Student Satisfaction Index in Midwifery Study Program of Faculty of Medicine Universitas Brawijaya

Kan thi Titissar i1, Bambang Supriyono2, Ainul Hayat3

1Master of art in Higher Education Faculty of Administrative Science Universitas Brawijaya, Malang, Indonesia
2Midwifery Study Program Faculty of Medicine Universitas Brawijaya

Abstract
Students satisfaction index was the purpose of research and to measure the satisfaction index on the service of Bachelor in Midwifery Study Program, researcher engaged students for respondents. This study was conducted quantitatively employing the survey method. The subjects of this study included 65 active students of the Bachelor in Midwifery Study Program, class of 2016, 2017, 2018. The aspects reviewed to determine student satisfaction on the service of the Bachelor in Midwifery Study Program were based on five satisfaction index dimensions (tangibles, reliability, responsiveness, assurance, empathy). This results indicated, that the student satisfaction index on the service of the department, with regard to the aforementioned 5 dimensions, identified as “quite satisfied”. The service provided to the students was concluded as “good”.

Keywords: satisfaction index, service, students, midwifery

INTRODUCTION
An organizational evaluation is necessary and crucial for an institution. It essentially aims to find out and measure the extent to which tasks and functions can be completed, and the problems and obstacles faced in carrying them out. Organizational performance is affected by the inherent organizational structure, although many other factors are considered. Performance measurement is a systematic goal, and includes the process of gathering, analyzing, and using information to determine the efficiency and effectiveness of government tasks.

The performance measurement system is a measure of what is considered important by an organization and how well it performs, as a good performance measurement system can drive an organization to a positive direction. The higher education system has four main stages including input, process, output; and outcome.

The input stage includes lecturers, students, administrative staff, facilities and infrastructure, funding, curriculum, and environment. The process stage includes the learning process, research, and management, while the output stage includes graduates, research results and scientific work. In addition to producing quality graduates (output), it is also expected that graduates be recognized and accepted by the community, and improve the quality of community life and the surrounding environment (outcome). In higher education institutions, there are study programs structured as organizations under a faculty. One measurement of performance as a form of organizational evaluation is customer (student) satisfaction.

Brawijaya University has the Quality Assurance Center, supervising a Quality Assurance Group at the Faculty level and a Quality Assurance Unit at the Study Program level.

As the Bachelor in Midwifery Study Program is under the Study Program of Midwifery, the quality assurance process is carried out by the Monitoring and Evaluation Team. One element of quality assurance is student satisfaction, as defined by the quality assurance unit as the Community Satisfaction Index (CSI). Based on a survey conducted by the Quality Assurance Group Faculty of Medicine in 2015 with standard 12 questions, the community satisfaction index...
of the Bachelor in Midwifery Study Program was 65.95, with the ability of educators and education staff to provide services indicating the highest value. However, in its journey, the Bachelor in Midwifery Study Program has never calculated and surveyed the community satisfaction index, meaning that the data obtained only originated from the quality assurance group at the faculty level [1]. It would be better if the satisfaction survey was conducted regularly. The Bachelor in Midwifery Study Program has an evaluation monitoring team responsible for monitoring the running of services and evaluating it regularly. However, the evaluation monitoring team performance has not been optimal due to many factors, including the busyness of the lecturers and administration staff, causing the monitoring program to only be carried out at the time of the Internal Quality Audit (AIM) every year. This impacts the organizational evaluation as it results in no recommendations presented to the people in leadership, whereas service is an important element in the continuity of Study Program's activities, and has always been an important point in Internal Quality Audit and Accreditation.

The service must be improved following the increasing number of students. The act of giving by the apparatus of service to the community as a service user is part of a public service. Acceptance by the community becomes its own assessment of what is provided by the service apparatus. Each service provided is part of their duties and responsibilities, as it is a must for them to provide good service. Good or bad evaluation of public services depends on the extent to which the services are provided. The performance of the apparatus is the most important part in improving the quality of service. Good performance is supported by the competence of the apparatus to provide a professional service. The professionalism and excellence of services will certainly have an impact on the output produced, including the satisfaction of the community [2].

Students are the customers in the higher education system. Measure the level satisfaction, has developed an instrument called Service Quality (servqual) which is proven to measure the level of customer satisfaction for the service they had received, divided into the following 5 dimensions:

(a) Tangibles including: a place of service, facilities and infrastructure that can be seen in reality by the customers.

(b) Reliability: The ability to give customer standard promised services in time and satisfying.

(c) Responsiveness: the ability from employees to provide the service for customers responsively.

(d) Assurance: is the knowledge and kindness of employees that raise customer trust for the company.

(e) Empathy: is the availability of company employees to care, give personal attention to customers, and provide comfort in creating good relationships and understanding customer needs.

The main service provided by higher education institutions to students includes academic activities, especially with regard to education and teaching. All institutional performance by the leaders, staff, and lecturers is aimed at functioning infrastructure in order to create a good education service system for the students. The education service design is systematically written in the study programs' curriculum document. The most basic subject managed by higher education institutions is their curriculum. The success of a university management is all about managing the curriculum. Educational services offered by each higher education institution do not only include the classroom lectures. They are indeed the main activity in a higher education institution, but other academic activities enabling students to succeed in their education journey are also important. They include the availability of reference books in the libraries, laboratory activities, scientific discussions, learning clubs, internet facilities to access scientific resources, etc. [3]. Evaluating the quality of education services requires a comprehensive approach since educational services have quite complex characteristics compared to others. It currently requires a very large capital and great human resources with excellent dedication, capability, and specific skills [4].

Recommend the following four alternative strategies to reduce the negative impact of service quality variability [5].

1. Investment in human resource management

The best decision is to invest in the recruitment, selection, motivating, training and development of employees, especially the public contact personnel. The ultimate goal is to build and develop a service-oriented team of employees who are able to satisfy the needs and
wants of customers for they are the key to successful customer satisfaction.

2. Industrialization of services
   This can be done through the use of technology (for example, offering services or alternative services through ATM machines, vending machines, internet, call centers, SMS, and so on)

3. Service Customization
   Institutions may increase interaction between the organization and customers in such a way that the services provided can be more tailored to the individual needs and desires of each customer.

4. Monitoring customer satisfaction
   Feedback from customers is a valuable input, both as an indicator of work and as a source of inspiration for the development of new products or new programs. Customer satisfaction monitoring can be done passively (through the suggestion and complaint box, toll-free channels or public websites) or actively (customer satisfaction surveys, research, etc.). In this way, any unsatisfactory service aspects can be detected and corrected as early as possible.

Based on the background, the author was interested in researching about the Student Satisfaction Index on the Service of Bachelor in Midwifery Study Program of Faculty of Medicine, Universitas Brawijaya.

MATERIAL AND METHOD

This quantitative research was conducted through a survey. The use of the survey method was intended to simplify data collection for the researcher before processing them. Then, the data were processed in order to solve the research problem related to the student. In selecting the student respondents, the researcher used a purposive sampling technique by considering certain characteristics. The respondent characteristics for this research included students who had received midwifery care courses, midwifery care skills, and had a GPA of >3.0. Processing data used the descriptive analysis on SPSS 24.0.

Data Collection

The research was carried out for one month from October - November 2019. Respondent evaluation through questionnaires included 5 dimensions of customer satisfaction with the question and indicator for every dimensions (Table 2). The population of this study included 190 active students from the class of 2016, 2017 and 2018 of the Bachelor in Midwifery Study Program.

Determination of the number of samples was done by using the Slovin formulation

\[
\text{n} = \frac{\text{N}}{1 + \text{N}(\text{e})^2}
\]

Where:
\(n\) = Samples
\(N\) = Population
\(E\) = Tolerable error(\(e = 0.1\))

Based on the calculation of the formula above, there were only 65 students eligible to be included in the research sample. Data collection used a questionnaire, conducted in October 2019, and assessment of students used a linkert scale, including:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After data collection and scoring, the assessment results of each variable were categorized based on the following customer satisfaction zone [6]:
- 1.00-1.80 = critical zone
- 1.80-2.60 = low satisfaction zone
- 2.60-3.40 = fair satisfaction zone
- 3.40-4.20 = good satisfaction zone
- 4.20-5.00 = excellent satisfaction zone

The satisfaction index based on the satisfaction zone indicated the quality service of the Study Program's given to students, it suggested by calculation of the sum value in the descriptive analysis used to describe the performance value of each perspective formulated [1], as illustrated in the following scale:

<table>
<thead>
<tr>
<th>Very Poor</th>
<th>Poor</th>
<th>Quite Good</th>
<th>Good</th>
<th>Very Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

RESULTS AND DISCUSSION

The description of the level satisfaction students is inseparable from the characteristics
of respondents. The characteristics of the respondents of this study include the number of students per class depicted in the following figure:

![Figure 1. Number of Respondents by Class](image)

The figure above showed that the number of students of class 2016 was 16 or 24.6%, of class 2017 was 23 or 34.6%, and of class 2018 was 26 or 40%. This suggests that the sample is representative, hence the generalization. Additionally, the student participation in responding to the questionnaire was very good, considering 100% return rate of the questionnaire.

<table>
<thead>
<tr>
<th>Class</th>
<th>Population</th>
<th>Sample (%)</th>
<th>Returned Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>45</td>
<td>24.6</td>
<td>16</td>
</tr>
<tr>
<td>2017</td>
<td>68</td>
<td>34.6</td>
<td>23</td>
</tr>
<tr>
<td>2018</td>
<td>77</td>
<td>40</td>
<td>26</td>
</tr>
</tbody>
</table>

The students of Bachelor in Midwifery Study Program, according to the 2014 curriculum, must take 8 semesters. They start the midwifery care courses and midwifery care skills in the second semester until the seventh semester. The names of midwifery care are:

1. Adolescent and Premarital
2. Preconception
3. Antenatal Care
4. Early Detection in Abnormal Pregnancy
5. Normal Labour
6. Early Detection in Abnormal Labour
7. Postnatal and Breastfeed
8. Neonatus
9. Infant and Child
10. Menopause and Woman Reproductive Disorder

At the time of data collection, class 2016 was taking semester 7, class 2017 was taking semester 5, and class 2018 was taking semester 3. Therefore, the 2016, 2017, 2018 classes were in accordance with the required characteristics of the respondents. Students who have taken midwifery care courses and skills are expected to be able to provide an assessment as they have experienced the Midwifery care courses and practical facilities for practices, and skill station tools.

### Analysis of Service Performance Quality and Customer Satisfaction

Descriptive analysis was used to measure the satisfaction and performance service index received by students. In this assessment, the elements assessed included lecturers, administrative staff, learning processes, and services in the study program.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Service Aspect</th>
</tr>
</thead>
</table>
| **Tangibles** | 1. Lecture system  
2. Lecture method  
3. Lecturers’ reference books  
4. Libraries  
5. Lecture room facilities  
6. Supporting facilities (Wi-Fi, AC, LCD, etc.) |
| **Reliability** | 1. Timeliness of service  
2. Services as promised  
3. Service courtesy  
4. Services according to duty |
| **Responsiveness** | 1. The effectiveness and efficiency of teaching  
2. Service information  
3. Development of student soft skills and quality students |
| **Assurance** | 1. Suitability of employee competency with the task  
2. Quality assurance and accreditation  
3. Cooperation of study programs  
4. Customer satisfaction survey |
| **Empathy** | 1. Curriculum and learning outcomes according to students’ needs  
2. Communication with customers  
3. Good and polite service  
4. Hearing student  
5. Increased students’ English skills  
6. Information about job vacancies |

The table above describes the service assessment elements based on the 2018 Bachelor in Midwifery Study Program Strategic Plan and the 2018 Bachelor in Midwifery Study Program Self-Evaluation.
Overall student satisfaction index analysis is presented in the Figure above. Total satisfaction index was derived from the five dimensions of service quality, including tangibles, reliability, responsiveness, assurance, and empathy. These five dimensions configured customer satisfaction, or students, in this case. As seen in Figure 4, the student satisfaction index was 3.03 and this number was in the fair satisfaction zone. This suggests that the customers are quite satisfied with the service of the Bachelor in Midwifery Study Program. This condition implies that the services that have been carried out are as expected by the respondents.

Out of the three classes, the highest satisfaction index was indicated by class 2016, and the lowest satisfaction index was indicated by class 2018. However, the three classes were still in the fair satisfaction zone. Class 2016 as the oldest generation and has taken 6 semesters of experience of services showed the highest value compared to the other batches. The class has received 10 midwifery care courses and 10 midwifery care skills. Students of class 2016 have experienced almost all the services in detail at the Undergraduate Midwifery Study Program. Meanwhile, students of class 2018, who have taken 2 semesters, have only experienced 1 midwifery care course and 1 midwifery care skill, hence low exposure to the equipment. When students feel the discrepancy, they would judge directly without a second thought. Therefore, based on the total satisfaction index, it is necessary to study the contribution of each dimension. The total satisfaction index is formed from the five dimensions of service quality. The following is a more detailed analysis of the student satisfaction index by dimensions.

Overall, the satisfaction index by various dimensions in the Bachelor in Midwifery Study Program indicated that they all had an index of 3.00, suggesting that the satisfaction index in each dimension they are tangibles, reliability, responsiveness, assurance, and empathy, was in fair satisfaction zone. These results revealed that the assurance dimension occupies the highest satisfaction index of 3.21, suggesting that guarantees were very necessary. Students feel satisfied about the guarantees provided by the study program, for example in the form of quality assurance and accreditation, which can help students in finding suitable job because accreditation is now a requirement for employee recruitment. A customer satisfaction survey is expected to be a benchmark of service. Meanwhile, the lowest index was shown by the dimension tangibles, which was 3.00, suggesting that physical evidence of service was really needed and felt directly by students. Lecture infrastructure, supporting facilities such as Wi-Fi, air conditioning, LCD screen, bathrooms, become the physical evidence of service required, in addition to a library that helps students get references for lectures, while teaching methods and teaching systems can demonstrate the effectiveness and efficiency of teaching. Students are satisfied but the study program still needs improvement.

Therefore, a more detailed identification of services in each dimension was needed for each class of student respondents, to clearly identify the points to be improved, even though the service was as expected.

Student Satisfaction Index by Class

The figure 4 above showed that dimension assurance was the one with the highest value, of 3.17, while the tangibles and empathy were the dimensions with the lowest value (2.95 and 2.92, respectively). This suggests that class 2016 felt the guarantee service provided by the study program was good. The highest value was shown by the dimension assurance, with the survey result indicating 68%
of students had a good experience of it. Meanwhile, according to respondents, the tangibles showed a low value, as there are several things that need to be improved, including lecture methods, English language references and technology used by lecturers, study program’s libraries, lecture facilities (lecture rooms, laboratory, skills, bathrooms) and supporting facilities (Wi-Fi, air conditioning, LCD, classroom supporting devices).

For the dimension empathy, what needs to be improved is the time spent by the lecturer to motivate students and understand the needs of students, as well as practical information during lectures that can be used for the students’ future occupation.

Figure 5. Student Satisfaction Index of Class 2017

The figure 5 above showed the dimension responsiveness was the one with the highest value, of 3.19, while empathy was the dimension with the lowest value, of 2.89. In the dimension of responsiveness, the highest value was indicated by the point that the study program has trained the students to think in a systematic, scientific and rational framework. While in the dimension empathy, the student hearing needs to be improved as a means of students to express opinions, as well as to improve students’ English skills. Good administrative staff services in helping students’ needs has been established.

Figure 6. Student Satisfaction Index of Class 2018

The figure 6 above showed that for class 2018, the dimension assurance was the one with the highest value, of 3.33, while the reliability had the lowest value of 2.95. In the dimension assurance, the highest score was produced by the point stating that the lecturers’ the ability is in accordance with his competency. While on the dimension reliability, what needs to be improved is the timeliness of lecturers in starting and ending lectures, and in conducting lectures according to the syllabus plans. Administrative staff is polite, and work according to their designated task.

The three classes of students, including 2016, 2017 and 2018, considered that services focus on the service providers, including lecturers and administrative staff, who are important as actors in direct contact with students. Students suggest that lecturers’ and administrative staff’s main tasks and functions must be compatible. The dimension empathy showed the lowest value in 2 classes, 2016 and 2017, while the dimension reliability, which also focuses on improving services by lecturers and administrative staff, showed the lowest value in class 2018.

Study Program’s Services for Customer Satisfaction

Student perceptions of service quality were based on 33 questions and 4 alternative answers, where 4 for the highest score and 1 for the lowest score. The perspectives of the customers (Students) were based on the questionnaire consisting of 14 statements using 5 alternative answers, where 5 for the highest score and 1 for the lowest score. The result of SPSS 24.0 data analysis is presented in the following Table.

Table 3. Customer Satisfaction with Service Provided

<table>
<thead>
<tr>
<th>Source</th>
<th>SPSS 24.0 Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>65</td>
</tr>
<tr>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>113.0794</td>
</tr>
<tr>
<td>Median</td>
<td>113.1900</td>
</tr>
<tr>
<td>Mode</td>
<td>104.43</td>
</tr>
<tr>
<td>Variance</td>
<td>94.592</td>
</tr>
<tr>
<td>Range</td>
<td>51.50</td>
</tr>
<tr>
<td>Minimum</td>
<td>93.07</td>
</tr>
<tr>
<td>Maximum</td>
<td>144.57</td>
</tr>
<tr>
<td>Sum</td>
<td>7350.16</td>
</tr>
</tbody>
</table>

a. Multiple modes exist. The smallest value is shown

Source: SPSS 24.0 Data Analysis

According to Table 2, students as customers showed the highest value of 144.57 and the lowest value of 93.07, with a mean value of 133.07, median value of 133.19, a mode value of 104.43, and a range value of 51.50. Next, to find out the customer interpretation, the highest value was stated by = 4 x 33 x 65 = 8580 (should all answer “Agree”) while the lowest value was stated by = 1 x 33 x 65 = 2145 (should all answer “Strongly Disagree”) and the sum obtained was 7350. Therefore, based on the data, the level of respondent’s statement of service was stated by
Student Satisfaction Index on the Service (Titissari, et al.)

\[ \text{Index} = \left( \frac{7370}{8580} \right) \times 100\% = 85.89\% \text{ from the expected (100%).} \]

Continuously, it can be configured as follows:

**Figure 6.** Service Category of Bachelor in Midwifery Study Program

Based on the above Figure, the data value of sum was 7370, and it was included in the good category. It could be concluded that the service was in the good category, too. The percentage of the index of customer satisfaction was 85.89, which translated into the good category.

Based on the results, it could be concluded that students assessed the study program based on what was felt by them. If referring the results of the study, proved that the quality of service based of 5 dimensions of quality service simultaneously has a significant on student satisfaction index. Students can measure the quality of employees and performance of the program. Kusumawati, 2018 said that higher education institutions need to identify what their student needs and wants. Students are higher education customers, so understanding students needs is important in creating and providing higher education services, to make them believe that the performance program in education quality, academic environment, skills, and students participation, etc.

**CONCLUSION**

Based on the discussion, the following conclusions were decided:

1. Satisfaction felt by the students of Bachelor in Midwifery Study Program was affected by the quality of the services provided.
2. Students concluded that the services tended to focus on the service providers directly, including lecturers and administrative staff, followed by the facilities and infrastructure.
3. The average value of student assessment was high for the dimension assurance and was low for the dimension tangibles.
4. Student satisfaction index at the Bachelor in Midwifery Study Program was categorized as quite satisfied.
5. Services at the Bachelor in Midwifery Study Program were included in the good category.
6. The researcher assessed the customer satisfaction index in its role in assessing service in the study program.
7. Future researcher are expected to be able to include more detailed service attributes to direct the performance evaluation process to meet customer expectations.

**ACKNOWLEDGEMENT**

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