

Analysis of the Effect of Service Quality Dimensions on Student Satisfaction in Master of Management of Mercu Buana University

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Abstract

This study aims to examine the effect of service quality dimensions, namely tangibles, reliability, responsiveness, assurance, and empathy, on student satisfaction. The study took the population of Master of Management (MM) students of Mercu Buana University, at least actively enrolled in the third semester. The study used a sample of 125 students. The sampling technique used is simple random sampling. Primary data collection using a questionnaire instrument. The research hypothesis testing was formulated using multiple linear regression models and the coefficient of determination. The research findings show that tangibles, reliability, responsiveness, have a significant positive effect on weak causal levels. Emphaty has a significant positive effect on moderate causal levels. The assurance dimension has a positive and insignificant influence. The coefficient of determination R² of 82.10% is showing that the conceptual model of the study has a high quality goodness of fit, and is very strong in explaining the variation in changes in student satisfaction. While the variation of change is 17.90%, explained by other variables outside the model not examined.

Keywords: service quality, tangibles, reliability, responsiveness, assurance, emphaty, student satisfaction.

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I. Introduction

Every organization providing goods and services will always provide the best service to its customers. Awareness of the behavior of producers or organizations like this is intended to build customer loyalty in order to always shop and consume the products it produces. The implication of short-term benefits for the organization is that it can maximize economic benefits, and the long-term benefit obtained is to maintain sustainability for the organization or company providing output to its customers. Conceptually, customer satisfaction is one of the main measures of success for the organization and is an indicator of the direction of future changes in what the organization will produce for customers.

Basically, not a few factors are found to have an effect on customer satisfaction of an organization, and one of these factors is the quality of service provided by the organization. No exception, this is also common in the education industry in universities, especially in university institutions or higher education providers, namely the quality of learning services has a significant positive influence on student satisfaction (Annamdevula and Bellamkonda, 2016; Meštrović, 2017). According to Parasuraman, service quality objects can be defined into five dimensions, namely reliability, responsiveness, assurance, empathy and tangibles (Dado at.all, 2012). Meanwhile, in higher education institutions, these dimensions are often used to measure the quality of service performance including academic aspects, non-academic aspects, institutional reputation, flexibility of access, and diversity of programs offered (Ntabathia, 2013). However, in general researchers have quite dynamic variations in developing dimensions and indicators used in research of service quality in higher education institutions, that is, adjusted according to the needs that are relevant to the specific educational competencies to be achieved by education provider of study programs.

The Master of Management Study program at the University of Mercu Buana (MM UMB) is a superior study program organized by the University of Mercu Buana. Currently Master of Management program has accredited A (superior). The accreditation is given by the Indonesian Government's National accreditation body (BAN-PT). The superior accreditation is an official recognition of the Indonesian government on the MM UMB program, a formal acknowledgement of the implementation of higher education and standard performance achievement at least 90% of the previous time period. It is a proud achievement for the education provider and the community of educational services users in the course.

The important step in the next MM UMB study Program is to maintain consistency to stay ahead of time. The commitment to maintain high performance is a must for the maintainers and other stakeholders, especially in terms of service quality delivery and to build high student satisfaction. Furthermore, the final mission of the commitment and consistency of education providers is to maintain and develop performance excellence in order to continue institutional sustainability.

Along with the time dynamics, as well as the personal turnover of the management and regeneration of students, will have a variety of service demands and tend to be higher. If the quality of academic services in the MM UMB program is felt stagnant, it can lead to a higher attitude of student dissatisfaction. From the indication of satisfaction students can be a barometer whether the management organizer in the performance of the MM UMB study program today is better than before? Similarly, the perception of service quality by students can also reflect management performance related to leadership and decision-making from the organizer's office.

The results of measurement of student satisfaction perception become one indication whether the quality of learning service in MM UMB program is consistent with good level and increase in quality, or vice versa. The measurement results also show the possibility of internal problems about the management process, administration, communication and information systems, the convenience of the lecture process, and the completeness of the facilities owned by the campus. As for the number of institutions of higher education in Indonesia, namely in general the quality of the learning service and satisfaction of students is measured through the five basic dimensions of the proposed Parasuraman et.al (1988). From various research findings proved that the quality of the learning Service has a positive relationship with the satisfaction of students (Annamdevula and Bellamkonda, 2016; Nguyen & Nguyen, 2016; Azam, 2018). However, the strength of the relationship (magnitude) of both variables has the intensity of various relationship coefficient. Empirical evidence of research results indicates a strong relationship (Annamdevula & Bellamkonda, 2016; Mestrovic, 2017), moderate relations (Hasan et al., 2009; Annamdevula and Bellamkonda, 2016), weak relations (Kundi et al., 2014; Truong et al., 2016). The variation in relationship strength found in both variables has proved that there is no consistency of research findings. Or in other words there is a research conclusion gap on the relationship of quality learning services with the satisfaction of students.

Furthermore, through the five-dimensional quality of learning services and satisfaction of students in the concept definition of Parasuraman et al (1988), as well as entering the 19 indicators (Likert-scale 1-5), which is the exploration conducted against 30 respondents of MM UMB program students, obtained a temporary description of the measurement of quality dimensions of learning services and student satisfaction. This collection of primary data through 30 students can be called relatively small sample-scale research. But the results of temporary measurements can be used as a road opener about the possible quality of the learning Service and the satisfaction of the student is performing as expected by the MM UMB managers and students. The fact that the data perception measurement results indicate that neither dimensions nor indicators of quality of service and student satisfaction have the same level of performance or above 90% (minimum performance standard of accreditation A). Scores on perception of service quality perceptions on tangibles 3.357 (67.14% of the expectation of the highest score of 5), reliability 3.357 (76.25%), responsiveness 3.455 (69.11%), assurance 3.393 (65.54%), and empathy 3.429 (68.57%). Meanwhile, the student satisfaction variables on the learning service have a average score: tangibles 3.012 (60.24%), reliability 3.813 (76.25%), responsiveness 3.420 (68.39%), assurance 3.277 (65.54%), and empathy 3.447 (68.93%). This temporary result proves there is still a gap between expectations and facts and has not maximized achievement of organizational performance. Thus, from the fact that the facts can be asked research questions: (1). If the data based on sample size is large (more than 30 respondents), does the perception profile of learning service quality and student satisfaction at MM UMB reach a score of 90% or more, (2) whether the dimensions of the learning service quality variable have an influence on Master of Management student satisfaction? The purpose of this study are: (a) to find out how high the profile of Master of Management students' perceptions on the quality of learning services and student satisfaction, (b) to prove how strong the influence of the dimensions of the quality of learning services on Master of Management student satisfaction.

II. Literature Review and Development of Hypotheses

Service Quality

There is no slight difference in terms of service quality proposed by management researchers. Many ways are used to provide definitions of quality service terms by researchers or management practitioners. It is simply that defining the quality of service is the totality of product characteristics that act to please and meet the desired consumer needs (customers). The quality of service can be interpreted as certain characteristics inherent in services that create excellence, meeting the needs and excitement of customers. The quality of service can also be interpreted as the difference between consumer service expectations and perceived services, and when expectations are greater than performance, consumer satisfaction will not occur (Parasuraman et al., 1985). Zeithaml and Bitner (2003) mention that the quality of service is an evaluation focus that reflects the customer's

perception of a particular dimension of service namely: reliability, responsiveness, confidence, empathy, tangibles. Based on the quality of service provided by customers, business operators can identify problems quickly, improve their services and assess customer expectations.

Determining service quality as a measure of how well the service level delivered is according to customer expectation. Parasuraman et al (1985) Designed quality service based on research in America. They describe ten factors defining quality services as reliability, responsiveness, competence, access, politeness, communication, credibility, security, customer understanding and physical evidence (Truong et al, 2016). Then, Parasuraman et al. (1988) reduced the ten attributes to five attributes. The modified service quality dimension Model is reliability, responsiveness, assurance, empathy and physical evidence (Truong et al, 2016). The 5-dimensional Model is defined as the following: Reliability is the proof of the ability to perform the promised service precisely and precisely; and responsiveness reflect the readiness of assisting customers and delivering fast service; Empathy refers to the level of care and attention provided by the Organization (the company) to its customers; Guarantees are the breadth of knowledge and courtesy of employees and their ability to increase customer confidence; Tangibles are physical facilities, equipment, officers and means of communication (Kundi et al, 2014).

The quality of the learning services in college is very important for students and other stakeholders with higher education. Quality higher education is also a challenge for all communities, public and private universities. This is why many universities around the world place high attention positions on their efforts to provide quality education services as closely as possible to customers for their satisfaction (Kundi et al, 2014). Service quality at higher education institutions is a major determinant for customers before buying a product or all types of services available that play an important role in measuring the performance of service products in the organization (Archambault, 2008; Kundi et al, 2014).

From the results of a variety of reference sources, especially the results of Parasuraman Research et.al (1985), Hanaysha et al. (2011), Osman et.al (2017), Mwiya et al., (2017), Onditi & Wechuli (2017) indicates that the dimensions and indicators of the service quality variables are: (a). Tangibles (indicators of completeness of education facilities, buildings, lecture halls, teaching learning processes), (b). Reliability (accuracy of teaching faculty, teach time discipline, discipline of assignment for students, employee staff service guarantees the smooth course), (c). Responsiveness (lecturer's response to student learning issues, administrative staff's response to administrative services issues and the smooth learning of students, the readiness and willingness of lecturers to help the smooth learning of students, readiness and willingness of administrative staff in assisting the smooth learning of students), (d). Assurance (the ability of lecturers in receiving and listening to student complaints, the ability of administration staff to receive and listen to student complaints, the speed of information systems in the delivery of information to students, information system accuracy in the delivery of information to students), (e). Empathy (teaching facility to be found in the context of student lectures, hospitality lecturer in serving student learning, administration staff's attention to student learning, hospitality administration staff in serving student learning).

Student Satisfaction

In a higher education organization, both public and private universities, students are the main customer elements. Universally customer satisfaction can be an indicator of how well the higher education institutions have provided the best service to the students as their customers. As an antecedent variable, student satisfaction has an influence on the behavior of trust, loyalty, positive word of mouth (Jiewanto et al., 2012; Mwiya et al., 2017), re-enroll or student intention (Nguyen & Nguyen, 2016; Azam, 2018). Furthermore, about customer satisfaction, in some literature reviews highlighting there is a lack of consensus definition of satisfaction as a concept with the quality of service, and generally there is no clear instrument received for the satisfaction of students in higher education institutions (Danjuma & Rasli, 2012). Nevertheless there are a number of studies providing a definition of customer satisfaction, and among them is the research of Fornell et al., (1996).

Service quality is perceived as customer satisfaction component (Kiran, 2010). In the conception of the theory submitted Fornell et al (1996), (in Osman et al, 2017), operationalized the definition of customer satisfaction into six dimensions, namely customer expectations, perceived quality, perceived value, customer complaints, and customer loyalty. Furthermore, according to Fornell et al (1996) customer expectations are measured through three indicators that are overall expectations, expectations about adjustments and expectations regarding reliability. Customer perceived quality is operationalized through three steps such as overall quality experience evaluation, customization experience evaluation and reliability experience evaluation. The perceived value is measured through two items such as the quality rating given the price and the price rating given the quality. Overall customer satisfaction is operationalized through three measures such as the overall assessment of satisfaction, the extent to which performance is more or more exceeding expectations and performance ratings. Customer complaints are measured through the level of complain or complaints both formally and

informally. Customer loyalty is operationalized through three such items as the possibility of buyback, price increase tolerance aimed at buyback, and price drop tolerance to persuade repurchase.

In his research, Osman et al (2017) uses 15 items used to measure the six-dimensional customer satisfaction, and the 10 instrument items adopted from Fornell et al (1996) are used to measure student satisfaction. Some studies have identified the quality of service as Customer satisfaction (Ganguli & Roy, 2010). Furthermore, in this study, the quality of service has been regarded as a customer satisfaction.

The Relationships of Service Quality and Student Satisfaction

The quality of learning services in higher education institutions is a major determinant for customers before buying a product or all types of services, and plays an important role in measuring the performance of products or services produced by a higher education organization (Archambault, 2008). Of the various studies that researchers have conducted most investigate the quality of service of educational institutions, especially in higher education institutions, successfully identifying the quality factor of service determines student satisfaction. By using a modified service quality instrument to evaluate the quality of services of four business schools in Jakarta, namely based on student perception, it is found that students who pay the tuition fees themselves have high hopes of quality of service and are less satisfied compared to students who have the cost of being paid for by others. From the empirical study of Kundi et al. (2014) Found service quality relationship structure with costumer (student) Satisfaction has characteristic diversity of correlation level varies, namely strong positive relationship (Annamdevula, 2012; Annamdevula & Bellamkonda, 2016; Bakrie et al., 2019); Significant moderate positive relationship (Khatab & Fraij, 1999; Nguyen & Nguyen, 2016; Putu et al., 2018), and significantly weak positive relationship (Dib & Mokhles, 2013; Chandra et al., 2019). Similarly, the results of a service quality dimension relationship, each dimension element shows the characteristics of the relationship strength level with the varied costumer satisfaction (significant criteria strong, moderate, and weak), namely as identified from a number of studies presented in Table 1.

Table 1
Relationship Characteristics of Service Quality Dimensions with Customer Satisfaction

Researcher	Tangibles	Reliability	Responsiveness	Assurance	Empathy
(Khatab & Fraij, 1999)	Significant positive strong	Moderate positive significance	Moderate positive significance	Moderate positive significance	Moderate positive significance
(Hanaysha et al., 2011)	Significant positive strong	Significant positive strong	Significant positive strong	Moderate positive significance	Moderate positive significance
(Juhari et al., 2016)	Moderate positive significance	Moderate positive significance	Significant positive strong	Positively significant weak	Positively significant weak
(Djajanto, 2017)	Moderate positive significance				
(Molae et al (2013)	Positively significant weak	Positively significant weak	Positively significant weak	Positive not significant	Positive not significant
(Khan & Fasih, 2014)	Positively significant weak	Positively significant weak	n. a.	Positively significant weak	Positively significant weak
(Mwiya et al., 2017)	Positively significant weak				
(Vazifehdoost et al., 2013)	Positively significant weak				

From the findings in some of the above studies show that there is a diversity of the level of relationships of service quality dimensions with the student satisfaction, which has proven gaps in research issues. The occurrence of research gaps can be caused by the diversity of background subjects of research, place, time and source of research data. Nevertheless similar research themes remain interesting to do again by taking a background base of different problems, especially in the higher education industry. As for the above description, we can further refine the structure of conceptual model of research as in the following image.

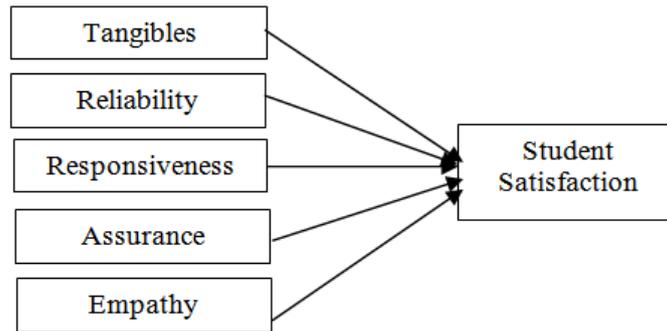


Figure 1: Conceptual Model of Research

Based on the conceptual model of research, it can be formulated hypothesis as follows:

- H₁: Tangibles positively affects student satisfaction
- H₂: Reliability positively affects student satisfaction
- H₃: Responsiveness positively influential on student satisfaction
- H₄: Assurance positively affects student satisfaction
- H₅: Empathy positively affects student satisfaction

III. Research Methods

The study was conducted in November-December in 2018. The research approach used is an explanatory quantitative method, which is to test the causality hypothesis of the variable dimensions of service quality effect on student satisfaction based on sample data. The research population is a Master of Management student at the University of Mercu Buana and actively enrolled lectures in semester three, four, and five. Research samples measuring 125 students. Sampling techniques by simple random sampling, which is based on judgement that the population has a characteristic degree of high homogeneity.

The primary data collection used questionnaires. The questionnaire instrument was developed from the research variable indicators. Service quality consists of five dimensions, namely tangibles (measured through 3 indicators), reliability (4 indicators), responsiveness (4 indicators), assurance (4 indicators), and empathy (4 indicators). Similarly, for the measurement of student satisfaction, is the same based on the indicators of tangibles dimension, reliability, responsiveness, assurance, and empathy. Measurement of indicators in each service quality dimension using a Likert scale consisting of five options categories: very good = 5, good = 4, almost good = 3, less good = 2, not good = 1. Likewise, for the measurement of student satisfaction consists of five options categories: very satisfactory = 5, satisfactory = 4, quite satisfactory = 3, not satisfactory = 2, very unsatisfactory = 1. The questionnaire form model filled by respondents is a checklist format.

Descriptive analysis of data presented through tables. Testing of the formulation of research hypotheses will be used for statistical models of multiple linear regression and coefficient of determination.

IV. Research Result

The professional description of respondents according to gender consisted of 78 men (62.4%) and 47 women (37.6%). Distribution of respondents according to the status of the active semester of college consists: semester three 108 people (86.4%), semester four 13 people (10.4%), fifth semester 4 people (3.2%). Furthermore, as shown in Table 2, the service quality performance profile shows an average score profile: tangibles 3.30 or 66.00% of the ideal score, reliability 3.94 (78.70%), responsiveness 3.59 (71.80%), assurance 3.82 (76.25%), empathy 3.87 (77, 45%). Meanwhile the perception of student satisfaction shows the average score profile: tangibles 3.37 (67.40%), reliability 3.99 (79.80%), responsiveness 3.56 (72.95%), assurance 4.10 (84.15%), and empathy 3.86 (77.25%). If the performance is seen according to the indicators, there are almost all variable indicators show the average score of marginal perception, that is, none of the indicators reaches a minimum performance of 90% of the ideal score. This means that the resource facilities and facilitators supporting the teaching and learning process in the postgraduate master management class at Mercu Buana University are perceived by students as not reaching the minimum standard of excellence.

Table 2
Measurement Results of Service Quality and Student Satisfaction Performance in Master of Management at Mercu Buana University, December 2018

Item	Question / Statement Item	Service Quality Score		Student Satisfaction Score	
		Rerata	%	Rerata	%
T1	Completeness of building facilities and student lecture room on campus	3.12	64.20	3.23	64.60
T2	Completeness of education facilities	3.34	66.80	3.42	68.40
T3	Completeness of equipment in the teaching and learning process	3.42	68.40	3.46	69.20
<i>Dimension of Tangibles</i>		3.30	66.00	3.37	67.40
R1	The accuracy of lecturers in testing subjects and giving grades	4.10	82.00	4.06	81.20
R2	Discipline of lecturer teaching time	4.23	84.60	4.22	84.40
R3	Discipline of the assignment by the lecturer on each course he teaches	4.14	82.80	4.10	82.00
R4	The role of staff/employee service in ensuring the smooth recovery	3.27	65.40	3.41	68.00
<i>Dimension of Reliability</i>		3.94	78.70	3.99	79.80
Rs1	Lecturer's concern/response to student learning issues	3.38	67.60	3.50	70.00
Rs2	Staff/employee response to administrative services issues and the smooth learning of students	3.85	77.00	3.88	77.60
Rs3	Lecturers' readiness and willingness to help students learn fluency	3.99	79.80	3.35	67.00
Rs4	Readiness and willingness of administrator staff to help students to smooth	3.43	68.60	3.86	77.20
<i>Dimenson of Responsiveness</i>		3.59	71.80	3.56	72,95
A1	Faculty's ability to receive and listen to student complaints	3.94	78.80	3.94	78.80
A2	Ability of administration staff to receive and listen to student complaints	3.45	69.00	4.07	81.40
A3	Speed of information system in delivering information to students	3.57	71.4	4.13	82.60
A4	Accuracy of information systems in delivering information to students	4.29	85.80	4.27	85.40
<i>Dimension of Assurance</i>		3.82	76.25	4.10	82.05
E1	Lecturer facility to be found in the context of student lecture	4.04	80.80	3.93	78.60
E2	Friendliness of lecturer in serving student learning	4.06	81.20	4.01	80.20
E3	Administration staff attention to student learning	4.11	82.20	4.09	81.80
E4	Friendliness of administration staff in serving student learning	3.38	67.60	3.42	68.40
<i>Dimension of Empathy</i>		3.87	77.45	3.86	77.25

Source: Primary data processed, 2018.

Hypothesis Testing Results

From ANOVA analysis and multiple linear regression, using the SPSS version 21 tool in data processing, were obtained the coefficient of determination ($= R^2$) of 0.821 and $F = 109.279$ (sig. = 0.000). This proves that the multiple linear regression equation model used to test the hypothesis has a very good level of goodness of fit model and fulfills the linearity provisions of the relationship of the independent variable with the dependent variable. R^2 coefficient of 0.821 indicates the value of determination is very strong or dominant to changes in the variation of the dependent variable. This means that tangible dimensions, reliability, responsiveness, assurance and empathy as independent variables simultaneously have an effect of 82.1% on changes in student satisfaction variations. Then the remaining 17.9% is a change in variation in student satisfaction determined by other variables outside the conceptual model of research.

Tabel 3
Output of Anova and Multiple Regression Coefficient^a

Model		Unstandardized Coefficients		Standardized	t	Sig.
		β	Std. Error	Coefficients		
1	(Constant)	.140	.179		.783	.435
	Tangibles	.163	.045	.178	3.662	.000
	Reliability	.128	.055	.136	2.345	.021
	Responsiveness	.184	.056	.228	3.316	.001
	Assurance	.092	.067	.092	1.379	.171
	Empathy	.398	.057	.447	6.991	.000
	R = 0,906					
	R ² = 0,821					
	Adjusted R ² = 0,814					
	F _h = 109,279					
	Sig. = 0,000					

a. Dependent Variable: Student Satisfaction

Referring to the contents of Table 3, it can be compiled multiple linear regression equations as follows:

Student Satisfaction = 0.140 + 0.163 Tangibles + 0.128 Reliability + 0.184 Responsiveness + 0.092 Assurance + 0.398 Empathy. F value of 109.279. This suggests that multiple linear regression models have fulfilled the requirements of linearity. Furthermore, by referring to the significance level of $\alpha = 5\%$, the regression equation can explain the results of the hypothesis testing as follows.

a. Coefficient of $\beta_1 = 0163$ ($t = 3,662$; $sig. = 0.000$). The H_1 hypothesis is proven, that tangibles has a significant positive influence on student satisfaction.

b. Coefficient $\beta_2 = 0128$ ($t = 2,345$; $sig. = 0.021$). The H_2 hypothesis is proven, that reliability has a significant positive influence on student satisfaction.

c. Coefficient $\beta_3 = 0184$ ($t = 3,316$; $sig. = 0.001$). The H_3 hypothesis is proven, responsiveness has a significant positive influence on student satisfaction.

d. Coefficient $\beta_4 = 0092$ ($t = 1,379$; $sig. = 0171$). The H_4 hypothesis is not proven, that assurance has positive and insignificant influence on student satisfaction.

e. Coefficient of $\beta_5 = 0398$ ($t = 6,991$; $sig. = 0.000$). The H_5 hypothesis is proven, that empathy has a significant positive influence on student satisfaction.

From the results of partial independent test dimensions of service quality variables and by using multiple linear regression models, it proves that all dimensions have positip influence. However, the assurance dimension has a very weak and insignificant positive. These results supported the research findings of Juhari et al., (2016) and Leonard (2018).

In tangibles, reliability, and responsiveness dimensions have a significant positive influence on student satisfaction. But it has a magnitude level of weak causality. The research results reinforcing the research findings of Vazifehdoost et al. (2013), Khan & Fluent (2014) and Djajanto (2017). While in the dimension of empathy has a moderate influence on student satisfaction. These results supported the research findings of Hasan et al. (2009) and Hanaysha et al. (2011).

That of service quality variable dimensions is not a strong predictor of student satisfaction. In some research findings prove there is another variable antecedent strong influence on student satisfaction, it is University image, student Trust, student perceive value, student expectation (Kunanusorn & Puttawong, 2015; Chen et al., 2017).

V. Conclusion

The results of research evidence shows that the variable dimensions of service quality, namely tangibles, reliability, responsiveness, assurance and empathy independently have a positive influence on student satisfaction. But it has a weak level magnitude causality. Therefore, it can be concluded that according to the perception of the master of Management students at the University of Mercu Buana, the dimensions of variables are not a good antesedentvariable for student satisfaction. Nevertheless, the coefficient of determination of R^2 acquired by 82.1% is indicating that the conceptual model of research has a high qualified goodness of fit as predictor of student satisfaction. It is possible that there are other variables more engaged at student satisfaction, such as university image, student trust,perceive value, that the students have. By taking a research place at the University of Mercu Buana or other colleges that differ, other researchers are encouraged to explore variables outside of service quality to be researched and positioned as antecedents variable of student satisfaction.

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