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## ANALYSIS OF ACADEMIC SERVICE SATISFACTION LEVELS FROM THE PERSPECTIVE FTIK UNPRI STUDENTS USE THE METHOD IMPORTANCE PERFORMANCE ANALYSIS(IPA)

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### Abstract

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In the field of education, the level of comfort is an important service in activities. Especially students who are studying, lectures will be very enjoyable if the services provided are in line with expectations. In the academic section of the Prima Indonesia University campus, there are still many things that are beyond expectations. Especially in the academic service section, the level of student satisfaction has not been taken into account. Because there are still many students who do not feel that they have good facilities. So this study will test the academic services of the Prima Indonesia University campus. Student realities and expectations can be collected with questionnaire data. Students who are respondents will provide results in the form of a dataset that will be processed using the SPSS version 23 data processing application. The results of data testing will be carried out in the Importance Performance Analysis (IPA) method to get better and detailed results. The use of the IPA method will produce a catesian diagram as a result of the test. So that the results of the dataset are obtained to be used as conclusions in this study. From the results of the average level of conformity contained in the table for calculating the level of conformity. Got an average of 97%. Based on this, the level of service provided is close to the respondent's expectations. From the results of the average level of conformity contained in the table for calculating the level of conformity. Got an average of 97%. Based on this, the level of service provided is close to the respondent's expectations. From the results of the average level of conformity contained in the table for calculating the level of conformity. Got an average of 97%. Based on this, the level of service provided is close to the respondent's expectations.

Keywords: Importance Performance Analysis, GAP Analysis, Academic Service Quality, SPSS.

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## 1. INTRODUCTION

The development of the world of information systems at this time has been so rapid and communication has caused a change in orientation, especially to the views of service consumers. Many companies are trying to improve competitiveness to attract customers and provide the best service to customers [1]. Not only service providers, private service universities in particular are also trying to increase competitiveness by providing the best service to customers, in this case students. Currently, universities in all management activities related to students must provide the best service so that the level of student satisfaction is high [2].

As an effort to realize better educational services, every higher education institution that has received a good reputation assessment from the community is expected to maintain this credibility through continuous efforts to maintain the quality of education services [3]. One strategy that can be done to maintain service quality is to evaluate service quality with the aim of finding out the lack of quality of educational services provided both in the academic service section and the student body [4].

Prima Indonesia University (UNPRI). As an institution engaged in the field of educational services. The Information Systems (SI) Study Program, Faculty of Technology and Computer Science (FTIK) is able to provide what students need as main customers through the best service process performance in an effort to maintain quality and sustainable education. The more intense competition with other study programs, the information systems study program must also be able to compete with existing study programs. Service improvement is a very important factor [5], satisfied students will provide benefits to the institution, for example they will continue to use the institution's services with further studies, they can also promote to others so that in the end it will improve the image of the institution [6]. Based on the existing problems, it is necessary to measure customer satisfaction in this case are students, using the Importance Performance Analysis (IPA) method to improve services and performance at the University of Prima Indonesia (UNPRI).

In a previous study, a research was conducted "Analysis of Service Quality Improvement for Masters in Technology Management ITS Surabaya Using the Serqueal Method and Importance Performance Analysis (IPA)". [7]

Based on the data collected through the distribution of questionnaires about the level of importance and performance appraisal, it can be determined the level of suitability to determine the order of priority and service improvement of Universitas Prima Indonesia (UNPRI) which can affect customer or student satisfaction [8]. So this study the author uses the calculation of the application of the Importance Performance Analysis (IPA) method, so that it will be known the level of satisfaction with the quality of services that are more specific in the field of educational services [9].

## 2. METHOD

### 2.1 Data collection

The stages of data collection in this study were carried out at the Prima Indonesia University campus to collect datasets. The data collection technique used interview and questionnaire techniques [9]. By giving questions to students as many as 20 questions contained on the UNPRI campus to respondents, 181 data were obtained. The following is a dataset that has been obtained from the results of data collection, it can be seen in table 2.1, the rest of the data will be shown in the appendix.

Table 1. Student Questionnaire Dataset

No	Name	P1	P2	P3	...
1.	Elida	5	5	5	...
2.	Angga Girsang	5	5	5	...
3.	Serly Butar Butar	4	4	4	...
4.	Dea Junia	5	5	4	...
5.	Ridho Lukas Fertomedis	4	4	4	...
...	...	...	...	...	...

### 2.2 Importance Performance Analysis (IPA) Method

The Importance Performance Analysis (IPA) method is an easy application technique to manage the attributes of the level of importance and the level of implementation itself [10]. In this method, it is necessary to measure the level of conformity to find out how much customers are satisfied with the company's performance, in this case the customer is a student who will assess the performance of the university. The formula used is as follows:

$$\bar{X}_i = \frac{\sum_{i=1}^k X_i}{n} \quad (1)$$

$$\bar{Y}_i = \frac{\sum_{i=1}^k X_i}{n} \quad (2)$$

Information:

$\bar{X}_i$  = the average score of the performance level.

$\bar{Y}_i$  = average score of importance level.

n = number of research samples.

The next stage is to find the suitability score for the comparison between the importance score and the performance score with the following equation:

$$T_{ki} = \frac{X_i}{Y_i} \times 100\% \quad (3)$$

Information:

$T_{ki}$  = suitability level.

$X_i$  = score of company performance appraisal.

$Y_i$  = customer interest rating score.

After measuring the level of conformity, the next step is to make a map of the importance-performance position which is a shape divided into four quadrants bounded by two perpendicular intersecting lines at points with the following formula:

$$\bar{\bar{X}} = \frac{\sum_{i=1}^K \bar{X}_i}{K} \quad (4)$$

$$\bar{\bar{Y}} = \frac{\sum_{i=1}^K \bar{Y}_i}{K} \quad (5)$$

Information:

$\bar{\bar{X}}$  = the average value of the company's performance attributes

$\bar{\bar{Y}}$  = average value of customer importance attribute

K = number of influencing attributes

customer satisfaction

IPA analysis is used to compare the quality of service (importance) with the level of service quality performance (performance) [11]. In this technique, respondents are asked to rate the level of importance and performance of the company, then the average value of the level of importance and performance is analyzed in the Importance Performance Matrix, where the x-axis represents perception while the y-axis represents expectations, then the results will be obtained in the form of four quadrants according to the following picture:

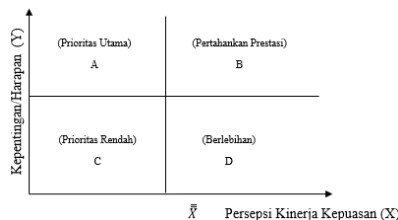


Figure 1. Cartesian diagram

The interpretation of the quadrant is as follows:

a. Quadrant A (Top Priority)

Quadrant A contains factors that are considered less important and the level of performance is still low [12].

b. Quadrant B (Maintain Achievement)

Quadrant B contains factors that are considered important by customers, but in fact these factors are not as expected by customers (the level of performance is still low).

b. Quadrant C (Low Priority)

In this quadrant there are factors that are considered to have a low level of perception or actual performance and are not very important and do not need to prioritize or pay more attention to these factors.

c. Quadrant D (Excessive)

In this quadrant there are factors that are considered less important by customers and are felt to be too excessive.

### 3. RESULTS AND DISCUSSION

This chapter is the result of the discussion carried out on research conducted at the University of Prima Indonesia starting from the Validity Test, Reliability Test and Analysis of Academic Service Satisfaction Levels with the Impornance Performance Analysis (IPA) Method. Testing on this test data was carried out statistically using the SPSS version 23.0 data processing program.

#### 3.1 Data Validity Test

The validity test is the initial stage which is carried out after the data from the questionnaire is obtained [13]. Item validity is indicated by the existence of a correlation or support for the total item (total score), the calculation is done by correlating the item score with the total item with the help of SPSS software. The correlation coefficient value between the scores of each item and the total item scores is calculated from the corrected item-total correlation with the following criteria:

- 1.If then the question items are declared valid.  $r_{hitung} \geq r_{tabel}$
- 2.If then the question items are declared invalid.  $r_{hitung} < r_{tabel}$

An instrument is declared valid if the correlation coefficient is greater than the coefficient at a significance level of 0.05. This can be seen in the table below, where r-table is calculated from  $df = (n - 2) = 181 - 2 = 179$  (where n is the number of data). The results of the data validity test in this study can be seen in the following table:

Table 2. Reality Validity Test Results

No.	Rcount	Rtable	Note.
1.	0.554	1.91	Valid
2.	0.679	1.91	Valid
3.	0.444	1.91	Valid
4.	0.640	1.91	Valid
5.	0.728	1.91	Valid
6.	0.606	1.91	Valid
7.	0.785	1.91	Valid
8.	0.788	1.91	Valid
9.	0.530	1.91	Valid
10.	0.792	1.91	Valid
11.	0.681	1.91	Valid
12.	0.799	1.91	Valid
13.	0.793	1.91	Valid
14.	0.790	1.91	Valid
15..	0.465	1.91	Valid
16.	0.681	1.91	Valid

17.	0.689	1.91	Valid
18.	0.746	1.91	Valid
19.	0.338	1.91	Valid
20.	0.732	1.91	Valid

From table 2 it can be seen that all questions from the respondents' reality are declared valid.

Table 3. Expected Validity Test Results

No.	Rcount	Rtable	Note.
1.	0.262	1.91	Valid
2.	0.504	1.91	Valid
3.	0.484	1.91	Valid
4.	0.584	1.91	Valid
5.	0.511	1.91	Valid
6.	0.582	1.91	Valid
7.	0.504	1.91	Valid
8.	0.583	1.91	Valid
9.	0.539	1.91	Valid
10.	0.583	1.91	Valid
11.	0.445	1.91	Valid
12.	0.630	1.91	Valid
13.	0.506	1.91	Valid
14.	0.497	1.91	Valid
15.	0.427	1.91	Valid
16.	0.525	1.91	Valid
17.	0.471	1.91	Valid
18.	0.586	1.91	Valid
19.	0.506	1.91	Valid
20.	0.501	1.91	Valid

From table 3 it can be seen that all questions from the respondents' expectations are declared valid.

### 3.2 Data Reliability Test

Reliability testing is carried out to determine whether the measurement results can be trusted to be used in data collection and are used to determine the consistency of the measuring instrument, whether the measuring instrument used is reliable and remains consistent if the measurement is repeated [14]. The reliability test was carried out using the SPSS 23 program with the following criteria:

1. If Cronbach's Alpha  $\geq 0.6$  then the data in this study is said to be reliable.
2. If Cronbach's Alpha  $< 0.6$  then the data in this study is said to be unreliable.

Table 4. Reality Reliability Test Results

Cronbach Alpha	N of Items
0.933	20

From table 4 it can be seen that the value of Cronbach's Alpha is  $0.933 > 0.6$  so that the respondent's reality data is reliable, so the questionnaire can be used repeatedly.

Table 5. Expected Reliability Test Results

Cronbach Alpha	N of Items
0.851	20

From table 3.4, it can be seen that the value of Cronbach's Alpha is  $0.851 > 0.6$  so that the respondent's expectation data is reliable, so it can be used repeatedly.

### 3.3 Analysis of Academic Service Satisfaction Levels With the Science Method

The IPA method is used to measure the relationship between consumer perceptions and priorities for improving product/service quality, which is also known as quadrant analysis. Quadrant analysis is divided into four quadrants which include quadrant I top priority, quadrant II maintain achievement, quadrant III low priority and quadrant IV excessive.

Quadrant analysis is a shape that is divided into four parts bounded by two lines that intersect perpendicular to the points (x, y), where x is the average of the scores for the implementation level of all factors and y is the average of the averages. the average score of the importance of all factors that affect service user satisfaction.

Table 6. Calculation Results Using the IPA Method

No.	P	Average (Xi)	Average (Yi)	Conformity Level (Tki)
1.	X1	3.94	4.10	0.96
2.	X2	3.88	4.03	0.10
3.	X3	3.80	4.09	0.94
4.	X4	4.19	3.98	1.02
5.	X5	3.83	4.08	0.10
6.	X6	4.99	4.06	0.99
7.	X7	4.99	4.06	1.23
8.	X8	3.86	4.05	0.95
9.	X9	4.03	4.13	0.97
10.	X10	3.86	4.06	0.95
11.	X11	3.88	4.13	0.94
12.	X12	3.92	4.04	0.97
13.	X13	3.87	4.06	0.95
14.	X14	3.90	4.04	0.96
15..	X15	3.90	4.13	0.94
16.	X16	3.82	4.13	0.92
17.	X17	4.03	4.09	0.98
18.	X18	3.93	4.06	0.98
19.	X19	3.98	3.99	0.99
20.	X20	3.82	3.98	0.96

From table 6, it can be seen that the actual level of excellent academic services according to students is the quality of academic staff services to meet student interests, this can be seen from the highest average value of 4.99. Students consider that the quality of academic services is one of the evidence provided by the university. While the lowest level of satisfaction according to students is the availability of reference books in the Unpri library, this can be seen from the lowest average value of satisfaction, which is 3.80. Students perceive that the availability of references in the library is inadequate.

Based on the level of expectation, it can be seen that what is very important according to students is the polite academic administrative staff in providing services, Sanctions for students who violate the rules set by Unpri and apply to all students without exception, and Providing lecture system information in the form of a lecture guide book. This can be seen from the average value of the highest level of

expectation, which is 4.13. While the lowest level of expectation is the clarity of the lecture material given by the lecturer and understanding the interests and talents of students and trying to develop them. This can be seen from the lowest average value, which is 3.98.

Impornance Performance Analysis quadratic mapping can be seen in the following:

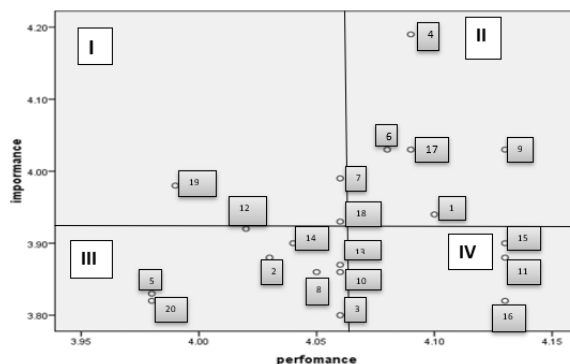


Figure 2. IPA Quadratic Analysis

Information :

1. The lecture hall is kept clean and tidy.
2. Learning facilities available in the lecture hall.
3. Availability of reference books in the UNPRI library.
4. Availability of adequate and clean restroom facilities.
5. Clarity of lecture material is given by the lecturer.
6. The ability of academic staff to serve student administration.
7. Quality of service of academic staff to meet student interests.
8. Unpri helps students when facing academic problems.
9. Academic administrative staff polite in providing services.
10. Time is used effectively by lecturers in the teaching process.
11. Sanctions for students who violate the rules that have been set by UNPRI and apply to students all students without exception.
12. Lecturers are willing to help students who have difficulties in academics/courses.
13. Lecturers are open and cooperative towards students.
14. There is socialization related to the development and acceptance of Bidik Misi scholarships.
15. Monitor student progress through academic supervisors.
16. Provide information on the lecture system in the form of a lecture guide book.
17. Provide academic information and non-academic services in the form of a website (online).
18. Open a complaint service for students who have problems.
19. Provide a positive response to any student complaints.
20. Understand the interests and talents of students and strive to develop them.

### 3.4 Discussion

Based on the results of the test on the IPA quadratic analysis in Figure 3.1, it describes a different situation. This mapping based on the level of reality and the level of expectations allows Unpri's academic services to immediately make improvements to the attributes that are considered important for students in a relatively short period of time. Each square is explained by the following interpretation:

#### 1. Square I

In quadratic I is the main priority where students as respondents feel these attributes are very important and have high expectations but have not felt the maximum reality. The attributes are:

- a. Service quality of academic staff to meet student interests (7).
- b. Lecturers are willing to help students who have difficulties in academics/courses (12).
- c. Open a complaint service for students who have problems (18).
- d. Give a positive response to every student complaint (19).

## 2. Square II

In quadratic II, it shows the presence of the most service attributes which are also considered important by students and their performance is considered good by students. The results of the analysis show that there are five (5) attributes in quadratic II, namely:

- a. Classrooms are arranged in a clean and tidy manner (1).
- b. Availability of adequate and clean restroom facilities (4).
- c. The ability of academic staff to serve student administration (6).
- d. Academic administrative staff polite in providing services (9).
- e. Provide academic information and non-academic services in the form of a website (online) (17).

## 3. Square III

The service attributes that are in quadratic III are students do not have too high expectations so that their level of importance does not get a high rating and their performance is also mediocre, so academic services do not have to focus on improving the service attributes in this square. The following attributes are in this square, as follows:

- a. Learning facilities available in the lecture hall (2).
- b. Availability of reference books in the Unpri library (3).
- c. The clarity of the lecture material is given by the lecturer (5).
- d. Unpri helps students when facing academic problems (8).
- e. Time used effectively by lecturers in the teaching process (10).
- f. Lecturers are open and cooperative towards students (13).
- g. There is socialization related to the development and acceptance of Bidik Misi scholarships (14).
- h. Understanding student interests and talents and trying to develop them (20).

## 4. Square IV

Quadratic IV shows the existence of service attributes which according to students are in fact good and even tend to exceed what students want because students actually do not have high expectations for these service attributes, so there is no need to focus on attributes that are in quadratic IV. The attributes that are in this square are:

- a. Sanctions for students who violate the rules that have been set by Unpri and apply to students all students without exception (11).
- b. Monitor student progress through academic supervisors (15).
- c. Provide information on the lecture system in the form of a lecture guide book (16).

## 4. CONCLUSION

Based on the results of these studies, the conclusions obtained from this study have been described by the authors, including the following: Based on the test phase of the validity of the reality and expectations data on all questions from respondents are declared valid. Based on the reliability test phase, the reality data from the results of questions to respondents is reliable because Cronbach's Alpha is greater than 0.6. Expected data is also reliable because meet the conditions where Cronbach's Alpha data exceeds 0.6. Based on the Cartesian diagram on the Importance Performance Analysis (IPA) method. Results of The first square is found in questions 7, 12, 18, 19. In the second square there are questions 1, 4, 6, 9, 17. In the third square it is found in questions 2, 3, 5, 8, 10, 13, 14. And in the fourth square it is found in questions 11, 15, 16. Based on the level of conformity to the service and the expectations of the



respondents contained in table 6. Got an average of 97%. Therefore, the quality of service provided is almost close to the respondent's expectations.

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