


## Student satisfaction: School services and learning-teaching quality as influencing factors

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### ABSTRACT

This study found a gap between students' expectations of service management provided by the school. This gap causes students' dissatisfaction with various aspects of school management, including services and the obtained teaching and learning process. Based on this, the purpose of this study was to determine the effect of school services and the teaching and learning process on student satisfaction in schools. This research was conducted at the Bodhisattva Senior High School. The unit of analysis in this study with a saturated population and a saturated sample of 30 students. This study uses a quantitative approach with a survey method. The model used to analyze the research data is a binary logistic regression model. The results of this study indicate that the influence of school services and the quality of the teaching and learning process has a positive and significant effect on student satisfaction. This study recommends that principals and teachers understand and improve services and the quality of teaching and learning for their students to increase student satisfaction at schools.

### KEYWORDS

school services; learning-teaching quality; student satisfaction; school management; binary logistic regression analysis

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## Introduction

Education organized by educational institutions or educational units is included in the service category. Service is a process that consists of intangible activities that take place in interactions between service users and physical resources or goods, as well as service provider systems that provide solutions to customer problems. Schools, as an educational institution that provides services, must adapt to various external and internal factors that influence the development of the world of education. External factors are factors that service providers cannot control, while service providers can control internal factors. Therefore, educational services must differentiate the products offered so that student satisfaction as consumers can be used as the primary reference in selecting educational services.

Students, as school customers, really expect to be able to enjoy the available school facilities so that they can support the improvement of the learning process. Students who are dissatisfied with their learning experiences are the result of inadequate infrastructure. Administrative services often make it difficult for students, have not implemented or do not have standard operating procedures that support school programs. Teacher competence is inadequate in using media, common social sense, and a sense of belonging. Solidarity between school members is a description of forms of service that are less than optimal so that students cannot get these services.

Schools must comprehend and understand each dimension of indicators deemed necessary by students as consumers. Schools must also improve services because satisfaction is always associated with the level of school services. The hope is that the school service policy with the wishes and expectations considered necessary by students to be implemented by the school does not create a gap. In other words, the quality of school services must follow the expectations desired by each student. Maximum satisfaction is achieved when expectations and the quality of services provided by the school are more closely aligned. Student satisfaction with the learning process is an accumulation of various aspects of school quality in providing services to students, quality in teaching and learning activities, school facilities and infrastructure, teachers' work culture, learning media used by teachers, and so on.

## Literature review

The primary concern in the field of education is quality; thus, many researchers have conducted various studies on quality and education (Bismala & Manurung, 2021). Quality is one of the factors that influence student satisfaction. Students' satisfaction with the quality of education services is an important indicator of their performance (W. H. Wong & Chapman, 2022). The gap between the service performance that is perceived and what is anticipated determines student satisfaction, which is a feeling of pleasure (Santoso et al., 2021). Satisfaction is the pleasant state that the individual is in when they feel their expectations are covered; in the student sphere, it refers to the degree of well-being that students perceive when their expectations and academic needs are met (Mireles Vázquez & García García, 2022). To provide quality services following the expectations and needs of students and the school offers service performance must be maximized. The service quality provided by school management services to students is an aid so that students can learn optimally (Mudjijanti, 2022). Satisfaction levels arise from the difference between perceptions and expectations (Napitupulu et al., 2018).

Service quality is the ability of the service provider to meet customer needs and desires by following customer expectations or expectations. As a provider of educational services, schools must be able to meet the needs and desires of parents/guardians of students under expectations because the quality of service is one of the success factors of a school. Likewise, the satisfaction of students can have three perspectives: of the psychological type of happiness, of the labor type and of the consumer type (Mireles Vázquez & García García, 2022). Whereas, Zeithaml, Bitner, & Gremler, in Subandi & Hamid (2021) that service quality is the center of evaluation and reflects customer perceptions of certain aspects of the services provided to meet consumer needs and desires and the accuracy of delivery to balance consumer expectations.

Customers use five dimensions of service quality as guidelines when evaluating service quality, according to Parasuraman, Zeithaml, and Berry in Triwijayanti et al., (2022), Waworundeng et al., (2022), and Afsyah & Santosa, (2022). These dimensions are: 1) Tangible, which takes the form of the appearance of physical facilities, equipment, and personnel; 2) Intangible, which includes customer satisfaction; 3) Empathy (Empathy), the need to care and treat clients with respect, 3) Reliability, or the capacity to deliver services accurately and dependably, 4) Being responsive means being willing to assist clients and offer services promptly, 5) Employee expertise, politeness, and the capacity to inspire confidence are all part of assurance.

In the private high schools engaged in education services. The High School is supported by qualified academic personnel, a warm and welcoming administrative team, sufficient learning resources, and a convenient location for students. In contrast, opportunities from the external environment come from the income level of residents and the community's attitude towards the familiar image of the High School. The High School creates a high-quality teaching and learning process that can inspire and stimulate students' learning activities, as well as have a psychological impact on them. The effective delivery of messages and lesson material at that time will be greatly enhanced by the usage of learning media at the teaching orientation stage. In order to increase student involvement in high school, various learning strategies, including collaborative learning, cooperative learning, and problem-based learning, have arisen (Hyun et al., 2017).

Five of the eight class XII students whose initial data collection included completion of their studies are known to have expressed dissatisfaction with the school's services and boredom with the teaching and learning process. Three people responded that their experience at Bodhisattva High School was dissatisfactory. Essentially, the ability to provide high-quality educational services while satisfying stakeholders leads to a higher recruitment rate, reputation, and ranking for the educational institution (A. Wong & Woo, 2016).

Education services at High School are not free from student complaints, especially about the uncomfortable rooms, the service that is not optimal, and the teachers who teach. For this reason, it is essential to research student satisfaction with the teaching and learning process to be used as a basis for self-evaluation and improve the performance of Bodhisattva High School. This study aims to determine the quality of school services and the quality of the teaching and learning process at Bodhisattva High School. The expected result of this research is to know the expectations and level of student satisfaction. Furthermore, it can also be seen the difference (gap) between expectations and reality perceived by students concerning school services and the quality of the learning process, as well as corrective actions that can be taken to improve the quality of educational services.

## Methods

The objects in this study are the quality of school services, teaching and learning processes, school facilities, teachers, curriculum, adm. & general section staff at Bodhisattva High School Bandar Lampung. The research was conducted in SMA Bodhisattva, Lampung, Indonesia. The research is a survey research with a cross-sectional study design, characterized by data collection in one population. Data collection is carried out simultaneously and uses a questionnaire as a primary data collection tool. The research design in this study is; to 1) identify research problems, 2) determine the problems to be studied, 3) process the data obtained, and 4) report the research results. Research variables include independent variables and dependent variables. The independent variable is the variable that will affect the dependent variable. The variables in this study are as follows: the independent variable (independent variable) is school service (X1), the quality of the teaching and learning process (X2), and the dependent variable (Y) is a variable that is influenced by the independent variable. This study's dependent variable (Y) is the student satisfaction variable. The variables in this study are defined operationally as follows.

School services (X1) is the totality of forms of service characteristics provided by school management that show its ability to satisfy various student needs, both obvious and hidden needs. The indicators for measuring school service variables are the quality of services following the situation at Bodhisattva High School, namely physical facilities, teachers, adm. & general staff and curriculum. More about this source text. Source text is required

for additional translation information. The quality of the teaching and learning process (X2) is the quality of the process of organizing goals, materials, methods, and tools as well as assessments so that they are interconnected and influence each other to foster learning activities in students as optimally as possible. Indicators of measuring the quality of the teaching and learning process are 1) learning strategies and 2) learning methods. Student satisfaction (Y) is the emotional state of students, both pleasant and unpleasant. They are shown in a positive attitude towards school services and learning activities carried out by students to obtain an overall new behavior change. The measurement indicator of the dependent variable is the respondent's response to student satisfaction with service quality, namely: Tangible (realization), Reliability (reliability), Responsiveness (responsiveness), Assurance (guarantee), and Empathy (empathy), where the value is 1 for satisfied and 0 for not satisfied.

### **Participants**

The population in this study were students of class X and XI SMA Bodhisattva Bandar Lampung, totaling 30 students.

### **Instruments**

The instrument used in this study was a questionnaire measured using the Likert and Guttman (binary) scale method. This scale is organized in the form of statements, which are followed by five responses indicating different levels. Importance and Performance Analysis is used to assess the level of consumer importance (customer importance) in relation to what schools should do to produce high-quality products or services. By using the concept of importance, the perception of the importance of these attributes can be captured more clearly. After that, these interests can be related to the reality felt by students. The assessment is carried out on two things, namely, the attractions and evaluation of students towards school services and the quality of the teaching and learning process that has been carried out. After that, the claim is associated with the reality (evaluation) felt by students. The formula used for the assessment of the level of conformity is Supranto (2006) in (Noor, 2014) as follows:

$$Tki = \frac{X_i}{Y_i} \times 100\%$$

Notes:

Tki= Respondent/customer suitability level

Xi = Perceived company/service performance appraisal score

Yi = Expected customer/service importance rating score

### **Data analysis**

An analytical tool using a logistic regression model is used to determine the factors that influence student satisfaction. Binary logistic regression is used to see the factors that influence student satisfaction. Satisfaction is determined through the average value of the satisfaction statement of all respondents. The dependent variable analyzed was satisfaction, where code 0 expressed dissatisfaction while 1 stated satisfaction. While the independent variables used are school services and the teaching and learning process quality.

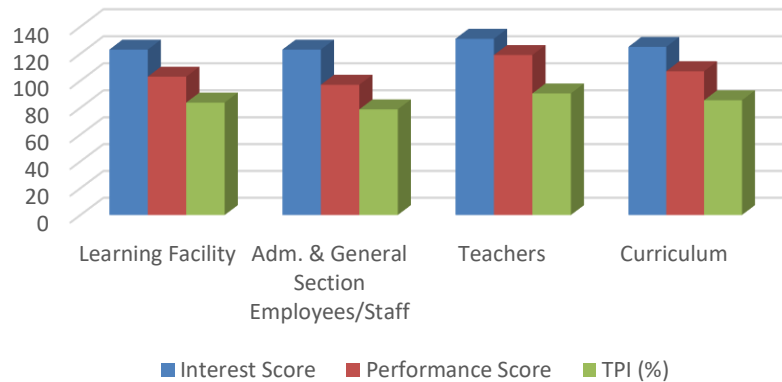
The analysis to distinguish between satisfied and dissatisfied students used a binary logistic model using the following equation:  $D \text{ Satisfaction} = 0 + 1X_1 + 2X_2 + e$ , where D Satisfaction is a satisfaction dummy (where a value of 1 is satisfied, and a value of 0 is dissatisfied). At the same time, X1 and X2 are school services and the quality of the teaching and learning process, respectively.

The chi-square value using the Hosmer and Lemeshow test was used to determine the accuracy of the regression model, which was evaluated using the regression model accuracy test. The goodness of fit test value will be calculated for this test using the chi-square value at a significance level of 5%. The goodness of fit test model developed by Hosmer and Lemeshow is used to test the claim. The null hypothesis is rejected if the Hosmer and Lemeshow goodness of fit test statistic is equal to or less than 0.05, indicating a significant discrepancy between the model and its observation value. A model can be found because it matches the observations if Hosmer and Lemeshow's goodness of fit statistical value is greater than 0.05, which indicates that the model can predict the value of its observations. Alternatively, the null hypothesis cannot be rejected.

## **Results**

### ***Interest Level Analysis and Evaluation of School Service Performance and Quality of Teaching and Learning Process***

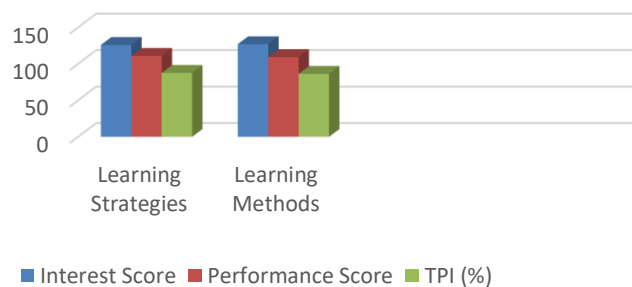
The calculation of the level of conformity is carried out to determine the order of priority of the attributes of the quality dimension, which is the priority of improvement which is assessed based on the percentage comparison of the performance value with the level of importance of the attributes according to the assessment of the respondents, which is presented as follows.



**Figure 1.** Comparison of Performance Scores with the Importance of School Services

The figure above shows that the highest contribution to student satisfaction is the teacher indicator, with an average value of 90.6%. This means that on the teacher indicators, students have increased satisfaction with the performance of Bodhisattva High School teachers. The curriculum also contributes significantly to student satisfaction, which is 85.5%, followed by the learning facilities indicator at 83.8%, followed by the adm. & general employee/staff indicator at 78.8%.

The calculation of the level of suitability to determine the priority order of the attributes of the variable quality of the teaching and learning process which is assessed based on the percentage comparison of the performance value with the level of importance of the attributes according to the assessment of the respondents is presented in the following figure.



**Figure 2.** Comparison of the Value of Performance With The Level of Importance of The Quality of the Teaching and Learning Process

Based on the figure above, it can be seen that the highest contribution to student satisfaction is the learning strategy indicator, with an average value of 87.7%. This means that students have high satisfaction with the indicators of learning strategies. When compared between the final average of the school service variable and the quality of the teaching and learning process, the teaching and learning process quality variable gives a more significant contribution to student satisfaction, which is 86.3%.

### ***Level of Student Satisfaction with School Services and Quality of Teaching and Learning***

Student satisfaction can be defined as a situation in which students' needs, desires and expectations can be met through the services obtained from the school. Satisfaction is a person's feeling of pleasure or disappointment as a result of comparing the performance of a product (or outcome) with its relationship to the level of interest of the person. In general, students are satisfied with the attributes of school services and the quality of the teaching and learning process. In the reliability dimension, the point with the lowest satisfaction is the facility, according to my wishes. School management often cannot meet students' wishes to get the expected services. This can also be seen by the common attribute of school management quickly repairing damaged school facilities contained in the responsiveness dimension, even though only 33 percent of students are satisfied. In general, students also feel dissatisfied with the teacher. This can be seen from the percentage of student satisfaction which is only 40 percent on the teacher's attribute that is easy to find for consultation purposes on the Responsiveness dimension, and 50 percent of student satisfaction on the quality of the teachers is easy to contact on the Empathy dimension.

**Table 1.** Student Satisfaction with School Service Quality and Teaching and Learning Quality

Variables of Satisfaction and Dimension	Satisfied (%)
Reliability	
Adm. & General Section staff can provide the promised service accurately	63
School facilities according to my wishes	30
Accurate learning schedule	53

<b>Variables of Satisfaction and Dimension</b>	<b>Satisfied (%)</b>
The teacher's ability can fulfill my wishes	57
The teacher conveys the learning objectives at each start of the lesson	70
The teacher uses the suitable learning method	73
Average	57.7
<b>Responsiveness</b>	
Teachers are easy to find for consultation purposes	40
Adm. & General Sec. staff provide responsive service	70
School management quickly repairs damaged school facilities	33
Interactive learning process	70
The teacher hears my complaints about learning problems	67
Average	56
<b>Assurance</b>	
The teachers are competent in their field	70
TU staff are polite in serving students	83
Bodhisattva High School has a good reputation in society	73
The school guarantees if there is damage to the facilities	53
The learning method used guarantees that it can foster an active learning atmosphere	83
Average	72.4
<b>Empathy</b>	
Admin Staff. & The general is very friendly when serving student complaints	73
Teachers are easy for me to contact	50
School personnel pay special attention to each student	60
School personnel are sensitive to my needs	57
Learning activities can motivate me to participate actively	67
Average	61.4
<b>Tangible</b>	
School facilities are well available	60
Well-documented curriculum	63
The teachers' clothes are neat	83
The teacher gives an evaluation according to the subject matter presented	93
Average	74.8

The tangible dimension has the highest level of satisfaction, especially on the attributes of the teacher providing an evaluation following the subject matter presented, with a satisfaction level of 93 percent. In the same dimension, students also feel satisfied with the teacher's clothes which are always neat as something that is realized by the teacher, the percentage of satisfaction reaches 83 percent. The attributes of the learning method used to guarantee that it can foster a vibrant learning atmosphere and the characteristics of polite staff in serving students on the Assurance dimension also contribute to student satisfaction, which is 83 percent. Student satisfaction is easy to realize when student expectations can be controlled and lowered. With low expectations, student satisfaction will be easily achieved. Therefore, schools need to provide service promises that their personnel can keep. The description of the level of student satisfaction with school services and the quality of the learning process is presented in the following table.

**Table 2.** Distribution of Respondents Based on Level of Satisfaction

<b>Satisfaction</b>	<b>Frequency</b>	<b>Percentage</b>
Satisfied	22	83.3%
Not satisfied	8	16.7%
Total	30	100%

Source: Research Data

Based on the table above, it can be seen that of the 30 students, 22 students, or 83%, stated that they were satisfied with what they had obtained at Bodhisattva High School, while the remaining eight students stated that they were not satisfied with what was obtained.

### *The Influence of School Services and Teaching & Learning Processes on Student Satisfaction*

The analytical tool used in this study is a binary logistic regression model, another regression analysis model that explains the relationship pattern between independent and dependent variables. The independent variables of this study are the school service variable and the quality of the teaching and learning process. In contrast, the dependent variable in this study uses the student satisfaction variable with a binary scale (values 0 and 1). Student satisfaction in this study was measured using a satisfied or dissatisfied measure, so a binary regression model was used in this study. The binary logistic regression model was performed using the following equation.

$$DSatisfaction (Y) = \beta + \beta_1X_1 + \beta_2X_2 + e$$

Where:

DSatisfaction (Y) = Student Satisfaction  
 X1 = School Services  
 X2 = Learning & Teaching Process  
 e = error

The results of the binary logistic regression model test data results can be presented in the following table.

**Table 3.** Binary Logistics Regression Coefficient Test

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>Sig.</b>
X1	-.175	.088	3.931	.047
X2	.336	.158	4.546	.033
Constant	-.609	6.183	.010	.922

Source: Research Data Processed

So the equation is:

$$DSatisfaction (Y) = -0.609 + (-0.175)X_1 + 0.336X_2$$

(3.931)            (4.546)

The above equation shows that the school service variable and the quality variable of the teaching and learning process manifest in student satisfaction. The chi-square value measures this binary logistic regression model's accuracy with the Hosmer and Lemeshow test obtained by looking at the goodness of fit test value as measured by the Chi-Square value at a significance level of 0.05. Hypothesis acceptance decision.

**Ha** accepted if the value of Sig > 0.05 means that the regression model is fit or following the data

**HO** rejected, if the value of Sig < 0.05 means that the regression model does not fit or does not match the data

Based on the SPSS output, the value of chi-square = 15,219 with a confidence level of 0.050. If the figure is more significant than 0.05 or 5 percent, then Ho is accepted. This means that the binary logistic regression model with the dependent variable of student satisfaction is in accordance with the data, so it is suitable for further analysis. Further details can be seen in the following table.

**Table 4.** Hosmer and Lemeshow Test Results

<b>Step</b>	<b>Chi-square</b>	<b>df</b>	<b>Sig.</b>
1	15.219	8	.050

Source: Research Data

The regression coefficient test in this study was to determine the significance of the effect of each independent variable on the dependent variable. This test is carried out by looking at the Wald significance value reported on the SPSS printout, the confidence level used is 0.05. The significance test shows the effect of the school service variable and the quality of the teaching and learning process. From the results of binary logistic regression analysis, it is known that all independent variables have a significant effect on student satisfaction variables. This is indicated by the significance value of Wald < 0.05 or 5 percent. From the output of SPSS, it is also seen that each independent variable is correlated to the dependent variable. The results of this simultaneous test are shown in the following table.

**Table 5.** Logistics Regression Interpretation and Output (Omnibus Tests of Model Coefficients)

		<b>Chi-square</b>	<b>Df</b>	<b>Sig.</b>
Step 1	Step	13.434	2	.001
	Block	13.434	2	.001
	Model	13.434	2	.001

Source: Result of Research Data

The table above shows that the joint correlation of X1 and X2, Y (compound correlation) with the Chi-Square technique obtained a Chi-Square value of 13,434 and a degree of freedom = 2. The significance level with a Sig value of 0.001 < 0.05 then HO is rejected, which means simultaneously school services (X1) and the quality of the teaching

and learning process (X2) affect student satisfaction (Y). Testing individually showed X1 Sig 0.047 < 0.05 and X2 Sig 0.033 < 0.05, which means that all variables have a significant influence on Y. More details are presented in the following table.

**Table 6.** Logistics Regression Interpretation and Output

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
								Lower	Upper
Step 1a	X1	-.175	.088	3.931	1	.047	.840	.706	.998
	X2	.336	.158	4.546	1	.033	1.400	1.028	1.907
	Constant	-.609	6.183	.010	1	.922	.544		

Source: Research Data

Furthermore, to test which factors have a significant effect on student satisfaction, use the significance test of the coefficient parameter partially with the Wald test statistic, which is similar to the t-test statistic or Z test in ordinary linear regression, namely by dividing the coefficient against the standard error of each coefficient. From the SPSS output, the Wald value and p-value are displayed. Based on the p-value (and using the test criteria =10%), it can be seen that all variables have a significant effect (having a p-value below 10%) on student satisfaction. Based on the results of testing the binary logistic regression model, the results of the expectation test B or the Exp (B) value of the significant variables are obtained, as shown in the table below.

**Table 7.** Expectation Test - B

	B	Exp(B)
Step 1a X1	-.175	.840**
X2	.336	1.400**
Constant	-.609	.544**

Source: Research Data

Notes: \*\* = Significant to = 0,05

From the results of the expectation test B or Exp (B) it is known that the contribution given by the variable quality of the teaching and learning process to student satisfaction is the largest compared to the school service variable. This is indicated by the value of Exp (B) = 1,400 which is the largest of the Exp (B) values of other school service variables. This can also be seen from the value of the beta coefficient of the variable quality of the teaching and learning process of 0.336. Based on the results of the logistic regression coefficients above, it is known that all independent variables have a significant effect on student satisfaction variables. According to predictions, students who excel with code one (1) are 30 respondents, while only 22 observations, while the results of observations are only eight, so the classification accuracy is 16.7% (8/22). Satisfaction is a comparison of the level of a person's feelings after experiencing and perceived performance and then comparing it with his expectations.

## Discussion

In contrast, the level of satisfaction is a function of the difference between perceived performance and expectations. Students who are customers of the school will feel satisfied if their expectations are met and even exceeded. Student satisfaction is reflected in their loyalty to the school and will produce good output as well. Student satisfaction is highly dependent on students' perceptions and expectations of the school, which are influenced by the need for education and the desire to achieve and continue to a higher level of education, their friends' or seniors' experiences with the quality of school services, and the availability of communication through advertising and marketing.

Satisfaction is abstract, so individuals with one another will be at different levels. Student satisfaction can be influenced by many factors, including the services provided by the school and the teaching and learning process. Therefore, the school teacher must adequately provide services and responsibilities to produce joy and happiness. Teachers must develop their quality with various competencies and skills to ensure their students' success. In the aspect of reliability, students answered the most in a good position, namely on the dimension of the teacher using the correct learning method. Students as respondents assessed that the school was able to provide the promised service in a timely, accurate, and satisfactory manner.

Students answered the most in the interactive learning process in the Responsiveness aspect. Students as respondents assessed the willingness of education staff to help students and provide services responsively through interactive learning. In the element of assurance, most students answered that the learning method used guarantees to foster a vibrant learning atmosphere. This means that students are satisfied and are not wrong in choosing a school as a place to learn based on information from the school and from other people and their perception of the school. In the Empathy aspect, students answered and were satisfied with the staff's empathy, who was very friendly when serving student complaints. And in the Tangible element, students are confident because the teacher has provided an evaluation following the subject matter delivered using school facilities and infrastructure.

Based on the results of binary logistic regression analysis, it was found that the independent variables consisting of school services and the quality of the teaching and learning process had a positive and significant effect on the satisfaction of Bodhisattva High School students. The results of the regression coefficient test showed that all independent variables had a significant impact on student satisfaction. Based on the SPSS output, the value of chi-square = 15,219 with a confidence level of 0.055. If the figure is more significant than 0.05 or 5 percent, then

Ho is accepted. This means that the binary logistic regression model with the dependent variable of student satisfaction is in accordance with the data, so it is suitable for further analysis. Based on the results of binary logistic regression analysis, it can be seen that two factors have a significant effect on student satisfaction at Bodhisattva High School Bandar Lampung. The two factors include school service and the teaching and learning process quality. The prediction accuracy in this study is 80%, as shown in the SPSS output, where it is stated that eight students are not satisfied and as many as 22 are satisfied. This study's prediction accuracy is 80%, and other factors influence the rest.

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From the SPSS output, it can be seen that the odds ratio for the X1 variable (school services) is  $-0.175 = 3.991$ , which means that the chances of students being satisfied are 3.991 times compared to other variables. Variable X2 (quality of teaching and learning process) with an odds ratio of 4,546 can be interpreted that the probability of students being satisfied is 4,546 times compared to other variables.

## Conclusion

According to the findings of binary logistic regression analysis, the independent variables of school services and learning process quality had a positive and significant effect on student satisfaction. The following can be concluded about the relationship between the two independent variables and the dependent variable: The results of calculating the level of importance and the level of school service performance have an impact on the level of performance, and the importance of the variable quality of teaching and learning is greater than the importance of the school service variable. The results of the level of satisfaction calculation revealed that the majority of students were satisfied with school services and the quality of the teaching and learning process. Student happiness is significantly influenced by the concrete component. While the outcomes of the analysis of the effect using binary logistic regression revealed that the effectiveness of the teaching and learning process (X2) and school services (X1) jointly had an impact on student satisfaction (Y). The independent analyses, however, revealed that Y was strongly impacted by all of the variables. The scope and sample size of this study were limited to only 30 participants, which restricted the generalizability of the findings. Future research must use a larger sample size to get results that can strengthen the model.

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## References

- Afsyah, D. K. Al, & Santosa, S. B. (2022). Pengaruh Kenyamanan Layanan, Citra Merek, Dan Kualitas Layanan Terhadap Loyalitas Pelanggan Dengan Kepuasan Pelanggan Sebagai Variabel Intervening (Studi pada Pelanggan Kantor Pos Indonesia di Wilayah Semarang). *DIPONEGORO JOURNAL OF MANAGEMENT*, 4(2), 1-12.
- Bismala, L., & Manurung, Y. H. (2021). Student satisfaction in e-learning along the covid-19 pandemic with importance performance analysis. *International Journal of Evaluation and Research in Education*, 10(3), 753-759. <https://doi.org/10.11591/ijere.v10i3.21467>
- Hyun, J., Ediger, R., & Lee, D. (2017). Students' Satisfaction on Their Learning Process in Active Learning and Traditional Classrooms. *International Journal of Teaching*, 29(1), 108-118. <http://www.isetl.org/ijtlhe/>
- Mireles Vázquez, M. G., & García García, J. A. (2022). Satisfacción estudiantil en universitarios: una revisión sistemática de la literatura. *Revista Educación*, 46, 0-16. <https://doi.org/10.15517/revedu.v46i2.47621>
- Mudjijanti, F. (2022). Kepuasan Siswa Atas Pelayanan Bimbingan Dan Konseling Ditinjau Dari Persepsi Siswa Tentang Kualitas Layanan Bimbingan Dan Konseling Di SMK PGRI Wonoasri Kabupaten Madiun. *Jurnal Bimbingan Konseling Indonesia*, 7(1), 1-10. <https://journal.stkipsingkawang.ac.id/index.php/JBKI/article/view/2194/pdf>
- Napitupulu, D., Rahim, R., Abdullah, D., Setiawan, M. I., Abdillah, L. A., Ahmar, A. S., Simarmata, J., Hidayat, R., Nurdiyanto, H., & Pranolo, A. (2018). Analysis of Student Satisfaction Toward Quality of Service Facility. *Journal of Physics: Conference Series*,



- 954(1). <https://doi.org/10.1088/1742-6596/954/1/012019>
- Noor, W. (2014). *Gap Analysis*. Binus University. <https://qmc.binus.ac.id/2014/09/28/g-a-p-a-n-a-l-y-s-i-s/>
- Santoso, A., Ruspitasari, W. D., & Bukhori, M. (2021). Kualitas Pelayanan Institusi Pendidikan Terhadap Kepuasan Siswa SMK Negeri 4 Malang. *Jurnal Ilmu Manajemen Dan Akuntansi*, 9(2), 189-194.
- Subandi, S., & Hamid, M. S. (2021). Student Satisfaction, Loyalty, and Motivation As Observed From the Service Quality. *Journal of Management and Islamic Finance*, 1(1), 136-153. <https://doi.org/10.22515/jmif.v1i1.3552>
- Triwijayanti, N., Sanoto, H., & Paseleng, M. (2022). Pengaruh Kualitas Layanan Pendidikan, Budaya Sekolah, Citra Sekolah Terhadap Kepuasan Orang Tua. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, 12(1), 74-80. <https://doi.org/10.24246/j.js.2022.v12.i1.p74-80>
- Waworundeng, J., Sandag, G., Ngeloh, S. V., & Lalong, A. (2022). Analisis Tingkat Kepuasan Pelanggan terhadap Layanan Grab dan Gojek di Masa Pandemi Covid-19 Analysis of Customer Satisfaction Levels with Grab and Gojek Services during the Covid-19 Pandemic. *Cogito Smart Journal*, 8(1), 111-121. <http://cogito.unklab.ac.id/index.php/cogito/article/view/395/223>
- Wong, A., & Woo, A. (2016). Student Satisfaction and School Reputation: The Moderating Role of Student Loyalty and School Image. *Journal of Marketing and HR*, 2(1), 113-125. [www.scitecresearch.com](http://www.scitecresearch.com)
- Wong, W. H., & Chapman, E. (2022). Student satisfaction and interaction in higher education. *Higher Education*, May. <https://doi.org/10.1007/s10734-022-00874-0>