

The Relationship Between Quality of Service and Student Satisfaction within an Indonesian Islamic-Based University

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Abstract

Consumer satisfaction has become a global issue that affects the operations of many service organizations, including higher education institutions. Many universities now are more concerned with the importance of student satisfaction and delivering a high quality of services has become the main goal of many universities. This is based on the consideration that customer satisfaction has a positive impact on the university survival. This study aims to investigate the relationship between quality of service and student satisfaction within an Islamic-based university. This study applied the HEDPERF model to measure the quality of service and six items to measure student satisfaction. The sample involved in this study consisted of 240 students studying at Faculty of Islamic Studies, Jakarta Islamic University. The results indicated that services related to non-academic aspect, academic aspect, reputation, and access positively and significantly associated with student satisfaction. Meanwhile, services related to program issues and understanding were found not significantly related to student satisfaction. The finding implies that the university management have to improve their standard and procedures, including the standard in providing services related non-academic aspect, academic aspect, reputation, and access..

Keywords: quality of services, student satisfaction, Islamic-based university, Indonesia

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1. Introduction

At the present time, globally the university environment has turned into a competitive sector, whereas universities must compete with each other in getting students. Universities must compete like corporate organizations where the law of demand and supply takes place (Tuan, 2012). Such a condition force higher education institutions to develop their specific strategies in order to gain a competitive advantage (Hanaysha et al., 2011). Kitchroen (2004) emphasizes that universities are able to achieve a competitive advantage if they are concerned with the importance of quality services in order to give a satisfaction to their stakeholders. Kitchroen further emphasized that a high service quality will have a positive effect on university survival through the increasing popularity of the institutions and the increasing number of students. Similarly, Hanaysha et al. (2011) show that service quality contributes positively to the development of student satisfaction. According to these experts, student satisfaction is the main indicator for assessing the quality of services at higher education institutions.

Jakarta Islamic University (UID) is a private Islamic-based university located in Jakarta Province of Indonesia. As with other public universities in Indonesia, UID must also face the increasingly competitive conditions so that it must develop appropriate strategies in order to satisfy their students. Currently in Indonesia there are 122 public universities and 3.136 private universities. In the province of Jakarta alone, there are 3 public universities and 320 private universities. This implies competition for new students. In order to attract new students and retain the existing students, UID is required to make various efforts to improve its student satisfaction. This could be achieved only if all of its services are delivered in accordance with an appropriate standard. Therefore, it is important for UID to evaluate its quality of services by assessing its student satisfaction.

In the context of higher education institutions, the literature generally states that the student is the main stakeholder. In many cases, therefore, stakeholder satisfaction in the context of higher education institutions tends to lead to student satisfaction (Clemes et al., 2008; Douglas et al., 2006). Furthermore, the literature suggests service organizations to deliver their services in accordance with their customer expectations as an effort to create their customer satisfaction so that their customers are willing to reuse the services provided by the organization (Athiyaman, 1997). Basheer and Ahmad (2012) stated that service is the main product of service organizations and is not visible and only can be felt by their customers. The service provided by the service organization will be felt directly by the customer. Literature highlighted the important role of customer satisfaction for the survival of service organizations. In order to achieve their customer satisfaction, service organizations need to improve their service quality in accordance with their customer requirements (Limsiritong and Kattiyapornpong, 2010; Munusamy et al., 2010).

Furthermore, many experts argued that higher educational institutions need to obtain a feedback from their students in order to measure and evaluate their quality of services. These experts stated that a high quality of service is one of the key success factors for a university (Mosahab et al., 2010; Kara et al., 2016). Other experts suggest that students are the main stakeholders of the university. Satisfied students will be proud of the

university, which in turn will lead to their loyalty. Some previous studies suggested that student satisfaction had a positive impact on student loyalty. These experts consider that student loyalty is an important factor for the long-term success of the university. For instance, they could be an agent and recommend the university to their relatives, neighbors and friends, and discuss positive things related to the university (Kitchroen, 2000; Phadke, 2011)

Consumer satisfaction has become a global issue that affects the operations of many service organizations, including higher education institutions. Many universities are more concerned with the importance of student satisfaction and delivering a high quality of services has become the main goal of many universities (Athiyaman, 1997). This is based on the consideration that customer satisfaction has a positive impact on the university survival. For this reason, universities are required to measure their student satisfaction through a feedback from their students. Several studies have been conducted to examine the effect of service quality on customer satisfaction (Basheer and Ahmad, 2012; Tuan, 2012). However, it should be noted that these studies are carried out using different dimensions and attributes of service quality. Some dimensions of service quality are found to have a significant influence, while other dimensions are not. This research aims to examine the relationship between service quality and student satisfaction at the Faculty of Islamic Religion, Jakarta Islamic University. Based on the HEDPERF model (Abdullah, 2006), this study uses six dimensions to measure service quality: namely academic aspect, non-academic aspect, reputation, access, program issues, and understanding. The results of this study would provide more insight into the quality of service at the Islamic-based university and its impact on student satisfaction.

2. Literature Review and Hypotheses Development

2.1 Service Quality in the Higher Education Institution

Quality of service is a term, whereas its definition is subjective and contextual. Definition of quality of service, especially in the context of higher education, varies from one individual to another individual, even between one agency and another. According to Sallis (2002), the quality of product or service is determined by two factors. First, the fulfillment of predetermined specifications (quality in fact), and second, the fulfillment of expected specifications according to the user demands and needs (quality in perception). Quality in fact is an institutional service quality standard determined based on the criteria in accordance with the objectives of the institution. Meanwhile, quality in perception is measured based on the consumer satisfaction. According to Tjiptono (2004), service quality must be customer-oriented. Products or services are stated to be of quality, if the product or service is in accordance with the standards set or is according to the user needs or demand. Service quality refers to the customer perceptions related to the services provided: that is, whether the service is in accordance with the customer expectations or not. This is in line with Zeithaml and Bitner (2000) who define service quality as the customer perception regarding the services they receive. This customer perception arises based on their evaluation on certain service attributes such as reliability, responsiveness, assurance, empathy and physical services.

Furthermore, Parasuraman et al. (1991) states that service quality refers to the consumer perception related to how the service is delivered to the consumer. This concept raises two views on consumer expectation and perception of service quality: i.e., expected quality and perceived quality. If the service received by the customer is in accordance with their expectation, the service is perceived to be having a good quality; if the service received by the customer exceeds their expectations, the service is perceived to be having a high quality. Conversely, if the service received by the customer is lower than what they expected, the service is perceived to be having a poor quality. In other words, the level service quality depends on the ability of service providers to consistently meet their customer expectations. In the context of higher education, the quality of services can be interpreted as the stakeholder perceptions of a number of dimensions of services provided by higher education institution.

Literature in general suggests that the dimensions of service quality in the university adopt the concept of service quality from the corporation. The adoption of corporate standards in the university shows that the university has an intention to change the concept of service quality and improve their quality of services to suit their stakeholder need. For this reason, the university needs to measure their customer satisfaction. Therefore, the university need to understand the dimensions of service quality along with their attributes that are suitable for the use in the context of the university (Brookes and Becket, 2007).

As applicable in the corporate context, service quality in the university refers to the stakeholder perceptions or evaluations of the attributes of service they receive. Service quality in the university also formed on dimensions and attributes.. The dimension of service quality which is generally known is SERVQUAL developed by Parasuraman et al. (1991). SERVQUAL consists of five dimensions widely known as RATER: i.e., reliability, assurance, tangible, empathy, and responsiveness. Reliability refers to the organizations' ability to fulfill service promises accurately. Assurance is related to staff friendliness and their ability to instill trust and certainty. Tangible deals with the appearance of physical facilities, equipment, personal and communication

devices. Empathy is concern and attention to consumers. Responsiveness is related to the willingness to help stakeholders and provide services immediately. The SERVQUAL model has been widely used by researchers to measure service quality in the various types of organizations.

Although the dimensions of SERVQUAL have been widely accepted as reliable dimensions for measuring the quality of service, some experts argued that service dimensions in one type of service organization in principle are different from the service dimensions of other types of service organizations. These experts argue that the service characteristics of each type of service organization are different; meaning that the measurement model of their service quality is also different. In the context of higher education, some researchers have attempted to identify determinants of service quality from the student side as the main stakeholders of the university. In this context, Abdullah (2006) emphasized that the dimensions of service quality in the university must be determined contextually considering that that higher education institution is different from other service organizations. In particular, Abdullah (2006) has developed a HEDPERF model consisting of six dimensions: i.e., non-academic aspect, academic aspects, reputation, access, program issues, and understanding. Abdullah (2006) claims that the HEDPERF model is appropriate to be used in measuring service quality in the higher education environment.

2.2 Student Satisfaction

Student in general is defined as individuals who are registered and studied at a certain university. Students are consumers who buy and use the products or services provided by the university. In general, the university has diverse consumers such as industry sector, student parents, government, and society as a whole (Kitcharoen, 2004). In this case, Sallis (2002) classified the university customers into two: i.e., external and internal customers. The main external customer of the university is their students, while the internal customer of the university is the lecturers and staff. Some other experts also stated that the main customers of the university are their student. The student is the direct recipients of the services provided by the universities (Douglas et al., 2006; Annamdevula and Bellamkonda, 2012). Hill (1995) states that as the main consumer of the university, student might hope to obtain an excellent service from the university they are studying. As the main customer, students have the right to obtain the best services from the university and utilize the existing resources in the university in order to meet their learning goals.

As described above, students have the right to obtain the best services. In accordance with the concept of customer-oriented quality, the service obtained by the student is stated to be a high quality of service if the service meets the student expectation. The service is stated to be having a high quality if the service is able to satisfy the students. In other words, student satisfaction could be used to be an indicator of quality of service provided by the university. In the context of higher education institution, student satisfaction could be understood as a process of comparing the university attributes experienced by the students with their expectations of the university (Alves and Raposo, 2007) or the student short-term attitudes resulting from evaluating the student educational experiences. Student satisfaction arises when the actual performance meet or exceed their expectations (Elliot and Healy, 1999).

According to Clemes et al. (2008), student satisfaction consists of two elements: students expectations and perceptions. In this perspective, when prospective students have become the university students, basically they already have certain beliefs about the university service. These beliefs are formed because of the references from other parties, marketing conducted by the university, or because of the needs of the student. Students believe that their expectation will become true when they become the student of the university. The student will then face with the reality of how the service performance they receive. When the services the receive meet their expectations, students will be satisfied and vice versa.

Menurut Alves and Raposo (2007), kepuasan mahasiswa dapat didefinisikan sebagai respon perasaan senang mahasiswa atas pelayanan perguruan tinggi. Elliot and Shin (1999) menyatakan bahwa penyediaan layanan yang bagus akan memberikan dampak positif bagi penilaian mahasiswa terhadap perguruan tinggi. Pendapat serupa dikemukakan oleh Kitcharoen (2004) yang menegaskan bahwa pelayanan yang berkualitas tinggi pada akhirnya akan berpengaruh positif terhadap kelangsungan hidup perguruan tinggi melalui peningkatan popularitas institusi dan peningkatan jumlah pendaftar, meskipun dampak tersebut terjadi secara tidak langsung dan berlangsung dalam jangka waktu yang lama.

According to Alves and Raposo (2007), student satisfaction is also could be defined as student feelings about the services provided by the university. Elliot and Shin (1999) stated that providing a high quality of service will have a positive impact on student assessment of the university. A similar opinion was expressed by Kitcharoen (2004) who emphasized that a high quality of services will ultimately have a positive effect on the university survival through the increasing popularity of the university and the increasing number of registrants, although these impacts occur indirectly and takes place over a long period of time.

2.3 Conceptual Framework and Hypotheses Development

Several studies have been conducted to examine the effect of service quality on the customer satisfaction (Basheer and Ahmad, 2012; Tuan, 2012). The results of previous study generally state that service quality has a positive influence on customer satisfaction. However, it should be noted that these studies are carried out using different dimensions and attributes of service quality. Some dimensions of service quality are found to have a significant influence, while other dimensions are not. Based on the HEdPERF model (Abdullah, 2006), this study uses six dimensions to measure service quality: namely academic, non-academic dimensions, reputation, access, program issues, and understanding. Figure 1 shows the conceptual framework used in this study.

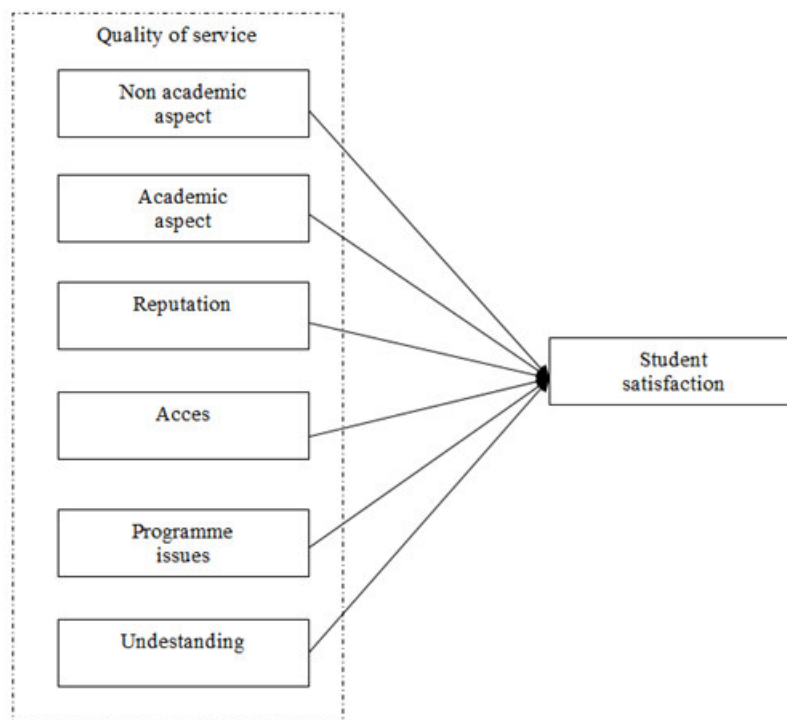


Figure 1
Conceptual framework of this study

Research hypothesis

1. Non-academic aspects, academic aspects, reputation, access, program issues, and understanding simultaneously have a positive and significant effect on student satisfaction
- 2a. Non-academic aspects partially have a positive and significant influence on student satisfaction
- 2b. Academic aspects partially have a positive and significant influence on student satisfaction
- 2c. Reputation aspects partially have a positive and significant influence on student satisfaction
- 2d. Access aspects partially have a positive and significant effect on student satisfaction
- 2e. Program issues partially have a positive and significant influence on student satisfaction
- 2f. Understanding aspects partially have a positive and significant effect on student satisfaction

3. Research Methodology

3.1 Research Design

This study used a survey method to collect data pertaining to the quality of service and student satisfaction in the Islamic-based university located in the Jakarta province of Indonesia. The data used in this study is subjective data (self-report data) in the form of student opinions or perceptions on the variables being investigated. In this study, data were obtained directly through questionnaires distributed directly to the respondents. The questionnaire used in this study was a closed questionnaire using a five-point Likert scale. The instruments used in this study consist of three parts: Part A, Part B, and Part C. Part A is intended to obtain data about the respondent's profile (four items). Part B contains 41 statement items related to the quality of service. This study divides Part B into two, namely Section B1 (degree of importance) and Section B2 (degree of performance). This study measures the importance degree of the service items using five-point Likert scale, ranging from 1 (very unimportant) to 5 (very important). Part C contains six statement items related to student satisfaction. This study measures the level of student satisfaction using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

3.2 Population and sample

The population in this study is the students Year 2, Year 3, and Year 4 from the Faculty of Islamic Studies - Jakarta Islamic University (FAI-UID). This restriction is intended to attract students who have truly felt the service provided by the university so that they can assess the importance and performance degree of the service. This study uses a probability sampling method to determine the survey samples. This method provides the same opportunity for each member of the population to be chosen as a sample member. Furthermore, this study chose to use the proportional random sampling method, namely taking sample members by taking into account the proportions that exist in that population. In this case, Faculty of Islamic Studies has two study programmes: i.e., Islamic Education and Arabic Language Education. Thus, the sample will be taken proportionally in each the study program.

3.3 Variables Measurement

Two variables were being investigated in this study, namely quality of service and student satisfaction. The quality of service served as the independent variable while student satisfaction acted as the dependent variable. The following is the operationalization of these two variables.

1. Quality of service

This study applied the HEdPERF model (Abdullah, 2006) to measure the quality of service. The model consists of six dimension non-academic aspect, academic aspect, reputation, access, program issues, and understanding.

Non academic aspect

This dimension of service quality consists of 12 items: i.e., sincere interest in solving problem (Q1), caring and individualized attention (Q2), efficient/prompt dealing with complaints (Q3), responding to request for assistance (Q4), accurate and retrievable records (Q5), promises kept (Q6), convenient opening hours (Q7), positive attitude (Q8), good communication (Q9), knowledgeable of systems/procedures (Q10), feeling secured and confident (Q11), service within reasonable time frame (Q12).

Academic aspect

This dimension of service quality consists of eight items: i.e., knowledgeable in course content (Q13), caring and courteous (Q14), responding to requests for assistance (Q15), sincere interest in solving problems (Q16), positive attitude (Q17), good communication (Q18), feedback on progress (Q19), sufficient and convenient consultation (Q20).

Reputation aspect

This dimension of service quality consists of ten items: i.e., professional appearance/image (Q21), hostel facilities and equipment (Q22), academic facilities (Q23), internal quality programmes (Q24), recreational facilities (Q25), minimal class sizes (Q26), ideal campus location/layout (Q27), reputable academic programmes (Q28), educated and experience academicians (Q29), and easily employable graduates (Q30).

Access aspect

This dimension of service quality consists of seven items: i.e., equal treatment and respect (Q31), a fair amount of freedom (Q32), confidentiality of information (Q33), easily contacted by telephone (Q34), student's union (Q35), feedback for improvement (Q36), and service delivery procedures (Q37).

Program issues aspect

This dimension of service quality consists of two items: i.e., variety of programmes/specializations (Q38) and flexible syllabus and structure (Q39).

Understanding aspect

This dimension of service quality consists of two items: i.e., counseling services (Q40) and health services (Q41).

2. Student satisfaction

Referring to Kara et al. (2016), this study measures student satisfaction by using six items: i.e., I would recommend other students to enroll in this university, My choice to enroll in this university is a wise one, I am satisfied with my decision to enroll in this university, If I have a choice to do it again, I will still enroll in this university, I am satisfied with the educational services provided in this university, and I get value for the fees I pay to this university.

4. Result and Discussions

4.1 Descriptive analysis

This section provides a descriptive analysis about the variable being investigated in this study: i.e., quality of service and student satisfaction. The analysis aims to explore to what extent the student perception is associated with the important degree of the quality of service and student satisfaction.

Following Porter (2002), this research refers to the quality of service as any action or activity offered by a service provider to another party which is basically intangible and does not result in any ownership. This study argued that the quality of service could serve as a determinant for the student satisfaction. Following Abdullah (2006) work, this study considered six dimensions to be included in the quality of service construct: i.e., non

academic, academic, reputation, access, program issues, and understanding. The following is a descriptive analysis of items consisting in each dimension of the quality of service construct.

Non-academic aspect

Table 1 presents the mean score of the items consisting in the dimension of non-academic aspect. As depicted in Table 1, the mean scores of the response related to the 12 items of non-academic aspect dimension ranged between 3.73 points and 3.95 points. The mean scores indicated that the 12 items of non-academic aspect dimension were regarded as important factors of service quality for developing the student satisfaction. Furthermore, out of the 12 items, item Q11 was perceived as the most important dimension of the 12 items of non-academic aspect dimension (mean score = 3.95 points). This means that “feeling secured and confident” might be a determinant underlying the high quality of service.

Table 1
 Descriptive analysis of non-academic aspect dimension

| Item | Mean value | Std. Dev |
|---------|------------|----------|
| Q1 | 3,78 | 0,92 |
| Q2 | 3,88 | 0,85 |
| Q3 | 3,83 | 0,81 |
| Q4 | 3,90 | 0,78 |
| Q5 | 3,88 | 0,82 |
| Q6 | 3,78 | 0,99 |
| Q7 | 3,80 | 0,94 |
| Q8 | 3,75 | 1,03 |
| Q9 | 3,73 | 0,88 |
| Q10 | 3,90 | 1,03 |
| Q11 | 3,95 | 0,85 |
| Q12 | 3,65 | 0,83 |
| Overall | 3,82 | 0,89 |

Academic aspect

The descriptive analysis of items included in the academic aspect dimension is presented in Table 2. As seen in Table 2, the mean scores of the response related to the eight items of academic aspect dimension ranged between 3.68 points and 3.95 points. The mean scores indicated that the eight items of academic aspect dimension were regarded as important factors of service quality for developing the student satisfaction. Furthermore, out of the eight items, item Q18 was perceived as the most important dimension of the eight items of academic aspect dimension (mean score = 3.95 points). This means that “able to communicate well” might be a determinant underlying the high quality of service.

Table 2
 Descriptive analysis of academic aspect dimension

| Item | Mean value | Std. Dev |
|---------|------------|----------|
| Q13 | 3,68 | 0,69 |
| Q14 | 3,85 | 0,53 |
| Q15 | 3,75 | 0,84 |
| Q16 | 3,88 | 0,61 |
| Q17 | 3,78 | 0,80 |
| Q18 | 3,95 | 0,60 |
| Q19 | 3,80 | 0,79 |
| Q20 | 3,88 | 0,76 |
| Overall | 3,82 | 0,72 |

Reputation

Table 3 presents the mean score of the items consisting in the dimension of reputation. As depicted in Table 3, the mean scores of the response related to the 10 items of reputation dimension ranged between 3.65 points and 4.03 points. The mean scores indicated that the 10 items of reputation dimension were regarded as important factors of service quality for developing the student satisfaction. Furthermore, out of the 10 items, item Q23 was perceived as the most important dimension of the 10 items of reputation dimension (mean score = 4.03 points). This means that availability of learning and teaching facilities might be a determinant underlying the high quality of service.

Table 3
 Descriptive analysis of reputation dimension

| Item | Mean value | Std. Dev |
|---------|------------|----------|
| Q21 | 3,68 | 0,83 |
| Q22 | 3,90 | 1,10 |
| Q23 | 4,03 | 1,03 |
| Q24 | 4,00 | 1,06 |
| Q25 | 3,78 | 0,73 |
| Q26 | 3,83 | 0,78 |
| Q27 | 3,65 | 0,74 |
| Q28 | 3,95 | 0,78 |
| Q29 | 3,90 | 0,84 |
| Q30 | 3,88 | 0,82 |
| Overall | 3,86 | 0,87 |

Access

The descriptive analysis of items included in the access dimension is presented in Table 4. As seen in Table 4, the mean scores of the response related to the seven items of access dimension ranged between 3.80 points and 3.95 points. The mean scores indicated that the seven items of access dimension were regarded as important factors of service quality for developing the student satisfaction. Furthermore, out of the seven items, item Q32 and Q35 were perceived as the most important dimension of the seven items of access dimension (mean score = 3.95 points). This means that keep data and information confidentiality and availability of student organizations might be determinants underlying the high quality of service.

Table 4
 Descriptive analysis of access dimension

| Item | Mean value | Std. Dev |
|---------|------------|----------|
| Q31 | 3,80 | 0,72 |
| Q32 | 3,95 | 0,75 |
| Q33 | 3,83 | 0,93 |
| Q34 | 3,95 | 0,90 |
| Q35 | 3,95 | 0,81 |
| Q36 | 3,85 | 0,80 |
| Q37 | 3,88 | 0,79 |
| Overall | 3,89 | 0,82 |

Program issues

Table 5 presents the mean score of the items consisting in the dimension of program issues. As depicted in Table 5, the mean scores of the response related to the two items of program issues dimension ranged between 3.14 points and 3.37 points. The mean scores indicated that the two items of program issues dimension were regarded as important factors of service quality for developing the student satisfaction. Furthermore, out of the two items, item Q39 was perceived as the most important dimension of the two items of program issues dimension (mean score = 3.37 points). This means that flexible syllabus and structure might be a determinant underlying the high quality of service.

Table 5
 Descriptive analysis of program issues dimension

| Item | Mean value | Std. Dev |
|---------|------------|----------|
| Q38 | 3,14 | 0,82 |
| Q39 | 3,37 | 0,61 |
| Overall | 3,26 | 0,76 |

Understanding

Table 6 presents the mean score of the items consisting in the dimension of understanding. As depicted in Table 6, the mean scores of the response related to the two items of understanding dimension ranged between 3.29 points and 3.38 points. The mean scores indicated that the two items of understanding dimension were regarded as important factors of service quality for developing the student satisfaction. Furthermore, out of the two items, item Q40 was perceived as the most important dimension of the two items of understanding dimension (mean

score = 3.38 points). This means that availability of counseling services might be a determinant underlying the high quality of service.

Table 6
 Descriptive analysis of understanding dimension

| Item | Mean value | Std. Dev |
|---------|------------|----------|
| Q40 | 3,38 | 0,71 |
| Q41 | 3,29 | 0,70 |
| Overall | 3,34 | 0,69 |

Student satisfaction

Until now, there has been no standard definition of student satisfaction that is generally accepted. In this study, student satisfaction refers to student feelings about their academic performance or student evaluations towards higher education institutions after gaining experience with the institution. Referring to Kara et al. (2016), this study measures student satisfaction by using six items. The descriptive analysis of items included in the student satisfaction is presented in Table 7. As seen in Table 7, the mean scores of the response related to the six items of student satisfaction ranged between 3.65 points and 4.10 points. The mean scores indicated that the six items of student satisfaction were regarded as high satisfaction. Furthermore, out of the six items, Y2 is considered as the item having the highest level of satisfaction (mean score = 4.10 points). This means that my choice to enroll in this university is a wise one might be considered as the item having the highest level of satisfaction.

Table 7
 Descriptive analysis of understanding dimension

| Item | Mean value | Std. Dev |
|---------|------------|----------|
| Y1 | 3,78 | 0,77 |
| Y2 | 4,10 | 0,84 |
| Y3 | 3,85 | 0,77 |
| Y4 | 3,83 | 0,68 |
| Y5 | 3,65 | 0,58 |
| Y6 | 3,70 | 0,69 |
| Overall | 3,82 | 0,72 |

4.2 Multiple Regression Analysis

The hypothesis of this study were dealing with the relationship between service of quality and student satisfaction. This study hypothesized that six dimensions of service of quality would provide a significant and positive effect towards the student satisfaction. A multiple regression analysis (MRA) was applied to test the hypothesis. The results of the MRA are summarized in Table 8. The results presented in Table 8 revealed that the four dimensions of service quality, i.e., non-academic ($\beta = 0.271$; $p < 0.05$), academic ($\beta = 0.292$; $p < 0.05$), reputation ($\beta = 0.247$; $p < 0.05$), and access ($\beta = 0.329$; $p < 0.01$), was found positively and significantly associated with student satisfaction. The results imply that when these four dimensions of service quality increase, student satisfaction will also increase. Meanwhile, two dimensions of service quality, i.e., program issues and understanding, was found not significantly related to student satisfaction. This study examined variance inflation factor (VIF) to assess the presence of multicollinearity. It was found that the VIF values is 1.847 and is below the recommended cut-off of 10. The results confirm that multicollinearity is not concerned in the relationship between six dimension of service quality and student satisfaction.

Table 8
 The result of regression analysis

| Dimensions | Regression weight | t value | Sig. value |
|----------------|-------------------|---------|------------|
| Non-academic | 0.271 | 2.603 | 0.027 |
| Academic | 0.292 | 2.761 | 0.011 |
| Reputation | 0.247 | 2.455 | 0.031 |
| Access | 0.329 | 3.704 | 0.006 |
| Program issues | 0.041 | 0.921 | 0.435 |
| Understanding | 0.058 | 0.904 | 0.482 |
| F value | 16.615 | | |
| Sig. value | 0.000 | | |
| R square | 0.706 | | |

The findings of this study are in line with the findings of several previous studies (e.g. Al-Alak and Alnaser,

2000; Tuan, 2000) which found that service quality has a positive effect on student satisfaction. Although the determination coefficient of the effect of service quality on student satisfaction is only 70.6%, Kitchroen (2000) warns that the quality of service perceived by students can be one of the key factors for the long-term success of a higher education institution. FAI-UID needs to be aware that satisfied students, as the main stakeholders of higher education institutions, will be proud of their universities, so they can become agents who recommend higher education institutions to their relatives, neighbors and friends. Thus, FAI-UID needs to pay attention to the quality of its services in an effort to improve student satisfaction for the long-term survival of FAI-UID.

Non Academic Aspect

The result presented in Table 8 indicates that the non-academic dimension of service quality partially has a positive and significant effect on student satisfaction. This shows that service items related to student administrative services have an effect on student satisfaction. The better services provided in this dimension will further increase student satisfaction. Since first entering a university, students will always be in touch with administrative activities. Anderson (2000) stated that the first student relationship with the university was carried out when there were new student admissions and registration services. Thus, administrative services are activities that will never be separated from student activities every day, in addition to teaching and learning activities. Mahmud (2000) states that academic administration services are one of the services that should be received in a prime manner by students. Students have the right to obtain various kinds of administrative services. Students really need a guarantee of convenience when they are in touch with campus administration. Students need speed, accuracy, friendliness of service and responsibility of the academic staff accompanied by clear service procedures. The findings imply that in order to improve student satisfaction, the service items of this dimension must be of concern to the organization for future improvement.

Academic Aspect

The results of the MRA indicate that the academic dimension has a positive and significant influence on student satisfaction. In other words, service items related to lecturer performance have a positive and significant effect on student satisfaction. The better the performance of these service items the higher student satisfaction will be. The national standard on higher education states that one of the rights of students is to obtain the best teaching, to obtain academic services in accordance with their interests, talents, and abilities, and to receive guidance from the lecturers in completion of their studies. Thus, lecturers are required to perform their duties and responsibilities in a prime manner. The findings of this study support the results of previous studies regarding the relationship involving quality of service and student satisfaction. Some experts suggest that service items related to teaching and learning activities are services considered to be the most important item by the students (Marcus and Zaharie, 2000; Jalali and Jaafar, 2000). These service items include the ability of lecturers to deliver the learning material, to communicate with students, friendliness of lecturers, speed of response, and willingness to take time for students to consult. Sometimes students experience difficulties in understanding the learning material. For this reason, students need the support of lecturers to explain the learning material in such a way that enable students to understand it well. Teaching and learning process is the main product of a university, and lecturers have an important role in the process. Accordingly, lecturers have a significant influence in determining the quality of their students.

Reputation

Furthermore, the results confirm that the reputation dimension ($\beta = 0.247$; $p < 0.05$) has a positive and significant influence on student satisfaction. For the purpose of this study, 10 items of services were included in the dimension (Table 8). The finding indicates that the university image: ie., a campus that provide professional services to the students, has a positive and significant effect on student satisfaction. The better service on this dimension will further increase student satisfaction. According to Saleh (2000), one service item related to the university image is the availability of various physical facilities needed by students in teaching and learning activities and other supporting facilities. These physical facilities might represent the university reputation and being able to build a certain image in the student mind. In addition to physical facilities, students also concern with quality assurance that the campus is able to produce high competent graduates which allows them to compete with graduates of other universities. Such a condition would be realized when the university has a number of professional lecturers with good academic abilities and degrees. Students will be proud when their lecturers are reliable people in their fields and their satisfaction will increase when the study program has a good accredited degree.

Access

The results presented in Table 8 show that the access dimension of service quality has a positive and significant influence on student satisfaction ($\beta = 0.329$; $p < 0.01$). The finding indicates that service items related to student accessibility to the university staff and other supporting facilities have a positive effect on student satisfaction. The items include equal treatment and respect, fair amount of freedom, confidentiality of information, easily contacted by telephone, student union, feedback for improvement, and service delivery procedures. The better these service items will further increase student satisfaction. The finding implies the university is required to

provide equal justice, opportunity and care for all students. University management also needs to reward high-achieving students by providing scholarships, in addition to develop systematic and clear service procedures. Mahmud (2000) states students will be more satisfied when they are rewarded for their achievements and given a broad opportunity to be creative. In addition, students have right to acquire the talent and interest development services as well as welfare services. The success of these services will contribute to the development of student satisfaction.

5. Conclusion

The main objective of this study was to examine the effect of service quality on student satisfaction. The findings indicate that the six dimensions of service quality: i.e., non-academic aspect, academic aspect, reputation, access, program issues, and understanding) simultaneously have a positive and significant influence on student satisfaction. In particular, the findings indicate that, individually, the non-academic aspect, academic aspect, reputation, and access dimensions have a positive and significant influence on student satisfaction. Meanwhile, the program issues and understanding dimensions individually have no significant effect on student satisfaction. This study provided a contribution to the literature by examining the relationship involving quality of service and student satisfaction at an Islamic based university located in Jakarta, Indonesia. This study examines the effects of service quality on student satisfaction by utilizing six dimensions in service quality (41 items) and one dimension in student satisfaction (six items). The results contribute towards understanding about the simultaneous and partial effects of non-academic aspect, academic, reputation, access, program issues, and understanding dimensions of service quality on student satisfaction.

The findings of this study confirm that the six dimensions of non-academic aspect, academic aspect, reputation, access, program issues, and understanding simultaneously provide a positive effect on student satisfaction of the Islamic based university. The findings give several practical implications as follows. To begin with, the university management should be aware that high student satisfaction is one of prerequisite conditions for success in the increasing competitive environment. For this reason, the university management have to improve their standard and procedures, including the standard in providing non-academic aspect services. This standard of service includes a sincere interest in solving problems, caring and individualized attention, efficient/prompt dealing with complaints, responding to request for assistance, accurate and retrievable records, promises kept, convenient opening hours, positive attitude, good communication, knowledgeable of systems/procedures, and feeling secured and confidential.

Secondly, this study found that the item related to academic aspect service was positively associated with student satisfaction. Accordingly, the university management should be aware that the university need to be able to provide service items related to the academic aspect. This includes employing lecturers with the following characteristics: knowledgeable in course content, caring and courteous, responding to request for assistance, sincere interest in solving problems, positive attitude, good communication, feedback on progress, and sufficient and convenient consultation. Thirdly, the university management should put a greater emphasize to fostering their ability in providing service items related to the development of university reputation. This dimension of service quality positively impacts on the student satisfaction. This study suggests the university management to develop and utilize the following matters: professional appearance/image, hostel facilities and equipment, academic facilities, internal quality programmes, recreational facilities, minimal class sizes, ideal campus location/layout, reputable academic programmes, educated and experience academicians, easily employable graduates. Lastly, the university management should be aware that high student satisfaction is one of prerequisite conditions for success in the increasing competitive environment. For this reason, the university management have to improve their ability in providing service items associated with access dimension, including the following matters: equal treatment and respect, fair amount of freedom, confidentiality of information, easily contacted by telephone, student union, feedback for improvement, and service delivery procedures.

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