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Educational Products Quality and its Effect on Student Loyalty Through Mediating Student Satisfaction

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Abstract:
College competition, which is dominated by the state college, is very tight when it comes to improving the quality of educational products for the sake of student recruitment. Meanwhile, not many private college students promote and recommend their colleges to others. This study aims to analyze the effect of educational products on student loyalty, either directly or indirectly through the student satisfaction variable. This type of research is a survey with a quantitative approach. The research population was all students of the Makassar LP3I Polytechnic, totaling 1,246 students. The research sample consisted of 93 students, who were determined through a proportional random sampling technique using the Slovin formula. Data collection techniques using observation, questionnaires, and documentation. The collected data were then analyzed using descriptive statistical analysis, path analysis, and inferential statistical analysis techniques. The results showed that educational products had a positive and significant effect both directly on student loyalty and indirectly through student satisfaction. This research has implications for the need for study program products that meet the standards of community needs and government demands. Efforts to meet these standards will encourage tertiary colleges to provide excellent service for student satisfaction so that they remain loyal.

INTRODUCTION

The Indonesian Central Statistics Agency (BPS) released the number of Indonesian colleges in 2021 as 3,115. The data also shows that the number of private colleges is the largest, namely 2,990, while 125 others are state colleges (Statistics Indonesia 2021). A large number of colleges indicates the high public demand for higher education institutions. This has implications for the intense competition among college institutions for new students. Not a few colleges eventually have to change managers or even close because of their inability to recruit new students (Wahyuni et al. 2023; Wiwitan and Yulianita 2017; Eno, Eno, and Mweseli 2015).

An increase in the number of students is one of the criteria for assessing the accreditation of a college institution. High school graduates as prospective students (college consumers) want quality education at a low cost and to quickly or easily get jobs after completing their higher education (Fitriani 2018; Kundi et al. 2014). The needs of these prospective students must be

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considered by colleges if they want to continue to exist in the midst of intense competition in the higher education institution industry (Rahmawati and Sentana 2021; Serenko 2011). Therefore, college institutions should have good marketing management as an attraction for recruiting consumers (students) (Susilawati, Khaira, and Pratama 2021; Mico 2020).

As companies that offer educational services, colleges must have marketing strategies based on student satisfaction as consumers (Purnomo and Qomariah 2020; Santos et al. 2020). One of the appropriate marketing strategies used is the marketing mix, which is a sales or promotion strategy and pricing designed to influence consumer purchasing decisions with the aim of being able to produce and sell products or services that can provide satisfaction to consumers (Išoraitė 2016). This strategy really takes into account the needs of consumers who will buy a product, so all aspects are taken into account (Londhe 2014).

One aspect of the marketing mix is "the product" (Ndofirepi, Farinloye, and Mogaji 2020). Colleges, as educational service companies, offer "study program products" to students as consumers. Product quality is very important because it is the initial basis for determining other marketing strategies, such as prices, promotion methods, the target market, and others (Prabowo and Sriwidadi 2019). In order for colleges to achieve effective marketing goals while satisfying consumer needs, product quality must be improved (Radiman et al. 2019; Subagiyo and Adlan 2017).

Fulfilling consumer needs is very important in marketing because it affects the level of consumer satisfaction (Afthanorhan et al. 2019). The higher the level of need fulfillment, the higher the level of consumer satisfaction (Chandra et al. 2019). In addition, to increase customer satisfaction, a company also needs to set up a marketing strategy so that customers are attracted to the products offered (Alzoubi, Ahmed, and Alshurideh 2022). If the product satisfies the customer, the customer will remain loyal to using the product and try to limit purchasing products from other companies (Subagiyo and Adlan 2017).

Company competition in marketing their products also occurs within the scope of higher education (Kadarisman 2017; Efferi 2014). This is felt by the Polytechnic of LP3I Makassar as one of the vocational private college institutions in Makassar City, Indonesia. This polytechnic offers five study programs with the following student conditions as consumers of educational services:

Table 1. Data of Polytechnic of LP3I Makassar Student in the Last Three Years

No	Study Program	Academic Year			Number
		2019/2020	2020/2021	2021/2022	
1	D4 - Public Finance Accounting	38	23	22	83
2	D4 - Digital Business	-	2	3	5
3	D3 - Informatics Management	56	44	27	127
4	D3 - Government Administration	30	27	2	59
5	D3 - Business Administration	190	149	104	443
	Total Number	314	245	158	717

Source: Documentation at the Polytechnic of LP3I Makassar, March 28, 2022.

Table 1 shows that the number of Polytechnic of LP3I Makassar students has decreased from year to year. This indicates that student interest in the offered study program products is decreasing. Meanwhile, all study programs at the Polytechnic of LP3I Makassar have been

accredited by the National Accreditation Board for Higher Education (BAN-PT). They even collaborated with several companies in Makassar to ensure job certainty for their alumni. This fact is different from previous theories and research, which show that product quality affects consumer satisfaction, which then has a domino effect on consumer loyalty (Rahmawati and Sentana 2021; Nguyen et al. 2020; Surahman, Yasa, and Wahyuni 2020; Lie et al. 2019).

The complexity of the problems in college marketing has attracted the interest of several researchers. For example, Tukur et al. (2019) and Ndofirepi, Farinloye, and Mogaji (2020) examine the higher education market in Africa from a marketing mix perspective and find that marketing mix can increase student enrollment. Unfortunately, the application of the marketing mix is still low for private colleges. The research of Brkanlić et al. (2020) found a positive effect of the marketing mix on student satisfaction. This study recommends the need for improvement in educational practices in colleges, especially in relation to student loyalty, student choice, student expectations at enrolment, and the public image of college institutions. It seems that there is no research that provides a solution to the declining number of students with good-quality study programs and job security after graduation. This case is a problem that needs to be studied scientifically through research. Therefore, it is important to conduct research that aims to analyze the effect of educational products on student loyalty at the Polytechnic of LP3I Makassar, with student satisfaction as a mediating variable.

METHODS

Research Types and Approaches

This research type is a survey with a quantitative approach. Survey research in this study was conducted on a population of predetermined respondents to find their responses, beliefs, and opinions regarding the relationships between educational product variables, student loyalty, and student satisfaction (Sugiyono 2015). Meanwhile, the quantitative approach in this study focuses on describing statistical data and testing hypotheses using measured data so that conclusions can be drawn. In this study, survey research with a quantitative approach was carried out without systematic manipulation on the condition of certain variables by the researcher, but only described the influence relationship between research variables (Arikunto 2014).

Research Design and Operational Definition of Variables

This study was designed based on the correlations between the variables to be analyzed. The design of this research can be seen in the following figure:

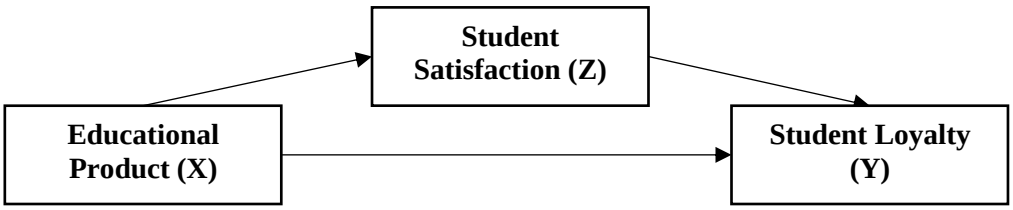


Figure 1. Research Design Chart

The figure shows that this study has three variables, namely educational product (X) as the independent variable, student loyalty (Y) as the dependent variable, and student satisfaction

(Z) as the mediating variable. The educational product (X) referred to in this study is the quality of study programs offered by the Polytechnic of LP3I Makassar. Student loyalty (Y) is the belief of the Polytechnic of LP3I Makassar student that the college is the best for him to continue his higher education studies without any desire to move to another college, even recommending the Polytechnic of LP3I Makassar to others. Student satisfaction (Z) referred to in this study is the expectation-achievement level of Polytechnic of LP3I Makassar students for administrative services, educational processes, and supporting facilities in the form of educational facilities and infrastructure. These three indicators represent satisfaction with the performance of educational staff (employees), educators (lecturers), and managers of the polytechnic (Sukatin et al. 2022).

Each research variable has indicators that must be measured in a statistical analysis. These indicators will later become questions or statements in the research questionnaire. The variable indicators of this study can be seen in Table 2.

Table 2. Research Variable Indicator Matrix

No	Research Variable	Variable Indicator
1	Educational products (study program)	a. The study program curriculum has been adapted to the requirements of the world of work b. There are supporting activities in the form of soft skills in accordance with the requirements of the world of work c. Guarantees getting a job d. Graduates of study programs are needed by the labor market e. Study program accredited by BAN-PT (Tukur et al. 2019).
2	Student loyalty	a. Confident that the Polytechnic of LP3I Makassar is the best place to continue their studies b. There are no plans to transfer to another college c. Recommend Polytechnic of LP3I Makassar to others (Band 1991).
3	Student satisfaction	a. Good administration service b. Academic and non-academic processes according to national standards c. Adequate and proper educational facilities and infrastructure (Sukatin et al. 2022).

Population and Sample

The population in this study were all students of the Polytechnic of LP3I Makassar for the 2021–2022 academic year, a total of 1,246 students. The research sample was obtained using the Slovin formula with an error tolerance limit of 10% (Bungin 2014), namely: $n = N / (1 + N e^2) = 1.246 / (1 + 1.246 \times 0{,}1^2) = 92.5 = 93$. The results of the mathematical calculations from the formula show that the sample size for this study was 93 students. The sample was selected using a proportional random sampling technique, which means that all populations have the same opportunity to be sampled according to their proportions (Sugiyono 2015).

Data Collection Techniques and Research Instruments

Data in this study were collected using observation, questionnaires, and documentation techniques. (1) Observation, namely direct observation of research objects to obtain information

about activities related to the problem under study (Sugiyono 2015). Observations in this study were used to find initial data regarding the possibility of conducting research at the Polytechnic of LP3I Makassar in relation to the variables to be studied. (2) Questionnaires, namely data collection techniques by distributing questions or statements that must be filled out by the respondents. Information or data obtained from the answers to this questionnaire is used as the main source of information for analyzing research results. Questionnaires were distributed to research samples as respondents (Arikunto 2014). (3) Documentation, namely data collection in the form of documents, books, journals, and proceedings on the variables studied as a literature review and theoretical basis, including the Polytechnic of LP3I Makassar profile document as data describing the research location (Sugiyono 2015).

To facilitate data collection, the authors used three research instruments: observation guidelines, documentation guidelines, and questionnaires. Observation and documentation guidelines are the checklist of indicators for each variable to be observed and documented (Sugiyono 2015). The questionnaire in this study uses a Likert scale and contains a list of statements given directly to the selected sample (Bungin 2014).

Data Analysis Techniques and Validity Test

Research data processing was carried out using the IBM SPSS 26 application. The data obtained in this study were selected based on their validity and reliability before being analyzed quantitatively. The validity test in this study used a construct validity approach with the product moment correlation technique (Sugiyono 2015). The requirement to be considered valid is that R-count > R-table. Another requirement for validity is that the Sig score is less than 0.05. The item is declared invalid if the score of Sig. is greater than or equal to 0.05. While making decisions for reliability testing, a construct or variable is considered reliable if it shows Cronbach's alpha score is greater than 0.70 (Ghozali 2016).

In addition, to find out that the regression model used is free from assumption deviations, a classic assumption test is performed, which consists of the normality test (Kolmogorov-Smirnov), the multicollinearity test (VIF score), the autocorrelation test, and the heteroscedasticity test (Glejser method). Furthermore, data analysis was carried out using descriptive statistical analysis, path analysis, and inferential statistical analysis (hypothesis testing) techniques.

First, the descriptive statistical analysis aims to provide a descriptive description of the condition of the research variables without testing the hypothesis (Sugiyono 2015). This condition is described in the form of the position of the average score of the variable at a predetermined interval. There are five categories of intervals defined for variables, namely very high, high, medium, low, and very low. The formula determines the interval as follows:

$$\frac{\text{(Max Score – Minimum Score)}}{\text{Number of Categories}}$$

Second, the path analysis used in this study is a combination of the multiple linear regression model and the mediation model (Bungin 2014). The educational product (X) variable influences the student loyalty (Y) variable directly and indirectly through the mediation of the student satisfaction (Z) variable. The indirect effect of X on Y through Z is calculated using the Sobel test. The basis for drawing conclusions from the Sobel test is as follows: (1) If the Sobel

test statistic (t-count) > t-table or two-tailed probability (Sig) < 0.05, then there is a direct effect. (2) If the Sobel test statistic (t-count) > t-table or two-tailed probability (Sig) > 0.05, then there is no direct effect (Sugiyono 2015).

Third, inferential statistical analysis (hypothesis testing) was carried out in this study by means of a simple linear regression test via a t-test. The t-test is conducted to measure and find the effect of X on Z and Y, as well as the effect of Z on Y. Decision-making is done by looking at the t-count value and the significance value in the Coefficients Table. The basis for testing the regression results is carried out with a trust level of 95% or a significance level of 5% (α = 0.05). The t-test decision making criteria is if the score of t-test significance < 0.05 or t-count > t-table then H_0 is rejected and H_a is accepted. This means that independent variables influence the dependent variable. It is known that the t-table score is 2.390 (Bungin 2014, 276).

RESEARCH RESULTS

Descriptive Statistical Analysis

Conditions of educational products (study programs), student satisfaction, and student loyalty at the Polytechnic of LP3I Makassar based on the results of processing the IBM SPSS 26 application are described in Table 3.

Table 3. Description of Category Intervals-Based Variables

Variable	Intervals	F	%	Score	
				Mean	Standard Deviation
Educational Products	21 – 25 (Very High)	92	98.9	24.8065	0.69561
	17 – 20 (High)	1	1.1		
	13 – 16 (Medium)	0	0		
	9 – 12 (Low)	0	0		
	5 – 8 (Very Low)	0	0		
Student Satisfaction	17 – 20 (Very High)	83	89.25	17.9570	0.41478
	14 – 16 (High)	10	10.75		
	11 – 13 (Medium)	0	0		
	8 – 10 (Low)	0	0		
	5 – 7 (Very Low)	0	0		
Student Loyalty	21 – 25 (Very High)	92	98.9	23.8495	0.73642
	17 – 20 (High)	1	1.1		
	13 – 16 (Medium)	0	0		
	9 – 12 (Low)	0	0		
	5 – 8 (Very Low)	0	0		

Source: IBM SPSS 26 Application Processing Results, 2022

Table 3 shows that the average values of educational products, student satisfaction, and student loyalty are at very high intervals. So, the three variables are included in the "very high" category.

Path Analysis

Path analysis in this study uses two linear regression models, namely Model I and Model II. The two regression models are determined based on the results of the regression I equation and regression II equation from the output of the IBM SPSS 26 application, which are described in the following two tables:

Table 4. Model I Regression Coefficient

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.594	1.070		4.295	.000
	Educational_Products	.120	.037	.402	3.224	.002

a. Dependent Variable: Student_Satisfaction

Table 5. Model II Regression Coefficient

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.329	2.605		5.884	.000
	Educational_Products	.343	.105	.324	3.272	.002
	Student_Satisfaction	1.586	.183	.893	8.657	.000

a. Dependent Variable: Student_Loyalty

Table 4 shows that the standardized coefficient beta score of the education product on student satisfaction is 0.402. This means that path 1 (P1) score is 0.402. Meanwhile, it was found that the R Square score of the Model I regression was 0.678, which means that the contribution of education product to student satisfaction was 67.8%. The R Square score is also the basis for calculating the e1 score with the following formula:

$$e1 = \sqrt{(1 - \text{R Square Score})}$$
$$= \sqrt{(1 - 0{,}678)}$$
$$= 0{,}5674$$

Table 5 shows that the standardized coefficients beta score of the education product on student loyalty is 0.324, meaning that the path 2 (P2) score is 0.324. The standardized coefficients beta score of student satisfaction on student loyalty is 0.893, meaning that the path 3 (P3) score is 0.893. Meanwhile, it was found that the R Square score of the Model II regression was 0.695, which means that the contribution of education products and student satisfaction to student loyalty was 69.5%. The R Square score is also the basis for calculating the e2 score with the following formula:

$$e2 = \sqrt{(1 - \text{R Square Score})}$$
$$= \sqrt{(1 - 0{,}95)}$$
$$= 0{,}5522$$

Based on the data and the results of the mathematical calculations, this research path diagram can be described as follows:

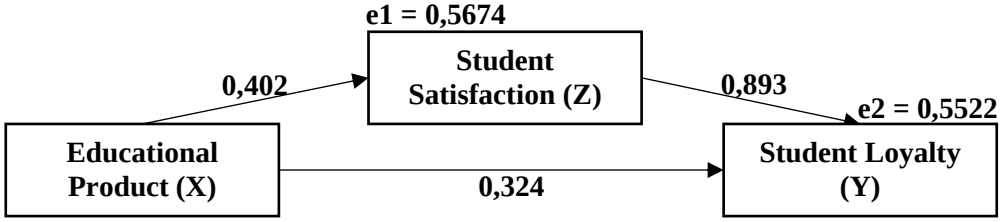


Figure 2. Research Path Analysis Model

In order to strengthen the path analysis carried out previously, a Sobel test was also carried out using the "Online Calculator Sobel Test" at the link https://www.danielsoper.com/statcalc/calculator.aspx?id=31. The indirect effect of educational products (X) on student loyalty (Y) through student satisfaction (Z) can be seen in the following figure:

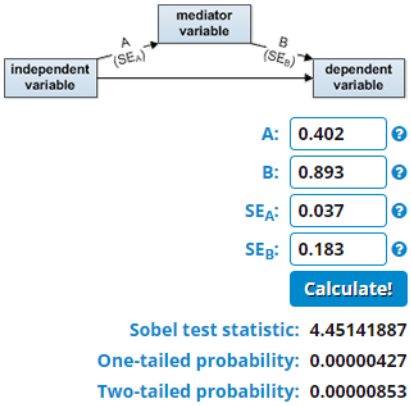


Figure 3. Online Calculator Sobel Test Result

Figure 3 shows that the t-count (Sobel test statistic) is 4.45141887, which is greater than the t-table score of 2.390. In addition, the Sig (Two-tailed probability) score is 0.00000853, which is smaller than 0.05. It means that there is an indirect effect of X on Y through Z.

Hypothesis Test

Table 4 shows that the t-count score of educational products is 3.224 and the Sig of 0.002. It is known that the t-table score is 2.390, which means it is smaller than the t-count of 3.224 and the Sig score of 0.002 is smaller than 0.05. Based on these data, it can be seen that educational products have a positive and significant influence on student satisfaction at the Polytechnic of LP3I Makassar.

Table 5 shows that the t-count score of educational products is 3.272 and the Sig of 0.002. As a result, the t-count score is 3.272, which is greater than the t-table score of 2.390, and the sig of 0.002 is smaller than 0.05. Therefore, it can be determined that educational products have a positive and significant influence on student loyalty at the Polytechnic of LP3I Makassar.

Table 5 also shows that the t-count score of student satisfaction is 8.657 and the Sig score is 0.000. That is, the t-count score is 8.657 > t-table of 2.390 and the Sig score is 0.000 < 0.05. Thus, it can be determined that student satisfaction has a positive and significant influence on student loyalty at the Polytechnic of LP3I Makassar.

Furthermore, it is known that the educational products' effect score directly on student loyalty (P1) is 0.324. While the indirect effect score of educational products on student loyalty through student satisfaction is determined through the formula "Beta X to Z score multiplied by Beta Z to Y score", so a mathematical equation is obtained: 0.402 x 0.893 = 0.358.

These calculations show that the indirect effect score (0.358) is greater than the direct effect score (0.324). This means that educational products indirectly have a positive and significant effect on student loyalty through student satisfaction. The total influence of

educational products on student loyalty is determined by the formula "the direct effect score plus the indirect effect score", so a mathematical equation is obtained: 0.324 + 0.358 = 0.682.

DISCUSSION

Educational Products

The study program product is the first element that must be prepared by a college as a company (Yulianti 2017). This product will later be promoted and felt directly by consumers (Gunawan 2022). Therefore, the Polytechnic of LP3I Makassar as an education service provider company offers a variety of study program products, which in this study are in the very high category.

The results of this categorization are the implications of two main factors that exist in each study program at the Polytechnic of LP3I Makassar, namely the fulfillment of labor market needs and the demands of the government. This is in accordance with Kotler's (2005) theory that a good product is one that satisfies the consumer's desires or needs.

First, fulfilling the needs of the labor market is one of the objectives of the Polytechnic of LP3I Makassar as a vocational college institution. Based on these objectives, each study program's curriculum is prepared according to the requirements of the world of work so that graduates are really ready to enter the world of work (Pambudi and Harjanto 2020). Apart from academic activities, the Polytechnic of LP3I Makassar also provides supporting activities in the form of soft skills that are appropriate for the world of work (Okolie et al. 2020). In fact, this polytechnic collaborates with various partner institutions, both state and private, so that graduates can be accepted to work in their institutions. This guarantees a job for graduates of the Polytechnic of LP3I Makassar (de Wit and Altbach 2021).

Second, fulfilling government demands is also the key to a good study program (Burga and Damopolii 2021). Whether the study program is appropriate or not depends on the fulfillment of the administrative requirements set by the government (Burga et al. 2019). At present, all study programs at the Polytechnic of LP3I Makassar have been accredited by the National Accreditation Board for Higher Education (BAN-PT) so that they have the right to carry out formal education activities with certificates that have a civil effect (state recognition). Thus, graduates can be accepted in both state and private institutions.

This analysis is strengthened by the results of Burga et al. (2019), who found that the existence of an educational institution is determined by its ability to maintain characteristics, meet the needs of a growing community, and comply with government regulations. This is also in line with the results of Asyhar's (2016) research, which found that several traditional educational institutions had to go out of business because the educational products (schools) that were offered administratively did not meet the conditions set by the government.

The interesting thing about these findings is that the quality level of educational products at the Makassar LP3I Polytechnic is in the very high category, but the number of students has continued to decline in the last three years (see Table 1). This is different from the theory put forward by Wirtz and Lovelock (2021) that product quality will directly impact the company's image, which indirectly becomes a means of promotion. Satisfied consumers are

more likely to make repeat orders and tell many people about the product. This will encourage others to try the products offered (Musa 2022).

Based on the confrontation of the research results and previous theories, it can be understood that the quality of the educational product—which is included in the very high category—at the Polytechnic of LP3I Makassar has not succeeded in raising the image of the campus to attract new students. This can also be caused by the study program products offered not attracting the interest (not ideals) of prospective students and by competition with other increasingly fierce college institutions (Olssen 2021). As the research results of Nurfia, Saleh, and Nasrullah (2018) found, individual personalities (interests, talents, and ideals) and the image of higher education are factors that influence students' decisions in choosing study programs.

Student Satisfaction

Student satisfaction occupies a very high category. This categorization was obtained from the scores given by respondents to administrative services, educational processes (both academic and non-academic), and the completeness of educational facilities and eligibility of educational infrastructure at the Polytechnic of LP3I Makassar.

Respondents' positive response to administrative services is very important in higher education institutions. The results of research by Sukatin et al. (2022) found that academic administration services have a positive correlation with student satisfaction and loyalty to complete studies at that institution. Equally important is the educational process, both academic and non-academic, because this process determines the expected development in student competence (Arifudin 2019). Educational support facilities and infrastructure also need to be continuously updated and equipped. Moreover, the Polytechnic of LP3I Makassar is a vocational college institution that requires complete educational facilities as a tool and place to practice the skills learned and trained (Hartanto, Rusdarti, and Abdurrahman 2019).

Student Loyalty

The student loyalty variable is also in the very high category. The classification of student loyalty variables is based on respondents' perceptions of the Polytechnic of LP3I Makassar as the best choice for continuing their studies, having no plans to transfer, and participating in promoting and recommending the Polytechnic of LP3I Makassar to others (Sukatin et al. 2022).

The interesting thing about this questionnaire indicator is that respondents have no plans to move to another college because they believe that the Polytechnic of LP3I Makassar provides job certainty when completing studies at that institution. This is in accordance with the research results by Fitriya and Yani (2014), who found that job certainty is one of the factors that influence students' choices of study programs. However, when it is related to the data in Table 1, which shows that the number of students has continued to decline in the last three years, it can be assumed that, in addition to the interests or aspirations of students that are not in accordance with the study programs offered, recommendations and promotions carried out by students have no effect on increasing the number of students. This assumption is in accordance

with the research results by Nurfia, Saleh, and Nasrullah (2019), who found that friends (colleagues) did not influence student decisions in choosing study programs.

The Effect of Educational Products on Student Satisfaction

The educational product, as one aspect of the marketing mix, has a positive and significant influence on student satisfaction at the Polytechnic of LP3I Makassar. The results of this study reinforce the theory of Kotler and Armstrong (2012) that if one of the seven principles of the marketing mix is not appropriate, it will affect the marketing strategy, which results in a decrease in customer satisfaction. This result is also consistent with the research results of Razak, Nirwanto, and Triatmanto (2019) and Afnina and Hastuti (2018), which found that products have a positive and significant effect on customer satisfaction.

The influence of educational products on student satisfaction is determined at a level of 67.8%. The percentage of influence is quite high compared to the influence of other variables. Moreover, this research only focuses on educational products as one of the seven aspects of the marketing mix. These findings indicate that product quality is very important in marketing (Cesariana, Juliansyah, and Fitriyani 2022). However good the service is, if the product is not of good quality, it is difficult to satisfy customers. In fact, generally, consumers are willing to spend expensive budgets on quality products (Lupiyoadi 2013).

The Effect of Educational Products on Student Loyalty

The data from the research results previously described show that educational products have a positive and significant effect on student loyalty. The results reinforce Kotler's (2005) theory that the product is one of the marketing tools used by companies to convince consumers to buy repeatedly the products offered. This result is also consistent with the research results by Sya'idah and Jauhari (2018), who found that product quality has a positive and significant effect on customer loyalty.

The Effect of Student Satisfaction on Student Loyalty

This study found that student satisfaction has a positive and significant influence on student loyalty. This result reinforces Band's (1991) theory that customer satisfaction results in repeat purchases or continued loyalty. This finding is also consistent with the research results by Haeruddin and Haeruddin (2020); Kusumawati (2015); and Wirawan, Sjahruddin, and Razak (2019), who found that customer satisfaction has a positive and significant effect on customer loyalty. In this study, the customers are students who use the college's educational services.

The Effect of Educational Products on Student Loyalty Through Student Satisfaction

The educational product variable has an indirect effect on student loyalty through mediating student satisfaction. The level of determination of the indirect effect is 0.358, or 35.8%. This result strengthens Kotler's (2005) theory that the product is one of the marketing elements that, if not well organized, will affect the decrease in consumer satisfaction. It related to Band's (1991) theory that customer satisfaction results in repeat purchases or continued loyalty. This result is also consistent with the research results of Asmaliah, Suharno, and Kuleh

(2022); Rahmawati and Sentana (2021); and Putra (2012), who found that product quality has an indirect effect on customer loyalty through customer satisfaction.

CONCLUSION

Based on the research results and discussion previously described, the following conclusions can be drawn: (1) Educational products have a positive and significant influence on student satisfaction at the Polytechnic of LP3I Makassar. (2) Student satisfaction has a positive and significant influence on student loyalty at the Polytechnic of LP3I Makassar. (3) Educational products have an indirect effect on student loyalty through student satisfaction at the Polytechnic of LP3I Makassar.

Based on these conclusions, this study has implications for the importance of improving the management of college institutions based on educational products that meet government and community needs, thereby increasing customer loyalty. The industrialization of higher education institutions is a response to fulfilling society's need for an ever-increasing workforce and the demands of the government that are constantly being updated.

The industrialization of educational institutions must be responded to positively and critically by colleges. The main goal of educational institutions is not just the transfer of knowledge and skills but also the transfer of values (morals and attitudes). Do not allow college institutions to deliberately co-opt themselves to formalistic government demands and the needs of a global (modern) society to the point where their accomplishments become mere formalities and they lose sight of their ideals of instilling national cultural moral values and religious morals.

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Authors' Contribution

The first author determines the research theme, develops a research plan, collects data, and reports the results. The second and fourth authors ensure that the theories and methods used are appropriate and applicable in the implementation and reporting of research results. The third author helps with data analysis and ensures that the article is written in accordance with the author's guidelines.

Disclosure Statement

The authors declares that there is no conflict of interest in this research.

Data Availability Statement

The data that support the results of this study are available from the corresponding author.

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