

Student Satisfaction Level on Academic and Administrative Services in FMIPA Universitas Negeri Manado

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Abstract. Student satisfaction as users of academic and administrative services has been evaluated to find out the extent of service delivery that has been carried out by the academic and administrative work units of the Faculty of Mathematics and Natural Sciences, Universitas Negeri Manado. The level of student satisfaction with academic and administrative services has been measured using a linkert scale, and analyzed using the distribution of scores, then presented and served in tables or diagrams. Measuring the level of satisfaction of students to academic and administrative services covering six aspects, including tangibles, responsiveness, reliability, empathy, assurance and information systems. The six aspects are outlined in a question sheet with each aspect consisting of several question / statement items with the same score scale. Question points for all aspects of the assessment consisted of 42 items. The number of respondents amounted to 265 respondents. The measurement data is completely re-converted to get the level of student satisfaction with five categories, namely dissatisfied, less satisfied, quite satisfied, satisfied and very satisfied. The measurement results show that the level of student satisfaction with all aspects of academic and administrative services is 5.66% very satisfied, 23.02% satisfied, 38.11% quite satisfied, 24.91% less satisfied and 8.30% dissatisfied. While the level of student satisfaction with academic and administrative services for each aspect of service shows that only *tangibles* aspects are the percentage of satisfaction below 50%

Keywords: Satisfaction; Academic and Administrative Services; FMIPA Students

1. Introduction

Based on Law No. 12 of 2012, on Higher Education, it has been established that education is a conscious and planned effort to create an atmosphere of learning and learning process so that students actively develop their potential to have spiritual strength, self-control, personality, intelligence, noble character, and skills which is needed by himself, society, nation and state. In addition, it has also been determined that tertiary education institutions carry out tertiary education, which is the level of education after secondary education which includes diploma programs,

undergraduate programs, master programs, doctoral programs and professional programs, and specialist programs, which are organized by universities based on Indonesian culture. Higher Education functions (a) develops capabilities and shapes the dignified character and civilization of the nation in the context of intellectual life of the nation; (b) developing an innovative, responsive, creative, ingenious, competitive, and cooperative Academic Community through the implementation of tridharma; and (c) developing science and technology by observing and applying humanities values. Higher education aims to (a) develop the potential of students to become human beings who believe and cautious in The Almighty God and have noble, healthy, knowledgeable, capable, creative, independent, skilled, competent, and cultured for the benefit of the nation; (b) the production of graduates who master the branches of science and / or technology to meet national interests and increase national competitiveness; (c) the production of science and technology through research that pays attention to and applies the value of the humanities to benefit the progress of the nation, as well as the progress of civilization and the well-being of humanity; and (d) the realization of community service based on reasoning and research work that is useful in advancing public welfare and intellectual life of the nation.

In connection with the mandate of the Act, students as students in higher education are entitled to receive services according to their talents, interests, potential and abilities. Therefore tertiary education institutions as providers of higher education are required to provide educational services that are in line with the quality standards of service to students. The level of success of services to students is closely related to the level of satisfaction with meeting the needs of students in activities on campus. Students who are satisfied with the service can be the main capital to compete because it produces utterances with positive words, retention and loyalty (Arambewela and Hall, 2009). Academic and administrative services are services provided to students in the context of achieving academic goals, therefore academic services should have a relatively large proportion of services in other academic activities. Quality academic services will have a domino effect, in addition that students finishing their studies on time, they will also form a mutually beneficial bond with the institution, indirectly involved with promotion and imaging. Universities as a form of tertiary education are service providers in the form of graduates, therefore they must provide services according to established quality standards, so as to provide guarantees in the competition and trust of stakeholders. The quality of universities and study programs in Indonesia is currently not at an ideal condition. The difference in the quality of higher education can be seen from the results of higher education accreditation and study programs, out of 4,472 universities in Indonesia there are currently only 50 higher education institutions that have A accreditation and 2,512 A accredited study programs (12% of 20,254 accredited study programs) (Ministry of Research and Higher Education, 2017). Currently there are 124 State Universities (PT), 3,127 Private Universities, 175 Ministry / Institution Universities, 968 PTAs, and 78 PTAN (PDDikti Data, March 11, 2017). Based on this data, BAN-PT shows that only 1,131 are accredited with the details of 50 universities having accreditation A (4%), 345 universities accredited B (31%), and 736 universities accredited C (65%), and the remaining 3,340 are not accredited. There are 26,672 study programs (PDDikti, 2017) with a total of 20,254

accredited study programs with details of number of study programs with A accreditation of 2,512 (12%), B accreditation of 9,922 (49%), and C accreditation of 7,820 (39%), in fact there are many non-accredited study programs (BAN-PT, 2017). These data indicate that the quality of most of the tertiary institutions and study programs is still far from what is expected.

Related to the quality of academic and administrative services in the FMIPA work unit of the Universitas Negeri Manado, until now there is no fact about the level of student satisfaction with these services, even though the level of student satisfaction with academic and administrative services has a positive correlation (I Nyoman Rinala, et al, 2013; Susanto, H., 2014), which can encourage students to finish college on time. In addition, the results of this study can be used as evaluation material to encourage the achievement of service quality standards

2. Materials and Methods

Time and place

This research was conducted in June-December (odd semester / academic year 2017/2018) and located in the work unit of the Faculty of Mathematics and Natural Sciences, Universitas Negeri Manado in Tondano.

Population and Sample

The population of this research is the active students of the class of 2014-2017. The sampling technique used was *proportionate stratified random sampling*, where each department / study program per year was represented by several students who were taken at random. The minimum number of sample members is determined based on Supranto, (2006) using the following formula:

$$n = \frac{N}{N(d)^2 + 1}$$

where, n = number of sample members

N = total population

d = percentage tolerance of accuracy of sampling error

Data collection technique

Data is collected through the use of a questionnaire with multiple answer choices and with an attitude scale that contains attitude statements, which is a statement of attitude about an object. Questionnaire to measure the level of satisfaction of students to academic services and administrative compiled based on five factors that determine the quality of service according to Kotler and Armstrong (2012) which includes: (1) tangible, (2) reliability,(3) responsiveness, (4) assurance, (5) empathy and (6) information systems. The Likert scale is used to measure attitude statements with four categories of answers as shown in Table 1.

Table 1. Score Questionnaire Answers About Service Satisfaction

Category	Answer Score
Very satisfied	5
Satisfied	4
Quite satisfied	3
Not satisfied	2
Very Dissatisfied	1

The measurement data is completely re-converted to get the level of student satisfaction with five categories, namely dissatisfied, less satisfied, quite satisfied, satisfied and very satisfied. Data conversion to obtain the satisfaction level category is grouped based on frequency distribution with five different interval classes where each interval class is determined based on the formula $\geq X = \text{average} + (1.5 \times \text{standard deviation})$ for the interval class with the very satisfied category and $\leq X = \text{average} - (1.5 \times \text{standard deviation})$ for interval classes with dissatisfied categories. For interval classes with satisfied categories, quite satisfied and less satisfied are determined by determining the lower class boundary of each interval class by dividing 3 results from the difference between the largest class limit and the smallest class limit.

Data analysis

Data analysis using descriptive statistics is data that is processed and then presented in tables and graphs. The average value of the data is presented in a table to obtain a description of all aspects measured. Graphs are presented to obtain ease of understanding, analysis and conclusions.

3. Results and Discussion

Measurement Description

The level of student satisfaction with academic and administrative services has been measured using a linkert scale, and analyzed using the distribution of scores, then presented and served in tables or diagrams. Measuring the level of satisfaction of students to academic and administrative services covering six aspects, including tangibles, responsiveness, reliability, empathy, assurance and information systems. The six aspects are outlined in a questionnaire with each aspect consisting of several questions / statements with the same statement. The questions / statements for any aspects of the assessment are: aspects of tangibles 8 items, responsiveness 5 items, reliability 11 items, empathy 7 items, assurance 6 items and information system 5 items. Thus the scoring ratings for each of the following aspects: tangibles with 8 items, the lowest score = 8 and the highest = 40, the aspect of responsiveness with 5 items, the lowest score = 5 and the highest = 25, aspects of reliability with 11 items, the lowest score = 11 and the highest = 55, aspects of empathy with 7 items, the lowest score = 7 and the highest = 35, aspects of assurance with 6 items, the lowest score = 6 and the highest = 30 and aspects of information systems with 5 items, the lowest score = 5 and the highest = 25. Since the total questions for all aspects is = 42, mean overall, the lowest score 42 and the highest score is 210.

Description of Measurement Results

Student satisfaction with academic and administrative services at FMIPA UNIMA has been measured by 42 question items for all aspects with a scale of 1, 2, 3, 4 and 5. The statistical data of the overall level of student satisfaction with all aspects of academic and administrative services is shown in Table 2.

Table 2 . Statistical data on all aspects of academic and administrative services

	N	Min.	Max.	Average	Std.Deviation
Service	265	48	192	121 , 6 1	26 , .62
Valid N	265				

Data conversion of all aspects of academic and administrative services into frequency distribution with five categories of student satisfaction levels is shown in Table 3.

Table 3 . Student satisfaction level categories for all aspects of academic and administrative services

Interval class	Frequency	%	Category
≤ 83	22	8.30	Not satisfied
84 - 109	66	24.91	Less satisfied
110 - 135	101	38.11	Quite satisfied
136 - 161	61	23.02	Satisfied
≥ 162	15	5.66	Very satisfied
amount	265	100%	

Based on the conversion of data in the frequency distribution obtained a general description of the level of student satisfaction with academic and administrative services that is very satisfied 5.66%, satisfied 23.02%, quite satisfied 38.11%, less satisfied 24.91% and dissatisfied 8, 30% The frequency of each category of level of student satisfaction with academic and administrative services is shown in Figure 1.

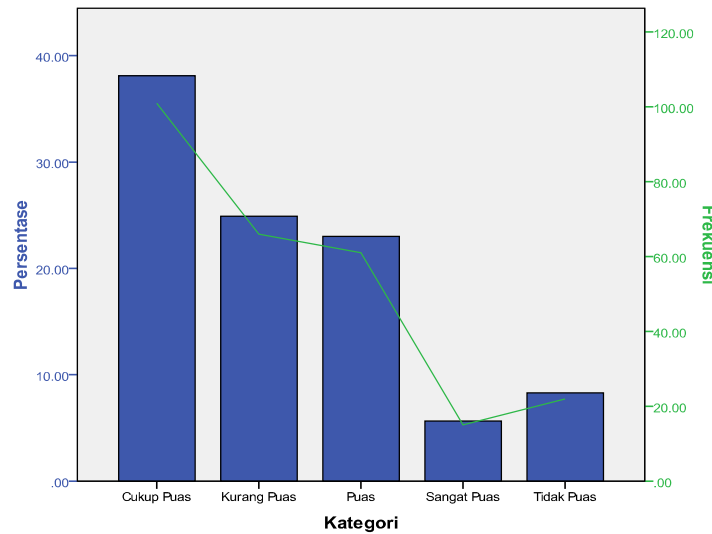


Figure 1. Percentage and frequency for each category of student satisfaction level of the academic and administrative services.

Student Satisfaction Level Per Academic and Administrative Service Aspects

The level of student satisfaction with academic and administrative services on tangibles aspects, with the lowest score of 10, the highest score of 38, an average of 20.57 and a standard deviation of 5.52. The level of student satisfaction with academic and administrative services on the aspect of reliability, with the lowest score of 11, the highest score of 55, an average of 33.61 and a standard deviation of 7.79. The level of student satisfaction with academic and administrative services in the aspect of assurances, with the lowest score of 6, the highest score of 30, an average of 18.29 and a standard deviation of 4.92. The level of student satisfaction with academic and administrative services on the aspects of empathy, with the lowest score of 7, the highest score of 35, an average of 20.01 and a standard deviation of 5.33. The level of student satisfaction with academic and administrative services in the information system aspect, with the lowest score 5 and the highest score of 25, an average of 14.26 and a standard deviation of 4.28. The average student satisfaction level per aspect of academic and administrative services is shown in Figure 2 .

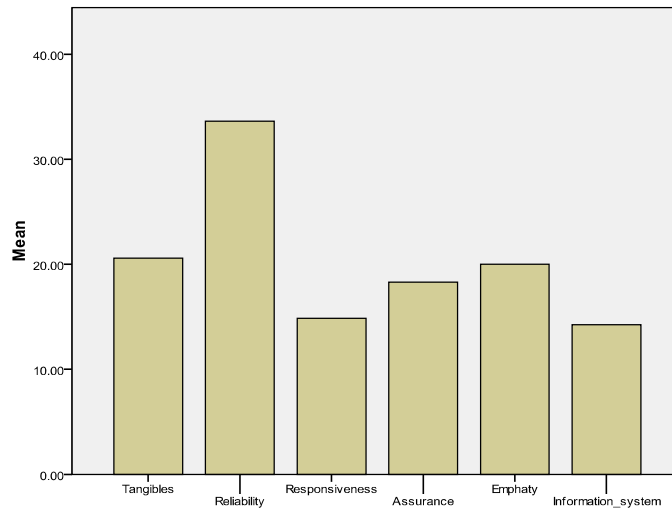


Figure 2. Chart of the average level of student satisfaction for each aspect of academic and administrative services.

Tangibles aspect

Conversion of student satisfaction level data on aspects of academic and administrative service *tangibles* with five categories of satisfaction levels is shown in Table 5.

Table 5. Data conversion level of student satisfaction with the services of academic and administrative on the aspects of tangibles.

Interval class	Frequency	%	Category
<15	8	3.02	Not satisfied
16-21	155	58.49	Less satisfied
22-27	64	24,15	Quite satisfied
28 - 33	30	11.32	Satisfied
> 34	8	3.02	Very satisfied
amount	265	100%	

The frequency and percentage of data conversion according to the level of student satisfaction on aspects of academic and administrative service *tangibles* are shown in Figure 3.

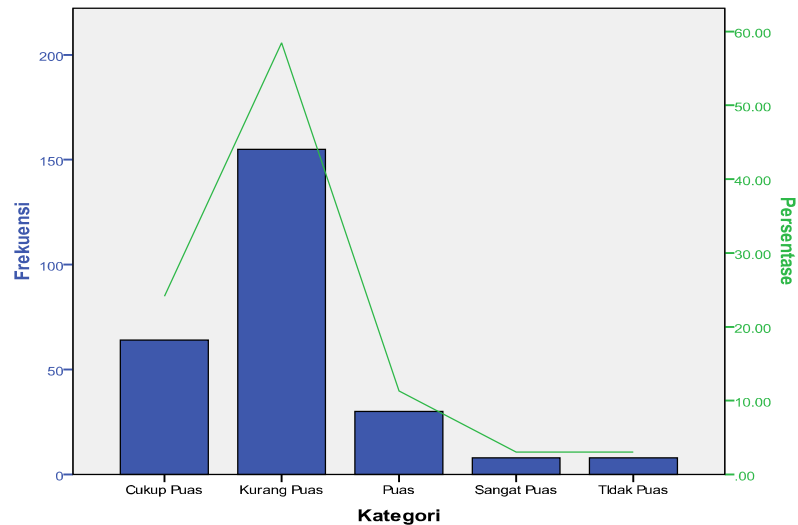


Figure 3. Frequency and percentage of student satisfaction level categories for academic and administrative services on tangibles aspects.

Reliability aspects

Conversion of student satisfaction level data on aspects of academic and administrative service *reliability* with five categories of student satisfaction levels is shown in Table 6.

Table 6. Conversion of student satisfaction level data on aspects of academic and administrative service reliability

Interval class	Frequency	%	Category
<22	18	6.79	Not satisfied
23-30	73	27.55	Less satisfied
31-38	112	42.26	Quite satisfied
39-45	41	15.47	Satisfied
> 46	21	7.93	Very satisfied
amount	265	100%	

The frequency and percentage of student satisfaction levels on aspects of academic and administrative service reliability are shown in Figure 4.

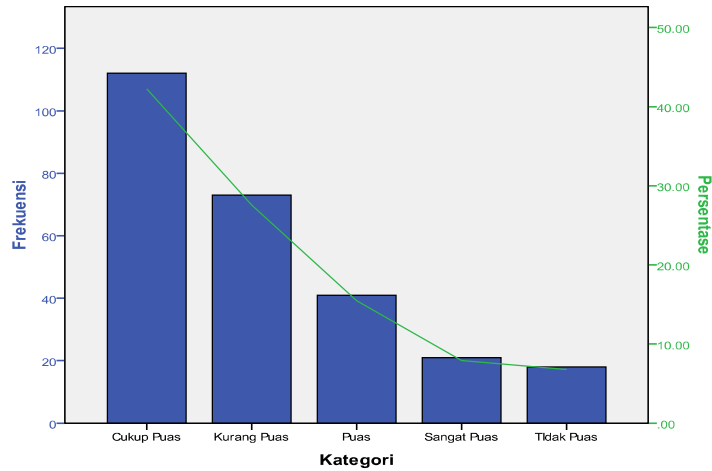


Figure 4. Frequency and percentage of student satisfaction level categories in the aspects of academic and administrative service reliability.

Responsiveness aspects

Conversion of student satisfaction level data on the responsiveness aspects of academic and administrative services with five categories of student satisfaction levels is shown in Table 7.

Table 7. Data conversion of student satisfaction levels on the responsiveness aspects of academic and administrative services

Interval class	Frequency	%	Category
≤ 8	24	9.06	Not satisfied
9-12	56	21.13	Less satisfied
13-16	96	36.23	Quite satisfied
17-20	61	23.02	Satisfied
≥ 21	28	10.56	Very satisfied
amount	265	100%	

The frequency and percentage of categories of student satisfaction with academic and administrative services in the aspect of responsiveness are shown in Figure 5.

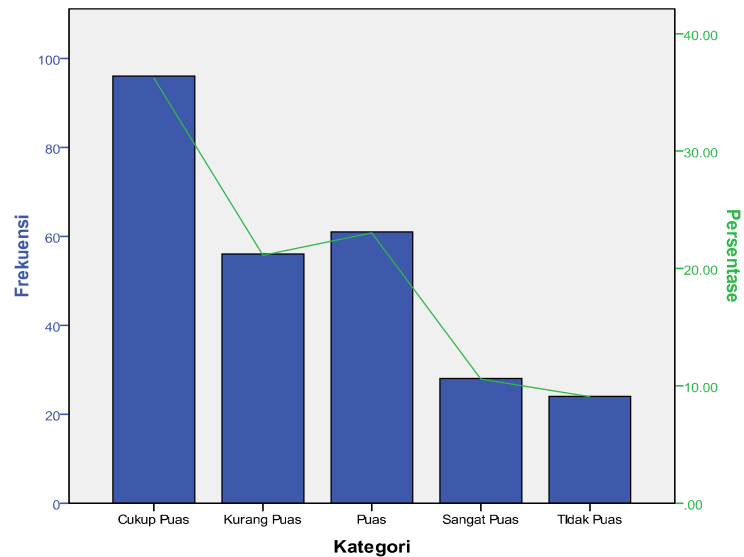


Figure 5. Frequency and percentage of student satisfaction level categories on the responsiveness aspects of academic and administrative services.

Assurance aspects

Conversion of student satisfaction level data on assurance aspects of academic and administrative services with five categories of student satisfaction levels is shown in Table 8.

Table 8. Conversion of student satisfaction level on assurance aspect of academic and administrative services.

Interval class	F frequency	%	Category
≤ 10	17	6.41	Not satisfied
11-15	57	21.51	Less satisfied
16-20	104	39.25	Quite satisfied
21-25	65	24.53	Satisfied
≥ 26	22	8.3	Very satisfied
amount	265	100%	

The frequency and percentage of each category of student satisfaction level in the aspect of academic and administrative service's assurance are shown in Figure 6.

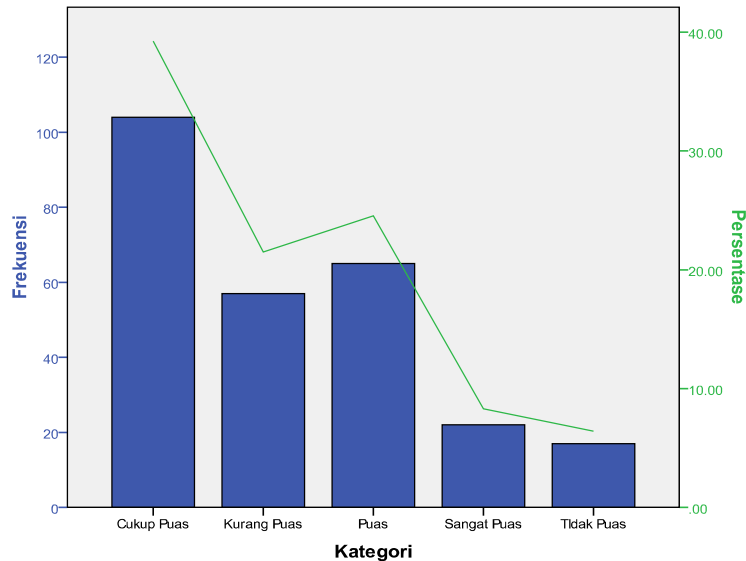


Figure 6. Frequency and percentage of student satisfaction level categories on the aspects of academic and administrative service assurance.

Empathy aspect

Conversion of student satisfaction level data on aspects of academic and administrative service empathy with five categories of student satisfaction levels is shown in Table 9.

Table 9. Data conversion of student satisfaction levels on aspects of academic and administrative service empathy.

Interval class	Frequency	%	Category
≤ 12	21	7.93	Not satisfied
13-17	64	24,15	Less satisfied
18-22	98	36.98	Quite satisfied
23-27	57	21.51	Satisfied
≥ 28	25	9.43	Very satisfied
amount	265	100%	

The frequency and percentage of student satisfaction level categories in the aspects of academic and administrative service empathy are shown in Figure 7.

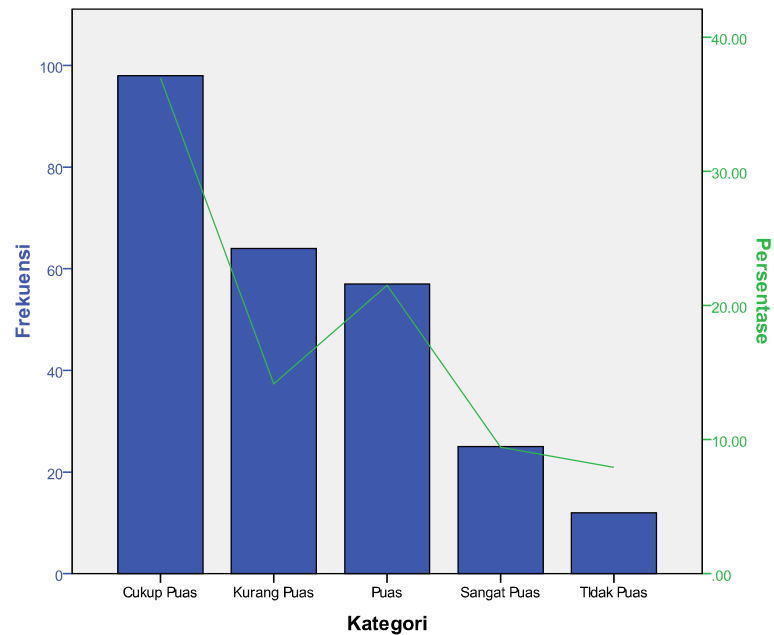


Figure 7. Frequency and percentage of student satisfaction level categories in the aspects of academic and administrative service empathy.

Information system aspects

Conversion of student satisfaction level data on aspects of academic and administrative service information systems with five categories of student satisfaction levels is shown in Table 10.

Table 10 . Conversion of student satisfaction level data on information system aspects of academic and administrative service.

Interval class	Frequency	%	Category
≤ 8	24	9.05	Not satisfied
9-12	68	25.67	Less satisfied
13-16	98	36.98	Quite satisfied
17-20	52	19.62	Satisfied
≥ 21	23	8.68	Very satisfied
amount	265	100%	

The frequency and percentage of student satisfaction level categories in the academic and administrative service information system aspects are shown in Figure 8.

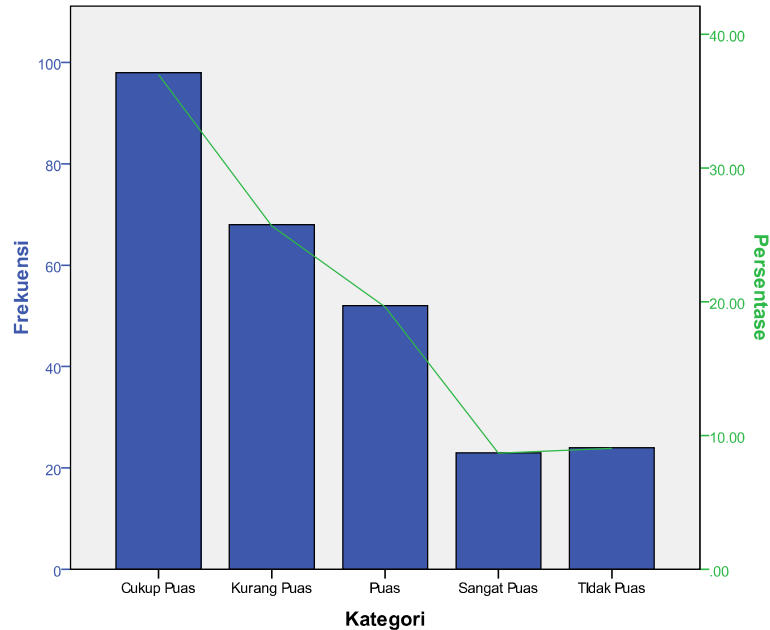


Figure 8 . Frequency and percentage of student satisfaction level categories on the information system aspects of academic and administrative services.

4. Discussion

Overall Evaluation of Academic and Administrative Service Aspects

The results of measurements of the level of student satisfaction with academic and administrative services in the work unit of the Faculty of Mathematics and Natural Sciences, on all aspects of academic and administrative services showed 5.66% very satisfied, 23.02% satisfied, 38.11% quite satisfied, 24, 91% less satisfied and 8.30 dissatisfied. Thus in general it can be said that academic and administrative services in the FMIPA work unit are not bad but also not yet optimal, this is indicated by 33.21% of students who are not satisfied with the service but students who are quite satisfied to the point of satisfaction are quite large ie 66.79%. Handayani *et al.* , (2003) states that to achieve a high level of satisfaction in service requires an understanding of what is desired by consumers. Although the level of consumer satisfaction is individual, which depends on the values adopted and applies, but the level of satisfaction is the level of one's feelings when measuring the results of a comparison of what he expected and what he has received (Kotler, 2000). This means that the smaller the difference between what is expected and what is received by consumers, the higher the level of customer satisfaction with services. Related to this, it indicates that student satisfaction with academic and administrative services depends on the quality of service they expect and what they receive. Academic and administrative services are said to be of high quality if the service is equal or even exceeds student expectations. Quality of service on students has a positive effect on student satisfaction (Indah , Elza Putri 2012; I Nyoman Rinala, et al., 2013 ; Aris Fita Bayu Apriliana, et al., 2014). More emphaticly Effiyadi (2008); I Nyoman Rinala, et al., 2013 , stated that aspects of academic services to students simultaneously had a positive effect on student satisfaction. Furthermore it is said

that service quality has an influence on satisfaction, and satisfaction subsequently affects student loyalty. Thus, improving the quality of academic services will increase student satisfaction, and will further affect student loyalty.

Evaluation of Each Academic and Administrative Service Aspect

The results of measurements of the level of student satisfaction with each of the aspects of academic and administrative services show that in the tangibles aspect of the dissatisfied to less satisfied category of 61.51%, quite satisfied until very satisfied 38.49%, the reliability aspect with the dissatisfied category until less satisfied at 34.34%, quite satisfied until very satisfied 65.66%, responsiveness aspects with the category of dissatisfied to less satisfied at 30.19%, satisfied until very satisfied 69.81%, assurance aspects with the category of dissatisfied to less satisfied is 27.92%, quite satisfied until very satisfied 72.08%, empathy aspects with the dissatisfied category until less satisfied are 32.08%, quite satisfied until very satisfied 67.92%, and aspects of the information system with the category of dissatisfied to less satisfied by 34.72%, quite satisfied to 65.28% very satisfied. Based on the results of these measurements except aspects of tangibles, obtained the fact that the level of student satisfaction with each aspect of academic and administrative services is sufficient to meet the desires of students. In this connection Srinadi et al. (2008), states that the quality of service aspects tangibles, reliability, responsiveness, assurance and empathy have positive effects and simultaneously affect student satisfaction.

The results of the evaluation of several aspects of academic and administrative services, the aspect that still do not meet the expectations of students is tangibles aspect, while other aspects are sufficient to meet student desires. The tangibles aspect relates to education and learning facilities and infrastructure variables: lecture halls, lecture aids, learning media, laboratories, governance of space use, libraries, availability of reference books, toilet facilities, worship facilities, and internet networks. It has been stated before, that aspects of the service simultaneously affect student satisfaction so that service quality improvement must be carried out simultaneously as well. If the quality of service in tangibles aspects is addressed, other aspects will be affected, or vice versa. Implementation of education should look at the quality of service. Educational activities are not only oriented towards the final result the educational process, but also through the proof of accountability includes quality assurance, quality control, and quality improvement.

5. Conclusions And Suggestions

Conclusion

The level of student satisfaction with academic and administrative services for all aspects of service is very satisfied 5.66%, 23.02% satisfied, 38.11% quite satisfied, 24.91% less satisfied and 8.30% dissatisfied, while for each aspect includes aspects of tangibles shows 3.02% dissatisfied categories, 61.51% less satisfied, 24.15% quite satisfied, 11.32% satisfied, and 3.02% very satisfied. The reliability aspect shows that the dissatisfied category is 6.79%, less satisfied 27.55%, quite satisfied 42.26%, satisfied 1.47%, and very satisfied 7.93%. Responsiveness assumptions shows 9.06% dissatisfied categories, 21.13% less satisfied, 26.23% quite satisfied, 23.02% satisfied, and 10.56% very satisfied. The assurance aspect

shows that the category of dissatisfaction is 6.41%, less than 21.51%, quite satisfied 39.25%, satisfied 24.53%, and very satisfied 8.3%. Empathy aspect shows that the category of dissatisfaction is 7.93%, unsatisfied 24.15%, quite satisfied 36.98%, satisfied 21.51%, and very satisfied 9.43%. Information system aspects showed that the category of dissatisfaction was 9.05%, unsatisfied 25.67%, quite satisfied 36.98%, satisfied 19.62%, and very satisfied 8.68%.

Suggestion

In general, the level of satisfaction of FMIPA students towards academic and administrative services in general is quite high. This shows that the academic and administrative services in the FMIPA work unit are quite good, but need to be improved again, especially in the tangibles aspect, which is related to the provision of physical facilities and infrastructure and supporting learning.

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