The Effect of Service Quality and Reputation on Student Satisfaction using Service Value as Intervening Variables

Siti Rofingatun1; Rudiawie Larasati2

Abstract

The study aims at testing and analyzing the influence of Service Quality and Reputation on Student Satisfaction. This study also uses one intervening variable, namely, Service Value. The research location is a higher education institution in Jayapura City, especially in the Accounting Study Program. The sampling technique in this study was purposive sampling. In this study, Respondents were 68 people, consisting of several universities such as Cenderawasih University, Yapis Papua University, Jayapura University of Science and Technology, and Ottow Geisler University. The analysis model used is Path Analysis using SmartPLS. 3. The results of this study indicate that the variable service quality and reputation affects service value. Service value also affects student satisfaction. While Service Quality affects student satisfaction through Service Value and Reputation affects student satisfaction through Service Value.

1. Introduction

Institutions engaged in educational services must be able to meet consumer needs. It aims to get more value and be superior to other competitors, namely with other universities popping up everywhere. Even now, competition is not only occurring between universities with one another, but competition has already occurred between faculties within the university itself (Yunaida, 2018). According to Sonjaya & Yusuf (2017), the growth of higher education changes according to the globalization of education, especially since there is much competition between faculties to meet their respective quotas, causing unequal distribution of students. This condition requires universities and faculties to satisfy their customers, namely students, by making continuous quality improvements.

1 Universitas Cenderawasih Papua, Indonesia; Email: sitiro@yahoo.co.id
2 Universitas Cenderawasih Papua, Indonesia; Email: laraslatif1727@gmail.com
The development of technology in higher education causes a paradigm shift in customer or customer satisfaction and must increase competitiveness by providing students with the best service. Currently, universities in all management activities related to students must provide the best service so that the level of student satisfaction is high (Wibowo, 2009).

The lack of measurement of student satisfaction related to campus administration services is why the unevaluation of universities' services, so it is not known how much student satisfaction is achieved. It will create mutual trust so that students do not move to other universities, and even invite others to study at the college where they study. It is imperative considering that recently the quality of tertiary education services has often been criticized for low performance.

With a good quality service in a college, it will create satisfaction and comfort for students. These two things will be a comparison to a service that has been provided. If consumers feel satisfied in this case, they will recommend other people to continue their studies at the college in question. Besides, the reputation of higher education is also essential for students. People sometimes have their views in determining education services based on the reputation of the university. People are often willing to pay more for the cost of studying at individual universities that are considered to have a good reputation and can better satisfy student needs.

Several studies related to student satisfaction have been carried out with varied independent variables, so based on the above explanations, researchers are interested in re-examining the title “The Effect of Service Quality and Reputation on Student Satisfaction, With Service Value As an Intervening Variable Jayapura City College).

Based on the research background described above, the problem formulations of this study are (1) Does Service Quality affect Service Value?; (2) Does Reputation affect Service Value?; (3) Does the value of service affect student satisfaction?; (4) Does Service Quality affect student satisfaction through Service Value?; (5) Does reputation affect student satisfaction through Service Value?

2. Materials and Methods

Customer Satisfaction (Student)

Service recipients at universities are customers or consumers who are referred to as students. Consumer satisfaction is the main focus for educational institutions in the long term. In other words, managers of educational institutions must pay attention to the quality of services provided to consumers so that consumer needs can be satisfied satisfactorily.

The existence of State Universities must be able to provide customer/student satisfaction to win the competition. Student satisfaction cannot be separated from the services provided. Talking about student satisfaction in teaching and learning cannot be separated from the academic services available in the college itself. Academic services provide benefits to students as consumers of higher education using facilities such as libraries, counselling, banks, administrative services, teaching and learning processes, activity facility services for students, etc. Thus, academic services contain a series of gradual activities that place it as a system. Satisfaction is the main factor affecting students as consumers of higher education.

Quality of Service

The definition of service quality focuses on improving in meeting customer needs and wants and the accuracy of delivery to align customer expectations. Service quality is the level of excellence expected, and control over that level of excellence fulfils customer desires (Tjiptono and Diana, 2003).
Service quality can be measured by a comparison between expected service and perceived service. When associated with the context of service quality in tertiary institutions as providers of educational services, what is compared is the student's expectations with the college performance they feel so that in the end we can find out their level of satisfaction (customer satisfaction), which is one of the references in seeing the quality of service (Fauzi, 2016).

Value of Service (Customer)

According to Turel, et al. (2007: 357) perceived value provides a good value basis for attracting people who have the same perception of value, not just knowledge of technology in general. A superior brand among other brands will occupy the first position in the minds of consumers and is the brand most easily remembered by consumers. Customer value is an emotional bond between customers and producers in the form of economic, functional and psychological benefits. Customer value is the same as service value which is determined by two things, namely costs (costs) and benefits (benefits). Costs cover the costs of money, time, energy and psychology. Benefits include products, services, personal and image.

Service value is the student's overall assessment of a service's utility based on his perception of what is received and provided. The value of service to students is a trade-off between students' perceptions of the quality or benefits of services and sacrifices made through the price paid, namely tuition fees. Zeithaml (1988) defines customer value as an overall consumer assessment of a product's benefits based on their perception of what received and what was given. Monroe (1990) argues that customer value is the trade-off between customer perceptions of the quality or benefits of a product and the sacrifice made for the price paid.

Reputation

Reputation is often defined as the most important competitive advantage a company has (Deephouse, 2000). Reputation is a collection of assessments from outsiders in the long run on how well the company's commitment meets stakeholder expectations (Brown and Logsdon, 1999).

Reputation is one of the most important types of capital that fall into the category of invisible capital. Reputation is valuable because it determines the public's attitude towards a particular product, institution or individual. An object, individual, or institution will have psychological value more than the material value if it has a good reputation.

According to Prof. Rokhman (2017), reputation is essential because it has a comprehensive and vital impact; in the example, higher education's reputation affects public perceptions of alumni's quality. Besides, it can also affect students' pride, satisfaction, and enthusiasm in the teaching and learning process.

Hypothesis Development

The Effect of Service Quality on Service Value

The quality of service is essential for students in universities. Students will always need full service in the administrative process until the lecture takes place. Besides, the quality of service perceived by students will be a comparison from one university to another and also provide the perceived value of service so that it is as expected. In other words, students will feel satisfied if the
quality of service will increase service value. This situation will lead to fierce competition between state and private universities to always make students' best programs.

According to (Zaenudin, 2010), the quality of Islamic banking services provides information technology that can meet customer needs and satisfaction and improve the quality of Human Resources (HR), which will affect customer value to remain consistent and loyal to become customers of the bank. Based on the description above, the research hypothesis is as follows:

H1: Service Quality affects Service Value

The Effect of Reputation on Service Value

Reputation is one of the most important types of capital that fall into the category of invisible capital. Reputation is valuable because it determines the public's attitude towards a particular product, institution or individual. An object, individual, or institution will have psychological value beyond material value if it has a good reputation. Reputation for higher education can be seen from the accreditation it has. The better the accreditation of a university, the better its service value will be. Students who study at universities with satisfactory accreditation will feel the benefits and value of adequate service. Based on this description, the research hypothesis is as follows:

H2: Reputation Affects Service Value

The Effect of Service Values on Student Satisfaction

Perception of the value or benefits that consumers get after buying a product influences customer satisfaction. The more customers perceive the benefits of the service as exceeding the sacrifices or costs incurred to obtain a service, the higher their perception of the value of service because they get more than expected, which in turn will result in greater satisfaction (Wibowo, 2013)

In the scope of higher education, the value of service focuses on one party, namely students. The more benefits of the services provided without the administrative process's difficulty to the higher education process by seeing the costs incurred are smaller to get great benefits, and it will increase student satisfaction in choosing the college. Based on the description above, the research hypothesis is as follows:

H3: Service Value Affects Student Satisfaction.

Service Quality affects student satisfaction through Service Value

Quality provides an incentive for customers to forge a strong relationship with the company (Panjaitan & Yuliati, 2016). The quality of service in higher education is not short term, but long term. The study period for undergraduate students is four years and a maximum of 7 years. At that time, there must be a bond to enable a university to understand the expectations carefully and increase student satisfaction by seeing the value of the services provided. Based on the description above, the research hypothesis is as follows:

H4: Service quality affects student satisfaction through Service Value

Reputation affects student satisfaction through Service Value

Higher education's reputation becomes a right image that students feel by students, even after becoming alumni students feel satisfied and proud to have studied at a tertiary institution with superior accreditation. Reputation will be beneficial and positively impact if reputation is a
formality or image and must be balanced with good service values. Based on the description above, the hypothesis in this study is as follows:

H5: Reputation affects student satisfaction through Service Value

**Research Model**

This study aims to examine the effect of service quality and reputation on student satisfaction, with service value as an intervening variable (a study of accounting students at Jayapura City College). The following is a framework that describes the research model and the relationship between variables used in research:

![Research Model Diagram](image)

**Population and Sample**

The population of this research is universities in Jayapura city. The study sample was selected with specific criteria (purposive sampling), namely students majoring in accounting at public and private universities.

**Types and Sources of Data**

This type of research uses quantitative data, namely data in the form of numbers or numbers, and data sources are taken from primary data, namely data obtained directly from sources in the field by researchers as research objects. The data sources in this study come from primary data.

**Operational Definition of Variables**

This study uses two main variables, namely the independent and dependent variables. The definition and measurement of each variable will be explained as follows:

**Dependent Variable**

The dependent variable in this study is student satisfaction. According to Kotler, satisfaction is the level of a person’s feelings after comparing the performance or results he feels compared to his expectations (Kotler et al., 2000: 52). Student satisfaction can be seen from how easy it is to get the
right and fast service. Service quality variables are measured using five indicators concerning research (Hardiyati, 2010).

**Independent Variable**

The independent variables in this study are service quality and reputation.

**Quality of Service**

According to Parasuraman, et al. (2008: 64), service quality can be defined as how far the difference is between reality and customers' expectations for the services they receive or receive. Parasuraman (2008: 65), also states that the attributes that can be used to evaluate service quality can be seen from five main dimensions, namely physical evidence, reliability, assurance, responsiveness and empathy. Service quality variables are measured using seven indicators concerning research (Wibowo, 2009)

**Reputation**

Reputation is one of the most important types of capital that fall into the category of invisible capital. Reputation is valuable because it determines the public's attitude towards a particular product, institution or individual. An object, individual, or institution will have psychological value beyond material value if it has a good reputation. Reputation for higher education can be seen from the accreditation it has (Rokhman, 2017). Variable ii is measured using a Likert scale 1-5 which consists of 6 indicators regarding research (Wibowo, 2009).

**Intervening Variables**

Intervening variables theoretically affect the relationship between the independent and dependent variables into an indirect relationship that cannot be observed and measured directly. This variable is an interrupter variable or a mediating variable so that the independent variable does not directly affect the change in the dependent variable. The intervening variable in this study is Service Value. Service value is the student's overall assessment of a service's utility based on his perception of what is received and what is provided. The value of service to students is a trade-off between students' perceptions of the quality or benefits of services and sacrifices made through the price paid, namely tuition fees. This variable is measured using a Likert scale of 1-5, with many indicators as many as four statements.

**Data analysis method**

In this study, data analysis used the Partial Least Square (PLS) approach. PLS is a powerful analytical method because it does not assume that the data must be measured at an absolute scale; the number of samples is small. Partial Least Square (PLS) aims to help researchers obtain latent variable values to predict Imam Ghozali (2008). This model is developed as an alternative for situations where the theoretical basis for the model’s design is weak, or the available indicators do not meet the reflexive measurement model. Besides being used as theoretical confirmation, PLS can also be used to build relationships where there is no theoretical basis for proposition testing. To analyze the data, the researcher has collected using several methods which can be described as follows:
The inner model (inner relation, structural and substantive theory) describes the relationship between latent variables based on the substantive theory. Structural models were evaluated using Rsquare for the dependent construct, Stone-Geisser Q-square test for predictive relevance and t-test and the significance of the structural path parameter coefficients. In assessing the PLS model, it starts by looking at the R-square for each latent dependent variable. The interpretation is the same as the interpretation in regression. Changes in the R-square value can assess certain independent latent variables on the latent dependent variable, whether it has a substantive effect. Ghozali (2008). Besides seeing the R-square value, the PLS model is evaluated by looking at the predictive Q-square of relevance for the constructive model. The Q-square measures how well the observed value is generated by the model and also the parameter estimates.

Convergent validity of the measurement model with the reflective indicator model is assessed based on the correlation between the item component score with the construct score calculated by PLS. The reflective measure is high if it correlates more than 0.70 with the construct to be measured. However, for research in the early stages of developing a measurement scale the loading value of 0.5 to 0.60 is considered sufficient by Chin (1998) in (Ghozali, 2008) Discriminant validity of measurement models with reflective indicators is assessed based on cross-loading measurements with the construct. If the construct correlation with the item of measure is more significant than the other constructs' measure, it will show that the latent construct predicts the block's size better than the other block sizes. Another method for assessing discriminant validity is comparing the square root value of Average Variance Extracted (AVE) for each construct with the correlation between the other constructs in the model. If each construct’s AVE root value is greater than the correlation value between constructs and other constructs in the model, it is said to have good discriminant validity.

3. Results and Discussions

Descriptive Statistics Test

The descriptive statistical presentation aims to describe the sample’s characteristics in the study and provide a description of each variable used. This data processing uses the SPSS version 21.00 program. The following are the results of descriptive statistics which can be seen in Table 1, as follows:
Table 1
Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>KL</td>
<td>68</td>
<td>25,00</td>
<td>45,00</td>
<td>36,63</td>
<td>5,24021</td>
</tr>
<tr>
<td>R</td>
<td>68</td>
<td>20,00</td>
<td>35,00</td>
<td>28,19</td>
<td>3,74667</td>
</tr>
<tr>
<td>NL</td>
<td>68</td>
<td>15,00</td>
<td>35,00</td>
<td>26,73</td>
<td>4,52066</td>
</tr>
<tr>
<td>KM</td>
<td>68</td>
<td>20,00</td>
<td>35,00</td>
<td>28,26</td>
<td>4,27285</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>68</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Partial Least Square (PLS) Test**

There are three kinds of tests in the outer model, namely convergent validity, discriminant validity, and composite reliability. Below is a full model image for assessing the outer model using Smart PLS version 3.00.

**Assessing the Measurement Model (Outer Model)**

The measurement model (Outer Model) is used to test the validity and reliability of the list of statements or questionnaires used to obtain valid and reliable data. Validity is measured by convergent and discriminant validity, while reliability is measured by composite reliability (Arifin 2010). This measurement model is carried out twice because the research hypothesis consists of two hypotheses and two different mediating variables.
Note:
TOS: Quality of Service
R: Reputation
NL: Service Value
KM: Student Satisfaction

Figure 1 above shows the external loading factor, where several indicators have been eliminated because the value is below 0.05. The indicators that are eliminated from the model are K1, K3, K6, R4 and KM2. So it is reprocessed and shows that all indicators are valid.

Convergent Validity Test

Convergent validity test is conducted to determine the validity of an indicator used. The indicator is declared valid with the value of the weight or loadings factor ranging above 0.50. Based on the test, it can be concluded that the attached data is valid and has an excellent convergent value because it has a convergent validity value with a loading factor of > 0.50.

Discriminant Validity Test

Discriminant validity test was conducted to determine the correlation between each indicator and the latent variables. The indicator is declared valid if the cross-loading value of all indicators used in forming latent variables is greater than the correlation to other latent variables. The cross-loading value of each variable shows that the construct correlation value with the measurement item is greater than the other construct measures, so it shows that the latent construct has predicted the construct variable block's size better than the other blocks' size.

Average Variance Extracted (AVE) Test

The AVE test is carried out to determine the value that indicates the number of variants in the indicator. The AVE value of all variables is declared valid if the AVE value is above 0.50. AVE value can be seen in table 2.

<table>
<thead>
<tr>
<th></th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KL</td>
<td>0.602</td>
</tr>
<tr>
<td>KM</td>
<td>0.642</td>
</tr>
<tr>
<td>NL</td>
<td>0.556</td>
</tr>
<tr>
<td>R</td>
<td>0.542</td>
</tr>
</tbody>
</table>

Source: PLS 2020

Based on table 2 above, the AVE value for each variable is > 0.50. So, it can be concluded that all variables can be said to be valid.
Composite Reliability Test

Composite reliability test is done to determine the value that shows the degree to which a measuring instrument can be trusted. All variables are declared reliable if the loading value is above 0.70. The value of the composite reliability test can be seen in Table 3.

<table>
<thead>
<tr>
<th>Table 3 Composite Reliability Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composite Reliability</td>
</tr>
<tr>
<td>KL 0,900</td>
</tr>
<tr>
<td>KM 0,914</td>
</tr>
<tr>
<td>NL 0,854</td>
</tr>
<tr>
<td>R 0,853</td>
</tr>
</tbody>
</table>

Based on Table 3 above, the composite reliability value for each variable is > 0.70. So, it can be concluded that all in this study are reliable because they have met the criteria for composite reliability. So it can be said that this research model has met the partial least square test criteria with the outer model size.

Cronbach’s Alpha Test

Cronbach’s alpha test is conducted to determine the value that shows the degree to which a measuring instrument can be trusted. All variables are declared reliable if the loading value is above 0.70. The value of the Cronbach alpha test can be seen in Table 4.

<table>
<thead>
<tr>
<th>Table 4 Cronbach’s Alpha Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach’s Alpha</td>
</tr>
<tr>
<td>KL 0,866</td>
</tr>
<tr>
<td>KM 0,887</td>
</tr>
<tr>
<td>NL 0,814</td>
</tr>
<tr>
<td>R 0,785</td>
</tr>
</tbody>
</table>

Based on Table 4 above, the crossbench alpha value for each variable is > 0.70. So, it can be concluded that all in this study are reliable because they have met the Cronbach alpha criteria. So it can be said that this research model has met the partial least square test criteria with the outer model size.

Structural Model or Inner Model

R Square

R square serves to see the significant value of latent variables. The value of r square can be seen in Table 5.
Based on Table 5 above, the r square coefficient of determination shows that the variables of Service Quality, Reputation and Service Value can explain Student Satisfaction of 0.524 or 52.4%. Meanwhile, service quality and reputation can explain the service value of 0.595 or 59.5%.

Hypothesis test

The results of hypothesis testing were obtained from bootstrapping testing using the Smart PLS 3.0 software. The test results are presented in the image below.

T-Statistics

The exogenous variable is declared significant in the endogenous variable if the t-statistic results> t table 1.96 (Sig = 5%). The t statistic results for each variable can be seen in table 6 and 7 on the results of this t-test, there is a test that sees direct influence and indirect effect.
Table 6, which tests the direct effect states that the t statistical value of Service Quality on Service value is 6.748 greater than the t table value of 1.96, with a significance value of 0.000, it can be concluded that Hypothesis 1 Service Quality Affects Student Satisfaction is accepted. The t value of the Reputation statistic towards the service value is 4.346, which is greater than the t table value of 1.96 with a significance value of 0.000, so it can be concluded that Hypothesis 2 Reputation affects Service Value is accepted. The t statistic value of Service Value on Student Satisfaction is 11.182 greater than the t table value of 1.96, and it can be concluded that Hypothesis 3 Value of Service Affects Student Satisfaction is accepted.

Meanwhile, based on the table above, which tests the effect indirectly states that the statistical value of service quality through service value on student satisfaction is 4,840 greater than the t table value of 1.96, it can be concluded that Hypothesis 4 Service Quality affects Student Satisfaction through Service Value is accepted. The t value of the Reputation statistic through the value of service to Student Satisfaction is 3,416 greater than the t table value of 1.96, and it can be concluded that Hypothesis 4 Reputation affects Student Satisfaction through Service Value is accepted.

**Hypothesis Discussion**

Service Quality Affects Service Value (H1). This is because service quality is a multidimensional driver of satisfaction. Satisfaction from the consumer side, namely students are considered reasonable if they fulfil what they expect, on the other hand, service will be perceived as bad if it does not meet what they expect (Kotler, 2000: 45). Higher education educational activities are oriented towards the end result of the educational process and prove good accountability, including quality assurance, quality control, and quality improvement.

Reputation Affects Student Satisfaction (H2). The reputation of higher education, especially in each study program, is one of the most important factors to consider because the image of the...
institution will be right if the management is excellent and professional. Reputation is also often
defined as the most critical competitive advantage in an organization (Deephouse, 2020). These
advantages can be seen from several aspects, namely educational services based on value for Money
and Study Program Accreditation. Higher education that has been accredited will get greater
recognition in the community than universities that have not been accredited (Prasetyo, 2014).

Service Value Influences Student Satisfaction (H3). Higher education is required to identify
students and their needs to create satisfaction. There are still many low levels of student satisfaction
in tertiary institutions. Dissatisfaction with the value of the service seen in terms of the learning
process, administrative services that are not on time, or responsive. Moreover, there are incomplete
facilities, campus policies that do not touch the realm of student needs, curriculum that is not up to
date, and perceived competence of lecturers less of a general portrait resulting in low student
satisfaction levels. Various student satisfaction level problems are grouped into several dimensions:
services, facilities, policies, and leadership. Good service is a must so that students feel satisfied with
what they get. Good service forms a positive perception of each student. Perceptions will be
followed by various actions to reward and recommend the higher education institutions which will
have an impact on the sustainability and competitiveness of the universities now and in the future
(Heriyanto, 2017)

Service quality affects Student Satisfaction through Service Value (H4). The quality of service in
higher education is not short term, but long term. The study period for undergraduate students is
four years and a maximum of 7 years. At that time there must be a bond to allow a university to
understand the expectations and needs carefully to increase student satisfaction by seeing the value
of the services provided. Reputation affects Student Satisfaction through Service Value (H5).
Reputation will be useful and have a positive impact if reputation is not only a formality or image
alone but must also be balanced with good service values and changes in better services.

4. Conclusion

Based on the statistical analysis, it is concluded several points as follows. First, Service Quality
has an effect on Service Value; Second, Reputation affects Service Value; Third, Service Value has an
influence on Student Satisfaction; Fourth, Service Quality affects student satisfaction through
Service Value; and fifth, reputation affects student satisfaction through Service Value.

Next, it is suggested that for further researchers, add research respondents and expand the
object of research outside the city of Jayapura, in order to see a comparison of every aspect of
student satisfaction. Moreover, for higher education, to prioritize services to consumers (students)
in terms of accountability and transparency, which leads to the concept of Value for money.

Acknowledgements

The author would like to express his gratitude for the Growingscholar publisher who has reviewed
and published the current paper.
References


