ghana. *Cogent Education*, 10(2). <https://doi.org/10.1080/2331186x.2023.2238468>
- 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>
- Bormann, I., Niedlich, S., & Würbel, I. (2021). Trust in Educational Settings—What It Is and Why It Matters. European Perspectives. *European Education*, 53(3–4), 121–136. <https://doi.org/10.1080/10564934.2022.2080564>
- Chan, V. H. Y., Chiu, D. K. W., & Ho, K. K. W. (2022). Mediating effects on the relationship between perceived service quality and public library app loyalty during COVID-19. *Journal of Retailing and Consumer Services*, 67, 102960. <https://doi.org/https://doi.org/10.1016/j.jretconser.2022.102960>
- Dananjaya, U. (2023). *Media pembelajaran aktif*. Nuansa Zedekiah.
- Darus, M., Pohyae, S., Romle, A. R., Saleh, H., Saleh, S. S., Khairul, S., & Mohamood, B. (2016). The Relationship Between Service Quality and Student Satisfaction: The Case of International Students in Public University. *World Applied Sciences Journal*, 34(4), 491–498. <https://doi.org/10.5829/idosi.wasj.2016.34.4.15684>
- El Ansari, W., & Oskrochi, R. (2006). What matters most? Predictors of student satisfaction in public health educational courses. *Public Health*, 120(5), 462–473. <https://doi.org/10.1016/j.puhe.2005.12.005>
- Fan, H., Han, B., & Gao, W. (2022). (Im)Balanced customer-oriented behaviours and AI chatbots' Efficiency–Flexibility performance: The moderating role of customers' rational choices. *Journal of Retailing and Consumer Services*, 66, 102937. <https://doi.org/https://doi.org/10.1016/j.jretconser.2022.102937>
- Giantari, I. G. A. K., Yasa, N. N. K., Suprasto, H. B., & Rahmayanti, P. L. D. (2022). The role of digital marketing in mediating the effect of the COVID-19 pandemic and the intensity of competition on business performance. *International Journal of Data and Network Science*, 6(1), 217–232. <https://doi.org/10.5267/J.IJDNS.2021.9.006>
- Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3(February), 275–285. <https://doi.org/10.1016/j.susoc.2022.05.004>
- Ismanova, D. (2019). Students' loyalty in higher education: The mediating effect of satisfaction, trust, commitment on student loyalty to Alma Mater. *Management Science Letters*, 9(8), 1161–1168. <https://doi.org/10.5267/j.msl.2019.4.024>
- Kajenthiran, K., & Sivarajah, R. (2022). Assessing The Effects Of Service Quality, Student Satisfaction, And Student Engagement On Student Loyalty: A Private Higher. *Proceedings of 6th Interdisciplinary Conference of Management Researchers (6th ICMR 2021) Sabaragamuwa University of Sri Lanka, March*.
- Kotler, P., & Keller, K. L. (2015). *Marketing Management*. Pearson Education, Limited. <https://books.google.co.id/books?id=PDUOrgEACAAJ>

- Lu, B., Yan, L., & Chen, Z. (2022). Perceived values, platform attachment and repurchase intention in on-demand service platforms: A cognition-affection-conation perspective. *Journal of Retailing and Consumer Services*, 67, 103024. <https://doi.org/https://doi.org/10.1016/j.jretconser.2022.103024>
- Maister, D. H., Galford, R., & Green, C. (2021). *The Trusted Advisor: 20th Anniversary Edition*. Free Press. <https://books.google.co.id/books?id=ty8SEAAAQBAJ>
- Mcdonald, L. S. (2019). The Impact of Campus Facilities on the Recruitment of Students in Higher Education. In *Western Kentucky University TopSCHOLAR: Vol. Summer 201*.
- Najimdeen, A. H. A., Amzat, I. H., & Ali, H. B. M. (2021). The Impact of Service Quality Dimensions on Students' Satisfaction: A Study of International Students in Malaysian Public Universities. *IJUM Journal of Educational Studies*, 9(2), 89–108. <https://doi.org/10.31436/ijes.v9i2.324>
- Permana, A., Aima, M. H., Ariyanto, E., & Nurmahdi, A. (2020). The Effect Of Academic Service Quality On Satisfaction And Loyalty Of Students University. *Jurnal Ecodemica: Jurnal Ekonomi, Manajemen, Dan Bisnis*, 4(2), 230–241. <https://doi.org/10.31294/jeco.v4i2.7979>
- Putro, H. P. N., Rusmaniah, R., Mutiani, M., Jumriani, J., & Subiyakto, B. (2022). The relevance of social capital in efforts to develop entrepreneurship education. *Journal of Education and Learning (EduLearn)*, 16(3), 412–417. <https://doi.org/10.11591/edulearn.v16i3.20384>
- Qin, Y. S., & Men, L. R. (2023). Exploring the Impact of Internal Communication on Employee Psychological Well-Being During the COVID-19 Pandemic: The Mediating Role of Employee Organizational Trust. *International Journal of Business Communication*, 60(4), 1197–1219. <https://doi.org/10.1177/23294884221081838>
- Rajabalee, Y. B., & Santally, M. I. (2021). Learner satisfaction, engagement and performances in an online module: Implications for institutional e-learning policy. In *Education and Information Technologies* (Vol. 26, Issue 3). Education and Information Technologies. <https://doi.org/10.1007/s10639-020-10375-1>
- Rockstuhl, T., Wu, D., Dulebohn, J. H., Liao, C., & Hoch, J. E. (2023). Cultural congruence or compensation? A meta-analytic test of transformational and transactional leadership effects across cultures. *Journal of International Business Studies*, 54(3), 476–504. <https://doi.org/10.1057/s41267-022-00559-x>
- Ruiz-Martínez, A., Frasquet, M., & Saura, I. (2019). How to measure B2B relationship value to increase satisfaction and loyalty. *Journal of Business & Industrial Marketing*, 16(2), 56–71. <https://doi.org/10.1108/JBIM-10-2018-0289>
- Soliman, S., & Waziry, A. (2017). *A Program to Develop the Students' Awareness of E-learning and its Applications in English in the Foundation Program of Dhofar University*. <https://doi.org/10.31235/osf.io/v2je7>
- Susan, M., Winarto, J., Aribowo, A., Raihin, Y. O., Martalena, Herlina, Kambono, H., & Prayogo, E. (2023). The Impact of Student Satisfaction on Student Loyalty: The Role of Student Trust. *Journal of Higher Education Theory and Practice*, 23(6), 29–35. <https://doi.org/10.33423/jhetp.v23i6.5972>
- Tinto, V. (2012). *Leaving college: Rethinking the causes and cures of student attrition*. University of Chicago Press.
- Tojiboeva, G. R., Fayziyeva, F., Madrahimova, I. B., Ahmadaliyeva, M. S., Xurramov, A. X., & Ishmatova, O. S. (2022). Pedagogical Science Education Management In Teaching Science Of Pedagogical Sciences. *Uzbek Scholar Journal*, pp. 10, 528–537.
- Tsamwa, C. K., Rahman, A., Haque, R., Adetayo, A., Connie, G., Rahim, A., & Batcha, S. (2022). Modelling Consumer Perception Of Internet Retail Service Quality (IRSQ) Using Structural Equation Analysis: An Empirical Study On Africa's E-Marketplace. *Journal of Positive School Psychology*, 2022(6), 10297–10310. <http://journalppw.com>
- Twum, F. O., & Pepurah, W. K. (2020). The Impact of Service Quality on Students' Satisfaction. *International Journal of Academic Research in Business and Social Sciences*, 10(10). <https://doi.org/10.6007/ijarbss/v10-i10/7923>
- Ulfah, M. (2019). The Relationship Between Quality of Service and Student Satisfaction within an

Indonesian Islamic-Based University. *Journal of Education and Practice*, pp. 101–111.
<https://doi.org/10.7176/jep/10-2-12>

Wijenayaka, D. (2020). *Customer perceptions of service quality : An assessment of the SERVQUAL in the life insurance industry. August 2018*, 1–4.