Iraise Satisfaction Analysis Use The End User Computing Satisfaction (EUCS) Method In Department Of Sains And Teknologi UIN Suska Riau

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Abstract

The academic information system of UIN Suska Riau, called Integrated Academic Information System (IRAISE), is a web-based information system built with a view to the organization of academic data. The question of whether or not was carried out. Therefore, to maintain the quality of an information system, it is necessary to evaluate and factor in user satisfaction. End-User Computing Satisfaction (EUCS) is the method used to measure the level of satisfaction of the user of the application system by comparing the expectations and realities of the information system, determined by variable content, accuracy, format, ease of use, dan timeliness. The number of samples in this study is 97 responded, and used Probability Sampling with Stratified Random Sampling. Data analysis techniques using software MINITAB. This study collects data using the interview process and distributing questionnaires. From the interview results, it can be said that there are things that must be improved in iraise. Such as iraise often experiences errors when many are accessing. iraise must continuously be updated. From the evaluation, it can be stated that the user was less content with iraise on the format variables with valuation value 2.99, corresponding with value-3.92 value-value 3.06, content variable with value-3.16 value-and variable ease of use with value-3.26. This shows the user is less content with the Iraise.

Keywords

Satisfaction, End-User Computing Satisfaction (EUCS), Integrated Academic Information System (IRAISE)

1. Introduction

The development of the industrial 4.0 revolution has brought about changes in many areas, one of which is education. Therefore, the ease and accuracy of information technology in college is an indispensable part of the academic information system. The academic information system is designed to meet academic needs, and web-based information systems are built to organize academic data to improve performance and quality of service.

The Integrated Academic Information System, also known as iraise is the academic portal in the Suska Riau. Iraise is made to enable students to do college activities, such as filling out student studies cards, looking at KHS history, value

transcript, subjects' courses, UKT payment history, and much more critical information. Hence. The aspects of iraise need to be noticed. As for the problem, there is the satisfaction of using iraise. Since iraise was used in the Suska Riau UIN, there has not been any measuring of users using the eucs method.

In this study, the authors interviewed 15 active students at the Suska Riau faculty of science and technology.

Table 1 Results Of Interviews

No	Questions	Agreed	Not Agreed	Do Not Give An Opinion
1	Information data is in complete Iraise	11	2	2
2	The information in iraise is very accurate	12	1	2
3	The design on iraise was interesting	2	13	
4	Iraise is easy to use	9	3	3
5	Iraise gives information on time	9	5	1
6	Iraise gives satisfaction to the user	11	4	

According to the interview, some things in iraise still make students unsatisfied. (Table 1)

1.1 Objectives

This study aims to determine the level of satisfaction of iron-user students in the Suska Riau department of science and technology using the eucs method. Furthermore, to know the unassigned variables for the satisfaction of iranian-user students in UIN suska riau's department of science and technology.

2. Literature Review

End-User Computing Satisfaction (EUCS) (Figure 1) Is the method used to measure the level of satisfaction of the user of an application system by subordinating the expectations and realities of an information system. As for deciding factors, satisfaction levels on eucs can be seen from multiple dimensions: content, accuracy, format, ease of use, and timelines. Eucs gratification indicator is:

a. Content is measuring user satisfaction from the inner side of the system. The contents of the system are usually functionaries and modules used by system users, as well as information generated by the system
b. Accuracy is quantify user satisfaction from the realm of data accuracy when a system receives input and then converts it into informationDimesnsi format atau bentuk mengukur kepuasan pengguna dari sisi tampilan program aplikasi itu sendiri
c. ease of use is Quantifying the satisfaction of user or user friendly in using systems such as the process of inserting data, processing data and searching for information
d. Timeliness measures user satisfaction from the system's punctuality in presenting or providing the data and information needed by the user.

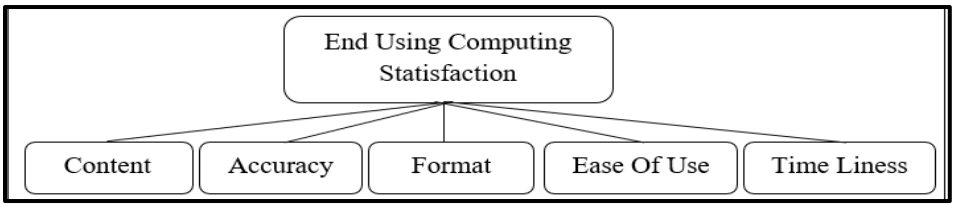


Figure 1 Model End Using Computing Satisfaction

2.1 Sample Retrieval Technique

Various sampling techniques determine the samples to be used in the research. The sampling technique can be grouped into two kinds of things probability sampling and non-probability sampling. The technique of this study using the intergalactic sampling technique consists of stratified random sampling using slovin methods with a limit of error tolerance of 0.1 or 10%

$$n = \frac{N}{1+Ne^2} \quad \text{...(2.1)}$$

$$n = \frac{3138}{1+3138 \text{ x } 10\%^2}$$

$$n = \frac{3138}{1 + 3138 \text{ x } 0{,}01^2}$$

$$n = \frac{3138}{1 + 31{,}38}$$

$$n = \frac{3138}{1 + 31{,}38}$$

$$n = 96{,}9$$

$n = 97$ responden

2.2 Validity Test and Recapabilities Test

2.2.1 Validity Test

A reliability test is used to test the accuracy of a gauge in measuring something that should be measured.

$$\mathbf{r_{xy}} = \frac{\mathbf{n}(\sum \mathbf{x_i y_i}) - (\sum \mathbf{x_i})(\sum \mathbf{y_i})}{\sqrt{(\mathbf{n}(\sum \mathbf{x_i^2}) - (\mathbf{x_i})^2)(\mathbf{n}(\sum \mathbf{y_i^2} - (\mathbf{y_i})^2)}} \quad \text{...(2.2)}$$

2.2.1 Recapabilities Test

According to notoatmodjo (2005) in widi r (2011), the religious ability is an index indicating the extent to which a measuring device is trustworthy or reliable—Cronbach's method alpha. Cronbach's alpha is used to seek reliable capabilities of instruments whose score is not 1 or 0. In Cronbach's alpha method, the formula is used as follows:

$$\mathbf{r_{11}} = \left[\frac{\mathbf{k}}{(\mathbf{k}-1)}\right]\left[1 - \frac{\sum \boldsymbol{\sigma_b^2}}{\boldsymbol{\sigma_t^2}}\right] \quad \text{...(2.3)}$$

2.2.1 Normality Test

The object of the standard test is to know if there are any normal variables or residual distribution in the regression model. A good regression model is a normal distribution or approaching normal. Smirnov colomogorov test. If asymp sig value > 0.05, then H_0 is supported.

2.2 Hypothesis

2.3.1 F Test

The f (simultaneous test) aims to know if all non-assigned variables can explain the variables' dependency. A model is said to be worthy when test results of its worthiness at a 5% value (Fayola dan Nurbaiti, 2020)

2.3.2 T-Test

Ghozali (2018:179) tests t is used to identify the enormous influence of one independent variable individually in the light of a dependent variable change. Free variable influence is said to be significant if the t count > t table values. Hence the variables are positive and significant. Conversely, if the value of t < t tables, the variables do not affect positive and significant. T tables used in 5% research

3. Methods

The study uses quantitative descriptive research to measure the satisfaction of the Iraise user in UIN Suska Riau. The data used in the primary form is from observation and interviews. The spread of the Google form questionnaires generated primary data from the respondents to this study. The secondary data is from UIN Suska Riau profile.

The sampling technique used in this study is probability sampling by a sampling of samples using stratified random sampling. Population 3138 students at the faculty of science and technology UIN Suska Riau. The number of samples was obtained by slovin formula with a 90% trust rate and with 97 samples added to the five categories: 29 informatics engineering students, 25 student information systems, as many as 17 student students, industrial engineering as many as 18 students, and mathematics as 8 students.

From the results of the filling of questionnaires will be converged on the scale of user satisfaction using the End User Computing Satisfaction (EUCS) method in every variable content, accuracy, format, ease of use and timeliness using minitab software. End-User Computing Satisfaction (EUCS) measure the level of satisfaction of the user of an application system by subordinating the expectations and realities of an information system

The data surveys of the questionnaires use the Likert scale with a choice of highly satisfied (4), satisfied (3), dissatisfied (2), and very dissatisfied (1). Then data processing is used to test validity, reliability, and normality. Validity testing uses calculating r values against the table r values. R table value is sought using the formula df = n-2. With a df reference is a significant level (0.05). When the r count is larger than the r table, the item is stated valid, and the r count is smaller than the r table, then the item is declared invalid. Quantifying instrument reliability in this study is using an alpha Cronbach instrument. One study is said to be religious as it meets the criteria of this instrument, which is if it is reliable coefficients > 0.6.

3 Data Collection

The data collection consists of primary and secondary data, where primary data is obtained from the results of observations, interviews, and the distribution of questionnaires. In contrast, secondary data consists of the business profile of profiles UIN Suska Riau and journals.

The questionnaire was distributed using an online-based google form to 97 Faculty and Technology students. (Table 2)

Tabel 2 EUCS Variabels Questionnaire Indicator

Dimensions EUCS	Indicator	Question
Content (X1)	C1	Iraise give you the information you need?
	C2	The information data is in complete iraise?
	C3	Iraise functions are easily understood?
	C4	Iraise give any clear information?
Accuracy (X2)	A1	Iraise give accurate data information?
	A2	Iraiseshowing output according to command?
	A3	Information is in credible iraise?
Format (X3)	F1	Iraise has a more accessible layout of users?
	F2	The colour iraise is interesting?
	F3	Iraise view is easy to understand?
Ease of Use (X4)	E1	Iraise is easy to use?

	E2	The system of iraise is easily accessible anytime & anywhere?
Timeliness (X5)	T1	Iraise displays the latest information?
	T2	Iraise give information in time?
Satisfaction (Y)	S1	Information on iraise is reliable?
	S2	Iraise gives satisfaction to the user?

4.1 Data

The data used were students in the Suska Riau department of science and technology. Here is the recapitulation of science and technology student.

The following is student data from departments in the faculty of science and technology: (Figure 3)

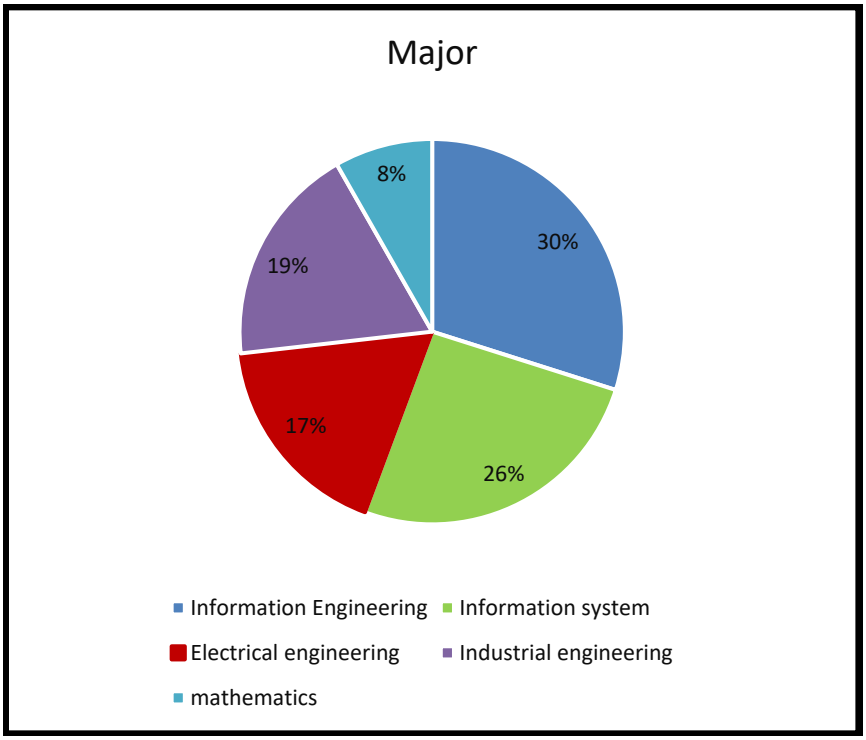


Figure 3 Department respondents diagram

The following is student data from the class in the faculty of science and technology: (Figure 4)

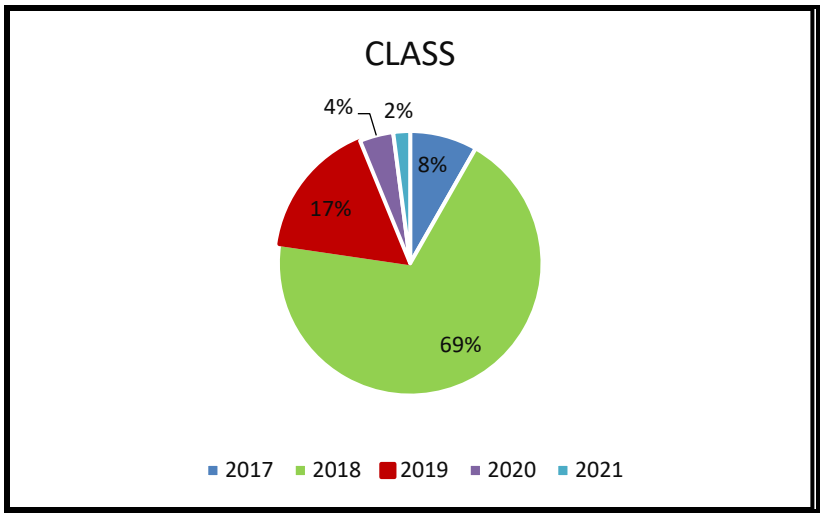


Figure 4 Respondent diagram

4.2 Validity Test and Reliability Test

Validity and reliability tests were carried out to determine the validity or suitability of the questionnaires used in measuring and obtaining research data from respondents. Validity and reliability tests were conducted using MINITAB 20 software.

4.2.1 Validity Test

The following is the data table of validity test results that have been done (Table 3)

Table 3. Validity test

Statement Item		R Count	R Table	Conditions	Conclusion
Content (X1)	C1	0.302	0.199	r count > r table	Valid
	C2	0.506	0.199	r count > r table	Valid
	C3	0.617	0.199	r count > r table	Valid
	C4	0.588	0.199	r count > r table	Valid
Accuracy (X2)	A1	0.664	0.199	r count > r table	Valid
	A2	0.687	0.199	r count > r table	Valid
	A3	0.474	0.199	r count > r table	Valid
Format (X3)	F1	0.580	0.199	r count > r table	Valid
	F2	0.410	0.199	r count > r table	Valid
	F3	0.640	0.199	r count > r table	Valid
Ease of Use (X4)	E1	0.630	0.199	r count > r table	Valid
	E2	0.661	0.199	r count > r table	Valid
Statement Item		**R Count**	**R Table**	**Conditions**	**Conclusion**
Timeliness	T1	0.641	0.199	r count > r table	Valid

(X5)	T2	0.567	0.199	r count > r table	Valid
Statisfaction (Y)	S1	0.164	0.199	r count > r table	Not Valid
	S2	0.383	0.199	r count > r table	Valid

From the table above, r count as any greater indicator than the table's r. Thus it may be known that all status question indicators are valid and will be used for further research.

4.2.2 Reliability Test

The measurement item is reliable if it has an alpha coefficient score of 0.6. The statistical test of Cronbach alpha was performed using the minitab20 program.(Figure 5)

Figure 5 Cronbach Alpha

In the image above can be determined that the value of Cronbach alpha is.8380. (Figure 5) Therefore the variable was declared religious because it had a greater value than 0.6. The following chart will present the results of the religious examination along with the massive Cronbach alpha for each questionnaire's question indicator: (Figure 6)

Omitted Item Statistics

Omitted Variable	Adj. Total Mean	Adj. Total StDev	Item-Adj. Total Corr	Squared Multiple Corr	Cronbach's Alpha
C1	44.000	5.622	0.2130	0.3646	0.8422
C2	44.113	5.502	0.4511	0.3740	0.8293
C3	43.979	5.429	0.5546	0.4591	0.8236
C4	43.814	5.426	0.5257	0.4267	0.8248
A1	43.897	5.438	0.6143	0.5111	0.8216
A2	43.918	5.375	0.6318	0.4957	0.8190
A3	43.742	5.561	0.3900	0.3103	0.8325
F1	44.186	5.388	0.5002	0.3896	0.8260
F2	44.309	5.506	0.3102	0.3099	0.8387
F3	43.959	5.354	0.5562	0.3919	0.8224
E1	43.814	5.422	0.5658	0.4588	0.8229
E2	43.948	5.320	0.5883	0.4074	0.8201
T1	43.990	5.367	0.5794	0.4314	0.8212
T2	44.175	5.370	0.4660	0.4111	0.8286
S2	44.175	5.560	0.1871	0.1644	0.8504

Figure 6 Calculation Cronbach Alpha Setiap Variabel

4.2 Normality test

The test is conducted to find out if the data used is authoritative or not. Data is perfectly normal when the p-value is greater than alpha (0.05). Standard testing of the study is done with the aid of the minitab20 program. (Figure 7)

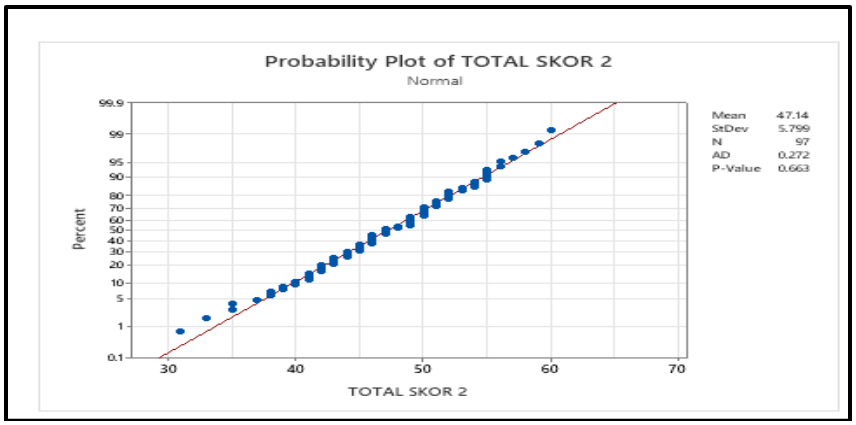


Figure 7 Data Normality Test

In the top 4.16 image, it can be seen that the p-value value of the data is a 0.150. Then it can be concluded that the data studied is value because of p-value (0.150) > alpha (0.05).

5 Résults And Discussion

5.1 Hypothetical test

On this hypothesis, test data will be tested to see if there is a link between iraise user satisfaction using test f and test t. this test was done using the minitab20 program

5.1.1 F Test

Testing f is a method if the p-value is smaller than alpha, then H_0 is accepted, and H_1 is denied. If P-value is bigger than the alpha then H_1 is accepted, and H_0 is denied. H_0 = all averages are the same. H_1 = not all averages are the same (Figure 8)

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	1	2.039	2.0394	4.89	0.029
Y	1	2.039	2.0394	4.89	0.029
Error	95	39.589	0.4167		
Lack-of-Fit	2	1.827	0.9133	2.25	0.111
Pure Error	93	37.763	0.4061		
Total	96	41.629			

Figure 8 Results f test

5.1.2 T-test

This test t is performed to see whether eucs' variable indicators affect user satisfaction. This test is based on a p-value comparison with an alpha. The hypothesis is denied if the value is greater than the alpha. If alpha is bigger than a p-value, then a hypothesis is accepted. The following will be described the results of the test t as follows (Figure 9)

a. Content (C) P-Value of 0.532 with an alpha of 0.05. It may be noted that p-value (0.532) > alpha (0.05) hence, To the conclusion that Content (C) Does not affect the satisfaction of the iraise user.

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	3.073	0.157	19.60	0.000	
Y	0.0317	0.0505	0.63	0.532	1.00

Figure 9 Results f test

b. Accuracy (A) P-Value of 0.229 with an alpha of 0.05. It may be noted that P-Value (0.229) > Alpha (0.05); hence, To the conclusion that Accuracy (A) Does not affect the satisfaction of the Iraise user (Figure 10)

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	3.109	0.158	19.62	0.000	
Y	0.0618	0.0510	1.21	0.229	1.00

Figure 10 Results f test

a. Format (f) unknown p-value value is 0039 with alpha by 0.05. It may be known that p-value (0039) thus hypotheses are accepted, with the conclusion that the format (f) affects iraise user satisfaction (Figure 11)

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	2.618	0.188	13.95	0.000	
Y	0.1265	0.0605	2.09	0.039	1.00

Figure 11 Results f test

b. Ease of Use (E) Unknown p-value value of.320 with an alpha of 0.05. It may be known that p-value (0.320) > alpha (0.05) is therefore denied, with the conclusion that the ease of use (e) does not affect iraise user satisfaction. (Figure 12)

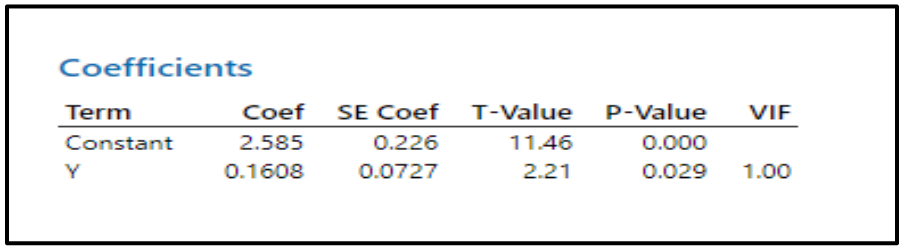
Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	3.064	0.208	14.73	0.000	
Y	0.0670	0.0670	1.00	0.320	1.00

Figure 12 Results f test

c. Timeless (T) Unknown p-value value of 0.029 with an alpha of 0.05. It may be known that p-value (0.029) thus

the hypothesis is accepted, with the conclusion that the timeless (t) affects iraise user satisfaction.



Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	2.585	0.226	11.46	0.000	
Y	0.1608	0.0727	2.21	0.029	1.00

Figure 13 Results f test

The picture shows the increase in eucs variable effect on user satisfaction. (Figure 13)

5.1.3 Assessment Of Satisfaction Indicator Iraise

This assessment of the consumer satisfaction indicator is using the subprogram of minitab20. The indicator of an evaluation is the indicator content, indicator accuracy, indicator format, indicator ease of use, and indicator timeliness. This evaluation eucs a statistic descriptive. The following Table 4 shows the results of each indicator question item evaluation.

Table 4 Textbook indicator test results

Indikator	N	Mean
Total variable Content	97	3.16753
Total variable accuracy	97	3.9210
Total variable Format	97	2.99313
Total variable Ease of Use	97	3.26289
Total variable Timeless	97	3.06186

The following is a Table 5 level of satisfaction

Table 5 Level of satisfaction

Range Nilai	Level of satisfaction
1-2	Unsatisfied
2,1- 3	Less satisfied
3,1- 4	Satisfied enough
4,1-5	satisfied

The following is a table level of Satisfaction assessment level results Table 6

Tables 6 Satisfaction assessment level results

Indikator	Value evaluation	description
Total Variable Content	3.16753	Satisfied enough
Total Variable Accuracy	3.9210	Satisfied enough
Total Variable Format	2.99313	Less satisfied
Total Variable Ease of Use	3.26289	Satisfied enough
Total variable Timeless	3.06186	Satisfied enough

6 Conclusion

The user on the website iraise has a reasonably good level of satisfaction in some variables. With variable indicators of format at a level of less satisfied satisfaction. Variable content, variable accuracy, variable ease of use and variable timelessness At a pretty content level. Yet no variable in the user was very satisfied with iraise.

The variable that affects the user's satisfaction is the format variable. It may be known that the user papacy will have an effect if the variable has a layout of views that facilitate the user, an exciting colour, and an easily understood view of iraise.

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