

# **PROBLEM IDENTIFICATION OF HUMAN RESOURCE DEVELOPMENT BY SERVQUAL METHOD**

## **Case Study of Geophysical Engineering Department, Institut Teknologi Sepuluh Nopember, ITS**

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### **Abstract**

*As a higher education institute, Institut Teknologi Sepuluh Nopember, ITS, is heading to World Class University. To support its mission, ITS needs educational staff which is skilled and qualified in certain measurable standard of management. This study aims to identify the critical human resources problem so it will become a focus point in the development of human resources quality, especially for educational staff in the Geophysical Engineering Department. The problem of human resources capacity for the educational staff was identified by the ServQual method. The resulting output from ServQual is Willingness To Help Students for Resolving Problems And Difficulties in Academic Administration which has gap value in number of 0,22. Attributes are then processed with a Fishbone Diagram Analysis to find out the problems that led to poor ratings. The root problems identified is the lack of understanding of excellent service quality. Analysis indicates that the student has not been regarded as customer by educational staff. The identification design of human resource issues can be duplicated or adopted in a variety of majors. Development of human resources needs to be applied in the form of training as a follow-up to this identification.*

*Keywords: Educational Staff, Empathy, Fishbone Diagram, Human Resource, ServQual,*

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### **BACKGROUND**

**D**ue to the competition which is increasingly competitive, universities are required to pay attention to the quality of education services they held. As the definition of qualified higher education which is defined as a higher education institution that is well managed and able to produce higher educational services that suit the needs of the customer (Tampubolon, 2001). Services itself is an integrated package that consists of explicit and implicit services provided in or with the supporting facilities and uses supporting facilities (Fitzsimmon, 1994). So that educational services has a meaning as the process of education provided to students with facilities that support the learning process.

In educational services, ITS is preparing itself in order to pursue the world rankings, World Class University. As expressed in one of the ITS's mission, "Organizing higher education to the curriculum, faculty, and learning methods of international quality", then the whole unit ITS services have been instructed to be able to support the internationalization process of the ITS. One of the unit, Geophysical Engineering Department, has made every effort to carry out those instructions. It has been listed as a mission of Geophysical Engineering, "Organizing higher

education with a laboratory-based curriculum, faculty, and learning methods of international quality".

On the other hand, administrative services considered essential to evaluate because according to Renee (2008), administrative services hold an important role in supporting the academic development of students. The evaluation of the performance is directed to connecting between the vision and mission of the college to the education of personnel. This is consistent with Flippo, in Handoko (1998) which stated that resource development is the planning, organizing, directing, development, compensation administration, integration, maintenance, and disposal of human resources in order to achieve the goals of the organization and community. So that the evaluation should be carried along with the process of improvement and development. Pe Expected with this development of knowledge, skills, and commitment to workforce education to support the vision and mission of higher education can be improved.

The main goal of each educational service providers is customer satisfaction, in this case customer means student. As presented by Oldfield and Baron (2000) that the world of higher education can be purely seen as a service industry, therefore the student satisfaction is considered very important. According to Elliot and Shin (2002) consumer satisfaction or subjective evaluation of students defined as students of various outcomes and experiences related to education

## DATA AND DISCUSSIONS

The total number of students in Department of Geophysical Engineering ITS is recorded by BAAK ITS which are 254 people, spread across five generations. Determination of the number of samples for this study, conducted by one of the methods of probability sampling, ie stratified random method. This method determines the number of samples in a proportional way, which splits respondents into several groups according to the existing groups (Singarimbun, 1989). Selection of the method is based on the reason that the object is the ITS students come from a variety of forces and the number of students from each force can be seen, which are :

Table 1. Distribution of Environmental Engineering Department Budget

Item	2012	2013	2014	2015	2016	Total
Real Amount	24	51	62	57	60	254
Proportional Sample	10	20	24	22	24	100

Questionnaires have been distributed to 100 respondents which contain dimensions of the Tangible services, Responsiveness, Reliability, Assurance, Empathy (Parasuraman, 1990). The following ServQual attributes which are drafted in five dimensions namely:

Table 2. Dimensions and The Attributes

No	Dimension	Attributes
1.	Tangible	a. Availability of manual service procedures (T1) b. Neatness of staff (T2) c. Cleanliness of area (T3) d. Availability of equipment services (T4)
2.	Responsiveness	a. Speed of service (RES1) b. Alertness of the staff to arrival of students (RES2) c. Willingness to give an explanation of the service procedure (RES3)
3.	Reliability	a. Accuracy of services according to the needs of students (R1)

		b. Accuracy of the service schedule (R2) c. Time accuracy of the document handling (R3)
4.	Assurance	a. Ability in understanding the information and service procedures (A1) b. Guarantee in accuracy of student data input (A2)
5.	Empathy	a. Willingness to show how procedure should be done when the student has misunderstanding (E1) b. Willingness To Help Students for Resolving Problems And Difficulties in Academic Administration (E2)

ServQual questionnaire assess the level of expectations of students and also the level of student satisfaction towards service administration of Geophysical Engineering Department. From these two values can be identified a big difference which is commonly called the Gap 5 ServQual. The difference would have to be an attribute focus for improvement.

Table 3. Distribution of Geophysical Engineering Department Budget

Attribute	Average of Expectation	Average of Perception	Difference
T1	4.33	3.67	-0.67
T2	4.44	4.11	-0.33
T3	4.56	4.56	0.00
T4	4.28	4.00	-0.28
RES1	4.67	4.33	-0.33
RES2	4.44	4.17	-0.28
RES3	4.56	3.83	-0.72
R1	4.61	4.28	-0.33
R2	4.67	4.17	-0.50
R3	4.56	4.19	-0.37
A1	4.33	3.90	-0.43
A2	4.50	4.17	-0.33
E1	4.56	4.28	-0.28
E2	4.5	4.28	<b>-0.22</b>

From ServQual questionnaires that have been distributed, the calculation of Gap 5 ServQual value obtained from the difference between satisfaction average and expectation average. The calculations shows that attribute of Willingness To Help Students for Resolving Problems And Difficulties in Academic Administration has the largest gap value which means that during this time, the administrative staff has less concern in helping students who have difficulties in their administration.

The difference indicates the highest student dissatisfaction, so it is necessary to identify the root cause. Fishbone Diagram can become an identification tool. This diagram discovered by Prof. Ishikawa in 1943 (Tague and Nancy,2004) used to help analyzing and identifying the factors that significantly determine the characteristics of work output quality and looking for the real cause of a problem.

The human resource problem detected, which is in attribute of Willingness To Help Students for Resolving Problems And Difficulties in Academic Administration, then identified through Fishbone Diagram.

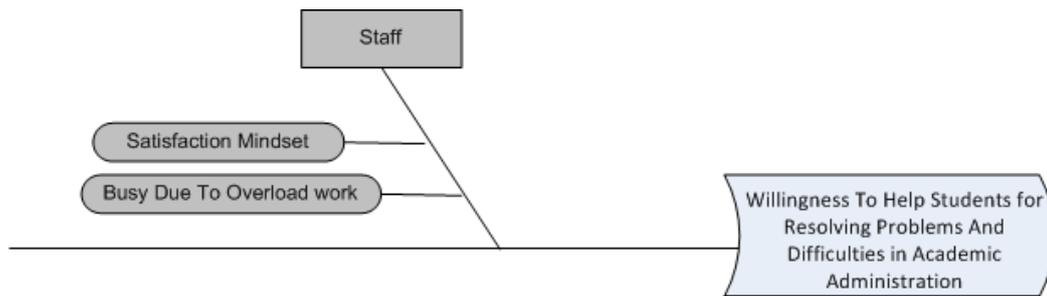


Figure 1. Fishbone Diagram Analysis

The root of the problems identified by Fishbone Diagram are a lack of understanding of excellent service quality, and also the overload work of staff. First problem analysis indicates that the student has not been regarded as consumers of educational personnel services. So the quality service training is needed for the staff, so that they have more understanding in serving customer in an excellent way. The second problem can be analyzed that the staff are busy in conducting their job, due to overload work. So the overload work needs to be solved by recruit more administrative staff.

## CONCLUSIONS AND RECCOMENDATIONS

The problem of human resources identified Willingness To Help Students for Resolving Problems And Difficulties in Academic Administration, which has gap value of 0.22. The root of the problem identified by Fishbone Diagram are a lack of understanding of excellent service quality and the overload work of staff. Analysis indicates that the staff has not been regarded students as consumers, and also the amount of staff should be increased so that the overload work can be decreased.

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