

## **THE INFLUENCE OF SERVICE QUALITY IN THE HIGHER EDUCATION PERFORMANCE MODEL ON STUDENT SATISFACTION WITH INFORMATION QUALITY AS A MODERATING VARIABLE IN ACCOUNTING STUDENTS AT PRIMA INDONESIA UNIVERSITY**

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### **Abstract**

This research aims to explain the influence of service quality on student satisfaction with information quality as a moderating variable in accounting students at Prima Indonesia University. This research is a causal associative study using a quantitative approach. The research subjects are undergraduate students majoring in Accounting at Prima Indonesia University. The population in this study consisted of 1863 students. The sample size for this study was 330 respondents, selected using purposive sampling technique. The research instrument used a closed-ended questionnaire distributed to the respondents. Data analysis was conducted using Structural Equation Modeling Partial Least Square (PLS) version 3.2.9. The results of this study are as follows: (1).Service quality has a positive and significant influence on student satisfaction ( $p < 0.000$ ). (2).Information quality moderates the influence of service quality on student satisfaction ( $p < 0.014$ ). From these results, it can be concluded that information quality can create better student satisfaction. Therefore, to maximize student satisfaction, universities need to pay attention to both service quality and the quality of information provided to students.

**Keywords:** Service Quality, Higher Education Performance, Information Quality, Student Satisfaction.

### **INTRODUCTION**

Customer satisfaction, universally, is one of the key factors that can be used as a competitive advantage in the marketing world, including for service organizations in the field of education such as universities, which have internal customers, namely students (Dangaiso et al., 2022; Fares, 2013; Hanaysha et al., 2011; Neupane, 2014; Perdana et al., 2020). In the context of higher education, student satisfaction as the primary service user is crucial for the sustainability of a university (Arif et al., 2013; Chandra et al., 2018; Pham et al., 2018).

Based on the findings of studies (Ahmed Nasser. M et al., 2012; Athiyaman, 1997; Borishade et al., 2021; Napitupulu et al., 2018; Zaineldeen & Ibrahim, 2021) that have investigated the factors influencing student satisfaction, one of the significant factors in measuring student satisfaction in higher education institutions is the quality of service. Based on these empirical reasons, the researcher chose service quality as a

factor influencing student satisfaction.

Research on the relationship between service quality and student satisfaction has been extensively conducted, with service quality being the independent variable and student satisfaction as the dependent variable. Based on the literature gathered, it is evident that the relationship between service quality and student satisfaction is inconsistent or inconclusive.

Studies conducted by Mestrovic (2017) and Zainal et al. (2020) found a positive and significant relationship between service quality and student satisfaction. Similarly, research conducted in the private tertiary education sector in Singapore discovered a positive relationship between service quality and student satisfaction (Khoo et al., 2017). This is also supported by research conducted by Duarte et al. (2012) in higher education in Portugal. However, these findings contrast with the results of research by Rinala et al. (2013) and Dib & Alnazer (2013) in colleges in Syria did not find a significant relationship between service quality and student satisfaction.

Therefore, the relationship between the service quality construct and student satisfaction still needs further investigation due to the inconsistency. This research will re-examine the relationship between service quality and student satisfaction but will include an external variable such as moderation, which will also influence student satisfaction. This research will use information quality as the moderation variable.

A study by Silva et al. (2014) concluded that information quality can moderate the relationship between service quality and student satisfaction, meaning that the relationship between service quality and student satisfaction will become stronger if the quality of information obtained by students can be categorized as good. Student satisfaction perceived by students will decrease if the quality of information obtained is not good. The quality of information, whether good or bad, will affect the relationship between service quality and student satisfaction (Widiastuti et al., 2019).

The measurement of service quality in this study will utilize the HEdPERF model developed by Abdullah (2005), specifically designed for assessing service quality in higher education institutions. The Accounting undergraduate program is continually required to enhance the quality of its educational processes, accompanied by efforts to improve its relevance in the context of global competition.

Based on interviews conducted directly by the researcher with the Head of the Accounting undergraduate program at Prima Indonesia University, currently, the measurement of student satisfaction based on service quality specifically has never been carried out together with the Accounting undergraduate students who are the primary customers experiencing the service. Research conducted by (Gurkut & Nat, 2017; Mohi et al., 2018; Santos et al., 2020) suggests that student satisfaction is the best indicator of educational service quality, which has received the most attention from higher education institutions to gain competitive advantage.

Considering the challenges and research gap identified, the researcher has chosen the title "Analysis of the Influence of the Higher Education Performance Model Service Quality on Student Satisfaction with Educational Quality as a Moderating

Variable in Accounting Students at Prima Indonesia University."

## RESEARCH METHOD

### Research Population

Active students in the Accounting undergraduate program at Prima Indonesia University constitute the population in this research, totaling 1863 students. This study employs the Slovin method for sample selection, resulting in a minimum sample size of 330 students.

### Instrument Grid

No	Quality of Service (Azwar, 2011)
1	Good communication patterns
2	Handle complaints efficiently
3	Allocate enough time in service
4	Equal treatment and respect
5	Understand the procedure
6	Positive work attitude
7	Build good communication
8	Adequate consultation
9	Knowledge of subjects
10	Progressive learning <i>feedback</i>
11	The university has a professional image
12	The university has leading study programs
13	University graduates easily find jobs
14	The university has a good image
15	Easy to contact
16	Comfortable responding to requests for help
17	Have knowledge in responding question
18	Allocate enough time in consultations
19	Running study programs with excellent quality
20	Offers various study programs with various specialties
21	Running counseling services
22	Offer study programs with flexible structures

No	Student Satisfaction (Rozabiyah, 2019)
1	Relevance of information as expected
2	Accuracy of academic administrative information
3	Timelines of information presented accordingly student expectations
4	Campus infrastructure according to student expectations

5	Empathy of lecturers and administrative staff according to what students think
6	The responsiveness of lecturers, heads of study programs, administrative staff in understanding the importance of service students match student expectations
7	The level of competence of the head of study program, administrative staff, lecturers and lecturers of the appropriate courses student thought
8	Guarantees given to students are appropriate fact

No	Information Quality (Rozabiyah, 2019)
1	Relevant ukt payment information
2	Relevant lecture schedule information
3	Relevant exam information
4	Relevant scholarship vacancy information
5	Relevant student administrative information
6	Information on the web is relevant
7	Consistent ukt payment information
8	Consistent lecture schedule information
9	Information on the implementation of the exact exam
10	Information on academic activities is submitted correctly
11	Scholarship information is correct
12	Accurate student information
13	Information presented on the web is factual
14	Timely tuition payment information
15	Information on the schedule of lectures on time
16	Information on the implementation of exams on time
17	Timely information of academic activities
18	Timely scholarship information
19	Timely student administration information
20	Timely scholarship information

## RESEARCH MODEL

This research utilizes structural equation modeling (SEM) or commonly known as Structural Equation Modelling (SEM) with SmartPLS 3.2.9 software. This study examines the direct influence of service quality variables on student satisfaction and adds information quality as a moderating variable between service quality and student satisfaction.

### Research Hypotheses

**H1:** Service quality has a positive and significant influence on student satisfaction

**H2:** Information quality is able to moderate the relationship between service quality and student satisfaction.

## RESULTS AND DISCUSSION

### Outer Model Testing

The outer model testing consists of two assessments, namely the validity test and the reliability test.

#### Validity Test

Items	Student Satisfaction	Quality Information	Quality Service
KI1		0,728	
KI10		0,705	
KI11		0,811	
KI12		0,806	
KI13		0,784	
KI14		0,737	
KI15		0,772	
KI16		0,827	
KI17		0,753	
KI18		0,733	
KI19		0,721	
KI2		0,626	
KI20		0,644	
KI3		0,851	
KI4		0,701	
KI5		0,819	
KI6		0,751	
KI7		0,863	
KI8		0,815	
KI9		0,721	
KP1			0,706
KP10			0,688
KP11			0,732

KP12			0,614
KP13			0,767
KP14			0,714
KP15			0,755
KP16			0,644
KP17			0,849
KP18			0,758
KP19			0,823
KP2			0,644
KP20			0,732
KP21			0,806
KP22			0,756
KP3			0,709
KP4			0,729
KP5			0,789
KP6			0,777
KP7			0,721
KP8			0,780
KP9			0,757
KPM1	0,884		
KPM10	0,883		
KPM11	0,883		
KPM2	0,716		
KPM3	0,754		
KPM4	0,710		
KPM5	0,840		
KPM6	0,830		
KPM7	0,767		
KPM8	0,753		
KPM9	0,791		

Based on the validity test of factor loadings in the table, it is known that there are several indicators with factor loading values  $< 0.7$ , namely KI2, KI20, KP1, KP12, KP16, and KP2. Therefore, these indicators were eliminated from the analysis process.

### **Discriminant Validity**

<b>Items</b>	<b>Student Satisfaction</b>	<b>Quality Information</b>	<b>Quality Service</b>
KI1	0.633	0.728	0.711
KI10	0.605	0.705	0.697
KI11	0.762	0.811	0.780
KI12	0.745	0.806	0.776
KI13	0.797	0.784	0.778

KI14	0.796	0.737	0.763
KI15	0.737	0.772	0.768
KI16	0.643	0.827	0.770
KI17	0.754	0.753	0.819
KI18	0.791	0.733	0.766
KI19	0.847	0.721	0.715
KI2	0.490	0.626	0.597
KI20	0.634	0.644	0.649
KI3	0.696	0.851	0.790
KI4	0.567	0.701	0.703
KI5	0.763	0.819	0.816
KI6	0.587	0.751	0.725
KI7	0.697	0.863	0.807
KI8	0.676	0.815	0.795
KI9	0.677	0.721	0.711
KP1	0.632	0.705	0.706
KP10	0.594	0.693	0.688
KP11	0.697	0.762	0.732
KP12	0.686	0.613	0.614
KP13	0.782	0.772	0.767
KP14	0.750	0.687	0.714
KP15	0.719	0.758	0.755
KP16	0.675	0.617	0.644
KP17	0.796	0.796	0.849

<b>Items</b>	<b>Student Satisfaction</b>	<b>Quality Information</b>	<b>Quality Service</b>
KP18	0.749	0.714	0.758
KP19	0.754	0.763	0.823
KP2	0.550	0.671	0.644
KP20	0.720	0.719	0.732
KP21	0.753	0.741	0.806
KP22	0.763	0.719	0.756

KP3	0.618	0.6 87	0.709
KP4	0.628	0.7 26	0.729
JPT	0.723	0.7 90	0.789
KP6	0.657	0.7 97	0.777
KP7	0.603	0.7 82	0.721
KP8	0.656	0.7 97	0.780
KP9	0.703	0.7 61	0.757
KPM1	0.884	0.7 66	0.759
KPM10	0.883	0.7 58	0.750
KPM11	0.883	0.7 55	0.750
KPM2	0.716	0.7 68	0.734
KPM3	0.754	0.6 90	0.686
KPM4	0.710	0.7 03	0.698
KPM5	0.840	0.7 77	0.800
KPM6	0.830	0.7 67	0.789
KPM7	0.767	0.7 02	0.724
KPM8	0.753	0.7 44	0.807
KPM9	0.791	0.7 43	0.778

Based on the table above, the cross-loading values for each item are >0.70, and each item has the highest value when connected to its respective latent variable compared to when it is connected to other latent variables. This indicates that each manifest variable in this study accurately describes its latent variable, demonstrating that the discriminant validity of all items is valid.



## Reliability Test

Variable	Cronbach's Alpha	Composite Reliability
Student Satisfaction	0.944	0.952
Quality Information	0.961	0.965
Quality Service	0.960	0.964

Based on table above, it can be seen that the composite reliability values for all research variables are  $> 0.7$ , and the Cronbach Alpha values are  $> 0.6$ . These results indicate that each variable has met the composite reliability and Cronbach Alpha criteria, suggesting that all variables have a high level of reliability. Further analysis can be conducted by examining the goodness of fit model through evaluating the inner model.

## Inner Model Testing.

The inner model testing or structural model testing is conducted to examine the relationships between constructs, significance values, and the R-square of the research model.

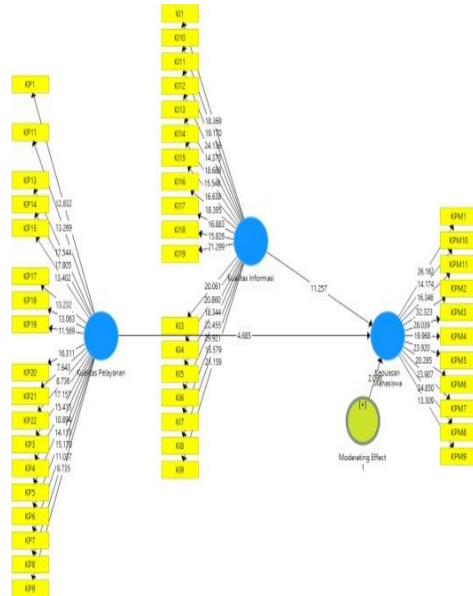
## R square

Variable	<i>R-Square</i>	<i>R-Square Adjusted</i>
Student Satisfaction	0.888	0.884

Based on the table above, the magnitude of the influence on the endogenous latent variable is presented by the R<sup>2</sup> value for each endogenous latent construct. In this study, an R<sup>2</sup> of 88.8% was obtained for student satisfaction, which means that the influence on the endogenous latent variable is 88.8%, and the remaining 11.2% is explained by other variables

## Hypothesis Testing

The testing of the structural relationship model is aimed at explaining the relationships between variables in the research.



Based on the testing diagram above, it can be concluded that:

1. The service quality variable has a t-statistic influence on student satisfaction of 4.685.
2. Moderating Effect 1 variable has a t-statistic influence on student satisfaction of 2.096.

Variable	Standard Deviation (STDEV)	T Statistics (CO/STDEV)	P Values
Quality Service > Student Satisfaction	0.044	4.500	0.000
Moderating Effect 1 > Student Satisfaction	0.044	2.460	0.014

## The Influence of Service Quality on Student Satisfaction

Based on the first hypothesis test, it is found that the influence of service quality on student satisfaction has a coefficient value of 0.197, a p-value of 0.000, and a t-statistic of 4.500. The p-value of 0.000 is less than 0.05, and the t-statistic of 4.500 is greater than the t-table value of 1.960. These results indicate that service quality has an influence on student satisfaction. Therefore, the hypothesis stating that service

quality has a positive and significant impact on student satisfaction is accepted.

These results indicate that the quality of education services in the Accounting undergraduate program at Prima Indonesia University, especially in the five dimensions that encompass non-academic services, academic services, reputation, accessibility, and program issues, tends to enhance student satisfaction. The underlying factor for these results can be seen from the overall responses of the participants, which show that the quality of services in the Accounting undergraduate program at Prima Indonesia University has a fairly good score.

Substantively, the results of hypothesis testing indicate that if the quality of service provided by the Accounting undergraduate program at Prima Indonesia University is higher, then the level of satisfaction among students studying at Prima Indonesia University will also be higher. Students are satisfied with the services provided by the university. The services provided by university staff meet their expectations. The lowest service quality is observed among the faculty and staff in the Accounting undergraduate program, as they allocate less time for consultations.

In such a situation, it will increasingly demand that the management continually improves service quality. The results of this research align with the theories presented by Khoo et al (2017) and Ali (2012), which state that one of the factors influencing satisfaction, in the context of higher education, is consistent with previous research that has examined the impact of service quality on student satisfaction. Prior studies by Ho & Foon (2012), Annamdevula & Bellamkonda (2016), Zainal et al (2020), and Kayastha (2011) have found that the quality of university services has a positive and significant impact on student satisfaction.

### **The Influence of Service Quality on Student Satisfaction Moderated by Information Quality**

The results of the second hypothesis testing, which is the Influence of Service Quality on Student Satisfaction Moderated by Information Quality, show a coefficient value of 0.109, a p-value of 0.014, and a t-statistic of 2.460. The p-value of 0.014 is less than 0.05, and the t-statistic of 2.460 is greater than the t-table value of 1.960. These results indicate that Service Quality has an influence on Student Satisfaction moderated by Information Quality. Therefore, the hypothesis stating that Service Quality significantly influences Student Satisfaction moderated by Information Quality is accepted and referred to as quasi-moderation.

The results from the inner model indicate the presence of moderating interaction of information quality in the relationship between service quality and student satisfaction. The test results of the moderation interaction show a positive and significant direction, meaning that information quality is capable of moderating the influence of service quality on student satisfaction.

Based on the respondents' feedback, it can be seen that out of the three aspects of information quality, which are relevance, timeliness, and accuracy, they have obtained high average scores. This means that students can perceive the information

provided by the Accounting undergraduate program at Prima Indonesia University as being of good quality, and they are satisfied. However, there are some aspects that may need improvement for even better results, such as the relevance of scholarship vacancy information from the Accounting undergraduate program, which is still considered to be less relevant.

On the other hand, the highest score was for the timely delivery of class schedules to students. Information that aligns with student activities, provides data on time, is accurate according to their needs, and is easy for students to understand. This is what strengthens the positive influence of good information quality on student satisfaction in the Accounting undergraduate program at Prima Indonesia University.

The results of this study align with the research by Silva et al (2014) and Widiastuti et al (2019), which conclude that information quality can moderate the relationship between service quality and student satisfaction. This means that the relationship between service quality and student satisfaction becomes stronger when the quality of information obtained by students is categorized as good. This study also supports the theory proposed by Zainal et al (2020) that information quality is a measurement of how well the information provided meets the requirements and expectations of students who need the information for the continuity of their study process.

The implication of the good quality of information at the Accounting undergraduate program of Prima Indonesia University can drive an increase in student satisfaction. The results of this research align with studies (Aditya et al., 2016; Martins et al., 2019; Permana et al., 2020) that state information quality, when tested with other independent variables, can influence student satisfaction.

## **CONCLUSION**

The research results indicate that the service quality variable has a positive and significant influence on student satisfaction in the Accounting undergraduate program at Prima Indonesia University. This means that by making improvements or enhancements to this variable, it can affect the level of student satisfaction.

The variable of information quality was also tested as a moderating variable between service quality and student satisfaction. The results show that the information quality variable has a positive and significant influence as a moderating variable between service quality and student satisfaction. This means that the information quality variable strengthens or weakens the relationship between service quality and student satisfaction.

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