The impact of service quality factors on college student satisfaction

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DOI: https://doi.org/10.56293/IJMSSSR.2024.5134

IJMSSSR 2024
VOLUME 6
ISSUE 4 JULY - AUGUST **ISSN: 2582 - 0265**

Abstract: Globalization, competition from other educational institutions, advancements in science and technology, and higher education Z-the subject of this research-all present obstacles. Thus, in order to be viable and competitive in the future, it will be necessary to enhance management, prioritize the needs of the client, and apply quality management. Finding out how satisfied students are is one of the crucial measures that needs to be taken in order to start making improvements. The purpose of this study is to evaluate how aspects of service quality affect students' satisfaction. This study was carried out at Z College. Questionnaires were one of the data collections approaches. The SEM-Partial Least Squares (PLS) program is used to process data. The findings indicated that the following factors may account for 65.85% of student satisfaction: lectures, leadership dedication, physical facilities, supporting facilities, administrative services, and student services. Student satisfaction is positively impacted by the quality of the lectures, the physical facilities, the supporting facilities, the administrative services, and student affairs.

Keywords: service quality, satisfaction

1. Introduction

Generate competent graduates with the ability to advance the humanities, sciences, and arts on the foundation of religious morality. One of Z College's goals is to be able to compete on both the national and worldwide stages. All faculties and study programs must be able to fulfill their roles and objectives in order to attain their mission and goals. The goal is to generate competent students who are proficient in their respective fields. As a result, they can enhance the university's reputation and image, which is valued by users, recruiters, and potential students. Numerous initiatives have been made to raise the standard of educational services.

The quality of services must be raised in line with the new paradigm of higher education management as a service sector. Cocurricular, extracurricular, administrative, research, and community service services are all included in the category of service quality. Implementing lectures is one type of curricular service, along with curriculum, lecture design, syllabus, lecture material, lecture procedure, and assessment. If there is sufficient infrastructure and facilities to support them, curriculum services will be of high quality. In the service industry, customer satisfaction serves as a barometer for how well educational institutions do their duties.

Customer satisfaction is also a crucial component of Total Quality Management (TQM) implementation. As a result, educational and training institutions- in this example, universities-must carefully evaluate their clients' needs and work to provide them. Seeing students as the primary clients who need to be catered to is the first step towards implementing Total Quality Management (Ivancevich, 2014). Programs for sustainable service development will enable educational services to be offered and presented in line with client needs, resulting in increased customer satisfaction. As a component of the higher education system,

Higher Education Z faces a number of difficulties related to the advancement of science and technology, globalization, and rivalry with other academic institutions. To be able to thrive and compete in the future, management advancements, a focus on the customer, and the application of quality management techniques like quality assurance are therefore required. To begin implementing improvements, one of the most crucial things to accomplish is to understand how Thus far, happy students have used both academic and non-academic offerings. It is hard to make more progress without taking these first steps. Thus, the goal of this research was to identify

and examine the variables influencing college student levels of satisfaction. The following is how the problems are phrased: What impact do the characteristics of service quality have on student satisfaction?

2. Customer satisfaction, service quality improvement, and customer satisfaction measurement Subsection heading

According to Gerson (2014), "customer perception that expectations have been met or exceeded" is what's meant by customer satisfaction. This hypothesis holds that a product's ability to meet customer expectations determines customer satisfaction. If the product they consume matches their desire for the product, they will feel satisfied. Mowen and Kotler emphasized that a key indicator of customer satisfaction is the attitude that consumers display following the consumption of a product-an attitude that may convey happiness or disappointment. Customer satisfaction is represented by this; conversely, it can be claimed that the customer is not satisfied if they are dissatisfied. Kotler (2011) contends that consumers create expectations about the satisfaction and value the market will provide, and they will purchase in accordance with those needs. Recurring consumers who are happy with their purchases also recommend the store to others. Customers who are happy with a product are likely to make more purchases, according to the hypothesis. Furthermore, a delighted consumer promotes a positive experience through word-of-mouth advertisements. When the needs, desires, and expectations of customers are satisfied, this is known as customer satisfaction. When a service fulfills the needs and expectations of the client, it is deemed satisfied. Thus, there is a relationship between customer satisfaction and service quality that states that excellent service quality will lead to increased customer satisfaction. Put another way, if the quality of a service can be depended upon, tested, and trusted, the consumer or customers will be extremely satisfied. Customer satisfaction and the caliber of the services provided go hand in hand.

The ten primary characteristics that define service quality have been successfully identified by certain experts. These factors include tangibles, understanding or knowing the customer, credibility, security, responsiveness, competence, access, politeness, and communications. According to these definitions, "student satisfaction" refers to the joy, contentment, and relief that higher education students have after getting what they need for their studies. Since they pay for educational services in order to study, students are referred to as customers. This is undoubtedly accompanied by the expected standards for the educational process, including those related to leadership, service, facilities, and lecturer caliber. Of course, every kid has a unique perspective when it comes to these expectations. Some people have very high expectations that the institution is unable to meet, while others have moderate to low expectations. When gauging client happiness, according to Kurtz and Louis (2009), customer satisfaction can be gauged by looking at the discrepancies between their expectations and their perception of what they actually received. According to this theory, actual customer happiness may be evaluated by examining what customers expect from a product and how the business delivers on those expectations. It is possible to declare that customers are satisfied when there are favourable outcomes and they feel satisfied. According to Zeithaml, Mary, and Gremler (2013), price, perception of product and service quality, and particular product or service features all have an impact on customer satisfaction. Customer satisfaction is said to be influenced by product specifications, company commitment to the product, and the perceived quality of the product and services.

Dann contends that Whitwell, Lukas, and Doyle (2003) believe that customer loyalty is impacted by satisfaction with the quality of the value offering, which is determined by five factors: reliability, responsiveness, assurance, empathy, and tangibles are the first five factors.

3. Research methods

With a total sample size of 640 students and a proportionately randomized composition depending on faculty, this study was carried out at Z College. In this study, questionnaires are used as data-gathering methods. The SEM (partial least squares) application of the Smart PLS application was used to process the research data. using the Likert-scale to measure satisfaction in accordance with Riduwan and Sunarto's (2013) guidelines. The SEM (partial least squares) application of the Smart PLS application was used to process the research data. using the Likert-scale to measure satisfaction in accordance with Riduwan and Sunarto's (2013) guidelines.

A combination of Team Student Satisfaction (FIU) (2002), Ardi R (2011), Singgih M (2008), and Wibisono (2012), as well as an extensive literature review of prior research, are used as part of the instrument used to measure the quality of higher education services. The conceptual model used in this study is a modification of the total quality management model.

4. Results and Discussion

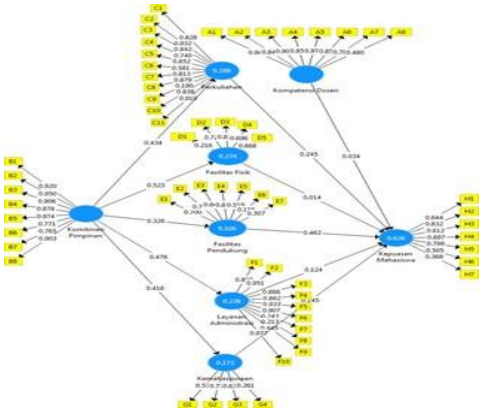
In 2023, focus groups with students were held. The materials included services that the students had planned, good and negative elements of the services they had encountered, and the services they believed to be the best. There were recurring themes regarding the caliber of services provided by higher education, as indicated by the FGD data. A closer examination of the themes that surface reveals 62 characteristics of high-quality higher education services. A Likert scale, ranging from 1 to 5, is used to rate each statement. A score of 1 indicates strong disagreement with the statement's qualities, while a score of 5 indicates strong agreement. structural model. Examination.

4.1. Validity and reliability

Good instruments are valid and reliable instruments. To test the validity and reliability of an instrument, the dimensional of the instrument must be fulfilled. Each variable's loading factor shows its dimensionality. To make sure the measurement is practical to utilize as a measurement (valid and trustworthy), an outer model analysis is done. The link between latent variables and their indicators is specified by this model's outer analysis. Tests performed on the external model include:

Convergent Validity. The loading factor value on the latent variable containing the indicators is the value of the converging validity values. Expectations surpass 0.6. Each construct's uni-dimensionality is tested using either convergent validity or outer loadings (measurement model). Chin (1998) states that indicator loading factors that are equal to or greater than 0.5 are considered valid. The loading factor obtained from the Smart-PLS output is shown in Figure 1 and Table 1.

Figure 1 shows that the item A-8, C-6, C-9, D-1,E- 5, E-6,E-7,F-7,F-8,F-9,G-1,G-4,H-6 dan H-7 has a factor loading below 0.6. Therefore, it must be removed from the model. Thus, the model used is as shown in Figure 2. Correlations between item and construct scores are used in reflective indicator validity testing. When other indicators in the same construct change or are eliminated from the model, measurements using reflective indicators show changes in that indicator within the construct. This study uses reflecting indicators since they are appropriate for measuring perception. As can be seen in Table 2, the loading factor produces a value higher than the suggested value of 0.5. The G3 indicator, which measures the development of soft skills, has the lowest value, 0.640. This indicates that the study's indicators are reliable and meet convergent validity requirements. An illustration of each indicator's loading factor in the research model is provided below:



Source: Output Smart PLS 2023

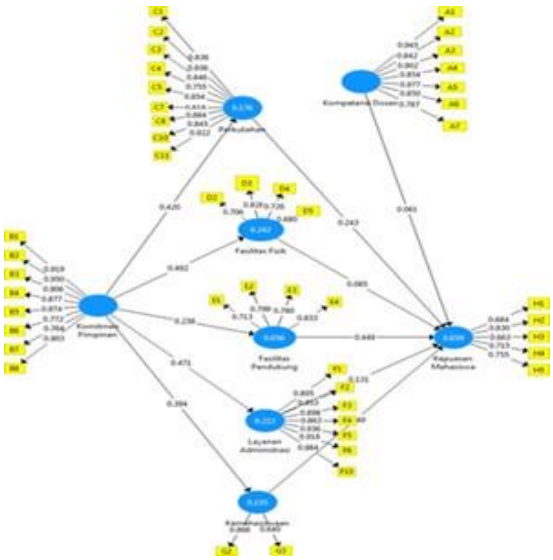
Figure 1. Factors influencing service quality dimensions in opposition to student satisfaction in higher education: a loading diagram

Table 1. Outer Model (Weights or Loadings)

	OriginalSample			OriginalSample
A1 <- A	0.945		C11 <- C	0.922
A2 <- A	0.842		D2 <- D	0.706
A3 <- A	0.902		D3 <- D	0.826
A4 <- A	0.854		D4 <- D	0.726
A5 <- A	0.977		D5 <- D	0.680
A6 <- A	0.850		E1 <- E	0.713
A7 <- A	0.787		E2 <- E	0.799
B1 <- B	0.919		E3 <- E	0.780
B2 <- B	0.950		E4 <- E	0.833
B3 <- B	0.906		F1 <- F	0.895
B4 <- B	0.877		F2 <- F	0.953
B5 <- B	0.974		F3 <- F	0.988
B6 <- B	0.772		F4 <- F	0.863
B7 <- B	0.764		F5 <- F	0.936
B8 <- B	0.903		F6 <- F	0.918
C1 <- C	0.836		F10 <- F	0.984
C2 <- C	0.936		G2 <- G	0.866
C3 <- C	0.846		G3 <- G	0.640
C4 <- C	0.755		H1 <- H	0.684
C5 <- C	0.854		H2 <- H	0.830
C7 <- C	0.818		H3 <- H	0.663
C8 <- C	0.884		H4 <- H	0.715
C10 <- C	0.845		H5 <- H	0.755

Source: Output Smart PLS 2023

By comparing the loading values in the intended construct—which must be bigger than the loading value with another construct—to determine whether the construct has sufficient discriminant validity, a cross-loading value factor is useful.



Source: Output Smart-PLS 2023

Figure 2. Factors Affecting Service Quality Aspects Against Student Satisfaction in Higher Education: A Revised Diagram

Table 2: Discriminant Validity

	A	B	C	D	E	F	G
A	0.881						
B	0.437	0.886					
C	0.346	0.419	0.856				
D	0.483	0.492	0.377	0.737			
E	0.384	0.237	0.275	0.594	0.782		
F	0.441	0.470	0.357	0.440	0.278	0.921	
G	0.315	0.393	0.326	0.547	0.461	0.303	0.761
H	0.439	0.413	0.509	0.612	0.695	0.461	0.552

Source: Output Smart PLS 2023

Table 2 demonstrates that each item's loading value on the construct is higher than the cross-loading value. It is clear from this study that discriminant validity is unproblematic.

Table 3: Composite Reliability

	Composite Reliability
Lecturer competence	0.9605
Leadership commitment	0.9667
Lecture	0.9611
Physical facilities	0.8257
Supporting facilities	0.8630
Administrative Services	0.9753
Student Affairs	0.7291
Student Satisfaction	0.8514

Source: Output Smart PLS 2023

The Alpha Cronbach and Composite Reliability indicators are used to conduct the unidimensional test. High dependability is indicated by data with a composite reliability > 0.7. All constructs have composite reliability ratings greater than 0.7, as Table 4 demonstrates. It can be said that the model created does not have a dependability issue or a one-dimensional problem. Alpha Cronbach. Cronbach's alpha is used to support reliability tests. Anticipated values surpass 0.6 for every construct.

Table 4: Cronbach's Alpha

	Cronbach's Alpha
Lecturer competence	0.9516
Leadership commitment	0.9599
Lecture	0.9543
Physical facilities	0.7216
Supporting facilities	0.7919
Administrative Services	0.9702
Student Affairs	0.8886
Student Satisfaction	0.7807

Source: Output Smart PLS 2023

Table 4. shows that the Cronbach Alpha value for all constructs is > 0.6, meaning that there is no reliability/uni dimensionality problem in the model formed. Next is to look at the value of Average Variance Extracted (AVE). Expected AVE value > 0.5.

Table 5: Average Variance Extracted (AVE)

	Average Variance Extracted (AVE)
Lecturer competence	0.7773
Leadership commitment	0.7853
Lecture	0.7338
Physical facilities	0.5436
Supporting facilities	0.6124
Administrative Services	0.8495
Student Affairs	0.5791
Student Satisfaction	0.5356

Source: Output Smart PLS 2023

Table 5. shows that the value of Average Variance Extracted (AVE). for all constructs is > 0.5, it means that there are no reliability/unidimensional problems found in the model.

4.2. Discussion

To make sure that structural models are constructed appropriately and robustly, inner model analysis and structural analysis are performed. Numerous indicators, such as the following, show the evaluation of the inner model:

The determination coefficient (R2).

Here at Table 6 are the R-Square values in the construct.

Table 6: R-Square (R2)

	Nilai R-Square
Lecture	0.3761
Physical facilities	0.2425
Supporting facilities	0.2564
Administrative Services	0.2817
Student Affairs	0.1551
Student Satisfaction	0.6585

Source: Output Smart PLS 2023

Student satisfaction has an R-squared value of 0.6585. A value of 0.6585 can be regarded as the influence of construct variables on student satisfaction, which can be explained by the lecture competence variables, leadership commitment, lectures, physical facilities, supporting facilities, administrative services, and student affairs. The construction of changeable lecturer competency, leadership commitment, lectures, physical facilities, supporting facilities, administrative and student services, and lectures can all be used to explain why students are not always satisfied. 65.85%. However, factors other than the ones under study account for 34.15% of the remaining percentage. The explanation for the student R-Square value of 0.1551 is that it indicates the leadership commitment variable's 0.1551% influence on student affairs. However, factors other than the ones under study account for 34.15% of the remaining percentage.

The explanation for the student R-Square value of 0.1551 is that it indicates the leadership commitment variable's 0.1551% influence on student affairs. It is possible to explain why the leadership commitment variable has a 0.2817 effect on administrative services by looking at the value of R-Square Administrative Services. It is possible to explain why the value of R-Square supporting facilities is 0.2564 by looking at how the leadership commitment variable affects administrative services by 0.2564. It is possible to explain why the physical facilities' R-Square value of 0.2425 is due to the leadership commitment variable's 0.2425 influence on administrative services. It is possible to explain the R-Square lecture's value of 0.3761 by considering the leadership commitment variable's

0.3761 influence on lectures.

The output of the Path Coefficient, as displayed in Table 7, examines the importance of each variable's influence. By examining the parameter coefficient (original sample), these variables include lecturer competency variables, leadership commitment, lectures, physical amenities, supporting facilities, administrative, and student services.

Table 7: Path Coefficients

	Original Sample	Sample Mean	Standard Deviation	T-Statistics	P Values
A->H	0.3610	0.4667	3.6673	3.6673	0.5049
B->C	0.4197	0.4086	3.3437	3.4374	0.0006
B->D	0.4924	0.4878	4.5791	4.5791	0.0000
B->E	0.2376	0.2260	1.6326	2.6326	0.1032
B->F	0.4709	0.4726	4.6506	4.6506	0.0000
B->G	0.3939	0.3916	2.7085	2.7085	0.0070
C->H	0.2426	0.2352	0.0807	3.0049	0.0028
D->H	0.0851	0.1081	0.1034	0.8230	0.4169
E->H	0.4493	0.4431	0.0889	5.0570	0.0000
F->H	0.1310	0.1385	0.0910	3.4407	0.1503
G->H	0.1495	0.1386	0.0953	2.5681	0.1175

Source: Output Smart PLS 2023

There is a positive correlation between lecturers' competence and student satisfaction, as indicated by the magnitude of the parameter coefficient for lecturer competency variables on student satisfaction (original sample) of 0.2610. Alternatively, it could mean that students will be more satisfied with their lectures if the lecturer is more competent. With a t-statistic value of 0.6673 and a t-5% significance table of 1.96, the result is not significant. Consequently, the statistical t-value is less than the 1.96 t-table (0.6673 <1.96). There is a positive correlation between the leadership commitment to the lecture and the parameter coefficient for the leadership commitment variable towards the original sample, which is 0.4197.

Alternatively, it could mean that the lecture will be better the more committed the leader is. With a t-table of 5% significance = 1.96, the t-statistic value of 3.4374 indicates significance. As a result, the statistical t-value (3.4374 > 1.96) is higher than the t-table. There is a positive correlation between the leadership's commitment to physical facilities and the parameter coefficient for the leadership commitment variable to the physical facility, which is (original sample) 0.4924. Alternatively, it might be understood to mean that better physical facilities will result from a stronger leader.

With a t-table of significance of 5% = 1.96, the t-statistics value of 2.6326 is significant. As a result, the statistical t-value (4.5791 > 1.96) is higher than the t-table. There is a positive correlation between the leadership's commitment to physical facilities and the parameter coefficient for the leadership commitment variable to the physical facility, which is (original sample) 0.4924. Alternatively, it might be understood to mean that better physical facilities will result from a stronger leader. With a t-table of significance of 5% = 1.96, the t-statistics value of 2.6326 is significant.

As a result, the statistical t-value (4.5791 > 1.96) is higher than the t-table. According to the original sample, the parameter coefficient for the leadership commitment variable for supporting facilities is 0.2376, indicating a positive correlation between the leadership commitment and the facilities. Alternatively, it might be understood to mean that better physical facilities will result from a stronger leader. With a t-table of significance of 5% = 1.96, the t-statistics value of 2.6326 is significant.

As a result, the statistical t-value (2.6326>1.96) is higher than the 1.96 t-table. There is a positive correlation between the leadership commitment to administrative services and the original administrative service, as indicated by the parameter coefficient of 0.4709 for the leadership commitment variable. Alternatively, it could mean that superior administrative services are correlated with higher levels of leadership commitment. 4.6506 is a significant

figure for t-statistics (t table of significance 5% = 1.96). As a result, the statistical t-value (4.6506>1.96) is higher than the t-table of 1.96. The leadership commitment variable's parameter coefficient for the original sample is 0.3939, indicating a positive relationship between leadership commitment and administrative services.

Alternatively, it may be said that improved student affairs result from a stronger commitment from the leadership. Based on the t table of significance of 5% = 1.96, the t-statistics value of 2.7085 is considered significant. Consequently, the statistical t-value (2.7085>1.96) is higher than the t-table of 1.96.

The original sample's parameter coefficient for lecture variables on student satisfaction is 0.2426, indicating a positive correlation between the leadership's commitment to administrative services and student satisfaction. Alternatively, it may be said that improved student affairs result from a stronger commitment from the leadership. t-Statistics, with a value of 3.0049, indicates significance (t table of significance 5% = 1.96). As a result, the t-statistic value (3.0049 > 1.96) is higher than the t-table value of 1.96. The physical facility variables' parameter coefficients on student satisfaction are (original sample) 0.0851, indicating a positive relationship between the leadership's dedication to administrative services. Alternatively, it may be said that improved student affairs result from a stronger commitment from the leadership. With a t-table of significance of 5% = 1.96, the t-statistic of 0.8230 is not significant. Consequently, the statistical t-value exceeds the 1.96 t-table (0.8230<1.96). The original sample 0.4493 parameter coefficient for supporting facility variables for student satisfaction indicates a positive relationship between leadership commitment and administrative services. Alternatively, it may be said that improved student affairs result from a stronger commitment from the leadership. 5.0570 is a significant figure for t-statistics (t-table of significance 5% = 1.96).

Hence, 5.0570 > 1.96 indicates that the t-statistic value is higher than the t-table value of 1.96. There is a positive relationship between the leadership commitment to administrative service and student satisfaction, as indicated by the parameter coefficient for administrative service factors on student satisfaction (original sample) of 0.1310. understood to mean that student affairs would improve in proportion to the leader's level of devotion. T-value: 1.96 (t table of 5% significance) indicates that the 3.4407 T-value is significant. Consequently, the t-statistic value (3.4407 > 1.96) is bigger than the t-table 1.96.

According to the original sample, the parameter coefficient for student variables on student satisfaction is 0.1495, indicating a positive relationship between leadership commitment and administrative services. Alternatively, it could be that improved student affairs result from stronger leadership commitment. With a t-table of 5% significance = 1.96, the T-Statistics value of 2.5681 is significant. A statistic value above t-table 1.96 (2.5681>1, 96) is present.

5. Conclusion

1) While positive student affairs are not substantial, the leadership commitment variable has a considerable positive impact on lectures, physical facilities, supporting facilities, and administrative services.
2) On the other hand, factors that significantly improve student satisfaction include lecturer competency, leadership dedication, lectures, physical facilities, supporting facilities, administrative services, and student services.
3) The supporting facilities variable has the greatest impact on student satisfaction, followed by the lecturers' skill.
4) The construct variable student satisfaction can be explained by constructing variables related to lecturer competence, leadership commitment, lectures, physical facilities, supporting facilities, administrative and student services, and student services (65.85%). This is indicated by the value of 0.6585 obtained from the analysis of these variables' effects on student satisfaction. However, factors other than the ones under study account for 34.15% of the remaining percentage.

According to the study's findings, Z universities should do the following:

1) Give supporting facilities more thought in order to raise student satisfaction.
2) More efforts should be made to improve lecturer competency, such as adhering to training protocols that align with the scientific domain.

3) The study's sample size is still small, meaning that the findings are not entirely representative. In order to enhance the caliber of the outcomes of future research, even more respondents must be.

Acknowledgements

On this occasion, I, as the author, would like to express my deepest gratitude to the IJMSSSR-International Journal of Management Studies and Social Science Research team, who have agreed to accept my paper for publication. Hopefully, in the future, this journal will be even more advanced.

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