

# Pemanfaatan SIKADU Terhadap Kualitas Layanan Sistem Informasi Akademik

*Utilization of SIKADU on Quality of Service of Academic Information Systems*

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<sup>1</sup>Agus Arwani

<sup>1</sup> Islamic Accounting Department, IAIN Pekalongan

<sup>1</sup>Pekalongan, Indonesia

E-mail: <sup>1</sup>agus.arwani@iainpekalongan.ac.id

**Abstrak**— Kualitas layanan dan keterampilan Sistem Informasi Akademik Terpadu (Sikadu) untuk memoderasi hubungan antara penggunaan dan kualitas layanan Sikadu. Tujuan penelitian ini untuk mengetahui pengaruh sistem informasi terhadap kualitas pelayanan serta memoderasi penggunaan sistem informasi. Metode penelitian ini menggunakan metode penelitian lapangan dengan pendekatan kuantitatif. Mahasiswa program studi, dosen dan staf pengajar dari FEBI IAIN Pekalongan dan metode pengambilan sampel dengan Non-Probability Sampling dengan teknik accidental sampling. Hasil penelitian yang diperoleh Kualitas Sistem Informasi memiliki pengaruh positif signifikan terhadap kualitas layanan. Ini menunjukkan bahwa sistem kualitas informasi yang baik dapat meningkatkan kualitas layanan. Kualitas sistem informasi memoderasi pengaruh penggunaan pemanfaatan pada kualitas layanan, sehingga dapat disimpulkan bahwa variabel utilitas Sikadu termasuk variabel moderasi. Ini menunjukkan bahwa sistem informasi yang berkualitas mempengaruhi penggunaan teknologi pada kualitas layanan.

**Kata Kunci**—Layanan, Kualitas, Sistem Informasi

**Abstract**— *The service quality and Integrated Academic Information System Skill to moderate the relationship between Sikadu use and service quality. The purpose of this study is to determine the effect of information systems on service quality and decrease the use of information systems. This research method uses field research methods with quantitative approaches. This study student, lecturers, and teaching staff program from FEBI IAIN Pekalongan and sampling methods with Non-Probability Sampling with accidental sampling techniques. The results of the study obtained Information System Quality has a significant favorable influence on service quality. It shows that the quality of information quality system can improve service quality. The variety of information systems moderates the effect of using utilization on service quality, so it can conclude that the Sikadu utility variable includes moderating variables. It shows that quality information systems influence the use of technology on service quality.*

**Keywords**—Service, Quality, Information System



## I. INTRODUCTION

The development of Information Technology in the last decade has increased rapidly[1]. Its use in the life of the community at large also experienced a considerable increase [2]. Various interests are the basis of consideration, from starting only as a lifestyle or complementary to being a device and means that occupy a vital position[3]. It happens to each community but also happened to the organization widely[4].

The development of science and technology, especially in the fields of computers and communication sciences[5] causes system changes in an organization, which have an impact on the way of working to achieve work progress[6]. Information technology applies to job management because of the effectiveness and efficiency of work that ultimately increases profits both finally and networks all [3].

According to O'Brien in a book entitled Information Technology Association of America, information technology is a study, design, development, implementation, support or management of computer-based information systems, especially software applications and computer hardware[7]. Rapid advancements in information technology and the potential for widespread use, open opportunities for accessors[8], and process information in large volumes quickly and accurately. Every government, private, and tertiary organization or institution is ensured to have a particular unit tasked with administration related to filing[9]. One of the enormous impacts of information technology on the field of filing is the emergence of one type of archive called the Electronic Archive. Files that were previously limited to paper-type archives are now developing into media archives presented in electronic media[3]. Information technology makes it possible to create automation and digitalization in the field of filing that facilitates the management of records as information. Digitizing archives can help managers to manage effectively and efficiently [10].

Information technology defines as a combination of computer technology and telecommunications with other technologies such as hardware, software, databases, network technology, and other telecommunications equipment[11]. One that utilizes information system technology is a college institution. For higher education institutions, information system technology has become a necessity to support the education process[12].

Information technology of utility not only in government organizations or the private sector but also in the public industry [8]. One of the public sector agencies that utilize information system technology is higher education institutions[5]. For institutions of higher education, information system technology has become a necessity to support the education process[13].

The use of information technology is needed to improve efficiency and productivity for the management of education in higher education[14].

There are various kinds of information systems using information technology , including Electronic Data Processing Systems, Data Processing Systems (DPS), Decision Support Systems (DSS), Management Information Systems (MIS), Executive Information Systems (EIS), Expert Systems (ES), Accounting Information System (AIS) and Enterprise Resource Planning System (ERPS), Bodnar[15]. Communication channels that can be used to communicate are standard telephone lines, coaxial cable, fiber optics, microwave systems, communications satellites, cellular radio, and telephone[15] while network configurations that can be used to communicate are Wide Area Network (WAN), Local Area Network (LAN), and Client / Server Configurations[16].

Alpar and Kim's research, Barua, at the year 1995 and Brynjolfsson and Hitt in 1996 provide empirical evidence that investment in information technology can contribute positively to individual performance and company productivity. The use of sophisticated computer-based information technology allows management to implement information systems that can provide information that is oriented to help managers make managerial decisions and staff to complete tasks assigned by the organization to them[17].

Information technology of an organization is used to improve the performance of individuals as members of the organization that are expected to improve organizational performance[18]. Burton et al. 2003 stated that the importance of using information systems as a performance chain and the results are widely recognized at the level of analysis from 1995's Goodhue and Thompson, Dennis's 1993 group and 2003 Devaraj and Kohlitahun's opinion organization. Therefore, organizations that applying information technology needs to pay attention to the extent to which the success of the system has a positive impact on improving the performance of both individuals and organizations as a whole[19].

Previous research conducted by Goodhue and Thompson in 1995 used the Technology to Performance Chain (TPC) model that tested it a task, technology, and individual components, as well as the interaction of these three things to the impact of user evaluation. According to research, Goodhue and Thompson provide empirical evidence that there is an influence of information technology on the performance of the individual[20]. Darwin in 1999 also provided empirical evidence that computerization had a positive impact on individual performance. The results of this research are supported by Diana in 2001, who proved that the use of information technology has a significant positive effect on the performance of accounting employees[5].

The research conducted by Goodhue and Thompson has a weakness because it only emphasizes the compatibility factor between technology and task[21]. Performance

improvement is not only influenced by this but also depends on other factors (e.g., habits, social factors, and others). In this case, the research on the conformity factor will be more useful if it is combined with factors related to the attitudes and behavior of the user[22].

According to Davis in the theory of Technology Acceptance Model (TAM), it explains that the user's perception will determine his attitude in the use of IT [23]. In TAM, it is illustrated that the acceptance of IT usage[24] influenced by the usefulness (usefulness) and ease of use (ease of use). Benefits and ease of use influence interest behavior [25]. Technology users will have an interest in using technology (interest in practice) if they feel the technology system is useful and easy to use. Users of information systems will use the system more if the information system it's easy to use. Conversely, if the information system is not easy to use (complicated), the user will be less in utilizing the information system[14].

Information systems are a set of interconnected components whose function is to collect, process, store, and distribute information to support decision making and supervision in the organization[26]. According to Al-bahra bin Ladjamudin information systems can be defined as a human-made system that consists of components within the organization to achieve a system that is presenting information[27].

This research will be conducted at the Faculty of Economics and Islamic Business in IAIN Pekalongan with a sample of students and employees at the Faculty of FEBI IAIN Pekalongan. This research performs at IAIN Pekalongan with several considerations. The first consideration that information technology has uses in the public sector, especially in IAIN Pekalongan. The second consideration is that there is an information system development in IAIN Pekalongan so that it is necessary to know the impact of information systems on services. The third consideration, research on the effect of the use of integrated academic information systems (Sikadu) on the quality of individual services with quality of service (tangible, reliability, responsiveness, assurance and care) has used fully in the public sector. The fourth consideration, because there are still some differences in previous research, in some studies reveals that the use of technology, on the other hand, Straub, et al. 1985; Szajna et al. In 1993 found that the use of technology would reduce performance, and there was even research that revealed that technology had no effect on Gelderman's performance in 1998.

In this study, it is using empirical studies at the Faculty of Economics and Business Economics (FEBI). It is because, in the Faculty of FEBI, there are students related to Information System Technology and many courses that integrate with IT. Samples are individuals who referred to Faculty IAIN FEBI Pekalongan consisting of students, staff, and faculty, with consideration having sufficient experience and knowledge about the system.

IAIN Pekalongan, as one of the state universities, has utilized information technology. Information technology uses as a tool for efficiency and effectiveness in managing IAIN Pekalongan. Utilization of information technology in IAIN Pekalongan has experienced development. Before 2004 the use of information technology at IAIN Pekalongan was limited to using computers using Microsoft Office programs (Microsoft Word, Microsoft Excel, and others). Since in 2010 at the IAIN Pekalongan made an integrated academic information system.

IAIN Pekalongan Integrated Academic Information System or better known as "SIKADU" is a web-based information system built to organize academic data at Pekalomngan IAIN online. The organization of data intended includes management of student registration systems, lecture scheduling systems, management of Study Plan Cards (KRS) students, monitoring lectures, organizing student grades, and handling graduation registration. Sikadu can be accessed online via the internet network with the address: <http://sikadu.iainpekalongan.ac.id/>

Some of the facilities provided by Sikadu include registration information, student biodata information, class schedules, information on the progress of student learning outcomes, a recapitulation of academic grades, lecturer teaching assignments, and other data statistics. Also, Sikadu provides print facilities for educational administration purposes that can be used by all operators from the university level to the study program. Some information offers to members officials, which it uses like control of various academic processes in the current semester, as well as decision-making materials or strategic policies needed.

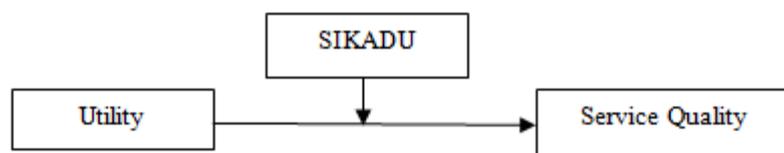
With the existence of Sikadu, it is expected that the academic administration process that was served with a stand-alone system and through a limited computer network can be replaced with an internet-based information system, so that information access for users, students, lecturers, employees, and other interested parties can be served quickly, precisely and accurately. Based on the differences in the results of previous studies and to find out the success of an integrated academic information system (Sikadu) has a positive impact on improving the quality of services, a researcher is conducted organizations to provide information for users in the context of decision making.

## II. RESEARCH METHOD

This type of research is field research, which is a type of research aimed at solving practical problems in society[28]. Because this study uses a quantitative approach, and the kind of research is a field, the focus of this research is the focus. This study uses a quantitative approach, which is a study that uses more of the logic of the verification hypothesis that begins with deductive thinking to derive hypotheses and then conduct tests in the field and the conclusions or hypotheses are drawn based on empirical data[29].

The population is the whole sub- research area[30]. The population is all data that concerns us in the scope and time we specify. The population of this study is students, lecturers, and faculty employees of FBI IAIN Pekalongan. Non-Probability Sampling is a retrieval technique sample not randomly selected. Elements of the population chosen as samples can be caused by accident or due to other factors that have been previously planned by the researcher [31]. The sampling technique in this research is to use sampling accidental (accidental sampling) is a sampling technique based on chance, that anyone who accidentally met with investigators can be used as a sample when seen people who happened to encounter it suitable as a data source. The number of respondents in this study was 122 people. This research was conducted from April to August 2018, located at the Faculty of Economics and Islamic Business in IAIN Pekalongan.

Variables are concepts that can be measured and have values [32]. The independent variable in the research is the quality of information systems. The dependent variable in this study is service quality. Information system variables have six indicators: usability indicators, efficiency indicators, reliability indicators, capacity indicators, simple indicators, and flexible indicators. Service quality variables have five indicators: physical proof indicators, reliability indicators, responsiveness indicators, assurance indicators, and caring indicators. The moderating variable is the utilization.



**Figure 1.** THEORETICAL FRAMEWORK

The technique and data analysis of this study go through several stages. The first stage tests the validity and reliability of the instrument. The second stage of data analysis includes the classical assumption test. The third stage is a linear regression analysis. And the third stage is testing the hypothesis through t-test and F test. Figure 1 obtained information that utility affects the service with the Sikadu moderator variable[33].

### III. RESULTS AND DISCUSSION

The results of the literature survey found that to find out the success of an integrated academic information system (Sikadu) has a positive impact on improving the quality of services; organizational research is conducted to provide information for users to make decisions[34]. Meanwhile, through Home Visits primary t information technology utilization by using Reasoned Action Theory. Fishbein and Ajzen developed this theory based on social psychology. According to the Theory of Reasoned Action, the individual performance of a predetermined behavior will be determined by the intention of the action to be taken with the goal of the practice jointly determined by personal attitudes and subjective norms[35].

Nurul Huda Agustiani's research entitled "The Influence of the Use of Integrated Academic Information System (SIKADU) on Individuality performance with Ease of Use as Moderating Variables (Empirical Study at the Faculty of Engineering, Semarang State University)[14]. This study aims to determine the effect of the use of integrated academic information system (SIKADU) on individual performance with ease of use as a moderating variable. The results showed that the variable utilization of integrated academic information system (SIKADU) had a significant positive effect on individual performance. While the ease of use variable does not moderate the impact of using SIKADU on their performance, so the ease of use variable is not a moderating variable

Another theory is the Reasoned Action Theory (TRA) Fishbein and Ajzen in Jogianto stated: "Reasoned Action Theory is based on social psychology, according to Reasoned Action Theory, individual performance of predetermined behavior will be determined by the intention of the action to be carried out with behavioral goals determined by personal attitudes and norms - subjective norm[36].

The purpose of the behavior, according to Fishbein and Ajzen, is the power of a person to take the prescribed actions. The use of the practice is defined as positive or negative feelings about a response. Subjective norms interpreted as a person's perception that most people are vital for him to estimate the need to take action [35].

Viewed from an information system perspective, this useful aspect for the theory developed by Fishbein and Ajzen lies in its assertions which state that other factors influence behavior indirectly also influenced by effect, social norm, or relative weight. Therefore, variables such as system design characteristics, user characteristics, task characteristics, the nature of the implementation process and development, political influence, organizational structure and others which categorized as external variables[37].

An information stem can provide added value for the organization if it is designed to be a quality information system because, with a quality information system, the organization will be able to achieve its goals. To find out more about the understanding of information systems developed by several experts. Krismiaji said that for information to be useful, data must have the following qualities or characteristics: (1) "Relevant, meaning that information can increase knowledge or value for decision makers, by reducing uncertainty, increasing the ability to predict, or confirming/justifying initial expectations. (2) Trustworthy, meaning that information must be free from errors or biases and accurately describe the events or activities of an organization. (3) Complete, saying that information does not eliminate essential data needed by users; (4) Timely, meaning that information is presented at the right time to influence the decision making the process. (5) Easy to understand, meaning that information is presented in a format that is easy for the user to understand. (6) Verifiable, saying that data can allow two people who are competent to produce the same information independently[38]. According to Krismiaji, information systems are ways that are organized to collect, enter, process and store data, and techniques that are held to store, manage, control and report information in such a way that an organization can achieve its intended goals.

According to Azhar Susanto, Information Systems are a collection (integration) of sub-systems, both physical and non-physical, that are interconnected and cooperate harmoniously to achieve a goal of processing useful information[39]. According to Azhar Susanto, information system components can group as follows: (1) Hardware, (2) Software, (3) Brainware, (4) Procedure, (5) Database, and (6) Communication Network[39].

The primary purpose of information systems is to provide the information needed by all the user, both internal and external. Wilkinson, quoted by Abdullah, said there were three main targets want to achieve organization in the development of information systems. The three goals are as follows: (1) Providing information to support daily operations; (2) Providing information that supports internal party decision making; (3) Providing information to fulfill obligations related to organizational wealth[40]. "

According to Amoroso and Cheney Use and user, satisfaction is widely used as a measure of the success of an information system. These two variables used by Schiffman et al. (1992) and Doll and Torkzadeh (1998). Other researchers base their research on attitudinal and behavioral theories of technological aspects, for example, high-quality systems affect user attitudes, operations in the form of beliefs and affections for the order in question.

Research has differences in previous studies. The differences in research in terms of research indicators differ from earlier studies so that they can add insight into knowledge in terms of different theories, namely using the MC Delone theory.

The results of the study were to measure three main variables, namely the utilization of an integrated academic information system (Sikadu), service quality, and information system quality. The results of the study include a general description of the respondents, a description of the research variables, data quality test, classic assumption test, hypothesis testing, and discussion.

### Overview of Respondents

The characteristics of the respondents of the study are as follows

**Table 1. PROFILE OF RESPONDENTS [41]**

Description	total	Percentage
Gender :		
a. Man	46	37,7 %
b. Woman	76	62,3 %
Education:		
a. S3	0	0%
b. S2	12	9.8%
c. S1	3	2.5%
d. D3	0	0%
e. High school	105	8.6%
a. Others	2	1.6%
Position:		
a. Lecturer	12	9.8%
b. Staff / Employees	3	2.5%
c. College student	107	87.7%
Age:		
a. Less than 20 years	44	36.1%
b. 21-30 years	65	53.3%
c. 31-40 years	13	10.7%
d. More than 40 years	0	0%

Table 1 shows that a total of 122 respondents, there were 46 male respondents (37.7%) and 76 female respondents (62.3%). Based on the latest education, the study respondents consisted of 12 people (9.8%) with S2 education, 3 people (2.5%) with S1 knowledge, 105 people (86.1%) with high school / MA / SLTA education, 2 people (1,0%) other educated (package C, Muadalah Pesantren). In this study the research respondents consisted of 3 elements of lecturers, staff / employees and students, most of which consisted of FEBI faculty students comprised of the Department of Islamic Economics, Sharia Banking and Islamic Accounting totaling 107 people (87.7%), Lecturers of the Faculty of FEBI there are 12 people (9.8%) and staff/employees who are operators of FEBI are 3 people (2.5%). Based on the age of respondents less than 20 years old, there were 44 people (36.1%), the age of respondents 21 to 30 years amounted to 65 people (53.3%), the age of respondents 31 - 40 years amounted to 13 people (10.7% )

## Description of Research Variables

In this study, there are three variables used, namely the utilization of an integrated academic information system (Sikadu), service quality, and information system quality. Variable usage of integrated educational information system (Sikadu) used there are 3 items of questions, service quality variables there are 16 items of issues consisting of sub-variables namely tangible evidence totaling 3 items of problems, empathy completing 3 items of questions, responsiveness (responsiveness) numbered 3 items of questions, reliability amounted to 3 items of Also and assurance amounted to 4 items of problems. The information system quality variables amounted to 31 items consisting of six variables in the system quality variable, six quality information, six service quality questions, five use questions ( use ), User satisfaction (application satisfaction ) is five questions, and net benefits are five questions. The analysis in this study uses descriptive percentage frequency by using the SPSS 23.00 program to describe respondents' perceptions of the items in the questions asked. The tendency of respondents' answers to the answers of each variable is as follows:

## Data Quality Test

### 1. Reliability Test

The quality of data produced from the use of research instruments can evaluate through reliability and validity tests. Each of these tests to determine the consistency and accuracy of the data collected from the use of the tool. To measure reliability with Cronbach Alpha test statistics. A constructor variable is said to be reliable if it gives a Cronbach alpha value  $> 0.60$ [42]. The following are the reliability test results shown in table 2.

**Table 2.** RELIABILITY TEST RESULTS[41]

No.	Variable	<i>Cronbach</i> value <i>Alpha</i>	Information
1	Service Quality (Y)	0.859	Reliable
2	Information System Quality (X1)	0.897	Reliable
3	Utilization of SIKADU (X2)	0.616	Reliable

From the results of output reliability, the variable quality of service shows that it is reliable with Cronbach alpha 0.859, which means  $0.859 > 0.60$ . These results indicate that all questions regarding service quality are constant. From the output reliability results, the information system quality variable shows that it is reliable with Cronbach alpha 0.897, which means  $0.897 > 0.60$ . These results indicate that all questions regarding the quality of information systems are secure. From the output reliability, the variable utilization of SIKADU shows that it is reliable with Cronbach alpha 0.616, which means  $0.616 > 0.60$ .

These results indicate that all questions regarding the quality of information systems are secure.

## 2. Validity test

Validity tests are used to measure the validity or validity of a questionnaire. A questionnaire is said to be valid if the question in the survey can reveal something that will be measured by the survey. According to Ghozali, in 2006 to measure validity can be done by making a correlation between the scores of questions with a total score construct or variable[42].

The significance test does compare the value of  $r$  count with  $r$  table for the degree of freedom ( $df$ ) =  $n - 2$ , in this case,  $n$  is the number of samples. In this study the number of samples ( $n$ ) = 122 and the magnitude of  $df$  can be calculated  $122 - 2 = 120$ , with  $df = 120$  and  $\alpha = 0.05$ , obtained  $r$  table = 0.1496. To test whether each indicator is valid or not can be seen in the display of Cronbach Alpha output in the Correlated Item column - Total Correlation is good in the construct service quality, quality of Sikadu's information and utilization system. Then the value of the Correlated Item-Total Correlation is compared with the calculation of  $r$  table = 0.1496, if  $r$  count >  $r$  table and is positive, then the item or question is declared valid.

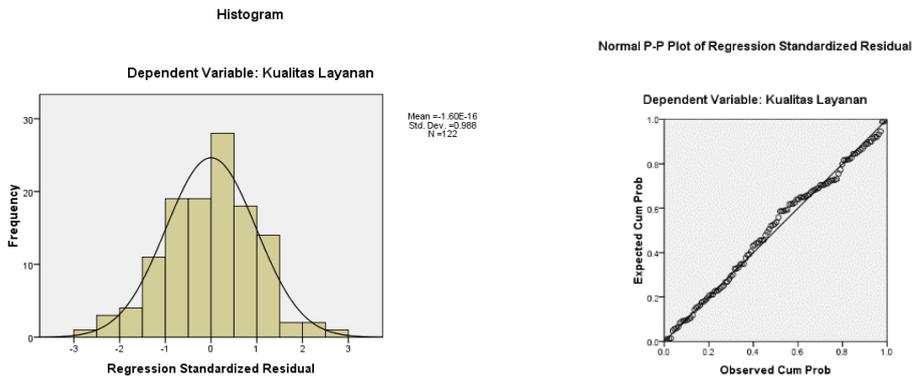
The value of  $r$  calculated Corrected Item-Total Correlation for construct indicators of service quality, information system quality, and Sikadu utilization > from  $r$  table 0.1496. So that results can be taken that all useful indicators of service quality, quality of information systems, and Sikadu utilization are valid.

## Classic assumption test

Testing statistics with regression analysis can be considered the absence of violations of the conventional assumption test[43]. The traditional assumptions include:

### 1. Data Normality Test

The normality test aims to test whether in the regression model, the independent variable and the dependent variable both have a normal distribution or not. A good regression model is one that has a standard or near-normal distribution. By looking at the histogram and typical graph display, the normality of the data select figure 2 below is the result of normality test data in the form of a histogram graph.



**Figure 2.** DATA NORMALITY TEST [41]

By looking at the appearance of the histogram graph and the regular plot graph, it concludes that the histogram graph gives a typical distribution pattern. Whereas in the ideal chart the plots appear to spread around the diagonal line and the spread follows the direction of the diagonal line. Both of these graphs show that the regression model meets the normality test.

## 2. Multicollinearity Test

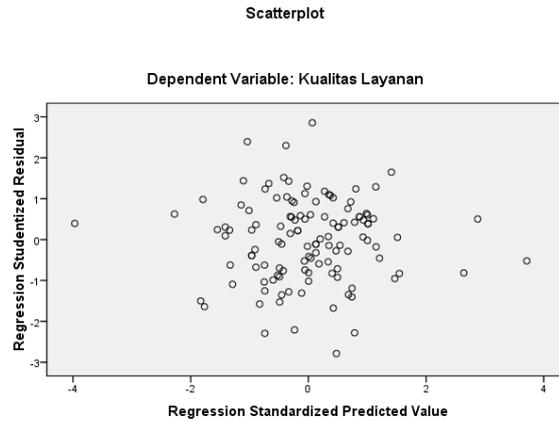
Multicollinearity test aims to test whether the regression model found a correlation between independent variables (independent)[44]. Multicollinearity sees from tolerance values and variance inflation factor (VIF). If the tolerance value below 0.10 or the variance inflation factor above ten then occurs multicollinearity. A good model should not correlate with independent variables. The results of the multicollinearity test are presented in the following table

**Table 3.** MULTICOLLINEARITY TEST[41]

Variable	Collinearity Statistics		Decision
	Tolerance	VIF	
Information System Quality	.953	1,049	There is no multicollinearity
Use of Sikadu	.953	1,049	There is no multicollinearity

The calculation of the tolerance value shows that there is no independent variable that has a toll of less than 0.10, which means there is no correlation between the independent variables whose value is more than 95%. The calculation of the Variance Inflation Factor (VIF) value also shows the same thing there is no one independent variable that has a VIF value of more than 10. So it can be concluded that there is no multicollinearity between independent variables in the regression model.

### 3. Heteroscedasticity Test



**Figure 3.** HETEROSCEDASTICITY TEST [41]

From the four scatterplot figure 3, it can see that the points spread randomly and spread either above or below the number 0 on the Y-axis. It concludes that heteroscedasticity does not occur in the regression model, so a decent regression model is used to predict service quality based on input system quality independent variables information and utilization of Sikadu.

### Hypothesis Test Results

#### 1. Determination Coefficient Test

The coefficient of determination test is done to find out how far the ability of the model in explaining the independent variables. Table 4 below is the test result of the coefficient of determination.

**Table 4.** COEFFICIENT OF DETERMINATION[41]

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735 <sup>a</sup>	.540	.529	5.006

a. Predictors: (Constant), AbsX1\_x2, Z-score: Use of Sikadu, Z-score: Ease of Use

The display of SPSS output Adjusted  $R^2$  is 52.9% which means that the service quality variable can be explained by the variable quality information system, Sikadu utilization and moderating variables around 52.9% and other variables explain the remaining 47.1% outside of this model.

b. Simultaneous Significance Test (Test Statistic F)

F test is used to determine whether there is influence together (simultaneously) the independent variable (free) to the dependent variable (dependent)[45]. Table 5 is the result of a simultaneous significance test (Test Statistic F).

**Table 5. SIMULTANEOUS SIGNIFICANCE TEST RESULTS[41]**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	3263,734	3	1087,911	46,233	.000 <sup>a</sup>
Residual	2776,659	11 8	23,531		
Total	6040,393	121			

a. Predictors: (Constant), AbsX1\_x2, Z-score: Information System Quality: Sikadu IAIN Pekalongan Utilization

b. Dependent Variable: Quality of Service

From the results of the ANOVA test or F test, it produces a calculated F value of 46,233 with a significance level of 0,000 far below 0.05. This means that the independent variables of information system quality, cyclic utilization, and moderating simultaneously or simultaneously affect service quality.

c. Individual Parameter Significance Test (Statistical Test t)

The t statistic test is used to determine the effect of one explanatory variable individually in explaining the variance of the dependent variable[46]. Table 6 below is the test result of the significance of individual parameters (statistic test t)

**Table 6. STATISTICAL TEST RESULTS T[41]**

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	31,811	10,574		3,008	.003
	ZScore: Information System Quality	2.134	1,286	.302	1,659	.43
	ZScore: Utilization of SIKADU Use	-8,083	4.216	-1.144	-1,917	.058
	AbsX1_X2	.029	.13	1,430	2.1 84	.031

a. Dependent Variable: Quality of Service

From the table above the regression formula is as follows

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_1 * X_3 + e$$

$$Y = 31,811 + 2,134X_1 - 8,083 X_2 + 0,029X_3 + e$$

Where, Y = Quality of Service  
X<sub>1</sub> = Information System Quality  
X<sub>2</sub> = Utilization of Sikadu

The results of the SPSS output display in table 6 show that individually, the information system quality variable gives a coefficient value of 2.134 with a significant probability of 0.043. The Sikadu utilization variable gives a coefficient value of -8,083 with a substantial probability of 0,058. Information system quality variables have a positive effect on service quality. The Sikadu utilization variable has a negative and no significant impact on service quality. The moderating variable of the use of sikadu turned out to be influential and significant, namely with a probability of 0.031 and less than 0.05.

#### d. Hypothesis testing

Based on the results of the Individual Parameter Significance Test (statistical test t) in the table above, it describes the results of testing the hypothesis as follows

#### **Hypothesis Testing 1**

Hypothesis 1 states that the quality of information systems has a positive effect on service quality. In table above, it can be seen that the value of the t variable information system quality is 1.659 while the cost of t table at the significance level of 5 % and df = 120 (122-2) is 1.65765 (can be seen in the distribution t-table) so t count > t table (1,659 > 1,65765). Meanwhile, for the significant value that is owned, the amount is 0.043, which means less than 0.05. These results indicate that the information system quality variable has a significant positive effect on service quality variables, so it can be concluded that accepting hypothesis 1 is that the quality of information systems has a positive and significant impact on service quality. Thus hypothesis 1 is accepted.

#### **Hypothesis Testing 2**

Hypothesis 2 states that the quality of the information system moderates the effect of Sikadu utilization on service quality. The table above shows that the sikadu utilization variable has a t-count value of -1.917. While the amount of t table at a significance level of 5% and df = 120 (122-2) of 1.65765 (can be seen in the distribution t-table) so that t count < t table ( -1.917 < 1.65765). Meanwhile, for the significant value that is owned, the amount is 0.058, which means higher than 0.05. These results indicate that the variable utilization of Sikadu has a negative and insignificant effect on service quality variables.

The moderating variable in the quality of information systems on service quality has a value of t count of 2.1 84. Meanwhile, for the significant amount that is owned by the magnitude is .03 1. Based on this, it means that there is significant influence between the quality of

information systems on the relationship between sikadu utilization and service quality. The test results show that the variety of information systems on the relationship between sikadu usage and service quality has a positive or significant influence on the quality of service. This finding shows that the variable usage of cycles is a moderating variable. Thus hypothesis 2 is accepted.

#### IV. CONCLUSION

From the results of testing regression analysis and testing the absolute difference value, it concludes that (1) Information System Quality has a significant positive effect on service quality. It shows that a sound quality information system can improve service quality. It can be seen that the value of the t variable information system quality is 1.659 while the cost of t table at the significance level of 5 % and  $df = 120$  ( $122-2$ ) is 1.65765 (can be seen in the distribution t-table) so  $t\text{-count} > t\text{-table}$  ( $1,659 > 1,65765$ ). Meanwhile for the significant value that owned the amount is 0.043 which means less than 0.05 (2) The quality of the information system moderates the effect of sikadu utilization on service quality, so it concludes that the Sikadu utilization variable includes the moderating variable. It shows that the condition of information systems affects sikadu utilization of service quality. Indicates that the sikadu utilization variable has a t-count value of -1.917. While the cost of t table at a significance level of 5% and  $df = 120$  ( $122-2$ ) is 1.65765 (can be seen in the distribution t-table) so that  $t\text{-count} < t\text{-table}$  ( $-1.917 < 1.65765$ ).

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