

# The Effect of Academic Service Quality on Student Satisfaction Faculty of Economics and Business, University of Muhammadiyah Surabaya

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## Abstract

This study aims to describe and analyze academic activities on student satisfaction Faculty of Economics and Business, University of Muhammadiyah Surabaya (FEB UMSurabaya). The method used in this study is a survey with a quantitative approach. Data analysis technique that is used is questionnaire. The subjects used as sample is students of Management and Accounting Study Program FEB UMSurabaya which was elucidated by 190 students. The results showed that 1) academic service simultaneously to student satisfaction in FEB UMSurabaya, 2) academic service which is real evidence to student satisfaction in FEB UMSurabaya.

**Keywords:** Quality of academic service, student satisfaction.

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## INTRODUCTION

Educational institutions that provide services in the intellectual life of the nation need to be sensitive to various developments in science and technology and consumer demands so that they can carry out their duties and functions as producers of human resources capable of building themselves and their environment. Therefore, educational institutions need to be managed professionally by applying the latest management principles to meet the needs of local, national and international communities.

One of the educational institutions, namely universities which are educational service provider institutions, needs to learn and have initiatives to increase the satisfaction of service users in the education sector because education is a process of mutual influence and sustainability. Various ways are taken by the majority of universities to win inter-university competitions and to improve the quality and professionalism of higher education management.

For this reason, in improving the quality and professionalism of university management, one of them is realized in the form of academic services. Academic services provided by a college are also a measure of the success of higher education institutions in the framework of providing educational services. This resulted in the educational institutions needing to improve service and academic quality continuously [1]. Higher education is said to be of high quality if the learning process is carried out interactively, inspiring in an atmosphere that is fun, challenging and motivates participants to participate actively, creatively and independently according to their talents and interests.

Some components that affect the quality of higher education, one of which is the quality of educational services provided by institutions to customers (students). As explained in the Law on Higher Education Implementation No. 12 of 2012 Article 6 which mentions one of the principles of implementing higher education, namely "empowering all components of society through participation in the implementation and quality control of higher education services". Quality according to Salis [2] in the study of Meirawan and Sutarsih [3] is something that satisfies and exceeds customer wants and needs. Service according to Tjiptono [4] in the study of Meirawan and Sutarsih [3] is that every action offered by one party to a party is basically intangible (not referenced physically) and does not produce ownership of something. The quality of academic services in higher education is a service activity in the form of fulfilling all academic needs that meet academic needs in accordance with the expectations of customers, namely students.

In marketing strategies, consumers are the company's long-term goals. The marketing goal is to meet and satisfy the needs and desires of consumers, namely students [5]. The best way for a company to survive in competition is to keep

consumers happy and satisfied. According to Zeithaml [6] states that satisfaction is the response of consumers who meet their needs, when what is received (real benefits) by consumers in accordance with their expectations. Factors that influence customer satisfaction according to Alma [7] include suitability of expectations with reality experienced, service during the process of enjoying services, personnel behavior and the atmosphere and physical condition of the environment. This is supported by the results of the study of Astuti *et al.*, [8] shows that there is an influence of student responses about tangible, reliability, responsiveness, assurance and empathy with student satisfaction in the Department of Health Polytechnic Speech Surakarta.

Muhammadiyah Surabaya University as an institution providing higher education services must be the best service. Some service areas that must be developed in a sustainable manner include the curriculum of the study program, the learning process, human resources (lecturers, education staff, and technicians), students, facilities and infrastructure, academic atmosphere, research and publications, community service, institutional management, systems information, and cooperation at home and abroad. Good academic services can form a positive image for the tertiary institution concerned.

The Faculty of Economics and Business is a faculty that provides undergraduate programs in management and accounting study programs. The faculty previously used the name of the faculty of economics, with time and market development of the faculty of economics changed to the faculty of economics and business in 2017. And one of the factors in attracting market share of accreditation of economic and business faculties changed from accreditation C to accreditation B. The changes were all hence it is expected that changes in the quality of academic services to students will increase.

The field of services such as education is difficult to repeat if the quality does not meet customer expectations. If customers understand the actual delivery of services is better than expected, they will be happy, otherwise they will be angry when the provision of services is below their expectations. Customers, in this case students will assess the quality according to the level of satisfaction they understand about the service [9]. In the academic service activities provided by the Faculty of Economics and Business, University of Muhammadiyah Surabaya (FEB UMSurabaya) there are indications that students may feel dissatisfied with the existence of service attributes that are considered not optimal, so research needs to be conducted to analyze the quality of academic services especially FEB UMSurabaya towards student satisfaction.

**Table-1: Data on Active Students FEB-UMSurabaya Academic Year 2017-2018**

| Study program | Academic Year 2017-2018 |      |      |      | Total |
|---------------|-------------------------|------|------|------|-------|
|               | 2014                    | 2015 | 2016 | 2017 |       |
| Management    | 92                      | 100  | 131  | 191  | 514   |
| Accounting    | 35                      | 38   | 40   | 84   | 197   |
| Total         | 127                     | 138  | 171  | 275  | 712   |

Source: BAA UMSurabaya 2018

Based on the background above, the researcher can formulate the problem as follows:

- How is the reliability variable (X1), the responsiveness variable (X2) assurance variable (X3), the empathy variable (X4), and the tangible variable (X5), which influences simultaneously on student satisfaction (Y) at the Faculty of Economics and Business UMSurabaya?
- Which of the reliability variables (X1), responsiveness variables (X2) assurance variables (X3), empathy variables (X4), and tangible variables (X5), has a partial effect on student satisfaction (Y) at the Faculty of Economics and Business UMSurabaya?

#### Research purposes

- Knowing and analyzing reliability variables (X1), responsiveness variables (X2) assurance variables (X3), variable empathy (X4), and tangible variables (X5), influencing simultaneously on student satisfaction (Y) at the Faculty of Economics and Business UMSurabaya.
- Knowing and analyzing reliability variables (X1), responsiveness variables (X2) assurance variables (X3), empathy variables (X4), and tangible variables (X5), partially influencing student satisfaction (Y) at the Faculty of Economics and Business UMSurabaya.

## THEORETICAL REVIEW

### Quality of Service

Actually it's not easy to define quality accurately, but quality can be specified. Goetsch and Davis [10] define quality as a dynamic condition that relates to products, services, human resources, processes, and environments that meet or exceed expectations. Quality in the traditional view is stated that products are valued from their physical attributes

such as strength, reliability, etc [11]. According to Wijaya T. [12], quality is something that is decided by customers, meaning quality is based on the actual experience of customers or consumers of products or services that are measured based on these requirements.

One of the factors that determine the level of success and quality of the company, according to John J. Sviokla [13] is the company's ability to provide services to customers. According to Wijaya T [12] customer service includes everything the company does to satisfy its customers and help them realize the best value of goods and services that customers buy. In short, the quality of services / services is defined by Parasuraman *et al.*, [13] as to what extent the difference between reality and customer expectations for the services they receive.

### Dimensions of Service Quality

Parasuraman, Zeithaml, and Berry [10], found that there were overlapping among the 10 dimensions of service quality. Therefore, they simplify these ten dimensions into five main dimensions. Competence, politeness, credibility, and security are put together to be a guarantee (assurance). Whereas access, communication, and understanding ability of customers are integrated into empathy (empathy). Thus, there are five main dimensions arranged in the order of relative importance as follows:

- Reliability, with regard to the willingness and ability of the company to provide accurate services from the first time without making any mistakes and delivering services in accordance with the agreed time.
- Responsiveness, with regard to the willingness and ability of employees to help customers and respond to their requests, as well as informing services to be provided and then providing services quickly.
- Assurance, namely the behavior of its employees is able to foster customer trust in the company and the company can create a sense of security for its customers. Guarantees also mean employees are always polite and master the knowledge and skills needed to handle each customer's questions or problems.
- Empathy means that the company understands the problems of its customers and acts in the interests of customers, and gives personal attention to customers and has comfortable operating hours.
- Physical Evidence (Tangibles), regarding the attractiveness of physical facilities, equipment, and materials used by the company, as well as the appearance of employees.

These dimensions provide opportunities for companies to satisfy customers by exceeding their expectations during interactions with employees and the service environment [9].

### Quality of Academic Services

Pakpahan [14] explains the quality of academic services is a comparison between academic services perceived by customers or stakeholders with the quality of academic services expected by customers or stakeholders. Service is said to be of high quality if academic service quality is felt to be the same or exceeds the expected service quality. According to Olfield and Baron [15] states that the quality of services in higher education should focus on what students want is not what is most important for students. In maintaining service quality in educational institutions according to Gaspert [16] that must be considered is the attribute of continuous service quality improvement, namely:

- Timeliness of service
- Service accuracy
- Courtesy and hospitality in providing service
- Responsibilities related to receiving advice, and handling customer complain.
- Completeness of availability of supporting facilities
- Variation in service models. Students can choose when to study
- Ease of getting service
- Personal services, relating to the flexibility of handling a special group of customers who request special handling
- Comfort in obtaining services, related to location educational institutions, service rooms, and information availability
- Supporting attributes of other services such as environmental infrastructure of educational institutions. Cleanliness of study rooms, canteen facilities, and health services.

Based on the results of Astuti's research [15], three dimensions are related to service quality in the form of educational services, namely: (1) Respect for students (respect for students). This can be a response in the form of services provided both from faculty staff and lecturers to students. The services provided are an illustration of individual performance. (2) Professor's knowledge, which is an illustration of everything related to the knowledge understood by the lecturer to be delivered to students, and (3) University physical environment (physical environment of a university or tertiary institution), which reflects the facilities which is available both in the lecture hall and the campus environment. The facilities available in higher education are supporting tools for the creation of an effective learning process. As for those classified as college facilities, including campus land, parking, buildings, libraries, toilets, classrooms, places of worship, laboratories, learning media and others that are considered as facilities in universities.

## Student Satisfaction

Student satisfaction is the purpose of a college. The word satisfaction comes from the Latin "satis" (meaning quite good, adequate) and "facio" (doing or making) so that satisfaction can be interpreted as an effort to fulfill something or make something adequate [10]. According to Kerler [17] satisfaction is the feeling of being happy or disappointed someone who appears after comparing between perceptions of the performance of a product and its expectations. Whereas Oliver [18] states "satisfaction is the consumer's fulfillment response". Satisfaction is a response to meeting consumer needs.

According to Mowen and Minor [19], customer satisfaction is the overall attitude shown by consumers of goods and services after they obtain and use them. Consumers will be satisfied if the goods and services purchased match what consumers expect. When performance exceeds expectations, consumers are very satisfied and happy the result is high customer loyalty.

According to Rangkuti [20] there are eight factors that influence customer satisfaction. These factors are as follows: 1) Value 2) Competitiveness 3) Customer Perception 4) Price 5) Image 6) Service Stage 7) Service Moment (Service Situation) 8) Customer Interest Level According to Arambewela Hall [14] Satisfied students can be a source of competitive advantage that will result in communication in the form of positive word of mouth, student retention and loyalty.

## How to measure customer satisfaction

Kotler *et al.*, Identified four methods for measuring customer satisfaction [10] as follows:

- Complain and suggestion system (system complaints and suggestions).
- Customer satisfaction surveys
- Ghost shopping.
- Lost customer analysis.

Alma [21] reveals the causes of dissatisfaction, including:

- Not as expected with the reality experienced
- Services during the process of enjoying services are not satisfactory
- The behavior of personnel is not / less pleasant
- The atmosphere and physical conditions of the environment do not support.
- The cost is too high, because the distance is too far, a lot is wasted, and the price is too high
- Promotion/advertising is too grandiose, not in accordance with reality

The level of student satisfaction with educational services can be identified by comparing expectations with the reality that students feel.

## Relationship between the Quality of Academic Services and Student Satisfaction

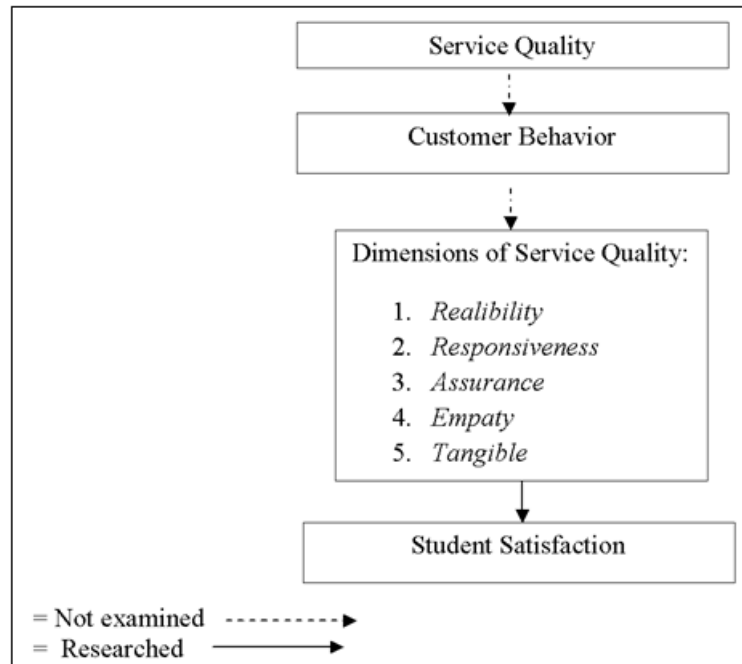
Quality is closely related to customer satisfaction [22]. In line with the opinion of Zeithamal and Binary [13], the determining factor of customer satisfaction is the customer's perception of service quality. Customers assess their level of satisfaction or dissatisfaction after using services and using this information to update their perceptions of the quality of services / services [9].

Service quality must begin with customer needs and end with customer satisfaction and positive perceptions of service quality [23]. Kotler revealed several approaches to achieving customer satisfaction through service quality as follows [13].

- Minimizing gaps that occur between management and customers. Likewise research with observational methods for company employees regarding the implementation of services.
- Companies must be able to build a shared commitment to create a vision in improving the learning process.
- Give customers the opportunity to complain. By forming a system of suggestions and criticisms, for example with a toll-free hotline
- Develop and implement accountable, proactive and partnership marketing in accordance with the marketing situation.

Improving the quality of product and service attributes, customer satisfaction will also increase. Increased customer satisfaction is expected to increase efforts to retain customers (customer retention), which in turn will generate greater profits [13].

The thinking framework is the basis for conducting research, which is based on facts or phenomena in the field, observation and literature review. A good mindset is based on identifying important variables that are relevant to the research problem and are able to explain the relationships between variables logically. Therefore the frame of mind in this research is as shown below:



**Fig-1: Framework for research thinking**

### Research hypothesis

- Reliability variable (X1), responsiveness variable (X2) assurance variable (X3), empathy variable (X4), and tangible variable (X5), have an effect simultaneously on student satisfaction (Y) at the Faculty of Economics and Business UMSurabaya.
- Variable reliability (X1), responsiveness variable (X2) assurance variable (X3), empathy variable (X4), and tangible variable (X5), have a partial effect on student satisfaction (Y) at the Faculty of Economics and Business UMSurabaya.

## RESEARCH METHODS

### Research Design

This research is a quantitative study using explanatory research to make a picture of the situation or phenomenon. Nazir [24] explains relationships, tests hypotheses, makes predictions and gets the implicit meaning of a problem that you want to solve.

### Population and Samples

Based on this primary data obtained population data as many as 178 of the regular students of Management and Accounting Study Program FEB UMSurabaya Force 2017, 2016, 2015, and 2014 are active. Sampling was taken randomly with a portion of 15% per batch, so that 178 respondents were obtained.

Operational variables in this study include aspects of reliability, responsiveness, assurance, empathy, and tangible evidence. The research instrument is a Likert scale technique. The following is the weight of the respondent's questionnaire answers based on the Likert scale:

Very important 4

Important 3

Not Important 2

Very Not Important 1

Source: Tjiptono and Chandra [22]

### Data collection technique

The sampling technique is stratified random sampling with data collection methods used, namely questionnaires.

### Data analysis technique

Multiple linear regression analysis aims to test hypotheses about the effects between variables partially. This analysis is used to analyze the influence of the independent variable (X), namely realibility (X1), responbility (X2), assurance (X3), empaty (X4), tangible (X5) on the dependent variable namely student satisfaction (Y). The research model used is:

Where:

- Y = Student Satisfaction
- X<sub>1</sub> = Realibility
- X<sub>2</sub> = Responbility
- X<sub>3</sub> = Assurance
- X<sub>4</sub> = Empaty
- X<sub>5</sub> = Tangible
- b<sub>1</sub>, b<sub>2</sub> = Multiple regression coefficient
- e<sub>1</sub>, e<sub>2</sub> = Error

### Instrument Test

#### Test Validity

An instrument has high validity if the items that make up the instrument do not deviate from the function of the instrument. According to Ghozali [25] the minimum requirement for an item to be considered valid if r count value is obtained > r table.

#### Reliability Test

This reliability test uses internal consistency reliability, namely the Cronbach Alpha ( $\alpha$ ) technique. If the value of Cronbach Alpha from the test results is > 0.70, it can be said that the construct or variable is reliable [25].

#### Normality Test

Aim to test whether in the dependent variable and independent regression models both have a normal distribution or not. This normality test uses the normalized P-Plot of regression residual standardized test on all variables in this study. Test the normality of the data seen by looking at the pattern on the spread curve on the P-Plot graph. If the spread pattern has a normal line of curves it can be said that the data is normal distribution.

### Hypothesis testing

#### Test F

To test whether or not the regression model produced is produced, the F test is used with the following procedure:

- a. H<sub>0</sub>:  $\beta_1 = \beta_2 = \dots = \beta_j = 0$  (the regression model used is not suitable).
- H<sub>1</sub>: one of  $\beta_j \neq 0$  (the regression model used is suitable).

b. In this study used a significant level ( $\alpha$ ) = 5% with the testing criteria as follows:

- If the level is significant (p-value) > 0.05 then H<sub>0</sub> is accepted and H<sub>1</sub> is rejected.
- If the level is significant (p-value) < 0.05 then H<sub>0</sub> is rejected and H<sub>1</sub> is accepted.

#### Test t.

To test the significance of the influence of variables X1, X2, X3, or X4 on Y, the t test is used with the procedure as follows:

- a. H<sub>0</sub>:  $\beta_j = 0$  (there is no significant effect X1, X2, X3, or X4 on Y).
- H<sub>1</sub>:  $\beta_j \neq 0$  (there are significant effects X1, X2, X3, or X4 on Y).

b. Significant level ( $\alpha$ ) = 5% with the testing criteria as follows:

- If the level is significant (p-value) > 0.05 then H<sub>0</sub> is accepted and H<sub>1</sub> is rejected.
- If the level is significant (p-value) < 0.05 then H<sub>0</sub> is rejected and H<sub>1</sub> is accepted [25].

## RESULTS AND DISCUSSION

Questionnaires were distributed as many as 178 questionnaires from management and accounting study program students active in the even semester T.A 2017/2018 University of Muhammadiyah Surabaya. The distribution of the questionnaire was carried out at the time of the implementation of the UAS (Final Semester Exam). And after data

editing and preparation for processing, no questionnaire returned. The full description of the process of distributing and receiving questionnaires can be seen in the following table:

**Table-1: Descriptions of the Distribution and Acceptance Process of the Questionnaire**

| Description                                | Number of Questionnaires |
|--|--------------------------|
| Distributed questionnaire                  | 178                      |
| Questionnaire received                     | 178                      |
| Questionnaire that is not used / processed | 0                        |
| Percentage                                 | 100%                     |
| Valid questionnaire                        | 0                        |
| Percentage                                 | 100%                     |

Based on data obtained from 178 respondents, the following is explained about the number of respondents by semester. The following is a description of the respondent's description, students of accounting study program in semester 1 and 3 of Muhammadiyah University of Surabaya who are active in lectures.

**Table-2: Based on the Study Program**

|       |            | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------|-----------|---------|---------------|--------------------|
| Valid | accounting | 54        | 30.3    | 30.3          | 30.3               |
|       | management | 124       | 69.7    | 69.7          | 100.0              |
|       | Total      | 178       | 100.0   | 100.0         |                    |

In table-2 shows that the respondents came from management study program students were greater by 69.7% FEB Muhammadiyah University Surabaya. This is because the number of students in the management program of Even Semester 2017/2018 Academic Year has increased from the previous Academic Year from the accounting study program students.

**Table-3: Based on the Force**

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 2014  | 40        | 22.5    | 22.5          | 22.5               |
|       | 2015  | 38        | 21.3    | 21.3          | 43.8               |
|       | 2016  | 64        | 36.0    | 36.0          | 79.8               |
|       | 2017  | 36        | 20.2    | 20.2          | 100.0              |
|       | Total | 178       | 100.0   | 100.0         |                    |

In table-3 shows that the respondents came from the management and accounting study program students of FEB active Muhammadiyah University of Surabaya class of 2016 by 64%. This is because the returned questionnaire has not been filled.

**Table-4: Based on Semester**

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 2     | 36        | 20.2    | 20.2          | 20.2               |
|       | 4     | 64        | 36.0    | 36.0          | 56.2               |
|       | 6     | 38        | 21.3    | 21.3          | 77.5               |
|       | 8     | 40        | 22.5    | 22.5          | 100.0              |
|       | Total | 178       | 100.0   | 100.0         |                    |

In table-4 shows that the respondents came from the management study program and accounting FEB University of Muhammadiyah Surabaya active semester 4 was greater by 64%. This is because the returned questionnaire has not been filled.

## Data Analysis Test

### Validity test

Validity test results for reliability variables (X1), Responsiveness (X2), Assurance (X3), Emphaty (X4), Tangible (X5) and Student Satisfaction (Y) can be seen from the tables below:

**Reliability Reliability Test Results (X1)****Table-5: Results of Test for Variable Validity Reliability (X1)**

| Statement | Correlation coefficient (r) | R table value | Assessment |
|-----------|-----------------------------|---------------|------------|
| X1-1      | 0.683                       | 0.147         | Valid      |
| X1-2      | 0.718                       | 0.147         | Valid      |
| X1-3      | 0.648                       | 0.147         | Valid      |
| X1-4      | 0.648                       | 0.147         | Valid      |
| X1-5      | 0.683                       | 0.147         | Valid      |
| X1-6      | 0.625                       | 0.147         | Valid      |
| X1-7      | 0.762                       | 0.147         | Valid      |
| X1-8      | 0.728                       | 0.147         | Valid      |
| X1-9      | 0.743                       | 0.147         | Valid      |
| X1-10     | 0.764                       | 0.147         | Valid      |
| X1-11     | 0.755                       | 0.147         | Valid      |

Based on the results of validity tests on 11 statements contained in the questionnaire distributed to students of management and accounting study programs active even semester T.A 2017/2018 obtained a value calculated between 0.625 to 0.764 which is greater than the rtable value of 0.147 so 11 statements are considered valid.

**Test Results for Responsiveness Validity (X2)****Table-6: Results of Test Validity of Variable Response (X<sub>2</sub>)**

| Statement | Correlation coefficient (r) | R table value | Assessment |
|-----------|-----------------------------|---------------|------------|
| X2-1      | 0.712                       | 0.147         | Valid      |
| X2-2      | 0.742                       | 0.147         | Valid      |
| X2-3      | 0.821                       | 0.147         | Valid      |
| X2-4      | 0.843                       | 0.147         | Valid      |
| X2-5      | 0.833                       | 0.147         | Valid      |

Based on the results of the validity test on the 5 statements contained in the questionnaire distributed to students of management and accounting study programs active even semester T.A 2017/2018 obtained a value calculated between 0.712 to 0.843 which is greater than the rtable value of 0.147 so that 5 statements are considered valid.

**Assurance Validity Test Results (X3)****Table-7: Results of Variable Assurance Validity Test (X3)**

| Statement | Correlation coefficient (r) | R table value | Assessment |
|-----------|-----------------------------|---------------|------------|
| X3-1      | 0.452                       | 0.147         | Valid      |
| X3-2      | 0.457                       | 0.147         | Valid      |
| X3-3      | 0.343                       | 0.147         | Valid      |
| X3-4      | 0.459                       | 0.147         | Valid      |
| X3-5      | 0.383                       | 0.147         | Valid      |
| X3-6      | 0.278                       | 0.147         | Valid      |

Based on the results of the validity test of the 6 statements contained in the questionnaire distributed to the management study program students and active accounting semester T.A 2017/2018 obtained a calculated value between 0.343 to 0.459 which is greater than the rtable value of 0.147 so that 6 statements are considered valid.

**Emphaty Validity Test Results (X4)****Table-8: Results of Testing the Validity of Variable Emphaty (X4)**

| Pernyataan | Koefisien korelasi (r) | Nilai r tabel | Penilaian |
|------------|------------------------|---------------|-----------|
| X4-1       | 0.827                  | 0.147         | Valid     |
| X4-2       | 0.798                  | 0.147         | Valid     |
| X4-3       | 0.810                  | 0.147         | Valid     |
| X4-4       | 0.794                  | 0.147         | Valid     |
| X4-5       | 0.770                  | 0.147         | Valid     |



Based on the results of the validity test on the 5 statements contained in the questionnaire distributed to students of management and accounting study programs active in the semester T.A 2017/2018 obtained a value calculated between 0.770 to 0.827 which is greater than the rtable value of 0.147 so 5 statements are considered valid.

#### Test Results for Tangible Validity (X5)

**Table-9: Results of Test Variable Validity Tangible (X5)**

| Pernyataan | Koefisien korelasi (r) | Nilai r tabel | Penilaian |
|------------|------------------------|---------------|-----------|
| X5-1       | 0.612                  | 0.147         | Valid     |
| X5-2       | 0.633                  | 0.147         | Valid     |
| X5-3       | 0.661                  | 0.147         | Valid     |
| X5-4       | 0.755                  | 0.147         | Valid     |
| X5-5       | 0.772                  | 0.147         | Valid     |
| X5-6       | 0.719                  | 0.147         | Valid     |
| X5-7       | 0.814                  | 0.147         | Valid     |
| X5-8       | 0.753                  | 0.147         | Valid     |
| X5-9       | 0.638                  | 0.147         | Valid     |
| X5-10      | 0.583                  | 0.147         | Valid     |

Based on the results of the validity test of the 10 statements contained in the questionnaire distributed to students of management study programs and active accounting for even semester 2017/2018, the value of rcount between 0.583 to 0.814 was greater than the rtable value of 0.147 so that 10 statements were considered valid.

#### Test Results for Student Satisfaction (Y)

**Table-10: Variable Validity Test Results Student Satisfaction (Y)**

| Pernyataan | Koefisien korelasi (r) | Nilai r tabel | Penilaian |
|------------|------------------------|---------------|-----------|
| Y-1        | 0.830                  | 0.147         | Valid     |
| Y -2       | 0.776                  | 0.147         | Valid     |
| Y -3       | 0.798                  | 0.147         | Valid     |
| Y -4       | 0.701                  | 0.147         | Valid     |
| Y -5       | 0.866                  | 0.147         | Valid     |

Based on the results of the validity test on the 5 statements contained in the questionnaire distributed to the management study program students and active accounting semester T.A 2017/2018 obtained a calculated value between 0.701 to 0.866 which is greater than the rtable value of 0.147 so that 5 statements are considered valid.

#### Reliability Test

The results of the reliability test on independent and bound variables can be seen in the table below:

**Table-11: Test Reliability**

| Variabel                         | R Alpha | Hasil    |
|----------------------------------|---------|----------|
| Kepuasan Mahasiswa (Y)           | 0.879   | Reliabel |
| Realibility (X <sub>1</sub> )    | 0.897   | Reliabel |
| Responsiveness (X <sub>2</sub> ) | 0.853   | Reliabel |
| Assurance (X <sub>3</sub> )      | 0.860   | Reliabel |
| Emphaty (X <sub>4</sub> )        | 0.867   | Reliabel |
| Tangible(X <sub>5</sub> )        | 0.888   | Reliabel |

The reliability test results from the independent and bound variables above show a value of more than 0.70 so that it can be concluded that all variables in this study are reliable.

#### Normality test

The results of the normality test for the Student Satisfaction variable (Y), Reliability (X1), Resposiveness (X2), Assurance (X3), Emphaty (X4) and Tangible (X5) can be seen in the table no 12.

**Table-12: Normality Test**

| One-Sample Kolmogorov-Smirnov Test |                |                         |
|------------------------------------|----------------|-------------------------|
|                                    |                | Unstandardized Residual |
| N                                  |                | 178                     |
| Normal Parameters <sup>a,b</sup>   | Mean           | 0E-7                    |
|                                    | Std. Deviation | .39053334               |
| Most Extreme Differences           | Absolute       | .080                    |
|                                    | Positive       | .080                    |
|                                    | Negative       | -.066                   |
| Kolmogorov-Smirnov Z               |                | 1.069                   |
| Asymp. Sig. (2-tailed)             |                | .204                    |
| a. Test distribution is Normal.    |                |                         |
| b. Calculated from data.           |                |                         |

The results of the normality test using Kolmogorov Smirnov show that the independent and dependent variables are normally distributed, with a significant level above 5%, which is 0.204.

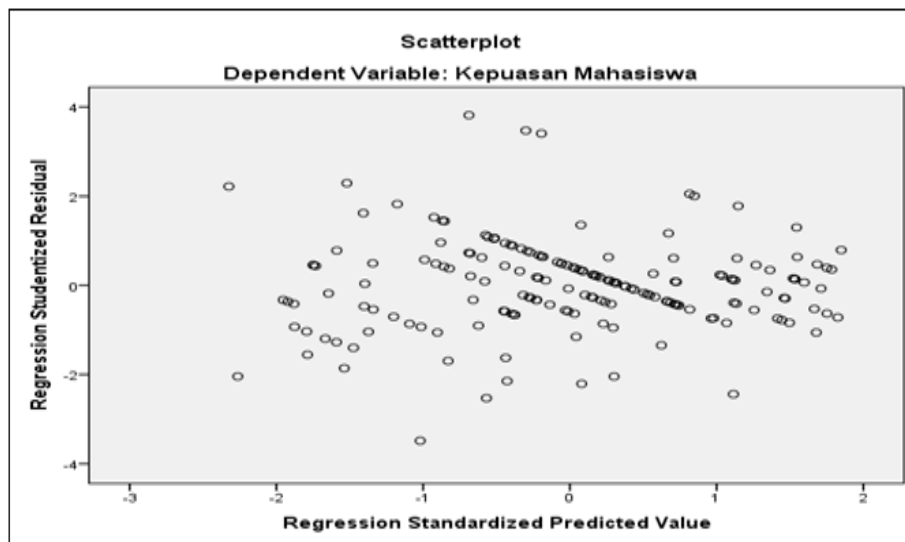
### Classical Assumption Testing Analysis

#### • Multicollinearity testing

Identification of the presence or absence of multicollinearity symptoms is done by calculating the Variance Inflation Factor (VIF). The VIF value for each of the variables above shows that the VIF values of all independent variables and moderating variables are less than 10, meaning that both independent variables and one moderating variable in this study have no multicollinearity symptoms.

#### • Testing for heteroscedasticity

Heteroscedasticity test aims to test whether in the regression model variance inequality occurs from one residual to another observation. This can be seen in the picture of the scatterplots. The scatterplots show that the spread of data points does not form a specific pattern so there are no symptoms of heteroscedasticity. Here is a picture of the scatterplots as follows:

**Fig-1: Heteroscedasticity test**

#### • Moderating Regression Analysis Equations

The equation for multiple regression analysis is as follows:

$$Y = 0.885 + 0.059X_1 + 0.393X_2 + 0.022X_3 - 0.111X_4 + 0.301X_5$$

#### Hypothesis testing

The results of hypothesis testing in this study there are two analyzes and two hypothesis tests are as follows:

Reliability Effect (X1), Responsiveness (X2), Assurance (X3), Emphaty (X4) and Tangible (X5) Against Student Satisfaction.

**Table-13: Results of the F test (ANOVA)**

| Model Summary <sup>b</sup>  |                   |          |                   |                            |                   |          |     |     |               |               |
|---|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|---------------|
| Model   | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               | Durbin-Watson |
|   |                   |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |               |
| 1   | .765 <sup>a</sup> | .585     | .573              | .396                       | .585              | 48.528   | 5   | 172 | .000          | 1.900         |
| a. Predictors: (Constant), Tangible, Assurance, Emaphaty, Responsiveness, Reliability |                   |          |                   |                            |                   |          |     |     |               |               |
| b. Dependent Variable: Kepuasan Mahasiswa   |                   |          |                   |                            |                   |          |     |     |               |               |

Based on the table above, it can be seen that the calculated F value obtained from data processing is 48,528 with a significance level of 0,000 or smaller 0.05 so Ho is rejected with Ha accepted, which means that the model used is significant or suitable for knowing Reliability (X1), Responsiveness ( X2), Assurance (X3), Emphaty (X4) and Tangible (X5) Against Student Satisfaction. The correlation between Reliability variables (X1), Responsiveness (X2), Assurance (X3), Emphaty (X4) and Tangible (X5) is equal to 0.585 This value gives the meaning that the model has a level of influence of 58.5% on the Student Satisfaction variable (Y). R Square is equal to 0.573, which means that all independent variables are able to explain 57.3% of the Y variable and 42.7% are explained by other variables.

The t test can be used to determine whether or not the influence is partially Reliability (X1), Responsiveness (X2), Assurance (X3), Emphaty (X4) and Tangible (X5) Against Student Satisfaction.

**Table-14: Results of the t test**

| Coefficients <sup>a</sup>                   |                |                             |            |                           |        |      |                         |       |
|---|----------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
| Model                                       |                | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|   |                | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1   | (Constant)     | .885                        | .176       |                           | 5.032  | .000 |                         |       |
|   | Reliability    | .059                        | .107       | .051                      | .554   | .580 | .290                    | 3.453 |
|   | Responsiveness | .393                        | .087       | .394                      | 4.531  | .000 | .320                    | 3.128 |
|   | Assurance      | .022                        | .006       | .230                      | 3.838  | .000 | .673                    | 1.485 |
|   | Emphaty        | -.111                       | .062       | -.132                     | -1.791 | .075 | .445                    | 2.246 |
|   | Tangible       | .301                        | .076       | .317                      | 3.950  | .000 | .373                    | 2.679 |
| a. Dependent Variable: Student Satisfaction |                |                             |            |                           |        |      |                         |       |

The results of the t test show that the Reliability variables (X1) and Emphaty (X4) have no significant effect on the satisfaction of the management study program students and active accounting Even Semester T.A 2017/2018 University of Muhammadiyah Surabaya. This is indicated by the value of the calculated t variable Reliability (X1) of 0.554 with a significance of 0.580 which is greater than 0.05. And for the value of t variable Emphaty (X4) of (1,791) with a significance of 0.075 which is greater than 0.05.

The results of the next t test show that there is a significant effect of Responsiveness (X2), Assurance (X3), Tangible (X5) on Student Satisfaction. Each of these is indicated by the value of the calculated t Responsiveness variable (X2) of 4,531 with a significance of 0,000 which is smaller than 0.05. For the value of t count Assurance variable (X3) of 3,838 with a significance of 0,000 which is smaller than 0.05. Furthermore, the value of the Tangible variable count (X5) is 3,950 with a significance of 0,000 which is smaller than 0.05.

Satisfaction is the response of consumers who meet their needs, when what is received (real benefits) by consumers in accordance with their expectations. Consumers, in this context are students, if their expectations of a service at a certain level, and feel that the service received is higher than their expectations, then the student can be said to be very satisfied. So, if student expectations at a certain level of service are in accordance with the service they receive, then the student can be said to be satisfied. Conversely, students feel dissatisfied if the service quality received is lower than the expected service quality.

Reliability variable (X1) does not have a significant effect on the satisfaction of students of the Faculty of Economics and Business UM Surabaya. These results indicate that student satisfaction with the quality of academic services at FEB UM Surabaya is not influenced by the level of reliability of lecturers and academic staff. Students feel that the readiness factor of lecturers in providing lectures and the presence of lecturers in the classroom, as well as the readiness and reliability of academic staff in serving student interests does not affect the satisfaction of Surabaya FEB UM students. The results of this study support Susanto's research [26] with the title "The Influence of Academic Services on Student Satisfaction of Open University Postgraduate Programs in Mataram Distance Learning Program Unit (UPBJJ)" obtained that Reliability (X1) does not significantly influence student satisfaction. While the Emphaty variable

(X4) also has no significant effect on student satisfaction. This condition can reflect that students are not too interested or respond well to the service quality of this item, such as the response of the lecturer to the progress or difficulties of the student and the understanding of the lecturer towards student interests and talents. The results of this study contradict some of the existing studies, one of them is Setiarini's research *et al.*, [27] with the title of the research "Analysis of the Effect of Academic Service Quality on Student Satisfaction in Balikpapan State Polytechnic" which states that empathy variables have an influence positive and significant and is the dominant factor influencing student satisfaction.

Responsiveness variables (X2), Assurance (X3), and Tangible (X5) have a significant effect on satisfaction of FEB UM students in Surabaya. These results indicate that if students have a good response to one dimension, then the quality of service received is also good. This is in line with the concept of service quality theory, as suggested by Kotler [22] that good quality is not based on the point of view or perception of the service provider, but based on the customer's point of view or perception.

## CONCLUSION

Research conducted to measure the quality of academic services FEB UM Surabaya concluded that the quality of academic services at FEB UM Surabaya based on Servqual analysis showed dimensions of responsiveness, assurance, and good physical evidence categorized and influenced student satisfaction while the dimensions of reliability and empathy were not well categorized so that has not been able to influence student satisfaction with the quality of academic services FEB UM Surabaya.

## Suggestion

For dimensions that have not received student response as a factor that influences their satisfaction, it needs to be considered again. What is the level of reliability and empathy of employees towards the problems faced by students so that students feel the quality of academic services is good.

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