# THE EFFECT OF ACADEMIC SERVICES AND FACILITIES ON SATISFACTION AND ITS IMPACT ON STUDENT TRUST
## (Case Study at Faculty of Mathematics and Science, University of Syiah Kuala, Banda Aceh, Indonesia)

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## ABSTRACT

The purpose research is to determine the effect of service on student satisfaction, the effect of academic facilities on student satisfaction, the effect of service on student trust, the effect of academic facilities on student trust and the effect of student satisfaction on student trust. The object of research is service, academic facilities, student satisfaction and student trust. The results show that there are positive and significant effects of service on student satisfaction. The service factors are supported by the elements in the dimensions of service quality, such as tangible, reliability, responsiveness, assurance and empathy. They are applied to the Faculty of Mathematics and Science at University of Syiah Kuala and it has gone well, such as there is positive and significant effect of academic facilities on student satisfaction, there is positive and significant effect of service which is supported by dimensions of service quality on student trust, there is positive and significant effect of academic facilities on student trust and there is positive and significant effect on student trust.

**Keywords:** Services, Academic Facilities, Student Satisfaction and Trust

## INTRODUCTION

The competition that occurs between universities in the implementation of education services is so tight. It is not limited to producing the number of graduates which are measured academically but the ability of programs from universities must be able to prove the quality which is supported by existing accountability. To gain the recognition, the alumni should get the assessment, achievement, suitability of work in accordance with the obtained knowledge as well as perceptions from the community. This competition will require service actors, especially in the field of education to take steps / strategies in order to have their own competitive advantages in

competing with other industries / service organizations which of course must get support from the parties that are involved in the service organizations, either from the government, universities, community or business world. The development of service organizations that are so developed in terms of quantity must be balanced with the willingness to improve the quality of services so that universities can compete in a healthy manner. This advantage can be achieved through quality service and the satisfaction for stakeholders. Universities must strive and be responsible for digging in improving their quality in the form of services, facilities and other supporting tools which the results will be felt directly by service users.

Some things that can be used as references for those who wish to continue their education to Universities (public or private). University of Syiah Kuala is a state university that has the accreditation of "A" in Indonesia, with it that is able to provide satisfaction for students, so that the satisfaction can be used as a benchmark for the success of an educational institution in managing its institution by prioritizing academic quality.

But in its development the Faculty of Mathematics and Science in Unsyiah increased to 9 (nine) study programs, 7 (seven) for bachelor programs and 2 (two) for diploma programs. As part of University of Syiah Kuala, the Faculty of Mathematics and Science is an academic administrative service center at the faculty level. It is provided to all students who study at Faculty of Mathematics and Sciences in Unsyiah. There are currently 154 people of educators/lecturers from various disciplines as well as 47 people administrative staff (36 education staff and 11 laboratory personnel) both in charge of the faculty administrative headquarters and in all study programs that have administrative requirements at the faculty level.

Service quality provides motivation for students to establish a strong relationship with the place they take education because the campus is an organization that offers service products, so in the service there is a quality dimension that plays an important role. In this study, the services refer to campus comfort and cleanliness, agility of service, ability and insight of administrative staff and ease of employee consultation in serving students. The academic facilities include the availability of lecture facilities, laboratories, parking lots, WiFi, libraries, and, religious and sports facilities. The student satisfaction is a comparison between expectations with those that are received by the students for academic services and facilities, and the trust includes the belief that lectures at Faculty of Mathematics and Sciences in Unsyiah provide good future, good service elements, learning methods and knowledge that are obtained will be useful in the future.

The Managers in universities must carry out their operational activities with quality oriented so they are able to face competition and create satisfaction for service users. The service users in this study are limited only to the students because they directly feel the services that are provided

by universities, so the students must be positioned as the main service users who must be served well in order to create the satisfaction and trust in the institutions on the provided service and the obtained facilities.

## LITERATURE REVIEW

### Service

Service according to Kotler (1996: 578) in Laksana (2008: 85) is: "A service any act or performance that one party can offer to another that is essentially intangible and does not result in the Ownership of anything, its production may or may not be a physical product", which means" services or performance that can be offered by one party to another which is basically intangible and does not produce any ownership, the production may or may not have physical products".

Furthermore, Kotler and Keller (2012) in Tjiptono and Chandra (2016: 13) argue that "services are any actions or manner that can be offered by a party to another which are essentially intangible and do not produce ownership of something".

Furthermore Zeithaml, Bitner in Sangadji, Sopiah (2013: 93), state that basically service is "economic activity with the outputs that are other than products in the physical sense, consumed and produced at the same time, providing added value and principally intangible for the first buyer". Furthermore Lovelock, Patterson & Walker (2004) in Tjiptono and Chandra (2016: 11) suggest that in service there are 2 (two) components: (a). service operations in which the input is processed and elements of service products are created and (b) service delivery in which the elements of the service product are assembled, completed and delivered to service users, some of which are visible or known by service users (front office / frontstage) and some of the others are invisible or completely unknown to the existence of service users (back office / backstage).

In providing services, service providers must understand the desires / needs of service users for provided services. The needs consist of practical needs that can be in the form of perceived values in the form of tangibles such as instruments and other facilities that can be touched and seen in emotional needs. It can include physiological sense values that are met from the attitudes, actions and behavior of service providers (Rahmayanty, 2010: 37).

### Service Quality

Parasuraman et al. (1990: 19) in Laksana (2008: 88) suggest that service quality is "The extent of discrepancy between customers expectations or desires and their perceptions". It means "service

quality is expressed through perceptions between the differences in expectations of service users and received reality / wishes according to service users". In line with that (Akbar in Parvez, 2009 in Kordshouli et al. (2016) defines service quality is "the difference between the expectations of service users regarding the services to be received and the perception of received services".

The satisfaction level of service user depends on the expectations of service users on service providers to the provided service quality. The better provided services with the expected quality services the lower the disappointment level of service users for the received services in the form of either goods or services.

Kotler (2005) in Sangadji and Sopiah (2013: 99) states "quality is a dynamic condition that relates well to products, services, people, processes and environments that meet or exceed expectations". Furthermore Lewis and Booms (1983) in Tjiptono and Chandra (2016: 125) suggest "service quality as a measure of how well the level of provided service from the service provider is capable and in accordance with the expectations of service users". Thus service quality can be produced by meeting the needs and desires of service users by compensating for the expectations of service users through the accuracy in providing services.

Kotler and Keller (2012) in Tjiptono and Chandra (2016: 125) suggest that "service quality must start from the needs of service users and end with the satisfaction of service user and positive perceptions of the service quality which is provided by service providers". Likewise according to Kotler, 1997 in Christea and Andi (2013) who states "service quality must start from the needs of service users and end in the perception of service users, so that good quality is not based on desires and perceptions of service providers but based on the desires and perceptions of service users who use these services".

Wyckof in Christea and Andi (2013) states that "service quality is the expected level of excellence and control over the level of excellence to fulfill the desires of service users".

**Facility**

Christea and Andi (2013), state that facilities are "physical resources that exist within before a service can be offered to service/product users". Furthermore Wahyuningrum (2004) in Bafadal (2003) in Christea and Andi (2013) states "academic facilities are all equipment, materials and furniture that are directly used in the education process in schools", as well as Wahyuningrum (2004) in Christea and Andi (2013) argues that "academic facilities are all needed facilities in the learning process, which can include movable and immovable goods so that educational goals are achieved".

**Satisfaction**

Wilkie (1990) in Dewi et al. (2014) defines satisfaction as "the emotional perception of service users in evaluating the consumption experience of the received product or service". Zeithaml and Bitner (2005) in Sangadji and Sopiah (2013: 180), define satisfaction that can be interpreted as "customer's evaluation of a product or service in terms of whether product or service has their meaning of needs and expectation" which means "consumers will evaluate by giving the perception to how further the products / services which they use / get fulfill their desires and expectations".

Kotler and Clarke (1987) in Tuan N.M (2012) also define satisfaction as "a state of expectation when service users have (n) performance or results" and is supported by the opinions of Howard and Sheth (1969) in Tuan N.M (2012) that defines satisfaction of service users as "psychological conditions to evaluate the reasonableness between what is actually paid and obtained by service users".

Elliott and Healy (2001) in Ntabathia, M. (2013) defines that "Student satisfaction is generally accepted as a short-term attitude resulting from an evaluation of a student's educational experience. Student satisfaction results when actual performance meets or exceeds the student expectations". In line with that Jeffries and Rizzolo, 2006 in Jacky C.K. Chan (2015), defines student satisfaction as "it refers to students' responses to simulation experience, and self-confidence is the assessment of personal ability to regulate and to implement an action which is needed to achieve the specified type of performance".

Student satisfaction is "how further the service performance of an institution meets student calculations" (Weirs-Jenssen et al., 2002; Salami, 2005; Roberts-Lombard, 2009 in Shahzadi et al. (2017). Student satisfaction can be influenced by student expectations and perceptions about services and the service quality which is provided (Hu et al., 2009; Babaei, 2015 in Shahzadi SS et al. 2017).

On the other hand, as it is stated by Rowley, (1996) in Yunus et al. (2010) that "students' satisfaction with the academic programs could also be influenced by other aspects such as the study environment, the facilities provided, opportunities for student's self-improvement, services and other aspects" which means that "student's satisfaction with academic programs can also be influenced by several other aspects such as the learning environment, provided facilities, opportunities to improve themselves, services and other aspects".

**Trust**

Anderson and Narus (1990) in Akbar and Parvez (2009), states that trust as "it can be safely deduced that if one party believes that the actions of the other parties will bring positive outcomes to the first party, trust can be developed".

Lau and Lee (1999) in Mailany (2011: 9) and Zaniel, Sorayanti (2019) suggest that "trust is the willingness of individuals who depend on others with certain risks".

According to Mayer et al. (1995) in Azwar and Bambang (2016), state that "trust is the willingness of one party to trust the other party to take certain actions that are important to those who believe", as well according to Moorman et al. (1993) in Dewi, Koesharono (2014) that describe trust as the willingness of users to depend on providers who can be trusted and Dwyer and Scuur (2000) state that "trust is an important factor in conditions of change and separate transactions into a continuous exchange relationship".

## RESEARCH METHOD

### Location, Research Object

The study is conducted at the Faculty of Mathematics and Sciences in Unsyiah. The research survey on students of the Bachelor and Diploma programs with the object of research is service, academic facilities, student satisfaction and trust.
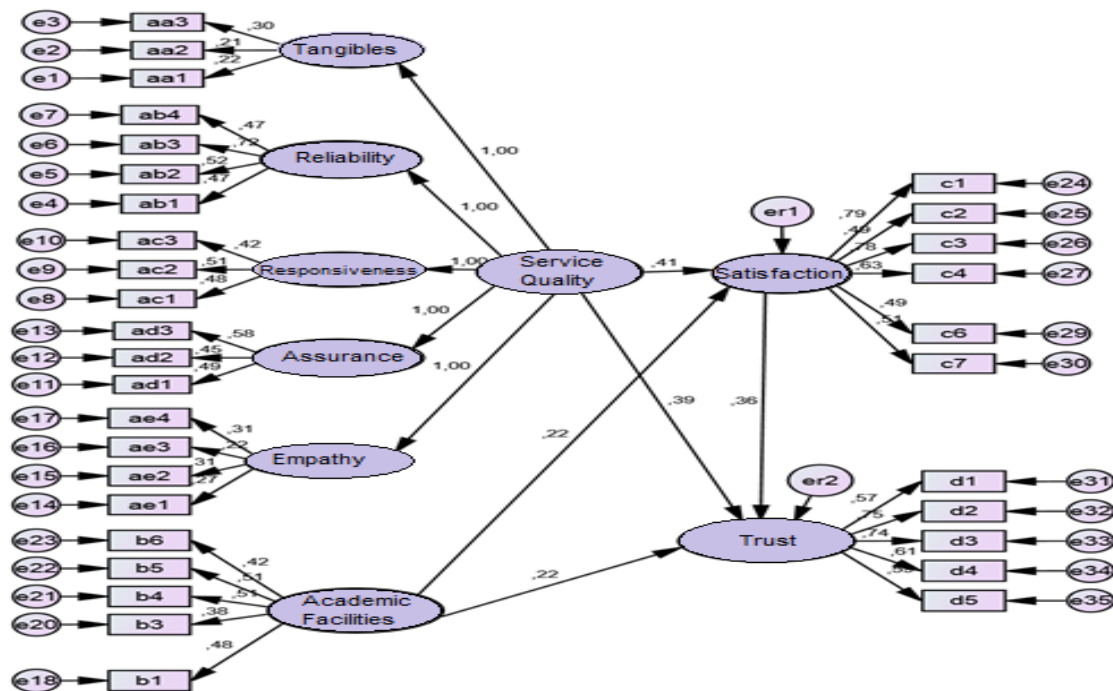
### Population, Sampling Technique

The total number of active students for the Bachelor and Diploma Programs in the Faculty of Mathematics and Sciences in Unsyiah, in the 2017/2018 Academic Year is 1605 people with a total sample of 320 people.

Tne tests that were carried out in analyzing the overall data were carried out using Structural Equation Modeling to determine the influence between the studied variables.

### DISCUSSIONS AND RESULTS

Based on the results of the tests that are conducted, it shows that there are influences between the studied variables with several indicators that are used as it is shown in the full model image figure 1 as follows:

Hypothesis testing is based on the value of Critical Ratio (CR), so that the following results can be shown on the Table 1 as follow:

**Table 1: Regression Weight Structural Equation Model**

|  |  |  | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| Satisfaction | ← | Service_Quality | ,360 | ,032 | 7,461 | *** |  |
| Satisfaction | ← | Academic_Facilities | ,270 | ,051 | 9,461 | *** |  |
| Trust | ← | Service_Quality | ,310 | ,059 | 7,733 | *** |  |
| Trust | ← | Academic_Facilities | ,420 | ,033 | 9,856 | *** |  |
| Trust | ← | Satisfaction | ,430 | ,024 | 9,313 | *** |  |

Accepted if P <0,05 and CR> 1,960

The testing results on $H_1$ which tested the effect of service on satisfaction showed a Critical Ratio (CR) value of 7.461 on a probability of 0.000. This indicates that $H_1$ can be accepted because it fulfills the requirements in accepting the hypothesis as the CR with a value of 7.461 is greater than 1.96 (CR > 1.96) with a probability (P < 0.05).

The testing results on $H_2$ which examined the effect of academic facilities on student satisfaction showed a Critical Ratio (CR) value of 9.461 on a probability of 0,000. This indicates that $H_2$ can be accepted because it fulfills the requirements in accepting the hypothesis as the CR with a

value of 9.461 is greater than 1.96 (CR > 1.96) with a probability (P < 0.05).

The testing results on $H_3$ which examined the effect of service on student trust showed a Critical Ratio (CR) value of 7.733 on a probability of 0.000. This indicates that $H_3$ can be accepted because it fulfills the requirements in accepting the hypothesis as the CR with a value of 7.733 is greater than 1.96 (CR > 1.96) with probability (P < 0.05).

The testing results on $H_4$ which examined the effect of academic facilities on student confidence showed a Critical Ratio (CR) value of 9.856 and a probability of 0.000. This indicates that $H_4$ can be accepted because it fulfills the requirements in accepting the hypothesis as the CR with a value of 9.856 is greater than 1.96 (CR > 1.96) with a probability (P < 0.05).

The testing results on $H_5$ which examined the effect of satisfaction on student trust showed a Critical Ratio (CR) value of 9.313 on a probability of 0.000. This indicates that $H_5$ can be accepted because it fulfills the requirements in accepting the hypothesis as the CR value of 9.313 is greater than 1.96 (CR > 1.96) with a probability (P < 0.05).

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

1. Effect of service on student satisfaction. The service factors that are supported by elements in the dimensions of service quality which is applied to the Faculty of Mathematics and Science in Unsyiah are able to influence student satisfaction.
2. The second hypothesis proves that $H_2$ can be accepted. It means that there is a positive and significant effect of academic facilities on student satisfaction. The academic facility factors with indicators of the availability of lecture / practicum spaces, parking areas, hotspots / WiFi, viewers and worship facilities, libraries and sports can influence student satisfaction.
3. The third hypothesis proves that $H_3$ can be accepted. It means that there is a positive and significant effect of service on student trust. The service factors that are supported by elements in the dimensions of service quality can influence student confidence.
4. The fourth hypothesis proves that $H_4$ can be accepted. It means that there is a positive and significant effect of academic facilities on student confidence. The academic facility factors with several indicators can influence student confidence in their institution.
5. The fifth hypothesis proves that $H_5$ can be accepted. It means that there is a positive and significant effect of satisfaction on student trust. The satisfaction with indicators of availability of lecture facilities, speed of service processes, awareness of providing

services, skilled work, student approach with lecturers and leaders and convenience in consultation can influence student confidence.

**Recomendations**

1. In increasing student satisfaction, leaders and all employees in the Faculty of Mathematics and Sciences, University of Syiah Kuala can continue to improve the quality and image of a better service in the future so that student satisfaction can be achieved properly.
2. The availability of adequate academic facilities should be the concern of the leadership, especially the facilities that support the lecture process, so that it will lead to satisfaction for students.
3. In increasing the confidence of students, leaders and all employees must improve the service quality that is better in the future in order to achieve the increase in student confidence on their institutions.
4. The availability of adequate academic facilities should be a concern of the leadership, especially facilities that support the lecture process, so that the availability of these facilities will satisfy student satisfaction with the availability of facilities that will later increase student confidence.
5. It is expected that the leadership and all employees in the Faculty of Mathematics and Sciences, University of Syiah Kuala, can strive for the creation of comfortable atmosphere in the service to students. It is certainly supported by the availability of better academic facilities to achieve student satisfaction. However, from the four variables that are used in this study, the variable of satisfaction must be considered more by the leader as the variable of satisfaction has a small average value from the other variables.

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