Analysis of Student Satisfaction with Student Affairs Unit Services: A Case Study of the Industrial Engineering Study Program at XYZ University

Endah Utami*, Dika Brahmanda Ayu Regita

Abstract—Student satisfaction is a crucial criterion for assessing the quality of higher education. This study aimed to measure student satisfaction with the scholarship service process in a higher education institution. The research employed multiple linear regression analysis using the Servqual model proposed by Parasuraman, which includes the variables of tangibles, responsiveness, reliability, assurance, and empathy. The population of this study consisted of 132 active students from the Industrial Engineering Study Program (IE), enrolled between 2016 and 2019. The partial test results revealed that reliability (Sig. 0.039 < 0.05) and assurance (Sig. 0.000 < 0.05) significantly influenced student satisfaction. The simultaneous test results demonstrated that tangibles, responsiveness, reliability, assurance, and empathy significantly impacted student satisfaction. The correlation coefficient, represented by R² (0.754), indicated that the variables under investigation could explain 75.4% of the variation in student satisfaction. In comparison, the remaining 24.6% may be influenced by external factors beyond the scope of this study.

Index Terms—higher education institution, industrial engineering, service quality, student satisfaction

I. INTRODUCTION

Education is a conscious and planned effort to create a conducive learning environment and learning process. Education aims to prepare learners to become professionals in both academic and non-academic fields, enabling them to generate ideas and apply knowledge based on their acquired abilities. To achieve these objectives, higher education institutions are the initial step in guiding learning activities, providing adequate quality services, complete facilities and infrastructure, and integrated guidance and counselling. Universities are responsible for training students in addition to teaching, research, administrative services, and more [1].

With increasing competition and demands for quality-oriented services based on customer value, organizations, including higher education institutions, are pressured to respond promptly (responsiveness). In this context, student satisfaction becomes a top priority for universities. Student satisfaction is determined by the quality desired by students, making quality assurance the primary concern for any higher education institution, which serves as a benchmark for its competitive advantage [2].

Accreditation of study programs is one form of quality assessment and evaluation of higher education institutions or study programs by external independent bodies or organizations [3]. The National Accreditation Board for Higher Education of Indonesia (BAN-PT) establishes criteria for assessing institutional commitment and educational effectiveness. Accreditation is a process of evaluation to determine whether a university or study program meets the standards set by the Ministry of Education, Culture, Research and Technology of the Republic of Indonesia, as stated in Regulation No. 32 of 2016 [4]. According to Article 33, Paragraph 6 of the Indonesian Law No. 12 of 2012 on Higher Education, study programs must undergo reaccreditation when their accreditation period expires [5]. Accreditation has a five-year cycle; thus, the Industrial Engineering Study Program (IE) must experience reaccreditation within the specified timeframe to achieve the desired quality standards.

Accreditation for study programs involves the evaluation of quality and feasibility by external independent bodies or organizations [3]. BAN-PT has established criteria for assessment that include the institution's commitment to institutional capacity and educational effectiveness. The requirements consist of nine areas of review: (1) Vision, Mission, Objectives, and Strategies; (2) Governance and Cooperation; (3) Students; (4) Human Resources; (5) Finance, Facilities, and Infrastructure; (6) Education; (7) Research; (8) Community Service; and (9) Outcomes and Achievement of the Tridharma [6]. The Student Indicator is one of the evaluation criteria used to analyze student satisfaction with the availability of student affairs services in the Industrial Engineering Program.

Based on previous research, the author has identified the variables used in this study using the Parasuraman approach. The study measures student satisfaction with student affairs services in the IE at a particular private university using the Servqual model's five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. The research aims to

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analyze student satisfaction with the availability of student affairs services in the IE and assist the program in completing the accreditation process to meet the evaluation standards set by the BAN-PT. This study documents student satisfaction, which has yet to be explored in previous research conducted for IE.

One of the academic services provided by the Student Affairs Unit (SAU) at the university is the scholarship service, which is available at SAU. As a support service for students, the scholarship service is crucial in achieving quality education. Therefore, it is necessary to innovate management and measure or evaluate the services provided to users (students). The office manages and develops internationally competitive students and alumnae based on Islamic values. One of the unit's objectives is to provide management and development services for student welfare, including health, counselling, and scholarship services. This study specifically focuses on measuring student satisfaction with the internal scholarship services provided by the university. The internal scholarships include the Academic Achievement Scholarship (AAS), awarded to students yearly, including those in the IE.

The SAU provides various academic services, including the scholarship service, which involves recruitment, selection, determination of recipients, announcement of scholarship recipients, and disbursement of scholarship funds. However, there are gaps between student expectations and the actual conditions in implementing the scholarship service in the IE. Several issues have been identified based on observations, including limited waiting areas with seating capacity for only three people, resulting in a less conducive environment with a service queue. Inadequate administrative services also pose a challenge, as there is no division of tasks among staff members when serving student needs, resulting in delays and waiting times. Additionally, students have complained about the unfriendly behaviour of staff members during service encounters.

Students, as users of scholarship services, frequently raise concerns about the complex application process and document processing delays, which requires the office's validation, leading to significant delays. Furthermore, based on student experiences and opinions, service-related issues concern staff members' need for more information while processing scholarship applications. Consequently, when students face difficulties meeting the required documentation criteria, they receive no guidance or information. Based on the issues mentioned earlier, the author aims to conduct this research to evaluate and improve the quality of scholarship services the SAU provides, particularly for the IE.

This study aims to assess student satisfaction with the availability of scholarship services in the IE. The findings will contribute to future improvements in enhancing the quality of scholarship services and meeting the accreditation standards set by the BAN-PT.

II. METHOD

This research was conducted at a private university (XYZ University) in Yogyakarta, Indonesia, specifically in the IE. This research aimed to determine students' satisfaction with the availability of scholarship services. The study used active students of IE from the 2016 to 2019 batches as the research subjects. The data required for the research included student satisfaction data collected through questionnaires distributed via Google Forms or WhatsApp groups. The study referred to Parasuraman's framework to determine service quality dimensions. The research identified two main variables to be investigated.

The quality of scholarship services is an independent variable (X). The quality of scholarship services refers to comparing consumer perceptions of the services they receive and the services they expect to receive. The five dimensions of service quality are as follows:

1. Tangibles or physical evidence (X1): It represents the tangible aspects of services that can be directly observed, such as physical facilities, equipment, staff appearance, communication tools, and other elements involved in the service process.
2. Responsiveness (X2): It represents the willingness and ability of employees to help customers promptly.
3. Reliability (X3): It refers to the ability to provide services as promised, primarily providing services on time without errors.
4. Assurance (X4): It encompasses the knowledge, courtesy, and ability to instil trust in personal interactions, eliminating customer doubts and potential risks.
5. Empathy (X5): It represents the ability to show attention and understanding to customers.

Student satisfaction (Y) refers to students' positive attitude towards the services provided compared to their expectations. The indicators of student satisfaction include facilities and infrastructure, the process of service delivery, the possessed information and knowledge, friendliness of staff, and politeness of the staff.

The population of this research consisted of 132 active students from the IE who had utilized the scholarship service. A non-probability sampling technique, precisely complete population sampling, was employed, including all active students who had used the scholarship service.

A questionnaire was developed to measure student satisfaction with the scholarship service to collect data. The questionnaire comprised multiple items representing different indicators related to each service quality dimension. The students were asked to respond based on their experiences with the scholarship service.

III. RESULTS

A. Instrument Validity and Reliability

The initial stage of questionnaire development involved determining the variables to be used in the study based on the background and objectives. The variables were derived from previous research studies as references and based on the theories proposed by experts. The study used variables from the Service Quality (Servqual) conceptual model [7] which measures various service quality dimensions. The questionnaire
consisted of 40 questions with varying numbers of questions for each variable.

Face validity involved testing the questionnaire items with expert professors in the field. The first face validity test was conducted with an expert (SFN), who identified some inappropriate sentences that required revision. The second face validity test was conducted with an expert (WSJ), who identified vague stakeholder references and improper sentence usage. The third face validity test was conducted with an expert (ULT), who identified some questions unsuitable for the real case scenario and had issues with the placement of questions within variables. Based on the feedback from the expert professors, the questionnaire was revised twice to maximize its validity before being distributed to respondents.

The questionnaire was distributed to active students of the IE enrolled in the 2016-2019 cohorts, specifically those who had received internal scholarships from the university. The questionnaire was distributed online using Google Forms due to the constraints imposed by the ongoing COVID-19 pandemic. Seventy-four respondents completed the questionnaire out of a population of 132 students.

Validity testing was conducted to assess the validity or appropriateness of the questionnaire for measuring and obtaining research data from the respondents. Reliability testing aimed to evaluate the consistency of the questionnaire when repeated measurements were taken. Validity testing was performed using the r-value and comparing it with the critical r-value. The r-value calculations for each variable were compared to the crucial r-value at a significance level of 0.05. Based on the results, all items in the questionnaire were found to be valid for the Tangibles, Responsiveness, Reliability, Assurance, Empathy, and Student Satisfaction variables.

Reliability testing was conducted using Cronbach's alpha coefficient to assess the consistency of the questionnaire. The Cronbach's alpha values for each variable were all above the threshold of 0.6, indicating that the questionnaire items were reliable for measuring the Tangibles (X1), Responsiveness (X2), Reliability (X3), Assurance (X4), Empathy (X5), and Student Satisfaction (Y) variables.

B. Descriptive Analysis

The study incorporates data from four cohorts (2016-2019), with 74 student respondents. Among these cohorts, most respondents are from the 2018 cohort, comprising 40% of the total sample. Regarding gender distribution, the respondents include 43% male and 57% female, indicating a higher percentage of female respondents in the study. The sample also represents students from various regions, with 54% from Java and 46% from outside Java. The Cumulative Grade Point Average (CGPA) of the respondents is divided into two categories: CGPA < 3.50, which accounts for 15% of the respondents, and CGPA > 3.51, which accounts for 85%. This categorization allows for a distinction between students with lower and higher academic performance. The study specifically focuses on the scholarship received by 100% of the respondents. It suggests that all the students included in the survey are recipients of this particular scholarship, enabling an examination of its impact on the variables of interest. The research employs multiple linear regression to analyze the relationship between the independent variables and student satisfaction. The study incorporates five independent variables: Tangibles (X1), Responsiveness (X2), Reliability (X3), Assurance (X4), and Empathy (X5). These variables likely represent different dimensions or aspects of the scholarship program or university services.

Finally, the dependent variable in this analysis is Student Satisfaction (Y), which serves as the outcome or response variable to be predicted based on the independent variables mentioned above. The aim is to explore how the different dimensions of the scholarship program or university services relate to students' overall satisfaction.

C. Multiple Linear Regression Analysis

Multiple linear regression analysis was conducted to test the data obtained from IE students who had received internal scholarships from the 2016 to 2019 cohorts. The results of the multiple linear regression analysis are presented in Table 1.

Table 1. Multiple Linear Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Variable</th>
<th>Unstandardized Coefficient</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Constant)</td>
<td>-0.795</td>
<td>2.059</td>
</tr>
<tr>
<td>1</td>
<td>Tangible (X1)</td>
<td>0.013</td>
<td>0.112</td>
</tr>
<tr>
<td></td>
<td>Responsiveness (X2)</td>
<td>0.037</td>
<td>0.082</td>
</tr>
<tr>
<td></td>
<td>Reliability (X3)</td>
<td>0.316</td>
<td>0.150</td>
</tr>
<tr>
<td></td>
<td>Assurance (X4)</td>
<td>0.436</td>
<td>0.098</td>
</tr>
<tr>
<td></td>
<td>Empathy (X5)</td>
<td>-0.036</td>
<td>0.212</td>
</tr>
</tbody>
</table>

Source: Data analysis using SPSS

The multiple linear regression equation can be written as follows:

\[ Y = -0.793 + 0.013 (X1) + 0.037 (X2) + 0.316 (X3) + 0.436 (X4) - 0.036 (X5) \]

Based on the equation above, the analysis yields the following interpretations:

1. The regression constant is -0.795, indicating that when the independent variables (Tangibles, Responsiveness, Reliability, Assurance, and Empathy) are considered constant, Student Satisfaction is -0.795.
2. The regression coefficient for Tangibles (X1) is 0.013. It means that if the values of other independent variables remain constant and Tangibles increase by 1%, student satisfaction will increase by 0.013. It indicates a positive correlation between Tangibles (X1) and Student Satisfaction (Y).
3. The regression coefficient for Responsiveness (X2) is 0.037. It means that if the values of other independent variables remain constant and Responsiveness increases by 1%, Student Satisfaction will increase by 0.037. It indicates a positive correlation between Responsiveness (X2) and Student Satisfaction (Y).
4. The regression coefficient for Reliability (X3) is 0.316. It
means that if the values of other independent variables remain constant and Reliability increases by 1%, Student Satisfaction will increase by 0.316. It indicates a positive correlation between Reliability (X3) and Student Satisfaction (Y).

5. The regression coefficient for Assurance (X4) is 0.436. It means that if the values of other independent variables remain constant and assurance increases by 1%, Student Satisfaction will increase by 0.436. It indicates a positive correlation between Assurance (X4) and Student Satisfaction (Y).

6. The regression coefficient for Empathy (X5) is -0.036. It means that if the values of other independent variables remain constant and Empathy increases by 1%, Student Satisfaction will decrease by -0.036. It indicates a negative correlation between Empathy (X5 and Student Satisfaction (Y).

D. The coefficient of determination

The coefficient of determination (R2) is used to test the goodness of fit of a regression model, and the goodness of fit can be assessed from the value of Adjusted R Square. Table 2 shows the results of the coefficient of determination in the study.

<table>
<thead>
<tr>
<th>Table 2. Coefficient of Determination</th>
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<tbody>
<tr>
<td>Model</td>
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<tr>
<td>-------</td>
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<tr>
<td>1</td>
</tr>
</tbody>
</table>

Source: SPSS 20 Data Analysis

Based on Table 2, the correlation coefficient (R) is 0.868, and the R Square (R2) is 0.754. These values indicate that the independent variables (tangibles, Responsiveness, Reliability, Assurance, and Empathy) have a 75.4% influence on students' satisfaction. In comparison, the remaining 24.6% is influenced by other variables not included in the study.

The coefficient of determination is used to evaluate the goodness of fit, which measures the extent to which a regression model can explain the variation in the dependent variable based on the independent variables used. A higher R Square value indicates a better fit of the regression model in explaining the variation in the data. In this context, an R Square value of 0.754 indicates that the regression model using the variables of Tangibles, Responsiveness, Reliability, Assurance, and Empathy can explain approximately 75.4% of the variation in Student Satisfaction.

However, it should be noted that 24.6% of the variation in Student Satisfaction is not explained by the independent variables included in this study. Other factors not considered in the research may contribute to the unexplained variation.

III. DISCUSSION

Based on data processing through multiple regression analysis and interpretation of the hypothesis model criteria, the research results can be explained as follows: there are several variables that significantly influence the satisfaction of IE students. Reliability (X3) and Assurance (X4) are the variables that have a significant influence. On the other hand, the variables of Tangibles (X1), Responsiveness (X2), and Empathy (X4) do not have a significant influence.

A. Reliability variable (X3)

Based on the data processing results for the Reliability variable (X3), it was found to have a significant influence on Student Satisfaction (Y) with a significance value of 0.039 (Sig. < 0.05). Therefore, reliability significantly affects Student Satisfaction. Since reliability impacts Student Satisfaction, the IE should pay more attention to the services provided. It is because some students still need to be satisfied with the quality of service offered by SAU staff. Therefore, some indicators need to be revised to meet the needs of students during the scholarship service process. It can be seen from the average percentage of respondent answers, 78% in the "agree/satisfied" category, and the lowest indicator is 5.3% in the "agree/satisfied" category. The lowest percentage is obtained for the Reliability variable, with the indicator being the current service procedures becoming easier. In this regard, students are satisfied with the current service process for scholarship applications, but it still needs attention to maintain student satisfaction with the service. Other indicators that students are confident with, with minor obstacles, include the renewal of the scholarship service flow.

It is consistent with the actual conditions during the scholarship service process. There is slight confusion among students when submitting scholarship application documents due to the differences in service flow compared to the previous year, resulting in a renewal of the flow that is not following the previous one on the SAU website. Therefore, clear information is needed regarding the differences and improvements in the service flow, which should be openly published to all students and used as a reference for future scholarship service procedures in the IE.

This research supports a previous study conducted by Ref. [8]. The research findings show that the quality of service, specifically the reliability variable, significantly impacts student loyalty. The researchers stated that the university had provided a full courtesy to its students. Employees, staff, and lecturers have been able to provide services to students and convey the faculty's policies to them effectively.

B. Assurance Variable (X4)

Based on the data processing conducted for the Assurance variable (X4), significant results were obtained indicating its influence on Student Satisfaction (Y), with a significance value of 0.000 (Sig. < 0.05). Overall, all indicators of student satisfaction were rated as satisfactory, with an average percentage of respondent answers at 79.6% in the "agree/satisfied" category. It indicates that the scholarship services provided by the SAU are of good quality. However, based on the regression analysis results, it can be concluded that the Assurance variable (X4) significantly affects Student Satisfaction (Y) through the quality of service provided.

It demonstrates that assurance is an essential aspect of...
achieving excellent service. The assurance variable is associated with the staff’s ability, clarity, and service credibility in performing tasks. Credibility and ability are manifested in tangible ways, such as the staff’s ability to assist in completing scholarship administrative processes, their communication skills, and the responsibility they show in delivering quality service. This result aligns with the conditions in the student service unit, where indicators of fulfilment and service responsibility are satisfactory. However, there is a need to enhance the staff’s ability to build trust in the services provided to students. This finding can be seen from the questionnaire responses, where 20.4% of the aspects indicated dissatisfaction. Based on the satisfaction results, the SAU still needs to achieve excellent service, although the results show a satisfaction level of 79.6%. According to Ref. [9], total customer satisfaction is impossible to acquire permanently, even if only temporarily. However, improvement or enhancement of satisfaction can be achieved through various strategies [2].

Therefore, based on these findings, continuous improvement is needed in the aspect of assurance in scholarship services to ensure the quality of service that is based on student satisfaction, the primary target, is effectively implemented. In this way, students can feel delighted with the services provided, meeting their expectations and the realities of the scholarship service process. These research findings support a previous study conducted by Ref. [10]. The research findings showed that the assurance variable significantly influenced student satisfaction. Assurance received significant attention from the university, as evidenced by the student's responses to the researcher's instruments. The questionnaire items related to the competence of lecturers and instructors in preparing modules and teaching materials, their polite attitude and good behaviour, grading, academic advising, providing reference materials, and informing students about class schedules and accessible exams 24/7. This condition indicates that student satisfaction is influenced by the provision of more personalized assurance services to students.

C. Tangibles Variable (X1)

Based on the data analysis conducted for the Tangibles variable (X1), it was found that there is no significant influence on Student Satisfaction (Y), as indicated by a significance value of 0.911 (Sig. > 0.05). Therefore, the findings suggest that students in the IE do not consider physical evidence factors, such as document completeness, facilities that support the scholarship service process, and the neat appearance of staff, as affecting their satisfaction with the quality of service. This information can be observed from the tangible evidence during the scholarship service process, where staff members are always present at the service unit and maintain a neat appearance according to campus standards. Additionally, when students submit their document applications, they are well-prepared and neatly organized. Furthermore, the SAU provides online web facilities for information, making it easier for students to access various scholarship service-related information.

Consequently, students perceive that the facilities provided by the university at the SAU are satisfactory, with adequate equipment and resources. This research aligns with a previous study by Ref. [11] on the Tangibles variable, which found no significant influence on student satisfaction in the Business Management Study Program, with a significance value below 0.05. Analyzing the questionnaire responses from students, the study showed that 78% of students were satisfied with the services provided by the university. Although there were some complaints regarding the use of facilities, these complaints were limited and did not represent overall user satisfaction, indicating that the tangibles variable did not significantly impact student satisfaction at the university.

D. Responsiveness Variable (X2)

Based on the data analysis conducted for the Responsiveness variable (X2), it was found that there is no significant impact on Student Satisfaction (Y), as indicated by a significance value of 0.656 (Sig. > 0.05). Based on these findings, it is evident that students are satisfied with the quality of service the SAU staff provides during the scholarship service process. In this regard, staff members have been able to effectively and promptly address the needs of students, which is the primary focus of the service.

Consequently, student satisfaction is not affected in terms of service quality. However, concerning the responsiveness aspect, the analysis of questionnaire responses revealed that the primary area for improvement is staff members' attitude and welcoming demeanour when serving students, particularly the importance of greeting students with a smile. This initial impression is crucial in achieving excellent service. A warm reception will make students feel more comfortable and leave a lasting impression, shaping the institution's image. If the first impression is unpleasant for students, they will likely reconsider seeking further assistance and may feel uncomfortable. Therefore, while the SAU staff is generally good at making a positive first impression on students, efforts should be made to maintain this level of service to ensure students' satisfaction in this regard. This research aligns with a previous study by Ref. [12] at the Faculty of Economics of another university. The study found that the Responsiveness variable with a t-value of 0.289 > 0.05 indicates that responsiveness has no significant influence on student satisfaction in the Faculty of Economics. The researcher suggested that responsiveness should be further improved, including aspects such as the clarity of information delivery, the promptness and speed of response from educational staff to student issues, the preparedness and availability of academic staff to assist students in need, and the willingness of educational staff to listen to suggestions and complaints from students. Students perceived these aspects as failing to meet their expectations, but they did not significantly affect student satisfaction regarding the quality of service.

E. Empathy Variable (X5)

Based on the data analysis conducted for the Empathy variable (X5), a result of -0.168 was obtained. It indicates that for every 1 unit increase in the Empathy variable, Student
Satisfaction decreases by -0.168. This negative influence suggests that an increase in Empathy service may lead students to seek alternative services that promise greater satisfaction, resulting in a decrease in satisfaction among students using the service. Therefore, improving the assurance aspect in each indicator is necessary to align with the expected student service. Based on the results indicated by a significance value of 0.867 (Sig. > 0.05), it can be concluded that the empathy variable (X5) does not have a significant impact on student satisfaction (Y). Thus, it is evident that students are satisfied with the quality of service the SAU staff provides during the scholarship service process.

Looking at the service indicators provided to students, there are no significant obstacles related to these services. However, it is essential to maintain and pay attention to each indicator that supports the scholarship service process with a focus on the empathy variable, which is intended to help meet the needs of students and ensure that the service meets their expectations of students. This research does not support a previous Ref. [13] study. This research indicated a regression coefficient of 0.202 for the empathy variable, suggesting that each intervention unit of care provided by the university would increase student satisfaction by 0.202. Students felt valued with the opportunity to obtain scholarships, and the university also showed concern for students experiencing difficulties in their education by providing guidance and counselling units to assist students with academic and personal issues.

Research on service satisfaction in higher education, particularly in the case of student service unit, is relevant to other studies conducted in the context of measuring service quality in higher education. Ref [14] conducts one appropriate analysis proposing using the SERVQUAL model to measure service quality in higher education in Thailand. This study shows that when student expectations are met or exceeded, the service quality is considered good and impacts student satisfaction.

Ref [15] conducts another relevant study using the five dimensions of SERVQUAL to measure library service quality. This study reveals that all four dimensions of SERVQUAL, except responsiveness, have a positive relationship with user satisfaction in library services. The findings also suggest that designing various indicators is necessary to enhance the reliability of the measurement scale.

Furthermore, a relevant literature review by Ref. [16] highlights the importance of service quality in educational institutions and emphasizes the same five dimensions of SERVQUAL. The review concludes that educational institutions with high academic standards must have strong service quality.

Overall, research on service satisfaction in higher education, particularly in the context of student service units, is relevant to other studies, as mentioned above. These studies utilize the same concepts and dimensions in measuring service quality in higher education and linking it to student or user satisfaction. Thus, these studies provide a more comprehensive understanding and reinforce findings in this field. From these conclusions, the continuous improvement of service quality to students should be prioritized because it significantly impacts student satisfaction. As all five factors have a significant influence, improving quality should not focus on only one or some of the factors individually but instead consider all factors comprehensively.

### IV. Conclusion and Recommendation
Most students expressed satisfaction with the scholarship services provided by the SAU staff. It indicates that the services have met their expectations regarding tangible responsiveness, reliability, assurance, and empathy. However, continuous monitoring and attention to service quality are necessary to sustain this satisfaction level. The dimensions of tangible evidence, responsiveness, reliability, assurance, and empathy were identified as critical factors influencing student satisfaction. At the same time, all these dimensions play a role; reliability and assurance impact student satisfaction significantly. Thus, efforts should be focused on enhancing these aspects to improve student satisfaction. The dimensions of tangible evidence, responsiveness, reliability, assurance, and empathy collectively contribute to student satisfaction. It highlights the importance of considering and addressing all these factors comprehensively rather than prioritizing one or a few factors individually. A holistic approach to service improvement is crucial for enhancing overall student satisfaction.

The following recommendations can be made to improve further the scholarship services provided by the IE:

1. Maintain and Enhance Physical Facilities: Continuously maintain and upgrade the physical facilities associated with scholarship services to ensure they meet the needs and expectations of students.
2. Foster Responsiveness: Strengthen the responsiveness of the staff by promoting a helpful and proactive attitude towards assisting students with their scholarship service needs.
3. Enhance Reliability: Provide regular training and professional development opportunities for staff members involved in scholarship services to enhance their competencies and ensure consistent and reliable service delivery.
4. Strengthen Assurance: Uphold and improve the assurance aspects of the scholarship services, ensuring that students feel confident and trust in the support and benefits provided by the program.
5. Foster Empathy and Communication: Emphasize the importance of empathy and effective communication in scholarship services to foster a better understanding between staff and students, enhancing satisfaction.

### References


Endah Utami is a highly experienced and accomplished teacher and scholar with a diverse background in various fields. Her expertise spans a wide range of subjects, from essential technology courses to specialized areas such as industrial management with a focus on services and business management. Currently affiliated with the Industrial Engineering Department of Ahmad Dahlan University, Indonesia; she has played a significant role in shaping the educational landscape and providing students with a quality learning experience. As a scholar, she has conducted research and contributed to the advancement of knowledge in her areas of expertise. (email: endah.utami@ie.uad.ac.id)

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