

**THE IMPORTANCE OF MEASURING THE GAP LEVEL OF INFORMATION  
SYSTEM USER SATISFACTION IN THE WORLD OF EDUCATION IN  
UNIVERSITY: ELECTRONIC SERVICE QUALITY MODEL**

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**ABSTRACT**

Education is an important thing in life in order to develop human potential and increase the quality of Human Resources and Human Resources are needed by educational institutions in order to gain success and achieve goals. Servqual in services in the academic field by using the e-servqual method (electronic - service quality). The University is one of the higher education institutions that participate in educating the nation's life and the quality of service has a significant effect on user satisfaction and there is still an academic information system used by the University that is still not optimal.

This research is a quantitative study with a descriptive statistical approach with 200 students as respondents. The measurement method uses the E-Servqual model. The results of the study based on calculations in measuring the gap show user satisfaction using the electronic service quality method that the Academic Information System has not provided services that have not been maximized in the form of fulfillment and efficiency because the perception is still below expectations while measuring the level of user satisfaction gap as a whole by using the CSI (Customer Satisfaction Index) value is 79% and shows that the quality of the University's academic information system services is good.

**Keywords: User satisfaction, Academic information system, E-Servqual Model Model**

**1. INTRODUCTION**

Education is an important thing in life in order to develop human potential and increase the quality of Human Resources (HR). The main component to determine success or failure in educational institutions is Human Resources (Hasnadi, 2019). In the millennial era and in an era that is growing rapidly every year, without realizing it, technology is needed or plays an important role in daily activities and one of them is the development of information systems (Salsabila & Iriyadi, 2020).

Hermanto et al., (2017) say that it is important to use information systems in academia to make it easier for activities or activities to fill in academic data easily. The feeling of student satisfaction at the University affects the services provided and the work of the system for the future and the lower the benefits received and felt by each student, the lower the student

satisfaction rating itself, the higher the benefits obtained or felt by each student, the higher the level of student satisfaction. In order to achieve an adequate level of student satisfaction, it is necessary to optimize services and systems and services according to their needs in higher education (Salsabila & Iriyadi, 2020).

The quality of information systems is the most important thing in developing an information system with a web base. To develop an information system system that has quality to develop an information system based on a website, user satisfaction is a very important factor. Web quality is influenced by 3 problems, namely system quality or system quality, service quality or service quality and information quality or information quality (Nugroho, 2016). An information system can be declared successful if the information system itself can be used easily and is able to fulfill user needs (Handayani & Sudiana, 2017).

At the University in service to students often experience a decrease in the performance of satisfaction given to students, and this will interfere with the governance of academic operations at the university, so that there needs to be attention and improvement of service performance. Therefore, it is necessary to have an activity to measure satisfaction performance, so that the progress of service performance can be evaluated and improved in the future.

And the problem that occurs at the university is that the academic information system used is already running but there are still some obstacles and less than optimal, such as (1) at the time of registration of new students, new students enter their biodata in the academic information system, there are errors in writing names, place of birth date and name mother, which if the data has been saved, the student cannot immediately repair the repair, but students still have to meet the academic staff at the Academic Administration Bureau with supporting evidence, so that it is hoped that there will be independent governance with information systems, but it still cannot be run properly ; (2) Obstacles also occur such as student errors in choosing courses or study plan cards (KRS) after the deadline, students cannot see the results of the previous semester's studies; (3) the value of student conversion results that never appear in the academic information system; (4) student delays in registering so that students cannot apply for a study plan card (KRS); (5) the difference in the number of students who appear in the absence of lecturers with those in the system; (6) not updating the number of students attending with absenteeism; (7) not updating the number of Lecturers attendance, (8) changes in student scores that have been entered into the system when the time limit is passed, so there is a need for a measuring device to see the results of evaluation of satisfaction performance through the E-Servqual Model.

The E-Servqual model is a comprehensive and integrative online service quality model because its dimensions really match the needs in assessing the quality of electronic services (F. Tjiptono & Chandra, 2019) .

## **2. METHODS**

The following research uses quantitative methods and is a type of research using a descriptive statistical approach which in this study does not require a hypothesis. Suliyanto & MM (2017) stated that not all research requires hypotheses, research that has an exploratory and descriptive nature does not require hypotheses.

a. Data Measurement Technique

The Likert scale is used in measuring data in this study, where respondents are asked to provide answers to the alternative answers provided. The Likert scale is used in measuring the perceptions of an individual or group, opinions, and attitudes regarding social phenomena, Sugiyono (2013: 92). Questionnaires are several written questions that are used to get answers from respondents in terms of reports about their personality or problems they know Arikunto (2010: 194)

b. Data analysis technique

In the following stages the activities are carried out, namely:

- 1) Analysis of e-Servqual Calculation Results
- 2) Analysis of CSI Calculation Results

### 3. RESULT AND DISCUSSION

a. *Validity Test*

The validity test used is CFA or stands for Confirmatory Factor Analysis. Through the use of factor analysis, several items in the following study can be analyzed further if the KMO MSA value is  $> 0.50$ , the Anti-Image Correlation value is  $> 0.50$  Meanwhile, each item is declared valid if the loading factor shows a value  $> 0.40$  (N= 200) and clustered in one factor.

**Table 4.1**  
**KMO Output Analysis & Bartlett's Test**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.945
Bartlett's Test of Sphericity	Approx. Chi-Square	12504.293
	df	1770
	Sig.	.000

Based on table 4.1, it is known that the KMO MSA value or Kaiser Meyer Olkin Measure Of Sampling Adequacy is  $0.945 > 0.50$ , so it can be concluded that factor analysis can be done.

**Table 4.2**  
**Anti-Image Correlation Output Analysis or Summary**

Indicator	Anti-Image Correlation Value	Chi-Square . Value	df Nilai value	Sig Value
Fulfillment 1	0.946	12504.293	1770	0.000
Fulfillment 2	0.947			
Fulfillment 3	0.948			
Fulfillment 4	0.942			
Fulfillment 5	0.935			
System Availability 1	0.947			
System Availability 2	0.957			
System Availability 3	0.963			

Privacy 1	0.932			
Privacy 2	0.96			
System Quality 1	0.952			
System Quality 2	0.957			
Information Quality 1	0.924			
Information Quality 2	0.938			
Information Quality 3	0.965			
Information Quality 4	0.955			
Information Quality 5	0.941			
Information Quality 6	0.941			
Service Quality 1	0.957			
Service Quality 2	0.96			
Service Quality 3	0.956			
Service Quality 4	0.934			
Service Quality 5	0.937			

Based on table 4.2, it is known that the Anti-Image Correlation value of all attributes  $> 0.50$  using a significance level of 0.000 which means that all tested attributes are said to be valid.

b. *Reliability Test*

The reliability test is carried out by observing the results of the Cronbach Alpha coefficient, if Cronbach Alpha  $> 0.7$ , so that the research instrument from the construct itself can be declared consistent or reliable (Ghozali, 2013: 48). Based on the results of data management through the use of the SPSS for windows version 28 program, it can be seen in several table 4.3

**Table 4.3**  
*Cronbach's Alpha Based on Standardized Items*

Attribute	Interest	Perception
Efficiency	0.925	0.904
Fulfillment	0.896	0.877
System Availability	0.873	0.837
Privacy	0.888	0.840
System Quality	0.885	0.826
Information Quality	0.958	0.940
Service quality	0.940	0.890

Source: data processed in 2021

The results of the reliability analysis obtained that the Cronbach Alpha Coefficient value of each variable is more than 0.7 which makes it can be stated that all of the following research instruments are classified as reliable.

a. Gap Calculation of E-Servqual indicators

After the expectation score and the reality score have the identification of the next step,

which is to make a comparison between the expected score and the reality score using GAP analysis. GAP analysis is used to identify priorities for Improvement or abbreviated as PFI, namely several areas that have the greatest potential to improve user satisfaction.

The results of calculating the user satisfaction gap value for each statement can be observed in table 4.4.

**Table 4.4**  
**User Satisfaction Gap Value**

NO	STATEMENT	Average value		Gab Value	Rank
		Perception	Expectation		
1 efficiency	Academic Web access speed	3.82	4.69	-0.87	3
2 efficiency	Efficiency of academic information systems in serving student needs	3.97	4.64	-0.68	5
3 efficiency	Ease of academic information system	4.08	4.61	-0.54	10
4 . efficiency	Easy-to-use academic information system interface	3.98	4.48	-0.50	14
5 . efficiency	Easy access to academic information systems with PC/laptop	4.09	4.56	-0.47	15
6 . efficiency	Ease of academic information system with android phone	4.08	4.62	-0.54	9
7 . efficiency	Ease of getting the information you are looking for in the Academic Information System	4.07	4.6	-0.53	12
Fulfillment 1	Communicative academic information system display	3.96	3.87	0.09	17
Fulfillment 2	Clarity of notification when data input error occurs	3.79	4.73	-0.94	2
Fulfillment 3	Academic Information System can be used at any time	4.14	4.6	-0.47	16
Fulfillment 4	Reliable academic information system	4.01	4.54	-0.54	11
Fulfillment 5	Network access speed when students need it	3.7	4.65	-0.95	1
System Availability 1	The appearance of the academic information system website is attractive	3.93	4.44	-0.50	13
System Availability 2	Help menu facility / Help in the academic information system	3.86	4.52	-0.66	6

System Availability 3	Academic information system web speed	3.79	4.6	-0.81	4
Privacy 1	Security guarantee Data confidentiality	4.21	4.76	-0.55	8
Privacy 2	Data encryption system that is not easy to hack	4.14	4.74	-0.60	7

Based on table 4.4, it can be seen that the data above shows that there is a gap in user satisfaction between perceptions and interests (expectations) on the e-servqual indicator. The difference between the mean perception and the user's expectation that the acceptance of the GAP score is a minus number indicates that there is user dissatisfaction with:

- 1) Network access speed when needed by students with a value of -0.95
- 2) The second rank is related to the clarity of notification in the event of a data input error with a value of -0.94.
- 3) The third rank is academic Web access speed with a gap value of -0.87.
- 4) The fourth rank of academic information system Web speed with a gap value of -0.81,
- 5) The fifth rank is the efficiency of academic information systems in serving the needs of students with a gap of -0.68,
- 6) Ranked sixth in the help menu facility / Help in academic information systems with a score of -0.66
- 7) Ranking the seventh data encryption system that is not easy to hack with a score of -0.60.
- 8) Rank eight security assurance Data confidentiality gap value (gap) -0.55,
- 9) Ranked ninth in the ease of academic information systems with android phones with a value of -0.54
- 10) Ranked tenth in the ease of academic information systems with the same score -0.54.
- 11) Rank eleven Reliable academic information system gap score -0.54
- 12) The twelfth rank is on Ease of getting the information you are looking for in the Academic Information System with a value of -0.53.
- 13) The thirteenth rank of the academic information system website display draws a gap value of -0.50,
- 14) Rank fourteenth Academic information system interface that is easy to use the value of the gap -0.50,
- 15) The fifteenth rank of ease of access to the academic information system with a PC/laptop with a value of 0.47 still has the same gap value, the sixteenth rank is that the Academic Information system can be used at any time.
- 16) The seventeenth rank is the display of a communicative academic information system that has a gap value of 0.09.

**b. Overall Service Quality Assessment**

The results of the overall service quality assessment or TESQ or the abbreviation of Total Electronic Service Quality can be interpreted in table 4.5.

**Table 4.5**

**Overall Service Quality Value**

DIMENSIONS	NO	STATEMENT	Average value		Average		TESQ
			Perceptio n	Expectatio n	Perceptio n	Expectatio n	
EFFICIENCY	1	Academic Web access speed	3.82	4.69	4.01	4.60	0
	2	Efficiency of academic information systems in serving student needs	3.97	4.64			
	3	Ease of academic information system	4.08	4.61			
	4	Easy-to-use academic information system interface	3.98	4.48			
	5	Easy access to academic information systems with PC/laptop	4.09	4.56			
	6	Ease of academic information system with android phone	4.08	4.62			
	7	Ease of getting the information you are looking for in the Academic Information System	4.07	4.60			
FULFILLMENT	8	Communicative academic information system display	3.96	3.87	3.92	4.48	0
	9	Clarity of notification when data input error occurs	3.79	4.73			
	10	Academic Information System can be used at any time	4.14	4.60			
	11	Reliable academic information	4.01	4.54			

		system					
	12	Network access speed when students need it	3.70	4.65			
SYSTEM AVAILABILITY	13	The appearance of the academic information system website is attractive	3.93	4.44	3.86	4.52	0
	14	Help menu facility / Help in the academic information system	3.86	4.52			
	15	Academic information system web speed	3.79	4.60			
PRIVACY	16	Security guarantee Data confidentiality	4.21	4.76	4.17	4.75	0
	17	Data encryption system that is not easy to hack	4.14	4.74			

Based on table 4.5 above, the TESQ values on the E-Servqual indicators are Efficiency equal to zero (0), Fulfillment equal to zero (0), System Availability equal to zero (0) and Privacy is equal to zero (0) from these results, it can be said to be "satisfactory" in the sense that there is no gap in user satisfaction obtained from field services.

#### Conformity Level

By determining the level of conformity, we can determine what initial strategy we will do with these indicators.

**Table 4.6**  
**Conformity Rate Value**

	Statement	Expectation	Perception	Conformity Level
Efficiency 1	Academic Web access speed	937	764	81.5%
Efficiency 2	Efficiency of academic information systems in serving student needs	928	793	85.5%
Efficiency 3	Ease of academic information system	922	815	88.4%
Efficiency 4	Easy-to-use academic information system interface	896	796	88.8%
Efficiency 5	Easy access to academic information systems with	911	818	89.8%



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	PC/laptop			
Efficiency 6	Ease of academic information system with android phone	923	815	88.3%
Efficiency 7	Ease of getting the information you are looking for in the Academic Information System	920	813	88.4%
Fulfillment 1	Communicative academic information system display	892	791	88.7%
Fulfillment 2	Clarity of notification when data input error occurs	907	757	83.5%
Fulfillment 3	Academic Information System can be used at any time	920	827	89.9%
Fulfillment 4	Reliable academic information system	908	801	88.2%
Fulfillment 5	Network access speed when students need it	929	739	79.5%
System Availability 1	The appearance of the academic information system website is attractive	887	786	88.6%
System Availability 2	Help menu facility / Help in the academic information system	904	772	85.4%
System Availability 3	Academic information system web speed	920	758	82.4%
Privacy 1	Security guarantee Data confidentiality	951	842	88.5%
Privacy 2	Data encryption system that is not easy to hack	947	827	87.3%
System Quality 1	Data traffic speed on academic information system	911	787	86.4%
System Quality 2	The responsiveness of the menus in the academic information system	909	789	86.8%
Information Quality 1	The latest academic information routine delivered every semester	929	820	88.3%
Information Quality 2	Academic information systems deliver announcements such as announcements on the bulletin board	916	802	87.6%
Information Quality 3	Information that appears in the academic information system is always updated	918	809	88.1%
Information Quality 4	The speed of delivering the information needed by students	930	784	84.3%
Information Quality 5	Conformity of information in academic information systems with student interests	925	806	87.1%
Information Quality 6	Students can fully understand information from academic information systems	922	802	87.0%

Information Quality 7	Reliable administration service	916	790	86.2%
Information Quality 8	Lecturer's ability to provide services to students	923	797	86.3%
Service Quality 1	The ability of administrative officers in understanding student difficulties	918	773	84.2%
Service Quality 2	The ability of teaching lecturers to provide solutions regarding student problems	927	782	84.4%
Service Quality 3	The ability of administrative officers to support teaching and learning activities	919	785	85.4%

In table 4.6, it is observed that the highest percentage of conformity in the Academic Information System indicator can be used at any time (89.8%) which means that users expect to be able to access the academic information system without being limited in time for that the University provides a server that is turned on 24 hours non-stop, the biggest indicator second, namely the ease of access to academic information systems with a PC/laptop with a suitability level value (TKi) of 89.8% which means that the expectations of users to be able to access academic information systems through a PC/laptop,

Therefore, academic universities provide bandwidth support of 150 Mbps as well as modems placed throughout the University area, the third largest indicator is the appearance of an attractive academic information system website with a suitability level (TKi) of 88.6%, this means that users expect that the system website Academic information is made as attractive as possible, this requires the University to always update and display academic information so that students will be interested and satisfied when using academic information systems.

Analysis of the level of user satisfaction on e-servqual indicators in academic services from the CSI value

**Table 4.7**  
**Customer Satisfaction Index (CSI)**

Attribute	Interest	Perception	WF	WS
	MIS	MSS		
Academic Web access speed	4.69	3.82	3.4%	0.13
Efficiency of academic information systems in serving student needs	4.64	3.97	3.4%	0.13
Ease of academic information system	4.61	4.08	3.3%	0.14
Easy-to-use academic information system interface	4.48	3.98	3.3%	0.13
Easy access to academic information systems with PC/laptop	4.56	4.09	3.3%	0.14
Ease of academic information system with android phone	4.62	4.08	3.3%	0.14
Ease of getting the information you are	4.60	4.07	3.3%	0.14

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looking for in the Academic Information System				
Communicative academic information system display	4.46	3.96	3.2%	0.13
Clarity of notification when data input error occurs	4.54	3.79	3.3%	0.12
Academic Information System can be used at any time	4.60	4.14	3.3%	0.14
Reliable academic information system	4.54	4.01	3.3%	0.13
Network access speed when students need it	4.65	3.70	3.4%	0.12
The appearance of the academic information system website is attractive	4.44	3.93	3.2%	0.13
Help menu facility / Help in the academic information system	4.52	3.86	3.3%	0.13
Academic information system web speed	4.60	3.79	3.3%	0.13
Security guarantee Data confidentiality	4.76	4.21	3.5%	0.15
Data encryption system that is not easy to hack	4.74	4.14	3.4%	0.14
Data traffic speed on academic information system	4.56	3.94	3.3%	0.13
The responsiveness of the menus contained in the academic information system	4.55	3.95	3.3%	0.13
The latest academic information routine delivered every semester	4.65	4.10	3.4%	0.14
Academic information systems deliver announcements such as announcements on the bulletin board	4.58	4.01	3.3%	0.13
Information that appears in the academic information system is always updated	4.59	4.05	3.3%	0.13
The speed of delivering the information needed by students	4.65	3.92	3.4%	0.13
Conformity of information in academic information systems with student interests	4.63	4.03	3.4%	0.14
Students can fully understand information from academic information systems	4.61	4.01	3.3%	0.13
Reliable administration service	4.58	3.95	3.3%	0.13
Lecturer's ability to provide services to students	4.62	3.99	3.3%	0.13
The ability of administrative officers in understanding student difficulties	4.59	3.87	3.3%	0.13
The ability of teaching lecturers to provide solutions regarding student problems	4.64	3.91	3.4%	0.13
The ability of administrative officers to support teaching and learning activities	4.60	3.93	3.3%	0.13
<b>Total</b>	<b>137.83</b>	<b>119.20</b>		<b>3.97</b>
<b>CSI VALUE</b>			<b>79%</b>	

Based on the analysis of the data in table 4.7 obtained from the calculation of the CSI

value or the abbreviation of the Customer Satisfaction Index, it shows that students feel satisfaction with academic services at the University of Gresik in accordance with the criteria for the value of the Customer Satisfaction Index (Astuti & Salisah, 2016). The problem itself goes hand in hand with research conducted by oleh (Mariana et al., 2020) where the student satisfaction index value of 79% shows that students feel satisfaction using the quality of services provided by the faculty during their lectures, or the same meaning as the faculty on average. able to provide quality services that provide satisfaction to students.

The following results provide satisfaction, of course, cannot be separated from the academic efforts at the University to always provide the best service to students related to their problems and needs during their studies. The following results should be maintained or until improvements are given so that the quality of academic services at the University from all aspects is able to provide satisfaction in the future.

a. *Gap Analysis Results on e-Servqual indicators in academic services.*

Based on the analysis of the data in table 4.4, it shows that the perception value is lower than the expected value, so that with the GAP score there is a minus number indicating user dissatisfaction. The problem itself goes hand in hand with research conducted by (Rahayu et al., 2019) where the satisfaction of users of the Academic Information System is still low, due to the lower average perception when an average comparison is made of user expectations.

The gaps in the indicators in e-Servqual are in the Fulfillment dimension, namely the speed of network access when students need it, Clarity of notification when data input errors occur, and in the Efficiency dimension, namely the speed of academic Web access and the efficiency of academic information systems in serving the needs of students. itself along with research conducted by (Rahayu et al., 2019) where the lowest E-Service quality attributes are several attributes located on the Cartesian diagram in quadrant 1 which have the meaning of these attributes being desired or deemed important for users but in the reality is still felt to have shortcomings including: Fulfillment dimension, namely users want academic information systems to provide user needs faster, data changes in academic information systems do not match the time of user needs and in the Efficiency dimension, information on academic information systems is not well organized and users have expectations that the site is well organized and more optimal to fulfill the function of the site itself.

By increasing the perception of service quality in the academic field on student satisfaction, its application to all service departments at the University of Muhammadiyah Gresik is getting better and more positive, so that student satisfaction can be higher. On the other hand, if the perception of service quality in the academic field on student satisfaction is carried out its implementation in all parts of the service provided by academics at the University is not good (negative), so that satisfaction will be lower. The need for service quality support in the form of improvements in the dimensions of Fulfillment, Efficiency

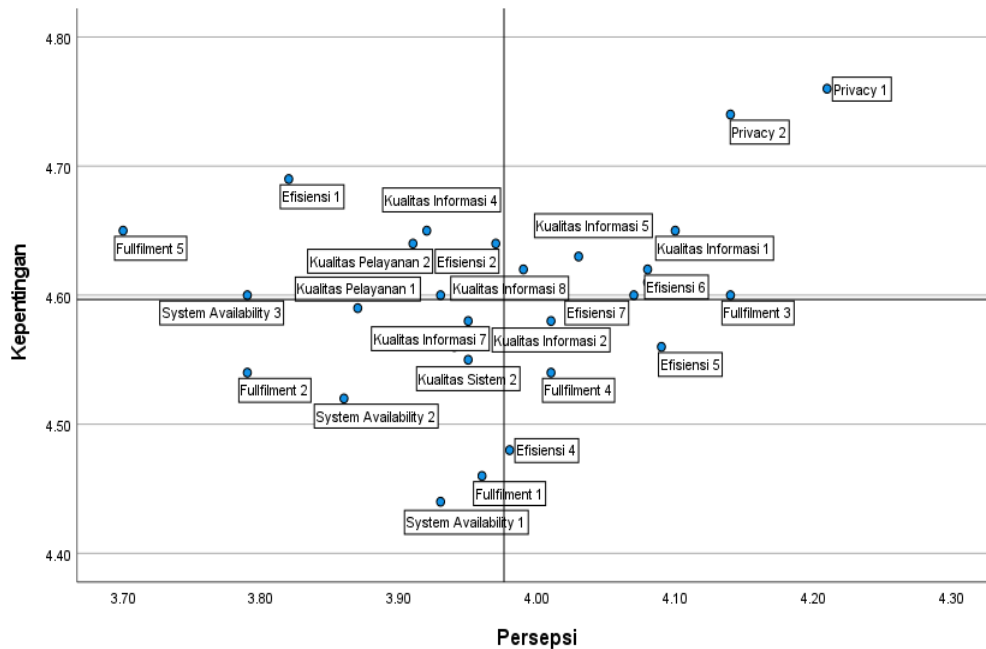
b. *The results of the analysis of the level of user satisfaction on e-servqual indicators in*

*academic services from the CSI value*

Based on the analysis of the data in table 4.7 obtained from the calculation of the CSI value or the abbreviation of the Customer Satisfaction Index, it shows that students feel satisfaction with the academic services at the University of Gresik in accordance with the criteria for the value of the Customer Satisfaction Index (Astuti & Salisah, 2016). The problem itself is in tandem with research conducted by (Mariana et al., 2020) where the student satisfaction index value of 78.4% shows that students feel satisfaction with the quality of service provided by the faculty during their studies or meaning that the faculty is on average able provide quality services that provide satisfaction to students.

These satisfactory results certainly cannot be separated from the efforts of the University of Gresik to always provide the best service to students related to their problems and needs while in lectures. The following results should be maintained or until improvements are made so that the service quality of Universitas of Gresik from all aspects can be very satisfying in the future.

c. *Strategy to improve service quality in the academic field based on indicators that are the main priority for improvement at the University*



**Figure 4.5 Cartesian diagram**

From the Cartesian diagram above, it can be interpreted as follows:

Quadrant I shows factors or attributes that are considered important by users but are not implemented properly by the University of Gresik. The indicators that cover the following quadrants are:

- 1) Academic Web access speed (Efficiency 1), which means that academic websites have fast access is an important issue so that users can use academic websites (such as academic driving licenses, real work college driving licenses and utility licenses) smoothly, which allows students to use and carry out the completion of the academic web stages in a timely manner that is adjusted to a predetermined schedule. In line with research conducted by (Ellyusman & Hutami, 2017) where in quadrant I as the main priority for improvement, the indicators themselves include: Indicator 4: Academic Web Portal delivers a sense of competence, which can be obtained at any time. The efficiency of the academic information system in serving the needs of students (Efficiency 2), Users want the information contained in the Academic Web Portal to be able to serve all the needs of students in order to obtain all information precisely and accurately. Along with the research conducted by (Ellyusman & Hutami, 2017) where in quadrant I as the main priority for improvement, the indicators themselves include: Indicator 14: Academic Web Portal provides information with the right level of detail. In an effort to provide improvements to the academic information system that can serve the needs of students, it is necessary to conduct a comparative study of the academic information system with other

universities, Hold a forum every year to socialize the features in the academic information system, Display more updated information,

- 2) Speed of network access when students need it (Fulfillment 5). This means that the speed of network access when students need it is important both in terms of speed or accelerated access, wider network outreach. It is intended that in the future the facilities provided will be better, and provide a sense of comfort for students to become the facilities themselves. In line with research conducted by (Ellyusman & Hutami, 2017) where in quadrant I as the main priority for improvement, the indicators themselves include: Indicator 4: Academic Web Portal conveys a sense of competence, which can be obtained at any time.
- 3) Web speed of academic information systems (System Availability 3), which means that academic websites have fast access is an important issue so that users can use academic information systems, for example compiling study plan cards, completing student biodata and viewing lecture schedules smoothly, so that users can use the academic information system without any problems. In line with research conducted by (Ellyusman & Hutami, 2017) where in quadrant I as the main priority for improvement, the indicators themselves include: Indicator 4: Academic Web Portal delivers a sense of competence, which can be obtained at any time. In an effort to increase the speed of academic Web access, it can be done by increasing the bandwidth,
- 4) The speed of delivering the information needed by students (Quality of Information 4), Students expect the information needed to be received quickly and accurately. Along with the research conducted by (Hanafri et al., 2018) Information is an important issue, the speed to convey information and access data is no less important for an organization to be able to compete. In an effort to increase the speed of delivery of information needed by students, the information submitted in the system is always up to date so that students can obtain information quickly and accurately.
- 5) The ability of administrative officers in understanding student difficulties (Service Quality a), Students expect that academic administrative officers have the ability to understand each student's difficulties, so that they can easily solve problems faced by students, the problem it self is in line with research carried out by (Along, 2020) where the quality of service has been well adjusted to the wishes and expectations seen from the attitude of the officers to provide assistance to students who are having difficulties. The recommendation for improvement is the friendly attitude of the officers who provide academic administration services to students. The ability of lecturers to provide solutions to problems from their students (Quality of Service b). Students expect that teaching lecturers have the ability to provide solutions to problems encountered by students, this is in line with research (Supriyanto, 2013) where the ability of lecturers has a positive relationship to teaching motivation. To improve the ability of lecturers in providing solutions to each problem encountered by students, the University of Gresik must carry out workshops to improve lecturer competence in implementing effective learning. This workshop is intended to improve the understanding and ability of lecturers in carrying out lectures, so that

effective learning support indicators can be understood and applied by lecturers. University of Gresik increases supervision of lecturers in carrying out lectures because as ordinary people, some lecturers sometimes work need to be supervised, because if some lecturers rarely carry out lectures and do not get reprimanded by the leadership, it is possible that other lecturers will be affected, then this bad habit more sustainable. This of course reduces the image of the University of Gresik in the future. Giving awards to lecturers who are considered to have good abilities in carrying out learning to motivate other lecturers in carrying out their duties optimally. because if some lecturers rarely carry out lectures and do not receive a warning from the leadership, it is possible that other lecturers will be affected, then the bad habit will be more sustainable. This of course reduces the image of the University of Gresik in the future. Giving awards to lecturers who are considered to have good abilities in carrying out learning to motivate other lecturers in carrying out their duties optimally. because if some lecturers rarely carry out lectures and do not receive a warning from the leadership, it is possible that other lecturers will be affected, then the bad habit will be more sustainable. This of course reduces the image of the University of Gresik in the future. Giving awards to lecturers who are considered to have good abilities in carrying out learning to motivate other lecturers in carrying out their duties optimally.

#### 4. CONCLUSIONS AND SUGGESTIONS

After the data has been obtained from various sources, it is processed and analyzed by researchers, so that conclusions can be drawn, namely:

- a. The gap of satisfaction on the dimensions of fulfillment and efficiency has a large influence on services in the academic field and the level of user satisfaction based on the value of the Customer Satisfaction Index (CSI) on e-servqual indicators in services in the academic field is 79%. , so that the strategy for improving the quality of services in the academic field can be done by (1) increasing the speed of academic web access; (2) perform the efficiency of the academic information system in serving the needs of students; (3) increase network access speed when students need it; (4) improve the web speed of academic information systems; (5) increase the speed of delivery of information needed by students; (6) improve the ability of administrative officers in understanding student difficulties,
- b. Therefore, academics at universities are expected to be able to maintain and provide improvements to the attributes that are considered good which makes users of academic information systems always feel satisfied with the quality of services provided and also pay attention to and provide improvements to the attributes that are felt to have performance that is still felt. lacking, for example, clarity of notification when data input errors occur, network access speed when students need it, web speed of academic information systems and the ability of administrative officers to understand student difficulties. Academics at universities are also asked to support the development of information systems that can support the stages of education using high technology and encourage the use of Information Technology



to produce innovative breakthroughs to carry out service activities at University of Gresik.

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