

Cadets Satisfaction Index against Academic Services at Aviation Polytechnic of Makassar

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Abstract: Assessment of the customer satisfaction index is an important factor as a measure of the quality of a college. This study aims to determine the satisfaction index of cadets with academic services in the air traffic study program for the 2019/2020 academic year. The method used is descriptive quantitative. The results of this study indicate that the highest scores are in the academic officers who look neat when serving cadets and are always on site, easy access to the service desk, counter instructions with appropriate implementation, academic officers always help provide clear information. Meanwhile, the lowest score was not available for computer facilities and infrastructure. Cadets are generally very satisfied, based on aspects; tangibles 92.2%, responsiveness 91.3%, reliability 91.8%, empathy 93.6%, and assurance 90.9%. The average satisfaction measured per aspect is 92%.

Keywords: Satisfaction, Cadets, Education Quality, Aviation Polytechnic

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I. INTRODUCTION

Makassar Aviation Polytechnic is one of the Technical Implementation Units (TIU) under the auspices of the Human Resources Development Agency, Ministry of Transportation. Higher education is considered to have become a forum for producing quality human resources. Changes in people's mindsets on the importance of education have an impact on increasing public interest in attending higher education. It is judged from the tight competition for service quality, price, and higher education promotion. In addition, the demands of the community's need for quality oriented service customer value in the end pressures universities to responsiveness (Alfiani, A., 2016)[1].

Facing this condition, the main thing that must be prioritized by universities is the satisfaction of cadets. The satisfaction of cadets is determined by the quality desired by cadets, so quality assurance is a top priority for each university, which is currently used as a measure of the superiority of higher education competitiveness (Siti Maisaroh, 2005)[2]. The new paradigm of higher education management refers to five pillars: quality, autonomy, accountability, accreditation, and evaluation (Dirjen Dikti, 1990)[3].

Management of higher education quality improvement is defined as public professional services that are carried out and directed to the maximum extent possible to provide services that match or exceed standards. This means that universities must have service criteria and standards or measure services to customers in order to improve the quality of their education. The management system of higher education quality control is divided into two, namely internal and external (Alfiani, A., (2016)[1].

In the internal scope, it includes supervision of the implementation of higher education by universities in order to realize the vision and mission and to meet the needs of stakeholders through the implementation of the *Tridharma* of Higher Education. The external scope is currently commonly carried out through the quality standard assessment by 'BAN PT' (National Accreditation Board for Higher Education) and International Organization for Standardization (ISO). The increasing public awareness of the value of higher education resulted in increased demands from the community for the quality of higher education. According to the National Accreditation Board for Higher Education, the demands given by the community to universities include quality assurance, quality control, and quality improvement (Bhakti, B.Y. and Rahmawati, E.Y., 2017) [4]. The ISO Quality Management System generally uses eight main clauses/principles, namely: customer focus, leadership, participation of everyone in the organization, process approach, systems approach, continuous improvement, fact-based decision making, and good relations with suppliers. .

Integrated quality management based on customer satisfaction as the main goal. Organizations that take the achievement of quality seriously understand that some quality secrets are rooted in listening to and responding sympathetically to customer needs (Edward Sallis, 2006: 31)[5]. Higher education must be able to plan, implement and control a process that ensures the achievement of quality as described above. The essence

of TQM is a systematic and coordinated effort to continuously improve the quality of company services and products (Elfrianto, 2011)[6].

The Makassar Aviation Polytechnic is promoting a quality assurance system both internal and external in order to spur itself to be able to compete with other universities. Student satisfaction can be seen from various aspects but in this study it is limited to academic services, campus conditions, academic advisory services, and teaching activities (Sukanti, 2009)[7]. However, it is constrained because there is no analysis of the customer satisfaction index, in this case, the Makassar Aviation polytechnic cadets are one of the requirements for Higher Education accreditation and Study Program accreditation including the Air Traffic Study Program.

According to Fandy Tjiptono (2014: 17)[8], the term service in Indonesian has at least three words, namely service, service and service. Cadets are one of the customers served by Makassar Aviation Polytechnic. Therefore the study of the level of cadets' satisfaction with the Academic service of the first Level Air Traffic Study Program for the 2019/2020 academic year is based on how many aspects include tangibility, responsiveness, Reliability, empathy and Assurance is considered important and needs to be researched and used as the purpose of this study.

II. THE MOTHODS

The research method used in this research is the descriptive quantitative survey method. The quantitative method is used when the problem is a deviation between what it should be and what happens, between the rules and the implementation (Sugiyono, 2012)[9]. Survey method, information is collected from respondents using a questionnaire as a research instrument, namely a structured list of questions. In the designed questionnaire, there is research variables needed to achieve the research objectives. The populations in the study were all cadets of the Makassar Aviation Polytechnic Air Traffic study program 2019/2020.

III. RESULT AND DISCUSSION

Data obtained through the results of questionnaires targeted at 23 people and respondents who filled in the Google Form were 100%, namely 23 cadets in the air traffic study program. The distribution of respondent characteristics can be seen in Figures 1 and 2.

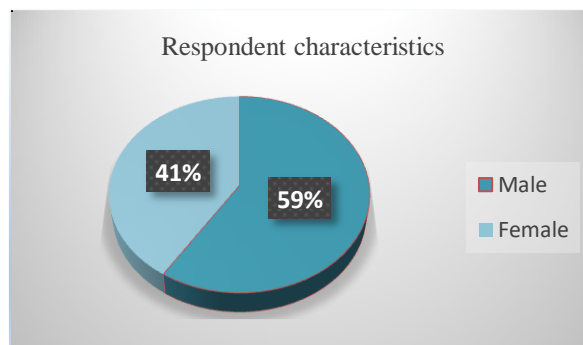


Figure 1. Characteristics of Respondents by Gender

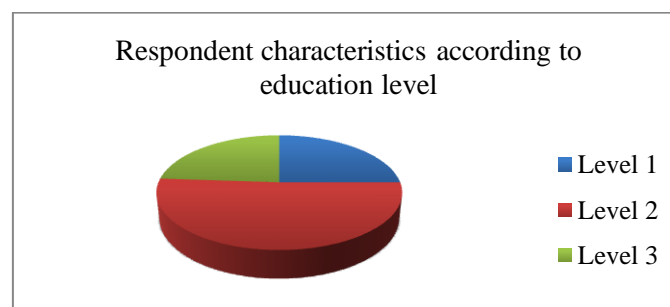


Figure 2. Distribution of Respondent Characteristics by Education Level

The data in this study were obtained through *Likert* scale statements so that the data obtained were in the form of numbers. Data were analyzed using descriptive analysis techniques by calculating the total score and calculating the mean (Mi) and standard deviation (SDi), as a reference for class determination. The next step is to compare the score per item with the total score. The results of the comparison of scores per item and category are then converted into percentages.

The results of the scores and percentages are then interpreted with the following calculation references:

Trend Test

- a. Calculates the ideal mean and ideal standard deviation

$$Mi = 1/2 (ST + SR)$$

$$SDi = 1/6 (ST - SR)$$

Information:

Mi = ideal mean

SDi = ideal standard deviation

ST = highest score

SR = lowest score

- a. Determining the raw score scale with the categorization of satisfaction based on the ideal mean and ideal standard deviation with the formula according to Suprian (Yogi, 2003)[10] can be seen in Table 1.

Table 1. Categorization of Youth Satisfaction

No.	Category	Score Scale
1	Very satisfied	$> Mi + (1,5 \times SDi)$
2	Satisfied	Mi up to $Mi + (1,5 \times SDi)$
3	Not Satisfied	Mi - $(1,5 \times SDi)$ up to Mi
4	Very Dissatisfied	$< Mi - (1,5 \times SDi)$

Based on data on the number of respondents 100%, 23 cadets have filled out the questionnaire and the researchers processed the data listed in Table 2.

Table 2 Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation
Total Value	92	67	96	81.5	4.83
Valid N	92				

Source: Analysis results, 2020

Cadets' satisfaction with academic services is measured by 24 statements with a score of 1-4. The results showed the highest score was 96 from the highest score that could be achieved at 96, and the lowest score was 67 from the lowest score that could be achieved at 24. The mean was 81.5 and the standard deviation was 4.83. Based on the results of these calculations, cadets' satisfaction is distributed by categories as in Table 3.

Table 3. Categories of Youth Satisfaction toward Administrative Services Air Traffic Study Program Level 1

No.	Score Scale	Conversion Table	Category
1.	$> Mi + (1,5 \times SDi)$	$X > 88$	Very satisfied
2.	Mi up to $Mi + (1,5 \times SDi)$	$81 > X < 87$	Satisfied
3.	Mi - $(1,5 \times SDi)$ up to Mi	$74 > X < 80$	Not Satisfied
4.	$< Mi - (1,5 \times SDi)$	$X < 73$	Very Dissatisfied

Source: Analysis results, 2020

Percentage Calculation

The percentage is used to find an overview of cadets' satisfaction with academic administration services for the Air Traffic Study Program for the 2019-2020 Academic Year. The percentage is obtained by paying attention to the distribution of scores on the frequency distribution that occurs and the scale of satisfaction as measured by the amount of the measured percentage. According to (Sudjana, 2005)[9] to be able to interpret the data obtained, it is necessary to score research data with the formula:

$$P = \frac{f}{n} \times 100\%$$

Information:

P = Percentage
 n = number of ideal scores
 f = total score,

The measuring tool for measuring the variables in the attitude research instrument uses the interval scale type to calculate the questionnaire results. The *Likert* scale is used as a measuring tool for the attitude scale with four answer categories as follows:

- Very Agree (VA) = Number of items is worth 4 x VA score (4)
- Agree (A) = Number of items worth 3 x score A (3)
- Disagree (Da) = The number of items is worth 2 x Da score (2)
- Very Disagree (VDa) = The number of items is 1 x the VDa score (1)

Results of Data Analysis of Level 1 Academic Administration Service Satisfaction Scale (see in Table 4).

Table 4. Cadets Satisfaction Categories of Administrative Services

No.	Score Scale	Conversion Table	Category	F	%
1.	$> Mi + (1,5 \times SDi)$	$X > 88$	Very satisfied	15	68%
2.	Mi up to $Mi + (1,5 \times SDi)$	$81 > X < 87$	Satisfied	1	5%
3.	$Mi - (1,5 \times SDi)$ up to Mi	$74 > X < 80$	Not Satisfied	2	9%
4.	$< Mi - (1,5 \times SDi)$	$X < 73$	Very Dissatisfied	4	18%
Total				22	100%

Source: Analysis results, 2020

Conversion of scale values based on the mean and standard deviation showed that 15 cadets were very satisfied, 12 cadets were satisfied, 2 cadets were dissatisfied, and 4 cadets were very dissatisfied. This is more clearly depicted in Figure 5.



Figure 3. Cadets Satisfaction against Academic Administration Services

The average value of the results of the cadets' satisfaction score with the Academic Administration Service of the Level 1 Air Traffic Study Program is shown in Table 5.

Table 5. Cadets Satisfaction against Administrative Services

No.	Score Scale	Value	Number of grains	Score	%
1.	Very satisfied	4	361	1444	74,4
2.	Satisfied	3	163	489	25,2
3.	Not Satisfied	2	4	8	0,4
4.	Very Dissatisfied	1	0	0	0
Total				1941	100%

Source: Analysis results, 2020

Based on Table 6, it is known that the results of cadets' satisfaction are 74.4% Very Satisfied and 25.2% Satisfied. Details of satisfaction when viewed per aspect are presented in Table 6.

Table 6. Cadets' satisfaction with administrative services per aspect

No.	Aspect	Score / total results / questionnaire	Highest score	(%) Per aspect	Category
1	Tangibles	568	83	92%	Very satisfied
2	Responsiveness	482	82	91%	Very satisfied
3	Reliability	404	82	92%	Very satisfied
4	Empathy	247	83	94%	Very satisfied
5	Assurance	240	83	91%	Very satisfied
Average				92%	Very satisfied

Source: Analysis results, 2020

Table 7 shows that the tangibles aspect reaches 92%, the responsiveness aspect is 91%, the reliability aspect is 92%, the empathy aspect is 94%, and the assurance aspect is 91%. The average satisfaction result measured per aspect is 92% or very satisfied. More clearly per item is presented in Table 7.

Table 7. Cadets' satisfaction with administrative services for the Level 1 Air Traffic Study Program per aspect

No.	Indicator	Response		
		Score	%	Information
Tangible/direct evidence				
1.	Neat-looking officers while serving cadets	83	94%	Very satisfied
2.	When I went to the Air Traffic Study Program, I immediately met the officers	83	94%	Very satisfied
3.	When you go to the Air Traffic Study Program, you can always meet the desired officer directly	81	92%	Satisfied
4.	Ease of access to the service desk directly when entering the room	83	94%	Very satisfied
5.	Between the counter instructions with the implementation of the service I experienced was appropriate	83	94%	Very satisfied
6.	Complete computer equipment and chairs are provided for quick access to the service system	78	89%	Satisfied
7.	The existence of a computer really helped me when filling out the observation permit form	77	88%	Satisfied
Average		92,2%	Very satisfied	
Responsiveness				
8.	you know the Standard Operating Procedure (SOP)	79	90%	Satisfied
9.	officers provide services according to the Standard Operating Procedure (SOP)	79	90%	Satisfied
10.	The existing Standard Operating Procedure (SOP) is easy to understand	79	90%	Satisfied
11.	Officers always ask what the cadets need	82	93%	Very satisfied
12.	Officers always greet the cadets with a smile	81	92%	Very satisfied
13.	The information provided by the clerk when I requested service was always clear	82	93%	Very satisfied
Average		91,3%	Very satisfied	
Reliability				
14.	The services given to me are always resolved quickly	80	91%	Satisfied

15.	Officers are always fair in serving according to the order of dating	82	93%	Very satisfied
16.	If asked about information that is not clear, the officer is willing to immediately provide and explain the information	81	92%	Very satisfied
17.	I think the current service flow update is clear	79	90%	Satisfied
18.	I think the current service procedure is getting easier	82	93%	Satisfied
Average		91,8%	Very satisfied	
Empathy				
19.	The clerk is always willing to help when I have trouble asking for service	83	94%	Very satisfied
20.	When helping, the clerk's explanation was easy to understand	82	93%	Very satisfied
21.	If the service that I experience is not finished immediately, the promise of service pick-up is always appropriate and fulfilled precisely	82	93%	Satisfied
Average		93,6%	Very satisfied	
Assurance				
22.	Every service needed is always fulfilled	79	90%	Satisfied
23.	Every required service is obtained on time	78	89%	Satisfied
24.	If the service I receive cannot be handled at the Air Traffic Study Program, the officer provides clear information about how I should be (responsible)	83	94%	Very satisfied
Average		90,9%	Very satisfied	

Source: Analysis results, 2020

Based on table 8 the results of cadets' satisfaction with administrative services for the Level 1 Air Traffic Study Program per aspect, some of the questions that get the highest score are 83 or 94% including:

- a. Neat-looking officers while serving cadets
- b. When I went to the Air Traffic Study Program, I immediately met the officers
- c. Ease of access to the service desk directly when entering the room
- d. Between the counter instructions with the implementation of the service I experienced was appropriate
- e. The clerk was always willing to help when I got in
- f. Air traffic, officers provide clear information about how I should 'be responsible'

The question items that got the lowest score were 77 or 88% for the question items The existence of computers in helping cadets when filling out the observation permit form.

Based on the results of the calculation and analysis of the questionnaire, the researchers conducted interviews with officers in the air traffic study program regarding the existence of a computer question. Based on the results of the interview, it was found that there was no infrastructure available for educational services, for example, computers and printers.

IV. CONCLUSION AND RECOMMENDATION

Some aspects that have a high level of satisfaction are tangible (92%), responsive (92.2%), reliability (91.3%), empathy (93.6%), and assurance (90.9%). Meanwhile, the aspect that has a low level of satisfaction is the presence of computers.

So that research results are accommodated so that they are able to produce something innovative and lecturers, educators and educational staff always improve self-competence and excellent service.

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