



## Perceived Quality, Trust, Satisfaction on Student Loyalty in Private Universities

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### ABSTRACT

*The best universities certainly have advantages which are their competitiveness. These are essential studies conducted at private universities in West Jakarta, Indonesia, about the effect of perceived quality, trust, and student satisfaction on student loyalty. This study aims to examine the effect of perceived quality on students, student satisfaction, and student confidence in student loyalty. The population of this research is the five best universities in West Jakarta, with a total sample of 150 students. The research design used in this study is a causal descriptive research design and uses a quantitative method approach that is processed and tested using SEM-PLS. The findings of this study indicate that the perceived quality of students, student trust, and student satisfaction is proven to increase student loyalty, and the perceived quality of students will affect student loyalty through student satisfaction. These findings have also provided a better understanding of how each factor affects student loyalty. This research contributes to the theoretical and practical levels, as well as contribute knowledge to the determinants of student loyalty at the 5 Best Private Universities in West Jakarta, Indonesia.*

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**Keywords: Perceived quality, trust, satisfaction, loyalty, private universities**

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## **INTRODUCTION**

In today's business world, more than measuring customer satisfaction is essential because there is a greater need for customer loyalty that can predict purchase intentions and the level of consumer purchase intentions, thus having an impact on increasing company revenues and profits. Therefore, maintaining or even increasing student loyalty by focusing on aspects such as the quality of university services, satisfaction with the University, and high student confidence in participating in programs organized by the University will provide a competitive advantage for the University itself. If the University can serve students well, students will be satisfied and loyal and then provide recommendations to others. Some universities also want student loyalty so that the University can compete with other universities. West Jakarta has several best campuses, including Bina Nusantara University (BINUS), which is ranked 20th in the QS World University Ranking version of the Ministry of Research, Technology, and Higher Education. Trisakti University, Mercu Buana University, and Tarumanagara University (UNTAR) have received the latest awards, namely certificates and medals from The ASEAN Federation of Engineering Organizations and Esa Unggul University (Aku Pintar.id, 2021; VIVA.co.id, 2022).

A university is a type of further education institution called a college and has faculties that have various majors or study programs. Colleges seek to prepare students for the process of continuing higher education and prepare students to function in a rapidly changing environment. Significant changes in higher education in recent years, including both global and global (Maringe & Gibbs, 2009), (Altbach et al., 2019), the level of internationalization that allows the free movement of students (Altbach, 2004), increased competition from the private sector, and reduced funding (Hemsley-Brown et al., 2016; Verčič et al., 2016). These changes have caused the University to sink into a highly competitive, global, and changing market, competing for students, resources (human and financial), and reputation/image. In this context, students are the focus of higher education, and strengthening relationships with students is the key to future success (Fernández et al., 2007). To compete effectively, institutions are consequently adopting a marketing concept that portrays students as customers and ensures all strategies are targeted toward increasing student enrollment. Students are looking for institutions that can provide an outstanding, individualized educational experience and an educational platform that will develop the capacities needed for a lucrative career (Conefrey, 2018).

Thus, the College is reengineering its operations to focus more on competitive educational activities centered on quality evaluation (de Jager & Gbadamosi, 2013).

Helgesen & Nettet (Helgesen & Nettet, 2007b) suggested that student loyalty depends on the period during and after education. In the current business era, maintaining student loyalty is a necessity that must be done because only by maintaining student loyalty can survival be maintained. Loyal students will tend to reuse educational services and provide referrals to others. *Customer loyalty* is an action or strategy that can win the competition in the long term by considering how to acquire, retain and increase the number of customers (de Jager & Gbadamosi, 2013; Wilson et al., 2016). According to (Douglas et al., 2006) said, loyal customers are reflected in their repurchase behavior over time, and these customers have a solid emotional connection with the product or company. Oliver (Oliver, 1999) explains the concept of loyalty as maintaining a deep commitment to repurchase or repurchase products and services on an ongoing basis despite marketing efforts and status effects having the potential to change customer behavior.

Through services that meet student expectations, that student loyalty can develop because loyal students are valuable assets to the University. Therefore, considering that the University is engaged in services, it is necessary to improve the quality of university services, considering the quality of service to satisfy student trust and satisfaction. Service quality is the difference between customer service expectations and perceived service (Anantharathan Parasuraman et al., 1985). Service quality also satisfies user expectations (Juran, 1988). Zeithaml (Zeithaml, 1981) explains service quality as excellence in providing services. Parasuraman et al. (A Parasuraman et al., 1988) state that perceived quality is an international judgment or attitude regarding service supremacy. The quality felt by students from an institution can provide satisfaction to students (Sumaedi et al., 2011). Good service impresses students with their services and becomes a source of reference information for other students and prospective students. Following a relational marketing strategy to survive in a competitive environment is the key to college success (Helgesen, 2008), (Curth et al., 2019).

For many universities, achieving student satisfaction is a competitive advantage (Elliott & Shin, 2002). Sapri et al. (Babin & Griffin, 1998) emphasize that customer satisfaction plays an essential role in determining the loyalty and promptness of the recommended service. The claim is verified by Barnett (Barnett, 2010); he considers student satisfaction an essential factor as it is the only measure of the quality of services offered in the higher education sector. The importance of trust in educational institutions will impact the formation of student loyalty, and several empirical studies show that trust has a positive impact on student loyalty. In their research, Akbar & Parvez (Akbar & Parvez, 2009) and Malau (Malau, 2017) found that trust affects student loyalty. Increased customer trust will make customers more loyal, and customer loyalty will lead the company to achieve excellence in corporate profits. A high level of loyalty will make the position of education with better facilities, good relations with students, and the creation of innovative leaders (Khan et al., 2012). Satisfaction is a consumer's assessment of the pleasure obtained from the level of utilization provided (Oliver, 1981) and the extent to which customers are happy or unhappy after using a product or service (Churchill Jr & Surprenant, 1982). Oliver Richard (Oliver Richard, 1997) states that Satisfaction with an entity, such as a product or service, is based on experience. Babin & Griffin (Babin &

Griffin, 1998) emphasizes that someone's satisfaction with a product will affect subsequent behavior.

Research on the antecedents of student loyalty has been investigated. Previous studies examined the role of service quality, satisfaction, and student loyalty in higher education institutions. The findings of previous research revealed that there was a significant relationship between service quality and student loyalty mediated by student satisfaction. Furthermore, the researcher developed a different research model from previous researchers as a research gap, including adding student confidence variables. Therefore, this research is essential to determine the factors that influence student loyalty from the five best universities in West Jakarta, considering that there are still few studies conducted at universities in West Jakarta regarding the influence of perceived quality, trust, and satisfaction. Students on student loyalty. This study aims to determine and analyze the effects of perceived quality, student trust, student satisfaction, and student loyalty. This research will contribute to the theoretical and practical levels and contribute knowledge to the determinants of student loyalty in universities in West Jakarta.

## **LITERATURE REVIEW**

### **Student Loyalty**

In higher education, student loyalty has been defined as the intention to advise one's friends and acquaintances to enroll in the same University, the desire to speak positively about the institution, and the desire to return for further education (Webb & Jagun, 1997). According to Hennig-Thurau et al. (2001), loyal students may decide to support their academics and the institution financially and positively. An additional definition refers to a student's willingness to say positive things about the University and inform new candidates about the University. Loyalty is related to an institution's ability to attract new and retain existing students (Helgesen & Nettet, 2007a, p. 39). Student loyalty is essential for competitive advantage (Yu & Kim, 2008; Thomas, 2011). According to Dehghan et al. (2014) student loyalty is essential for academics and has become a strategic concern for higher education institutions. Loyalty can maintain current student enrollment rates and encourage them to continue their education at the University. Much like customer loyalty to a product, student loyalty to the University may be a determining factor in the University's continued growth and has been a recurring theme in higher education marketing research (Hennig-Thurau et al., 2001; Helgesen & Nettet, 2007a, 2007b; Rojas-Méndez et al., 2009).

### **Perceived Quality**

Perceived quality refers to students' and graduates' assessments of the overall excellence of the University institution (Zeithaml, 1988), so perceived quality is undoubtedly one of the strongest influences on student choices. Quality of service has been recognized as a performance measure for excellence in education and a critical strategic variable for universities as service providers (Donaldson & Runciman, 1995). Service quality within universities has become a hot topic. It has attracted much attention

due to the need for universities to participate in intense competition and meet the increasing demands of stakeholders to improve service quality (Pariseau & McDaniel, 1997). As a result, this dimension has been part of most empirical investigations related to higher education marketing and remains a crucial construct in investigations. Successful university and higher education policies develop to improve service quality for sustainable progress. According to Poole et al. (2000) institutions facing intense competition and trade often turn to strategies that address the quality of services provided and related factors to gain a competitive advantage in today's increasingly challenging environment. In a prominent contribution, Damme (2001) has remained vocal about the need for quality assurance in universities. This notion has now been recognized and used in many universities research questions. The definition proposed by Elliott & Healy (2001), is attitudes in the short-term resulting from an assessment of their experiences with services received related to education.

Furthermore, explained by Elliott & Shin (2002, p. 197) is a student's subjective evaluation of results and experiences related to education, and they further explain that continuous satisfaction is formed from repeated experiences felt by students. Parasuraman et al. (1988) developed various components that organizations can use to assess service quality, most of which have been cited by researchers in service quality assessments. Measurements based on Parasuraman et al. (1988) and (Zeithaml, 2013) include Tangible physical characteristics, including the exterior or appearance of structures, equipment and tools, and employees during service delivery. Reliability is the organization's capacity to provide suitably and reliably as guaranteed. Responsiveness is the speed and readiness to provide services to consumers. Assurance of service providers' capacity to be well-mannered, well-informed, and the capacity to generate confidence in consumers. Empathy is the ability of the organization to see itself as a customer, give personal attention to consumers, and show a particular interest in consumers. Therefore, higher education institutions must embrace and manage service quality to be relevant in a competitive environment. In this study, the student's point of view was considered to evaluate the perceived quality, and the student's opinion was identified as a factor in assessing the perceived quality.

### **Student Trust**

Trust is defined as consumer belief in brand intentions and reliability as well as contributing to and resulting in a better description of the company (Delgado-Ballester & Munuera-Alemán, 2005). Trust also provides the necessary assurance that corporate brands are not exploiting consumers. Trust helps reduce fear and increases hope for a positive outcome. Another definition of trust is a person's willingness to act based on decisions, words, actions, and other people (Thomas, 2011). In particular, student trust has been shown to play an essential role in marketing the University's corporate brand and its programs and the perception of university performance (Sultan & Wong, 2012, 2014). According to Newell et al. (2016) trust plays an essential role in developing loyalty because it is the belief that individuals, groups, or organizations can be trusted to fulfill their promises. A brand that consumers can trust is a strong brand, especially when consumers are considering a long-term relationship with the brand, such as applying to a

university or participating in a research program. Also, trust is important when recommending the University to others.

### **Student satisfaction**

Customer satisfaction is the perspective of consumer experience after consuming or using a product or service (Oliver, 1993). According to Borden (1995), student satisfaction depends on the extent to which priorities and university facilities are aligned. Elliott & Shin (2002) described student satisfaction from educational outcomes and student experiences, and other experiences were prominent in predicting satisfaction. J. Douglas et al. (2006) investigated the intertwined concepts of quality and satisfaction and described four overall satisfaction components, firstly "satisfiers", which relate to characteristics or aspects which, if any, give rise to satisfaction, but their absence does not cause dissatisfaction, secondly "dissatisfiers", relating to characteristics, if present does not lead to satisfaction, but its absence causes dissatisfaction. Likewise, "critical" relates to features whose presence creates satisfaction, and dissatisfaction in their absence, and finally "Neutral" relates to aspects or features that have no impact on satisfaction even though they are present or absent. J. Douglas et al. (2006) emphasizes the achievement of student satisfaction which is based on the quality of all management and administration at the University. Gibson (2010) review of the attributes that result in student satisfaction indicates that there are several predictors of satisfaction or dissatisfaction in the literature. Its contribution is also significant because it provides a starting point for researchers to study the factors that influence satisfaction. Using a qualitative approach J. A. Douglas et al. (2015) used narratives to gather responses from students who were and determine critical quality areas that needed attention. In the context of customer satisfaction, expectations are assumptions or customer beliefs about what is received and then develops as more information and experience is received (Chairil, 2018).

### **HYPOTESIS REVIEW AND RESEARCH MODEL**

Quality of service is often considered essential to building and maintaining satisfying relationships with valued customers. In increasingly fierce competition, service quality is a must for universities to maintain their existence (Ghobehei et al., 2019). Improving service quality will increase student satisfaction and vice versa (Ali et al., 2016). Previous studies have shown a significant relationship between perceived quality and student satisfaction (Bakrie et al., 2019; Chandra et al., 2019; Indriyarti et al., 2019). Based on relevant research, then the following hypothesis is:  
H1: Perceived Quality has a positive effect on Student Satisfaction.

It is essential to improve the quality of service due to the interaction between the University and students. Moreover, the service quality aspect is a precursor to the overall service quality assessment as it affects the strength of customer relationships and their behavioral intentions. Research conducted by (Bakrie et al., 2019; Chandra et al., 2019; Indriyarti et al., 2019) said that service quality had no positive or significant effect on student loyalty. In university education, some studies strengthen the positive relationship between perceived quality and student loyalty (Martha-Martha & Priyono, 2018),

(Martha-Martha & Priyono, 2018; Cahyono et al., 2020). Based on relevant research, then the following hypothesis is:

H2: Perceived Quality has a positive effect on Student Loyalty.

Loyalty is a crucial variable influenced by various exogenous constructs, including satisfaction and perceived quality. Supports the relationship between satisfaction and loyalty, some studies study student satisfaction with the perceived quality of educational institutions (Alves & Raposo, 2007, 2010), (Helgesen & Nettet, 2007a). According to Hsu et al. (Hsu et al., 2008), customer satisfaction can mediate the relationship between quality and customer loyalty. Studies said that satisfaction mediates the relationship between loyalty (Lam et al., 2004); the results of research support this by Kunanusorn & Puttawong (Kunanusorn & Puttawong, 2015), which says that student satisfaction is the mediating variable, and it implies that student satisfaction is the primary driver of student loyalty. Based on relevant research, then the following is:

H3: Perceived Quality has a positive effect on Student Loyalty mediated by Student Satisfaction.

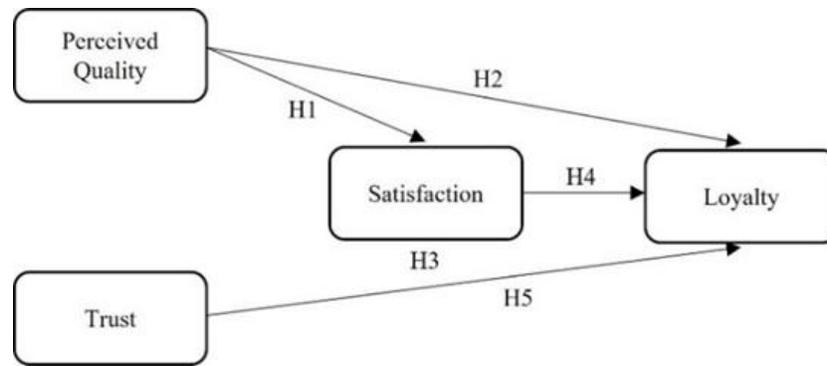
Student satisfaction is a function of the relative experience and level of perceived educational service performance during the education period. Satisfaction acts as an antecedent of loyalty (Bitner, 1990); greater satisfaction leads to increased loyalty (Fornell, 1992) in order to attract new students caused by word-of-mouth communication (Clemes et al., 2008, 2013) and retaining current students (Kunanusorn & Puttawong, 2015), (Wiers-Jenssen, n.d.). Many previous studies say that student satisfaction has a positive relationship with student (Chandra et al., 2019), (Wiers-Jenssen, n.d.), (Cahyono et al., 2020). Based on relevant research, then the following hypothesis is:

H4: Student Satisfaction has a positive effect on Student Loyalty.

Trust in educational institutions will have an impact on the creation of student loyalty, and several studies have proven that there is a positive effect of trust on student loyalty. In their research, Aydin & zer (2005) found that trust is an essential factor of customer loyalty. In their research, Akbar & Parvez (Akbar & Parvez, 2009) found that trust in personnel and management proved to have a significant positive effect on student loyalty. The same thing was found by Chinomona & Sandada (Chinomona & Sandada, 2013) and Malau (Malau, 2017) in his research found a positive and significant relationship between customer trust and customer loyalty. Based on relevant research, then the following hypothesis is:

H5: Student Trust has a positive effect on Student Loyalty.

Based on the theoretical review and research relevant above, this research proposed model is described in figure 1 below.



**Figure 1. Research Framework**

## **RESEARCH METHOD**

The research design used in this study is a descriptive causality research design. Causal research design aims to analyze the relationship between variables in a study or to find out how one variable can affect changes in other variables (Joe F Hair et al., 2019). There are exogenous (independent) variables in this study, namely perceived quality, and student trust, as well as one mediating variable, which also acts as an exogenous variable, namely student satisfaction, and an endogenous (dependent) variable, namely student loyalty. Research questionnaires were filled out online for data collection. The research population is students from the five best universities in West Jakarta, Indonesia, including Bina Nusantara University, Trisakti University, Mercu Buana University, Tarumanagara University, and Esa Unggul University. Data collection, processing, and analysis were carried out from August to September 2022. The sampling method used Non-Probability Sampling with stratified random sampling. The number of respondents in this study was 150 people, the sampling size was derived based on Joe F Hair et al. (Joe F Hair et al., 2019). From 5 universities, each sample took as many as 30 respondents; they are currently studying undergraduate programs for Undergraduate Academic Education Management study programs and have completed at least three years of studying.

The measurement of the perceived quality consists of 6 statements (Hemsley-Brown et al., 2016), student trust consists of 4 statements (Jillapalli & Jillapalli, 2014), student satisfaction consists of 5 statements (Ali et al., 2016), student loyalty consists of 5 statements (Stokburger-Sauer et al., 2012), (Annamdevula & Bellamkonda, 2016). This study uses the Structural Equation Model Partial Least Square (SEM-PLS) analysis tool with two measurement models (Joseph F Hair et al., 2013; Wong, 2019), namely Outer Model Analysis with five parameters, Inner Model Analysis with four parameters, as well as analyzing the model and testing hypotheses. The Evaluation of the Measurement Model (Outer Model Analysis) uses five parameters, including the Convergent Validity Value, where the loading factor value must be above 0.70, then it is said to be valid. The second is the Average Variance Extracted (AVE) with the expected AVE value above 0.50, which means that the higher the AVE value, the variance caused by errors in model measurement is smaller than the variance caused by each in the construct captured by the model. The third is Discriminant Validity, the loading factor value is greater than the cross-loading

value or can also use the Fornell-Lacker Criterion value, where the criterion value is greater than the correlation value to other constructs. The fourth is Reliability Analysis using the Composite Reliability (CR) value, and the expected value is CR greater than 0.70, so the latency is said to be reliable. Moreover, lastly, Cronbach's Alpha with the expected value is Cronbach's Alpha greater than 0.60, so that used to measure latency is said to be reliable.

Then the hypothesis test involving the relationship between the constructs will only be reliable or valid if the measurement model explains how this construct is measured (Joe F Hair et al., 2019). Significance testing is the process of testing whether specific results occur by chance. The critical values for this significance level and the one-sided test are 1.65, respectively. The significance test uses the t-statistic value (t value) for the one-sided test is 1.65. For the significance level, the p-value is 5% (0.05), meaning it is said to be significant if the p-value is less than 0.05.

## RESULTS AND DISCUSSION

Respondents are students from undergraduate management study from the five best campuses in West Jakarta, namely Bina Nusantara University, Trisakti University, Mercu Buana University, Tarumanagara University, and Esa Unggul University with a total of 150 respondents consisting of 75 people (50%) are women, and 75 people (50%) are men. The number of respondents from each university is 30 people. Furthermore, most respondents were taking semester seven which amounted to 71 people (47.3%), in addition to semester six students totaling 17 people (11.3%), and semester five students amounting to 62 people (41.3%).

In this study, if each construct has an AVE > 0.50, the minimum acceptable loading factor size is 0.70. Therefore, the convergent validity of the model in this study has met the requirements. The values of loadings, Cronbach's alpha, composite reliability, and AVE for each complete construct are in table 1.

**Table 1. Convergent Validity**

Construct	Indicators	Factor Loadings	Cronbach's Alpha	Composite Reliability	AVE
Perceived Quality	PQ1	0.839	0.905	0.927	0.680
	PQ2	0.807			
	PQ3	0.747			
	PQ4	0.871			
	PQ5	0.846			
	PQ6	0.832			
Trust	Tr1	0.892	0.865	0.909	0.714
	Tr2	0.871			
	Tr3	0.773			
	Tr4	0.839			

Construct	Indicators	Factor Loadings	Cronbach's Alpha	Composite Reliability	AVE
Satisfaction	Sat1	0.886	0.915	0.936	0.746
	Sat2	0.878			
	Sat3	0.892			
	Sat4	0.817			
	Sat5	0.844			
Loyalty	Loy1	0.751	0.858	0.897	0.636
	Loy2	0.804			
	Loy3	0.770			
	Loy4	0.859			
	Loy5	0.801			

The discriminant validity test was carried out to ensure that each latent variable's concept differed from the other latent variables. The model has good discriminant validity if the AVE value for each exogenous construct exceeds the correlation between the constructs and other constructs. The results of the validity discriminant test using the AVE value are by looking at the Fornell-Larcker Criterion value, which is in table 2. The results of the validity discriminant test in Table 2 show that the AVE value for all constructs is higher than the correlation with other potential constructs (according to the Fornell-Larcker Criterion). Therefore, it can be concluded that the model has met the discriminant validity.

**Table 2. Validity Discriminant (Fornell-Larcker Criterion)**

	Trust	Satisfaction	Perceived Quality	Loyalty
Trust	0.845			
Satisfaction	0.728	0.864		
Perceived Quality	0.744	0.728	0.825	
Loyalty	0.697	0.742	0.724	0.798

The Hypothesis testing by looking at the path coefficient bootstrapping analysis results, namely by comparing the t-statistic with the t-table. The hypothesis accepted the t-statistic value > t-table (1.65). The path coefficient value indicated by the t-statistic must be higher than the t-table value with an alpha significance level of 5% (0.05) and a t-value above 1.65.

The t-statistical values for all paths in the studied structural model. In summary, the results of the t-test analysis of the path coefficients are shown in table 3. The t-test analysis of the path coefficients (Table 3) indicates that the perceived quality has a direct and significant effect on student satisfaction (H1: Accepted,  $t=12.150$ ,  $p=0.000$ ). Perceived quality has a direct and significant effect on student loyalty (H2: Accepted,  $t=1.890$ ,  $p=0.002$ ). The satisfaction variable directly and significantly affects student loyalty (H4: Accepted,  $t=3.590$ ,  $p=0.002$ ). Trust directly and significantly affects student loyalty (H5: Accepted,  $t=2.053$ ,  $p=0.020$ ).

**Table 3. Results of Direct Effect Coefficient**

		<i>Coefficient</i>	<i>t-value</i>	<i>p-value</i>	Hypothesis
H1	Perceived Quality -> Satisfaction	0.728	12,150	0.000***	Accepted
H2	Perceived Quality -> Loyalty	0.301	2,890	0.002**	Accepted
H4	Satisfaction -> Loyalty	0.379	3,590	0.000***	Accepted
H5	Trust -> Loyalty	0.198	2.053	0.020*	Accepted

t-value > 1.645, \*p-value < 0.05, \*\*p-value < 0.01, \*p-value < 0.001

Furthermore, the fifth hypothesis indicates a positive and significant effect of perceived quality on student loyalty (H3: Accepted, t=3.271, p=0.000), so H5 is also accepted. Student satisfaction partially mediates loyalty, which is shown in table 4.

**Table 4. The Result of Indirect Effect Coefficient**

		<i>Coefficient</i>	<i>t-value</i>	<i>p-value</i>	<i>Results</i>	Hypothesis
H3	Perceived Quality -> Satisfaction -> Loyalty	0.276	3,721	0.000	Significant	Accepted

t-value > 1.645, \*p-value < 0.05, \*\*p-value < 0.01, \*p-value < 0.001

The subsequent analysis measures the value of R-square (R<sup>2</sup>) in the structural model for each endogenous latent as 0.67, 0.33-0.66, and 0.19-0.32, which can be interpreted as strong, moderate, and weak (Chin et al., 2013). Table 5 presents the R<sup>2</sup> value for the satisfaction and loyalty variables. From Table 5, the R<sup>2</sup> value of satisfaction is 0.527, and loyalty is 0.629, which indicates that the perceived quality variable can moderately explain the diversity of student satisfaction by 52.7%. Furthermore, the perceived quality, trust, and satisfaction variables can moderately explain the diversity of loyalty variables by 62.9%.

**Table 5. Coefficient of Determinant Score (R-square)**

	<i>R-square</i>	<i>R-square adjusted</i>	Result
Satisfaction	0.531	0.527	Moderate
Loyalty	0.637	0.629	Moderate

F-square (f<sup>2</sup>) was calculated to measure the significance of the partial effect of exogenous variables on endogenous variables, the estimated value of f<sup>2</sup> is 0.02; 0.15; 0.35 indicates that the influence value is weak, moderate, and strong (Cohen, 1988). Based on the results in Table 6, f<sup>2</sup> value of the trust variable to loyalty of 0.04 (weak), the satisfaction variable to loyalty is 0.155 (moderate), then for the perceived quality on satisfaction is 1.13 (moderate). And then for the perceived quality on loyalty is 0.093 (weak).

**Table 6. Assessing the level of effect size (f2)**

Relationship	$f^2$	Conclusion
PQ → Sat	1,13	Moderate
PQ → Loy	0,093	Weak
Sat → Loy	0,155	Moderate
Trust → Loy	0,04	Weak

Finally, the Q-square (Q2) measures how well the model produces the observed and estimated parameters. If the value of Q2 is greater than 0 (zero), then the model is considered to have a relevant predictive value. In this study, the results of the Q<sup>2</sup> calculation are 0.522 for satisfaction and 0.555 for loyalty, which means the variables in this study have a good predictive correlation because the Q<sup>2</sup> value exceeds zero; the results are shown in table 7.

**Table 7. Q-Square Model Fit Results**

	Q <sup>2</sup> predict
Satisfaction	0.522
Loyalty	0.555

## **Discussion**

Based on the results of our research, students' perceived quality can increase student satisfaction, which means that the higher the quality perceived by students, the higher the satisfaction that students tend to feel. The strengthening of perceived quality dimensions in increasing student satisfaction includes physical aspects (tangible) such as the completeness of supporting consistently good infrastructure facilities; aspects of certainty (assurance) at identically high quality; aspects of reliability in service quality and excellent and skilled staff; aspects of empathy such as professionalism for all students, as well as a service system that makes it easier for students also play a role in increasing student satisfaction. In addition, responsiveness aspects such as the responsiveness of the University in responding to problems. In this study, empathy is the most substantial aspect that influences achieving student satisfaction.

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From the questionnaire results, students feel that the University they have chosen is valuable and professional; the higher the benefits and professionalism provided by the University will increase satisfaction with the University where students study. As said by Ali et al. (Ali et al., 2016) that improving service quality will increase student satisfaction, it can also be concluded that satisfaction is an essential factor of loyalty by supporting the results reported by Rojas-Méndez et al. (Rojas-Méndez et al., 2009) and Akbar & Parvez (Akbar & Parvez, 2009). Furthermore, this research proves that students' perceived quality affects student loyalty, which means that the higher the quality perceived by students, the greater the tendency of student loyalty. In addition, the questionnaire results also stated that universities are expected to improve the skills of existing staff at the University so that student satisfaction and loyalty can be improved again. This is in line with the statement of Martha-Martha & Priyono (Martha-Martha & Priyono, 2018) and Cahyono et al. (Cahyono et al., 2020), which strengthens the positive relationship between perceived quality and student loyalty.

This research also studied the indirect effect of perceived quality on loyalty through student satisfaction to support the explanatory capacity of the proposed theoretical model. The results of this study prove that the perceived quality of students affects loyalty indirectly through intermediary variables that are positively significant. The indirect effect of perceived quality on loyalty is through the application of satisfaction. It can be explained that when students are satisfied with the perceived quality, it will increase student loyalty; this is important because continued satisfaction will lead to student loyalty, indicating that student satisfaction mediates between perceived quality and student loyalty. This result is in line with what was said by kunanusorn & puttawong (Kunanusorn & Puttawong, 2015) in previous studies that student satisfaction is a mediating variable, implying that student satisfaction is the primary driver of student loyalty.

The higher student satisfaction increasing student loyalty, the more students believe they have chosen the right University to study. So, the higher the trust of students, the higher the loyalty of students. It is evidenced by the value of the questionnaire results, which states that students believe in their university. So, the student's trust in the University during their education will affect their loyalty. The Universities' management must also have high integrity so that student trust increases; empirical studies prove the positive influence of trust on student loyalty; Akbar & Parvez (Akbar & Parvez, 2009) also found that trust in personnel and management proved to have a significant positive effect on student loyalty. However, the University must also improve the pleasant experience of students during their education so that student satisfaction can increase even more; this is in line with previous research, which says that student satisfaction has a positive relationship with student loyalty.

## **CONCLUSION**

In this research results, all the hypotheses proposed were significant and accepted as relevant to the research model because they were related. Students perceived quality is one of the keys to achieving loyalty and satisfaction. The structural model proposed and empirically validated in this study confirms that the key variables to increase student loyalty and influence their behavior regarding students' pride in continuing to relate to

their university are perceived quality and student satisfaction. Thus, the better the quality of students from their university, the greater the perceived satisfaction and, ultimately, increased student loyalty. This research has provided a deeper understanding of how each factor affects student loyalty.

This study allows us to understand the relationship between perceived quality, trust, and satisfaction with loyalty, as well as to obtain evidence of the importance of satisfaction in the model for the formation of quality and perceived satisfaction of students. Achieving student loyalty and retaining current students can be a positive communication channel to attract new students are beneficial for the University by continuously maintaining and improving the essential factors in students' perceived quality, student satisfaction, and student trust, so student loyalty increases. Therefore, Universities must focus their efforts and implement the necessary strategies to increase student confidence in the quality of education, services, and facilities provided by the University to increase student satisfaction and loyalty on an ongoing basis to achieve the vision, mission, and reputation of the University.

## **Implications**

This study reveals that student loyalty is achieved only when the services provided by the University satisfy the students. To build student loyalty, what must be a concern for higher education management is to maintain and improve the institution's reputation as well as continue and improve service quality to provide student satisfaction and form better student loyalty. Through this research, several actions must be taken to follow up on the following supported hypotheses; the University can improve that student satisfaction to continue to provide good quality to students. Then also for the University to maintain the students' trust in the University that they felt during their lectures, in the end, achieving the final goal of loyal students to the University. Thus, it can continuously increase the number of students and good quality of graduates. Then also for the University to maintain the students' trust in the University that they felt during their lectures, achieving the final goal of loyal students to the University. Thus, it can continuously increase the number of students and good quality of graduates.

In an increasingly competitive higher education environment, universities are encouraged to pay attention to the quality of educational services to increase student satisfaction and loyalty. The importance of institutional image in universities needs to allocate some of their resources to communication and marketing strategies in maintaining service quality and student trust to impact student satisfaction and loyalty; in the end, the University's image and market position gain a competitive advantage. College administrators can determine the factors that enable them to observe which variables are most important to achieving the University's goals in retaining current students, considering that students can serve as a positive communication channel to attract new students. In this regard, they should focus their efforts and implement the necessary strategies to match expectations with service quality, especially regarding the attitudes and behavior of faculty and student service units, as well as improve skills.

It is also essential to inform their students about career opportunities after graduation. Focusing on increasing the satisfaction felt by students and meeting student expectations will affect the perceived quality of students and their satisfaction in a very

significant way and, in return, is student loyalty. They should focus their efforts and implement the necessary strategies to match expectations with service quality, particularly regarding the attitudes and behavior of faculty and student services units, as well as improve skills. They must also inform their students about career opportunities once they graduate.

### **Research Limitations & Future Research**

This research has limitations; it is carried out at a particular time, the population and sample refer to only one study program management, and only at the five best universities in West Jakarta. This limitation can be overcome by expanding the research to other study programs in the best Private Universities, which allows new models with extended structural characteristics. Further improvements studies are suggested to create a new research model by incorporating additional construct that was not used in this study, as well as expanding the scope and identifying other possible factors for student loyalty, besides investigating perceived quality factors, trustworthiness, and student satisfaction on loyalty. Future research will examine more constructs and indicators using a comparative study to determine student loyalty at public and private universities.

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