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Impact of educational services quality on student satisfaction, image, and student loyalty

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Abstract

This research analyzes how the quality of education services influences student satisfaction, image, and loyalty. All respondents are students of a public senior high school [PSHS] Sumatera Selatan. Student satisfaction is a preference in the subjective evaluation of the entire experience associated with the educational process. Image means the perception of the service provided to the student, consisting of cognitive and communicative perceptions. Loyal students can positively impact learning quality through participation and committed behaviour. In this research, a quantitative method was utilized. The method used was quantitative, with data collection techniques using a questionnaire instrument filled in directly by respondents online and processed using the SEM PLS. The variables of academic and non-academic aspects had a positive but insignificant effect on student satisfaction. On the other hand, program issues, reputation, and access positively and significantly affected student satisfaction. The relationship between the quality of school education services, student satisfaction, school image, and student loyalty, among others, is important to clarify the limitations of this research and serve as a guide for future research.

Keywords

Educational service quality, image, student, loyalty, and student satisfaction

Article History

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Introduction

Education became one of the main issues in the meetings of the Group of Twenty, or G20 countries. Indonesia's presidency is key in determining the agenda priorities during the G20 meeting. The Directorate General of Teachers and Education Staff, Ministry of Education and Culture, Research and Technology, which led the agenda, highlighted four key issues in the G20's discourse. The use of digital technologies in education, solidarity, collaboration, and quality education for all in the post-COVID-19 pandemic working order (Teräs et al., 2020). In the context of quality education for all, Iwan Syahril emphasized that Indonesia is committed to providing high-quality education to various groups of society, and the statement is in line with the achievement of Sustainable Development Goal (SDG) 4 of 2030, which targets the achievement of global education goals.

The quality of educational services becomes important to meet the demands of the times and form a good learning experience for students. PSHS Sumatra Selatan has various flagship programs, such as Life-Long Learning, Community and Service, Pathway to Leadership, Boarding Education, Research-Based School, Pathway to University, School Innovation, and others. These programs are intended for students as the school's efforts in discovering the talents and achievements of students, improving the value of school education reports, and facilitating students to continue to college with scholarships, ultimately related to student satisfaction, image, and student loyalty.

Achievement correlates with student satisfaction. When students achieve excellence in their chosen field, it increases their self-confidence (Aljohani et al., 2016). Therefore, achievement is not only an indicator of a student's success but also creates a motivating learning environment and is expected to increase student satisfaction with the school.

Student success demonstrates the school's ability to provide quality services. Students who are happy with the services they receive are expected to perceive the school's image better (Hwang & Choi, 2019). This means that the value of the education report becomes an important instrument for schools to evaluate the effectiveness of education and improve their quality standards. Good quality educational services can create a positive image of the school, influencing students' perceptions and preferences towards the school (Lazibat et al., 2014). Thus, the education report becomes an additional reference to understanding the quality of educational services in schools.

This research not only leads to student satisfaction and image but also to student loyalty. Students who are satisfied with the quality of the education service and who positively perceive the school's image are expected to be more loyal and committed to the entire educational process. In previous research, student satisfaction was important because it can affect students' perceptions of the school's image and their desire to remain loyal to an educational institution. The findings suggest that student satisfaction plays an important role in understanding the influence of the quality of educational services on image and student loyalty. Therefore, in the context of the quality of services in secondary education, it is important to understand how student satisfaction can affect the image and loyalty of students to the school. Few studies have been conducted in Indonesia on the impact of the quality of education services on student satisfaction, image, and student loyalty. Therefore, the authors proposed this research

to examine the influence of the quality of educational services in PSHS Sumatra Selatan on student satisfaction, image, and student loyalty.

Methodology

This research is quantitative and uses a scientific method because it has a scientific nature that is concrete, objective, and systematic. The researchers designated the PSHS Sumatera Selatan as the population in the research. The number of samples needed to represent a population is proportional to the number of people involved. This research was aimed at students actively experiencing school education services in the 2023/2024 school year. Thus, 320 students/respondents were divided into 10th, 11th, and 12th grades. The survey method used was a census, in which a questionnaire was distributed to 320 students.

This research used the HEdPERF (Higher Education PERFormance) scale specifically for research in educational institutions. The scale included five factors: academic aspects, nonacademic aspects, reputation, access, and their impact on student satisfaction, image, and student loyalty at PSHS Sumatera Selatan. This research collected data through an opinion strategy; respondents filled out a questionnaire (online survey), in this case, PSHS Sumatera Selatan students. The result of this stage was the list of respondents, and the correspondence obtained.

The research applied to a data group based on variables and other characteristics, made tabulations by research variables, displayed information on each variable studied, performed calculations to determine the answer to the problem formulation, and performed hypothesis testing (Sugiyono, 2022). The data analysis techniques used in this research are descriptive analysis and multivariate analysis. Descriptive analysis determines the relationship between variables, and regression is used as a predictor and a comparison through the sample's meaning (Dugard et al., 2010). Meanwhile, multivariate tests are conducted simultaneously. The analytical tool used for this research was Partial Least Squares Structural Equation Modeling (PLS-SEM) 4.0.

Findings and Discussion

Table 1 presents all variables having an AVE value > 0.5 with the condition of removing the indicators AA.7 and AA.9 on the Academic Aspects variable, meaning that all variable indicators are declared to meet the Convergent Validity criteria.

Variables	Items	Loading factor	AVE
	AA1	0.698	0.525
	AA2	0.730	
Acadomia	AA3	0.710	
Academic	AA4	0.730	
	AA5	0.783	
	AA6	0.722	

 Table 1. The result of convergent validity

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	AA8	0.698	
	NA1	0.761	0.631
	NA2	0.789	
	NA3	0.736	
	NA4	0.698	
NT	NA5	0.835	
Inon-academic	NA6	0.849	
	NA7	0.875	
	NA8	0.803	
	NA9	0.855	
	NA10	0.726	
	PI1	0.817	0.648
D .	PI2	0.776	
Program issues	PI3	0.823	
	PI4	0.803	
	R1	0.883	0.713
D (R2	0.874	
Reputation	R3	0.719	
	R4	0.890	
	A1	0.855	0.713
Δ	A2	0.88	
Access	A3	0.782	
	A4	0.853	
	SS1	0.863	0.740
	SS2	0.872	
Student satisfaction	SS3	0.886	
	SS4	0.832	
	SS5	0.847	
	I1	0.608	0.529
Image	12	0.731	
_	13	0.826	
	SL1	0.881	0.745
Student loyalty	SL2	0.851	
· · ·	SL3	0.856	

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Table 2 shows that each variable has a value of $\alpha > 0.6$, except the Program Issues variable, which has a value of RhoA > 0.7 and Composite Reliability > 0.7. In short, RhoA provides a reliability estimate as an alternative to Cronbach's alpha in assessing the internal consistency of a variable. A higher RhoA value indicates better reliability. Reliability test measurements can be seen from the RhoA measurement results, which can represent a variable's internal consistency reliability of a variable, and composite reliability is the upper limit of the internal consistency reliability (Hair et al., 2021). The test results conclude that the variable is reliable because it meets all the criteria.

Variables	Cronbach's Alpha	Rho _A	Composite reliability	Decision
Academic	0.849	0.853	0.886	Reliable
Non-academic	0.867	0.941	0.909	Reliable
Program issues	0.574	0.823	0.768	Reliable
Reputation	0.934	0.872	0.945	Reliable
Access	0.819	0.881	0.880	Reliable
Student satisfaction	0.863	0.912	0.908	Reliable
Image	0.828	0.620	0.897	Reliable
Student loyalty	0.912	0.830	0.934	Reliable

Table 2. The result of the reliability	test
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Table 3 shows that the cross-loadings of each variable are higher than the other variables, meaning that the indicators used have qualified for the discriminant validity test results.

ITEM	AA	NA	PI	RT	AC	SS	IM	SL
AA.1	0.698	0.446	0.419	0.369	0.444	0.369	0.309	0.378
AA.2	0.730	0.595	0.459	0.407	0.586	0.482	0.381	0.401
AA.3	0.710	0.534	0.438	0.428	0.449	0.384	0.348	0.426
AA.4	0.730	0.623	0.455	0.346	0.488	0.390	0.280	0.351
AA.5	0.783	0.632	0.521	0.454	0.501	0.457	0.413	0.452
AA.6	0.722	0.610	0.524	0.417	0.482	0.404	0.407	0.403
AA.8	0.698	0.539	0.512	0.419	0.451	0.386	0.299	0.375
NA.1	0.593	0.761	0.431	0.458	0.579	0.409	0.345	0.386
NA.2	0.632	0.789	0.469	0.420	0.558	0.445	0.453	0.450
NA.3	0.623	0.736	0.426	0.380	0.498	0.394	0.419	0.396
NA.4	0.510	0.698	0.412	0.468	0.476	0.418	0.337	0.428
NA.5	0.630	0.835	0.524	0.551	0.645	0.513	0.459	0.505
NA.6	0.671	0.849	0.544	0.518	0.573	0.503	0.439	0.506
NA.7	0.677	0.875	0.577	0.539	0.649	0.570	0.478	0.567
NA.8	0.625	0.803	0.556	0.511	0.548	0.470	0.435	0.477
NA.9	0.703	0.855	0.550	0.538	0.667	0.519	0.418	0.492
NA.10	0.587	0.726	0.548	0.439	0.517	0.392	0.420	0.403
PI.1	0.530	0.512	0.817	0.763	0.490	0.615	0.503	0.657
PI.2	0.527	0.472	0.776	0.600	0.483	0.514	0.387	0.466
PI.3	0.569	0.545	0.823	0.559	0.604	0.511	0.467	0.454
PI.4	0.490	0.521	0.803	0.594	0.560	0.557	0.451	0.459
RT.1	0.486	0.556	0.693	0.883	0.505	0.576	0.508	0.646
RT.2	0.477	0.533	0.692	0.874	0.516	0.600	0.424	0.635
RT.3	0.433	0.413	0.620	0.719	0.445	0.501	0.435	0.502
RT.4	0.497	0.550	0.657	0.890	0.546	0.609	0.533	0.647
AC.1	0.568	0.627	0.618	0.624	0.855	0.633	0.504	0.565
AC.2	0.582	0.635	0.553	0.480	0.884	0.530	0.503	0.485
AC.3	0.476	0.509	0.450	0.360	0.782	0.427	0.386	0.365

Table 3. The result of discriminant validity

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0.640	0.653	0.586	0.508	0.853	0.557	0.479	0.523
0.521	0.507	0.601	0.548	0.537	0.863	0.492	0.620
0.473	0.514	0.573	0.588	0.569	0.872	0.537	0.608
0.512	0.525	0.598	0.603	0.562	0.886	0.545	0.643
0.438	0.483	0.609	0.607	0.491	0.832	0.578	0.619
0.509	0.504	0.571	0.570	0.616	0.847	0.527	0.624
0.316	0.284	0.354	0.254	0.330	0.275	0.608	0.303
0.351	0.375	0.398	0.322	0.456	0.453	0.731	0.419
0.391	0.466	0.471	0.572	0.432	0.567	0.826	0.628
0.518	0.576	0.562	0.660	0.544	0.632	0.593	0.881
0.455	0.468	0.555	0.595	0.542	0.590	0.548	0.851
0.450	0.469	0.539	0.613	0.428	0.652	0.551	0.856
	$\begin{array}{c} 0.640\\ 0.521\\ 0.473\\ 0.512\\ 0.438\\ 0.509\\ 0.316\\ 0.351\\ 0.391\\ 0.518\\ 0.455\\ 0.450\\ \end{array}$	$\begin{array}{cccc} 0.640 & 0.653 \\ 0.521 & 0.507 \\ 0.473 & 0.514 \\ 0.512 & 0.525 \\ 0.438 & 0.483 \\ 0.509 & 0.504 \\ 0.316 & 0.284 \\ 0.351 & 0.375 \\ 0.391 & 0.466 \\ 0.518 & 0.576 \\ 0.455 & 0.468 \\ 0.450 & 0.469 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

The degree of variation between the independent and affected variables can be calculated using the coefficient of determination, also known as the R-squared coefficient. R-square values of 0.75, and 0.50. Meanwhile, 0.25 is generally considered strong, moderate, and weak (Hair et al., 2021).

Table 4. The result of r-squared

Variables	R-square	R-square adjusted
Student satisfaction	0.573	0.567
Image	0.389	0.387
Student loyalty	0.592	0.589

Image (I) variables influenced by Academic Aspects (AA), Non-Academic Aspects (NA), Program Issues (PI), Reputation (R), Access (A), and Student Satisfaction (SS) were given an Adjusted R-square value of 0.387, which means that the Image (I) construct variability can be explained by the Academic Aspects (AA), Non-Academic Aspects (NA), Program Issues (PI), Reputation (R), Access (A), and Student Satisfaction (SS) construct variables of 38.7%. In comparison, variables outside the research explained the other 61.3%.

The Student Loyalty (SL) variable is influenced by Academic Aspects (AA), Non-Academic Aspects (NA), Program Issues (PI), Reputation (R), Access (A), Student Satisfaction (SS), and Image (I), which were assigned an R-square Adjusted value of 0.589, which means that Student Loyalty (SL) construct variability can be explained by Academic Aspects (AA), Non-Academic Aspects (NA), Program Issues (PI), Reputation (R), Access (A), Student Satisfaction (SS), and Image (I) construct variability of 58.9%. In comparison, non-research variables explained the other 41.1%.

The Student Satisfaction (SS) variable is influenced by Academic Aspects (AA), Non-Academic Aspects (NA), Program Issues (PI), Reputation (R), and Access (A) obtained an R-square value of 0.573, which means that the structural variability of Student Satisfaction (SS) can be explained by the structural variability of Academic Aspects (AA), Non-Academic Aspects (NA), Program Issues (PI), Reputation (R), and Access (A) of 57.3%. In comparison, the variables outside the research explain the other 42.7%.

The Q-square is obtained from the parameter estimated as the determinant of the observation value. If the value of Q2 > 0, then the model has predictive relevance, whereas

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the value of Q2 < 0 lacks predictive relevance (Latan & Noonan, 2017). Table 5 presents the Q-square values of all research variables > 0 so that all variables have predictive relevance.

Variables	SSO	SSE	Q^2 (=1-SSE/SSO)
Academic	2240.000	1422.802	0.365
Access	1280.000	622.036	0.514
Image	960.000	859.587	0.105
Non-academic	3200.000	1448.600	0.547
Program issues	1280.000	758.940	0.407
Reputation	1280.000	616.201	0.519
Student loyalty	960.000	509.742	0.469
Student satisfaction	1600.000	640.324	0.600

Table 5. The result of q-square

Based on Table 6, a p-value of 0.405 > 0.05 means rejecting H1. Thus, the first hypothesis (H1), "academic aspects have a positive effect on student satisfaction," is rejected. The P-values are 0.626 > 0.05, which means minus H2. Thus, the second hypothesis (H2), "non-academic aspects have a positive effect on student satisfaction," is rejected. P-values of 0.003 < 0.05, which means the third hypothesis (H3), "program issues positively affecting Student satisfaction," is accepted. P-values of 0.000 < 0.05, which means the fourth hypothesis (H4), "reputation has a positive effect on student satisfaction," is accepted. P-values of 0.001 < 0.05, which means the fifth hypothesis (H5), "Access has a positive effect on Student satisfaction," is accepted. P-values of 0.000 < 0.05, which means the sixth hypothesis (H6), "student satisfaction has a positive effect on image," is accepted. P-values of 0.000 mean that the seventh hypothesis (H7), "student satisfaction has a positive effect on student satisfaction has a positive effect on image," is accepted. P-values of 0.000 mean that the seventh hypothesis (H7), "student satisfaction has a positive effect on student loyalty," is accepted. A value of 0.000 < 0.05 means the eighth hypothesis (H8), "image has a positive effect on student loyalty," is accepted.

Variables	Original sample	Sample mean	Standard deviation	T-statistics	P-values
AA → SS	0.056	0.059	0.067	0.833	0.405
AC \rightarrow SS	0.258	0.249	0.080	3.234	0.001
$IM \rightarrow SL$	0.331	0.337	0.053	6.208	0.000
NA \rightarrow SS	0.036	0.040	0.073	0.488	0.626
PI → SS	0.224	0.218	0.076	2.962	0.003
$RT \rightarrow SS$	0.295	0.304	0.068	4.319	0.000
$SS \rightarrow IM$	0.623	0.626	0.038	16.543	0.000
$SS \rightarrow SL$	0.518	0.513	0.053	9.744	0.000

Table 6. Hypothesis test results

The research examined structural models of educational service quality on student satisfaction, image, and student loyalty at the high school level with the "School of Excellence" status. Adapting the HEdPERF (higher education performance) scale proposed by Abdullah (2005), previous researchers widely used this framework to study the quality of educational services in various colleges. The research considers the quality of educational services as a key factor

comprising five quality dimensions: non-academic aspects, academic aspects, program issues, access, and reputation, influencing student satisfaction, image, and loyalty. Therefore, this research uses a comprehensive framework for the quality of educational services.

Discussion

There are four keywords to remember: research methods, data, objectives, and uses. Research methods are scientific techniques for obtaining data to achieve specific goals and benefits (Kelle, 2006). The researcher conducted this research after studying and looking for related research that discusses the relationship between variables. This fulfills the purpose of causal research.

Based on the approach to theory development in this study using the Deductive theory approach. Gilgun (2019) explained that Deductive theory is a theory that provides an explanation based on certain assumptions or hypotheses about the information to be discussed. Quantitative research is considered a scientific method because it has a scientific nature that is concrete, objective, and systematic. Quantitative techniques are also known as discovery techniques because they allow the discovery and development of various new sciences and technologies (Cozzens et al., 2010). This study uses quantitative methods as the main approach because they allow objective measurement of the effect of educational service quality on student satisfaction, image, and loyalty. By collecting data numerically, this method allows statistical analysis to measure the relationship between these variables. Therefore, this method is expected to provide a solid foundation for answering research questions scientifically and contributing to an empirical understanding of the effect of Educational Service Quality in the context of student satisfaction, image, and loyalty.

One of the research strategies with surveys is to obtain information from individuals to compare or explain their knowledge, behavior, and traits (Fink, 2003). Data about people, events, or situations are usually collected through surveys in exploratory and descriptive research. Survey instruments usually contain questions from researchers and are filled in by respondents, either in writing or via the Internet (Sekaran & Bougie, 2016). The instrument used is a questionnaire that respondents will fill out online. When the survey is limited to a local area, the most effective method for collecting data is to administer the questionnaire personally. The advantage of this method is that it allows researchers or research teams to collect all the results quickly (Sekaran & Bougie, 2016).

In the data analysis stage, the unit of analysis is guided by the level of unity of the data collected. For example, the statement focuses on how to improve employee motivation. In that case, we must talk to each employee and determine how to improve employee motivation. For this purpose, individual data from each employee can be used to collect individual units of analysis (Sekaran & Bougie, 2016). In this study, the problem focuses on the quality of educational services perceived by students. Therefore, students become individual units of analysis.

In the theory of minimal researcher involvement, research can also be distinguished based on how much the researcher is involved in manipulating the data. Some studies involve researchers manipulating (intervening in) the data, while others do not manipulate the data (O'Keefe, 2003). If, for example, a researcher wants to know the components that influence

training effectiveness, they only need to describe the variables, collect relevant data, and then analyze the data to get the results. Although researchers conducted interviews with employees and administered questionnaires at the workplace, there were some problems with the system's regular operation. However, the interference caused by researchers was smaller than during the study (Sekaran & Bougie, 2016).

Field studies, or non-contrived settings, are types of research conducted in undesigned settings. Using a natural environment where research subjects (employees, clients, superiors, etc.) usually work aims to identify whether there is a causal relationship (Sekaran & Bougie, 2016). Questions can only be answered once in the data collection process, in a few days, weeks, or months. This type of study is called a cross-sectional study (Sekaran & Bougie, 2016). The total number of students of PSHS South Sumatra is 320 people/respondents, with a percentage of 72%, or 229 female respondents, and 28%, or 71 male respondents. The data shows that there are more female students than male students. The number of 38%, or 120 respondents, came from class X (ten); 31%, or 100 respondents, came from class XI (eleven); and 31%, or 100 other respondents, came from class XII (twelve). The age of the respondents is divided into the following: 1%, or three respondents, are 14 years old; 27%, or 83 respondents, are 15 years old. 29%, or 92 respondents, are 16 years old; 30%, or 96 respondents, are 17; 12%, or 41 respondents, are 18, and 1%, or three other respondents, are 19.

H1: "academic aspects have a positive impact on student satisfaction," was rejected as unsupported by a p-value of 0.405 > 0.05. These results contradict previous research (Ali et al., 2016), which suggested that academic aspects significantly affect student satisfaction. These results confirm that students who positively perceive the academic aspects of the school will have higher satisfaction levels. In this research, academic aspects had a negligible impact on student satisfaction. This suggests that other factors may be more dominant in influencing student satisfaction.

H2: "non-academic aspects positively affecting student satisfaction" rejected, as unsupported by a p-value of 0.626 > 0.05. This result differs from previous studies (Ali et al., 2016) in that non-academic aspects positively and significantly influence student satisfaction. These results confirm that students with a positive perception of non-academic aspects will have higher satisfaction rates. In this research, non-academic aspects had a negligible impact on student satisfaction. This suggests that other factors may be more dominant in influencing student satisfaction.

H3: "program issues had a positive impact on student satisfaction" was supported by a p-value of 0.003 < 0.05. These results support previous research (Ali et al., 2016) stating that program issues significantly impact student satisfaction. These results confirm that students who positively perceive the program issues will have a higher satisfaction rate. This suggests that program-related aspects, such as school policy, program management, and service quality, are important in improving student satisfaction. Positive perceptions of program issues can significantly contribute to students' experience in school and increase their overall satisfaction.

H4: "reputation positively affects student satisfaction," is accepted, supported by a p-value of 0.000 < 0.05, meaning that reputation significantly affects student satisfaction. These results support previous research (Ali et al., 2016) that stated that reputation significantly affects student satisfaction. These results confirm that students who positively perceive the

service provider's reputation will have higher satisfaction rates. A positive perception of a school's reputation can positively affect student satisfaction. This demonstrates the importance of a good image or reputation in creating a school environment that meets the expectations and satisfaction of the students.

H5: "access had a positive impact on student satisfaction," as supported by a p-value of 0.001 < 0.05. These results support previous research (Ali et al., 2016) stating that access significantly impacts student satisfaction. These results confirm that students with a positive perception of access will have higher satisfaction rates. A positive perception of ease of access to educational facilities, information, or services can increase student satisfaction. This suggests that factors affecting accessibility for students have an important role in creating an educational environment that meets their needs and supports their satisfaction in the learning process.

H6: "student satisfaction has a positive effect on the image," is accepted, supported by a p-value of 0.000 < 0.05, meaning that the student satisfaction variable has a significant positive effect on the image variable. The results support previous research (Ali et al., 2016), which stated that student satisfaction will significantly affect the image. These results confirm that satisfied students will have a positive perception of images. Students who feel satisfied with their educational experience are more likely to perceive the school's image or reputation positively. This shows the importance of increasing student satisfaction can serve as a key indicator in shaping a school's perception and reputation in the eyes of the community and other stakeholders.

H7: "student satisfaction has a positive effect on student loyalty" was supported by a p-value of 0.000 < 0.05. These results support previous research (Ali et al., 2016), which stated that student satisfaction significantly influences student loyalty. These results confirm that more satisfied students tend to be more loyal. Students who feel satisfied with their educational experience are more likely to be loyal to the school or educational program they attend. This suggests that student satisfaction affects not only their perception of the school but also their commitment and loyalty. Therefore, improving student satisfaction can be an effective strategy for building and maintaining student loyalty in the long run.

H8: "image has a positive effect on student loyalty," is accepted, supported by a p-value of 0.000 < 0.05. The results support previous research (Ali et al., 2016) stating that image significantly influences student loyalty. Students who positively perceive the institution's image tend to be more loyal. Students who positively perceive the school's image or reputation are likely to be loyal to the school. This suggests that a good image or reputation can be an important factor in building a strong relationship between students and schools, which can increase student loyalty levels in the long run. Therefore, it is important to pay attention to and maintain a positive image of the school as one of the strategies to promote student loyalty.

Conclusion

The research concluded that academic and non-academic aspects had a positive but insignificant effect on the student satisfaction variable and had P-values > 0.05, so H1 and H2 were rejected. As for the program issues variable, reputation, access, student satisfaction, and image have a positive and significant effect on the student satisfaction variable and have P-

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values < 0.05, so H3, H4, H5, H6, H7, and H8 are accepted. In addition, the researchers concluded that the measurement model results are as follows: Measurement of the model with Smart PLS shows that the most significant influence of academic aspects on the student satisfaction variable comes from item AA8, i.e., "Teacher provides good teaching material," with a score of 0.725, and the negligible influence of academic aspects on the student satisfaction variable comes from item AA7, i.e., "Teacher has adequate knowledge of the subject area," with a score of 0.543.

Measurement of the model with the Smart PLS software shows that the most significant influence of the non-academic aspects on the student satisfaction variable comes from item NA7, i.e., "Well-established communication between the educational staff and the students," with a score of 0.875, and the negligible influence of the non-academic aspects on the student satisfaction variable comes from item NA10, i.e., "Educational staff keeps important data well," with a score of 0.726. Measurement of the model with the Smart PLS software shows that the most significant influence of program issues on the student satisfaction variable comes from the PI3 item "PSHS Sumatera Selatan has good counseling services," with a score of 0.823. The most negligible influence of non-academic aspects on the student satisfaction variable comes from the PI2 item "PSHS Sumatera Selatan gives students the freedom to choose a package of subjects according to their interests and talents," with a score of 0.776.

Measurement of the model with the Smart PLS software showed that the most significant influence of reputation on the student satisfaction variable came from item R4, namely "PSHS Sumatera Selatan has a good image," with a score of 0.890, and the most negligible influence of reputation on the student satisfaction variable came from item R3, "Students received career guidance from counseling teachers", with a score of 0.719. Measurements of the model with Smart PLS software showed that the most significant impact of access on the student satisfaction variable came from item A2, i.e., "academic staff gives enough time for student consultation," with a score of 0.884, and the most negligible impact of Access on the Student Satisfaction variable came from item A3, i.e., "Academic staff is easy to contact," with a score of 0.782.

Measurement of the model with the Smart PLS software showed that the most significant influence of the student satisfaction variable on the image variable came from the SS3 item, i.e., "Student did the right thing when choosing to continue his education in PSHS Sumatera Selatan," with a score of 0.886, and the most negligible influence of the student satisfaction variable on the image variable came from the SS4, i.e., "Student had a pleasant experience in PSHS Sumatera Selatan," with a score of 0.832. Measurement of the model with Smart PLS software showed that the most significant influence of the student satisfaction variable on the student loyalty variable came from item SS3, i.e., "students did the right thing when choosing to continue their education in PSHS Sumatera Selatan," with a score of 0.886. The most negligible influence of the student satisfaction variable on the student loyalty variable came from item SS4, i.e., "Student loyalty variable came from item SS4, i.e., "Students had a pleasant experience in PSHS Sumatera Selatan," with a score of 0.832. Measurement of the model with the Smart PLS software shows that the most significant influence of the image variable on the student loyalty variable comes from item I3, namely "PSHS Sumatera Selatan has a prestigious image," with a score of 0.826. The most negligible influence of the image variable on the student loyalty variable comes from item I3, namely "PSHS Sumatera Selatan has a prestigious image," with a score of 0.826. The most negligible influence of the image variable on the student loyalty variable comes from item I3, namely "PSHS Sumatera Selatan has a prestigious image," with a score of 0.826. The most negligible influence of the image variable on the student loyalty variable comes from item I3, namely "PSHS Sumatera Selatan has a prest

item 11, "Students get recommendations from high schools to continue their studies at PSHS Sumatera Selatan," with a score of 0.608.

The relationship between the quality of school education services, student satisfaction, school image, and student loyalty, among others, is important to clarify the limitations of this research and serve as a guide for future research. This research was only done at PSHS Sumatera Selatan. Because the sample size is not very large, the findings from this research cannot be generalized to a much broader population of high school students across Indonesia. Therefore, similar studies on public and private schools in other cities across Indonesia can be conducted to provide valuable insights and expand the generalizability of these findings.

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