

THE IMPACT OF INFORMATION QUALITY AND SYSTEM QUALITY ON USER SATISFACTION IN WEB-BASED INFORMATION SYSTEM (Study on the Employees of Bank Rakyat Indonesia Malang)

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Abstract

The aim in this research are to analyze and explain the influence of information and system quality on BRINETS user satisfaction partially and simultaneously in Bank Rakyat Indonesia Malang.

Research that is used to test the hypothesis is explanatory research that performed using quantitative method. Data collection is conducted using questionnaire, interview and documentation techniques. Variable that used in this research are Information Quality, System Quality and User Satisfaction. Data analysis is conducted using Descriptive and Inferencial Statistic Methods including Multiple Regression Analysis.

The result are that information quality has significant impact with user satisfaction. System Quality has significant impact with user satisfaction. Information quality and system quality has significant impact with user satisfaction. However, the user satisfaction that employees felt not too big because some of them found that BRINETS still not good. This is because many obstacles that occur in BRINETS. Generally, system and information quality of BRINETS is good enough but, some employees believe that it is not good even worse.

Keywords: web based information system, information quality, system quality, user satisfaction, BRINETS (BRI Integrated Network and Information System).

INTRODUCTION

In globalization era, technology development has contributed positively to the use of information system. Firms can engage in electronic commerce the use of the computer as a primary tool for performing the basic business operations. Firms engage in electronic commerce for variety of reason, but the overriding objective is competitive advantage.

Many people commonly use the terms internet and World Wide Web interchangeably. This is not really a problem but people should remember that the internet itself is the global communications network that connects millions of computers. Its presence give positive impact in various sectors as a medium to get information universally.

“By **information** we mean data that have been shaped into a form that is meaningful and useful to human beings.” (Laudon & Laudon, 2012:15). The right use of information will increase the education of firms, so can improve the competitive advantage with good management that can make decision using the quality information. O’Brien & Marakas (2011:4) define “Information system is combination that organize by human, hardware, software, communication network, and data to collect,

transform, and disseminate the information in an organization”. Good system is system that can provide performance and benefit for users. Fulfill the users need will give satisfaction for user information system and can motivated to doing the job optimally.

User satisfaction generally determined by whether or not the users satisfaction are met. Firm needs to understand what the user need on information system that they used. User satisfaction of the system satisfaction related with system and information quality that generated by the information system.

System quality is quality from combination of hardware and software on information systems. Information quality in accordance with the needs and requires of the users will increase a level of satisfaction to the users.

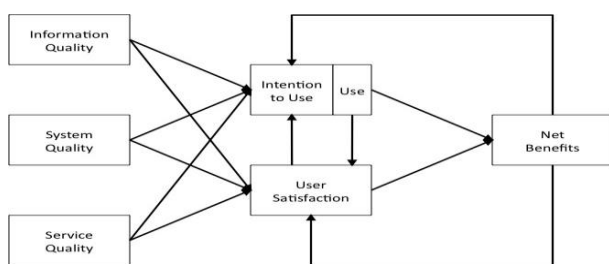
The banking sector has become an integral part of globalization itself. Banking vital role not only in the conventional activities such as saving and credit, but also be a part of all electronic transaction activities that become trend in daily activity where cycle of money only occurs electronically. In the process of improving the service quality to all customers, BRI is not only good in personnel, individual and interpersonal interactions with

customers, but also in banking technology. BRI has attempted to implement the information technology system and communication with development of systems. The name of online technology is BRI Integrated Network and Information System (BRINETS). Problems that occur in BRI related with BRINETS are speed and system response on produce information that too long. Researcher will explain the system and information quality that produce from information system that has been applied could provided satisfaction to user. It can show that evaluation needed on success of the system. According to DeLone and McClean (2003), “successes IS models could measured from multi

THEORYICAL REVIEW

DeLone & McLean IS Success Model (2003)

The basic theory in this research is using DeLone & McLean Is Success Model. DeLone & McLean created first IS Success model in 1992, but in this research used the updated D&M model in 2003. This is Success Model System Information from Delone and McClean (2003).



Picture 1 DeLone&McClean Is Success Model

Source: Delone& McClean (2003)

According to the DeLone & McClean models above, measure of success in applied an information system decided by 6 variables. The variables include information, system and service quality, intention to use (use), user satisfaction, and net benefits. Each variable that describe the success of information systems consistent with one or more of the six main dimensions from the model.

Web Based Information System

Internet creates a platform technology for running a new business, one of them to build a new type of production, services, strategy, and organization. The ability of the Internet known as the World Wide Web be the special attention from the manager and the organization.

Filipe & Cordeiro (2008:257) assume that “Web information systems is computer application construct using web technology”. Components of web-based

dimensional construct (such as system and information quality) that have a causal relationship, so that can estimated and predict the impact of IS usage on individual and organizations”.

Based on the background, the problem formulations are:

1. Does the information quality and system quality can influence on BRINETS user satisfactions partially in PT. Bank Rakyat Indonesia (Persero), Tbk. Malang?
2. Does the information quality and system quality can influence on BRINETS user satisfactions simultaneously in PT. Bank Rakyat Indonesia (Persero), Tbk. Malang?

information system according to O'Brien & Marakas (2011:178) divided into three web browsers, servers, and hypermedia databases.

Based on the description, researcher conclude that the web-based information system refers to systems that use Internet web technology that is a web browser to accessible wherever and convey the information to the user.

Information Quality

According Jogiyanto (2007:15) argues that "information quality measure the output quality from the information system”. Based on the explanation, conclude is information quality as a measurement focused in output that produced by system, and value from the users output.

Sutabri (2012:41) explained that information quality depended on three things, there are:

- a. Accurate

Information must free from mistakes and non misleading. Accurate means information have to clearly reflect the intention. Information have to accurate because it is usually from the source to the receiver of information may be occur the noise that can changes or destroy the information.

- b. Timeliness

Information that comes on the recipient may not be too late. The information is outdated will not have value anymore because the information is a basic in the decision.

- c. Relevance

Information has benefits for its user. Relevance of information for people with one another is different.

System Quality

Jogiyanto (2007:12) “System quality used to measure the system quality of information system

technology itself". Based on the opinions can conclude that system quality is the size of information system itself and focused in interaction between user and systems.

Nelson et.al., (2005:206) explained that system quality can be measure with five dimensionals, are:

- a. Reliability, measure the realibility of system that operated.
- b. Flexibility, system can adapt to a variety of user needs and the changing conditions
- c. Integrated, system makes it easy to combine the data from various sources to support business decision making.
- d. Accessibility, easy to access or generated the information from the system.
- e. Time response, assuming a rapid response system or timely to requests for information.

User Satisfaction

According Jogiyanto (2007:23) "User satisfaction is the user's response to the output of usage of information systems". That is means that rise of satisfaction causes the system used to optimally utilized with direct interaction between the user and computer. The researchers who use this approach assume that user is satisfied will have better performance than the user was not satisfied with the information systems. Based on the opinion above, conclude is user satisfaction related to response or user attitude with system interactions and usage of output, so it can be used optimally.

Satisfaction measurements that used in this research uses research from Somers et.al., (2005:597) reveals that "there are five dimensions of user satisfaction measurement, are: the content, accuracy, format, timeliness, and easy to use".

Relationship Between Information Quality and System Quality with User Satisfaction

Investation of information systems have benefit, to know the usage of information system can not be random. This is needs the measurement to determine information systems effectiveness. Measurements aimed to obtain information procurement success an information system facilities. An information system that can meet the needs of users will improve the user satisfaction. This is manifested by the tendency of increased use of the information system.

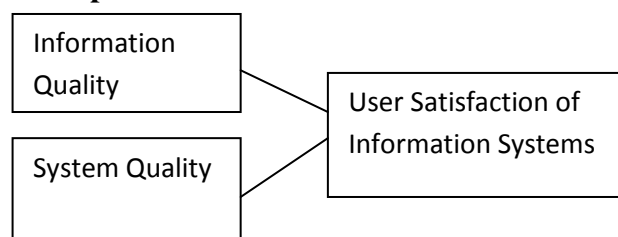
Conversely, if the system can not meet the information needs of users then the user satisfaction will not increase and further use will be avoided. This satisfaction relating to systems and information quality that produced by the information system.

Both information and system quality are assumed have a relationship with the user satisfaction. Better of system and information quality generated cause the user satisfaction of information systems will also increase.

Reliable information system if it has a good system and information quality and able to give satisfaction to the users. The failure of an information system may be due to the inability of an information systems meet the user expectations. System quality shows the size of the information systems that used. The good system quality will provide satisfaction for the user because it can help doing the job quickly. The results of research from DeLone & McLean (2003), shown that the system quality has a positive relationship to its user satisfaction.

Information quality indicates the measurement of information systems output. The higher the information quality that produced by an information system will further improve the user satisfaction.

Concept Model



Picture 2 Concept Model

From the picture above, can explained that information quality and system quality can influence user satisfaction of information systems. If the information and system quality have been properly fulfilled, it will give satisfaction for user of information system.

Hypothesis Model

Based on the background and theories that have been described, the formulation of the hypothesis in this research are as follows:

H1: There is a positive relationship between the information quality (X1) with user satisfaction (Y).

H2: There is a positive relationship between the systems quality(X2) with the user satisfaction (Y).

H3: There is a positive relationship among information quality (X1) and system quality (X2) with user satisfaction (Y) simultaneously.

Research Methods

Research that is used to test the hypothesis is explanatory research that performed using quantitative. As said by Singarimbun and Effendi(2006:5) "Explanatory research or explanation research is a research that explained the causal relationship between the variables using hypothesis testing".

According Sarjono and Julianita (2011: 21) "The population is all the characteristics that the research object, which is related to the characteristics of the entire group of people, events, or objects that are the center of attention for researchers". Based on the statement above, the population in this research are 108 employees in the Branch Office of PT Bank Rakyat Indonesia (Persero),Tbk. Malang that use BRINETs (BRI Integrated Network and Information System).

"Sample is subset of population, consist of several member of population. This subset is taken because in many cases may impossible to select the entire population, therefore we formed a representative of population that called sample." (Ferdinand, 2006)

In this research, due to time constraints, not all the population can be used in sample. Based on this reasons, the sample that researcher selected is 52 employees from population in the Branch Office of PT Bank Rakyat Indonesia (Persero) Tbk. Malang. The formula that used to determine the amount of sample is Slovin formula:

$$n = \frac{N}{1 + Ne^2}$$

n : sample

N : Population

e : percentage leeway carefully situations due to lack of sampling error that can be tolerated (10%).

Source: Prasetyo & Lina (2008:137)

$$n = \frac{108}{1 + 108(0,1)^2}$$

$$n = \frac{108}{1 + 108(0,01)}$$

$$n = \frac{108}{1 + 1,08}$$

$$n = \frac{108}{2,08}$$

$$n = 51,923076923077$$

From 108 people as population, with 10% critical limit (e) the number of sample to be taken are 52 respondents.

Data Collection Techniques

Data collection techniques in this research using three ways, there are:

a. Questionnaire Distribution

Data collection techniques done by providing a written statement to the respondent to be answered. The contents of the questionnaire are a statement relating to the system and information quality with user satisfaction of information system.

b. Interview

Data collection techniques by conduct a direct question and answer to the object of research concern the problem in research to support the questionnaire.

c. Noted Documentation

The data collection technique is done by the record the documents and other data that can support the research.

Data Analysis Methods

a. Descriptive Statistic Analysis

This analysis used to describe the results of the research by describing the research object consisting of circumstances respondents surveyed, and the distribution of items of each variable. The data will collect with questionnaires in the form of a statement with answer choices that have been determined, the next activity is processing and tabulating the data into a frequency table and then discusses the processed data descriptively.

b. Inferencial Statistic Analysis

CLASSIC ASSUMPTION TEST

1. Normality Test

Aims to test whether the regression model, the dependent variable, independent variables, or both have a normal distribution or not. Regression models are distributed either normal or near normal. (Sarjono and Julianita, 2011:90). Basis for decision making is as follows:

- If the data is spread around the diagonal line and follow the direction of the diagonal line, then the regression model to meet normality.
- If the data is spread away from the diagonal line and not follow the direction of the diagonal line, then the regression model did not meet normality.

2. Multicollinearity test

Multicollinearity test aims to determine whether there is a correlation in the regression model between the independent variables. The method can be used to detect the presence or absence of multicollinearity can be seen from the value of tolerance or the variance inflation factor (VIF). Regression models will be free of multicollinearity if

the tolerance values > 0.10 or if VIF < 10 Sarjono and Jualianita (2011: 91).

3. Heteroscedasticity Test

Heteroscedasticity test aims to test whether there is inequality in the regression model residual variance from one observation to the other observations. In this research using a scatter plot graph between the predicted value of the dependent variable (ZPRED) with residual (SRESID). If there are points that form a certain pattern as regular as bumpy, widened, then narrowed it had happened heteroscedasticity. If the points spread above and below the 0 on the Y axis without forming a specific pattern then there is no heteroscedasticity (Sarjono and Jualianita, 2011:105).

MULTIPLE LINIER REGRESSION

This type of research views of the relationship between variables so that the association is an analytical tool used multiple linear regression. Multiple linear regression analysis was performed to measure the strength of the relationship between two or more independent variables on the dependent variable (Sarjono and Jualianita, 2011:110). The formula used in the multiple regression analysis method is as follows:

$$Y_i = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \beta_3 x_{3i} + \dots + \beta_k x_{ki}$$

y : dependent variable

$\beta_0, \beta_1, \beta_2, \beta_3, \beta_k$: Koefisien regression

$x_{1i}, x_{2i}, x_{3i}, x_{ki}$: independent variable

Source: Yunto S. (2009:243)

HYPOTHESIS PARTIAL TESTING (T-test)

T-test basically shows how far the influence of the independent variables in explaining the variation individually dependent variable (Sarjono and

Jualianita, 2011:111). This test aims to test the effect of independent variables on the dependent variable (user satisfaction) separately or partial.

Formula:

$$t = \frac{b}{SE_b}$$

Description:

b: estimator for β

SE_b : standart error of β

Source: Sarjono and Jualianita (2011:111)

HYPOTHESIS SIMULTAN TESTING (F-test)

Hypothesis simultan test is used to determine the effect of independent variables simultaneously (together) on the dependent variable. Formula that use in this research is:

$$F = \frac{SSR/k}{SSE/(n-k-1)}$$

Source: Sarjono and Jualianita (2011:115)

Descriptions:

SSR : regression sum of square

K : degrees of freedom

SSE : error sum of square

n-k-1 : degrees of freedom

RESULT AND DISCUSSION

Based on the results of research conducted by questionnaires to respondents, taking a sample of 52 employees of PT. Bank Rakyat Indonesia (Persero), Tbk Kawi Malang, it can be an overview the characteristics of the respondents surveyed as follows:

1. Gender of Respondents

Characteristics of respondents (employees) by gender, shown in the following table:

Table 11 Overview of Respondents' Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	29	55.8	55.8	55.8
	Female	23	44.2	44.2	100.0
	Total	52	100.0	100.0	

Source: primary data processed

Based on the table, it can be seen that the total of male respondents are 29 people (55,8%) and female respondents totaled 23 people (44,2%). This is indicates that most of the gender employees who use the system BRINETS is male.

2. Age of Respondents

Characteristics of respondents by age group can be seen from the table:

Table 2 Overview of Respondents' Age

		F	Percent	Valid Percent	Cumulative Percent
Valid	<26	11	21.2	21.2	21.2
	26-28	12	23.1	23.1	44.2
	29-31	7	13.5	13.5	57.7
	32-34	11	21.2	21.2	78.8
	35-37	7	13.5	13.5	92.3
	38-40	3	5.8	5.8	98.1
	>40	1	1.9	1.9	100
Total		52	100.0	100.0	

Source: primary data processed

Based on the table, indicates that most of the employees who use the system BRINETs aged between 26-28 years.

3. Respondent Education levels

Characteristics of respondents by level of education can be seen from the table:

Table 3 Overview of Respondents' Education Level

		F	Percent	Valid Percent	Cumulative Percent
Valid	D3	1	1.9	1.9	1.9
	S1	50	96.2	96.2	98.1
	S2	1	1.9	1.9	100.0
	Total	52	100.0	100.0	

Source: primary data processed

Based on the table, shown that most of the recent education of employees who use the system BRINETs is S1

4. Working Period of Respondents

Characteristics of respondents based on working period can be seen:

Table 4 Overview of Respondents' Working Period

		F	Percent	Valid Percent	Cumulative Percent
Valid	<2	3	5.8	5.8	5.8
	2-4	18	34.6	34.6	40.4
	5-7	17	32.7	32.7	73.1

continued				
8-10	7	13.5	13.5	86.5
11-13	3	5.8	5.8	92.3
14-16	2	3.8	3.8	96.2
>16	2	3.8	3.8	100.0
Total	52	100.0	100.0	

Source: primary data processed

Based on the table, shown that most of the employees who use the system BRINETs been working for 2-4 years.

5. Respondents Job Department

Characteristics of respondents based on the work can be seen from the table:

Table 6 Overview of Respondents' Job Department

		F	Percent	Valid Percent	Cumulative Percent
Valid	DM	1	1.9	1.9	1.9
	AO	16	30.8	30.8	32.7
	ADK	4	7.7	7.7	40.4
	ADM	6	11.5	11.5	51.9
	LOG	2	3.8	3.8	55.8
	IT	1	1.9	1.9	57.7
	PAU	3	5.8	5.8	63.5
	TELLER	12	23.1	23.1	86.5
	CS	7	13.5	13.5	100.0
	Total	52	100.0	100.0	

Source: primary data processed

Based on the table, indicates that most of the employees who use the system BRINETs is the Account Officer (AO)

Methods of Data Analysis

DESCRIPTIVE STATISTIC ANALYSIS

The answers of the respondents were obtained from questionnaire, can be seen in table below:

Information Quality (X1)

Based on the statement obtained nine answers were seen in the table:

There are nine statements presented to the respondents about the information quality (X1).

Table 2 Frequency Distribution of Information Quality (X1)

Item	Respondent's Answer										Total		Mode			Average
	SA (5)		A (4)		N (3)		DA (2)		SDA (1)							
	F	%	f	%	F	%	f	%	F	%	f	%	F	%	Code	
X1.1	6	11.5	32	61.5	14	26.9	-	-	-	-	52	100	32	61.5	S	3,8462
X1.2	6	11.5	38	73.1	8	15.4	-	-	-	-	52	100	38	73.1	S	3.9615
X1.3	14	26.9	37	71.2	-	-	1	1.9	-	-	52	100	37	71.2	S	4.2308
X1.4	1	1.9	27	51.9	19	36.5	5	9.6	-	-	52	100	27	51.9	S	3.4615
X1.5	1	1.9	34	65.4	17	32.7	-	-	-	-	52	100	34	65.4	S	3.6923
X1.6	16	30.8	26	50	10	19.2	-	-	-	-	52	100	26	50	S	4.1154
X1.7	16	30.8	31	59.6	5	9.6	-	-	-	-	52	100	31	59.6	S	4.2115
X1.8	11	21.2	34	65.4	7	13.5	-	-	-	-	52	100	34	65.4	S	4.0769
X1.9	13	25	36	69.2	3	5.8	-	-	-	-	52	100	36	69.2	S	4.1923
X1	Total														3.9765	

Source: Primary Data Processed

Description:

- X1.1 : Information that generated by BRINETs systems free from error.
- X1.2 : Information that generated by BRINETs systems not cause doubt.
- X1.3 : Information that generated by BRINETs systems have good completeness as required.
- X1.4 : Information that generated by BRINETs systems is never too late.
- X1.5 : Information that generated by BRINETs systems is never outdated.
- X1.6 : Information that generated by BRINETs systems precise for user need.
- X1.7 : Information that generated by BRINETs systems is useful for user.
- X1.8 : Information that received are precise and right to help make decisions.
- X1.9 : Information that generated by BRINETs systems has several choices.

The results of the information quality (X1) frequency distribution obtained from the largest number of frequencies of each item, amounting to nine items. In addition, based on the amount of the total average value of all the items with 3.8986 has shown that the information quality on BRI Integrated Network and Information System (BRINETs) contained in the Office of PT. Bank Rakyat Indonesia (Persero), Tbk Kawi Malang is not good enough. It means that many employees belief that information quality in BRINETs system have many lack like cause doubt, not free from error and have problem in timeliness (outdate information and slow response).

System Quality (X2)

There are eleven statements filed with the respondents about the system quality (X2). Based on the statement obtained the answer seen in the table:

Table 8 Distribution Frequency Quality System (X2)

Item	Respondent's Answer										Total		Mode			Average
	SA (5)		A (4)		N (3)		DA (2)		SDA (1)							
	F	%	f	%	F	%	f	%	F	%	f	%	F	%	Code	
X2.1	8	15.4	40	76.9	4	7.7	-	-	-	-	52	100	40	76.9	S	4.0769
X2.2	8	15.4	34	65.4	10	19.2	-	-	-	-	52	100	34	65.4	S	3.9615
X2.3	5	9.6	29	55.8	18	34.6	-	-	-	-	52	100	29	55.8	S	3.75
X2.4	6	11.5	35	67.3	11	21.2	-	-	-	-	52	100	35	67.3	S	3.9038
X2.5	10	19.2	32	61.5	10	19.2	-	-	-	-	52	100	32	61.5	S	4.0
X2.6	21	40.4	29	55.8	2	3.8	-	-	-	-	52	100	29	55.8	S	4.3654
X2.7	17	32.7	31	59.6	4	7.7	-	-	-	-	52	100	31	59.6	S	4.25

Continued																
X2.8	8	15.4	28	53.8	14	26.9	2	3.8	-	-	52	100	28	53.8	S	3.8077
X2.9	9	17.3	24	46.2	11	21.2	8	15.4	-	-	52	100	24	46.2	S	3.6538
X2.10	5	9.6	29	55.3	16	30.8	2	3.8	-	-	52	100	29	55.8	S	3.6731
X2.11	5	9.6	24	46.2	14	26.9	7	13.5	2	3.8	52	100	24	46.2	S	3.4423
X2	Total															3.8986

Source: Primary Data Processed

Description:

X2.1 : BRINETs systems can be trusted when operated.

X2.2 : BRINETs systems easily identified when an error occurs.

X2.3 : BRINETs systems easily corrected if an error occurs.

X2.4 : BRINETs systems easily adaptable to meet various user needs changing.

X2.5 : BRINETs systems can be adapted to the new conditions or demand.

X2.6 : BRINETs systems as medium of data connecting from different areas.

X2.7 : BRINETs systems as medium of information connecting from different areas.

X2.8 : BRINETs systems can be accessed easily.

X2.9 : BRINETs systems can be accessed any time.

X2.10 : BRINETs systems able to provide a very rapid response system.

X2.11 : BRINETs systems has never been barrier.

The results of the frequency distribution of the quality system (X2) is obtained from the largest

number of frequencies of each item, amounting to eleven items. In addition, based on the amount of the total average value of all the items with 3,8986 shown that the quality of web-based information system with BRI Integrated Network And Information System (BRINETs) contained in the Office of PT. Bank Rakyat Indonesia (Persero) Tbk. Kawi Malang is not good enough. It caused many employees belief that quality system in BRINETs have many problem such as, difficult to identified and correct the errors, adaptaded in eser needs changing, complicated of use system, have barrier in speed (time access and response system).

User Satisfaction (Y)

There are thirteen statements posed to respondents regarding user satisfaction variable (Y). Based on these thirteen statements obtained are shown in the table answer

Table 9 Distribution Frequency of User Satisfaction (Y)

Item	Respondent's Answer										Total		Mode			Average
	SA (5)		A (4)		N (3)		DA (2)		SDA (1)							
	f	%	f	%	F	%	F	%	F	%	F	%	f	%	Code	
Y1	11	21.2	36	69.2	5	9.6	-	-	-	-	52	100	36	69.2	S	4.1154
Y2	9	17.3	38	73.1	5	9.6	-	-	-	-	52	100	38	73.1	S	4.0769
Y3	3	5.8	47	90.4	2	3.8	-	-	-	-	52	100	47	90.4	S	4.0192
Y4	2	3.8	38	73.1	12	23.1	-	-	-	-	52	100	38	73.1	S	3.8077
Y5	5	9.6	37	71.2	10	19.2	-	-	-	-	52	100	37	71.2	S	3.9038
Y6	6	11.5	38	73.1	8	15.4	-	-	-	-	52	100	38	73.1	S	3.9615
Y7	2	3.8	39	75	11	21.2	-	-	-	-	52	100	39	75	S	3.8269
Y8	1	1.9	43	82.7	8	15.4	-	-	-	-	52	100	43	82.7	S	3.8654
Y9	4	7.7	42	80.8	6	11.5	-	-	-	-	52	100	42	80.8	S	3.9615
Y10	1	1.9	36	69.2	15	28.8	-	-	-	-	52	100	36	69.2	S	3.7308
Y11	2	3.8	31	59.6	18	34.6	1	1.9	-	-	52	100	31	59.6	S	3.6538
Y12	2	3.8	39	75	11	21.2	-	-	-	-	52	100	39	75	S	3.8269
Y13	1	1.9	41	78.8	10	19.2					52	100	41	78.8	S	3.8269
Y	Total															3.8905

Source: Primary Data Processed

Description:

- Y1 : BRINETs systems provide the precise information for user need.
- Y2 : The information content of the BRINETs system meet user needs.
- Y3 : BRINETs system provides the information that can be understand.
- Y4 : BRINETs system provides complete information.
- Y5 : BRINETs system is accurate.
- Y6 : Satisfied with the accuracy of the BRINETs system.
- Y7 : The output of the BRINETs system is presented in a useful format.
- Y8 : BRINETs system information is clear.
- Y9 : Get the information that needed from the BRINETs system at a suitable time.
- Y10 : BRINETs system provides up-to-date information.
- Y11 : Sure that BRINETs system is easy to use.
- Y12 : Satisfied with the BRINETs system because easy to do information retrieval.
- Y13 : Satisfied with BRINETs system can be used by specified users to achieve specified goals with effectiveness and efficiency in a specified context of use.

The results of the frequency distribution of user satisfaction (Y) is obtained from the largest number of frequencies of each item, amounting to thirteen items. In addition, based on the amount of the average value of all the items with 3.8905 shown that user satisfaction on the web-based information BRI Integrated Network And Information System (BRINETs) contained in the branch office of PT. Bank Rakyat Indonesia (Persero), Tbk Kawi Malang not satisfy enough for the users. It caused many lack in BRINETs use to do their job activities including

about complete and accuration of information, complicated in using system, system response, not effective and efficient used in specified content by specified user.

INFERENCIAL STATISTIC ANALYSIS

In this research used several tests, there are:

1. Test Results Classical Assumptions

In the use of multiple linear regression analysis, some important things that need to be done to test the assumptions of classical or test requirements of multiple regression analysis so that the regression line equation obtained can actually be used to predict the dependent variable. Classical assumption that needs to be done using multiple linear regression analysis as a means of testing the normality, multicollinearity, and heteroscedasticity.

Normality Test

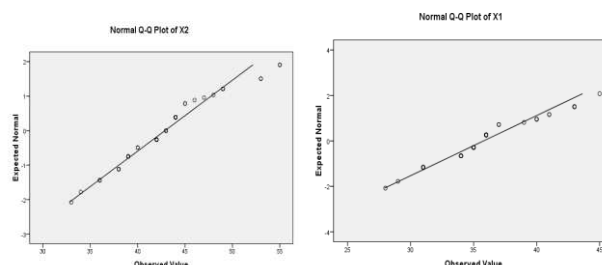


Figure 3 Graphic of Normality

Multicollinearity Test

The following will be presented multicollinearity test results performed using SPSS for windows, the full results can be seen in table:

Table 10 Result of Multicollinearity Test

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	24.066	4.145		5.806	.000		
X1	.423	.103	.457	4.088	.000	.888	1.126
X2	.265	.080	.369	3.299	.002	.888	1.126

a. Dependent Variable: Y

Source: Primary data processed

Based on the test results it can be seen that the tolerance value of each independent variable ranged between 0-1 and VIF value of each independent variable ≥ 1 . From these results it can be concluded that the regression model used does not happen multicollinearity.

Heteroscedasticity test

Heteroscedasticity test results can be presented in the following graph:

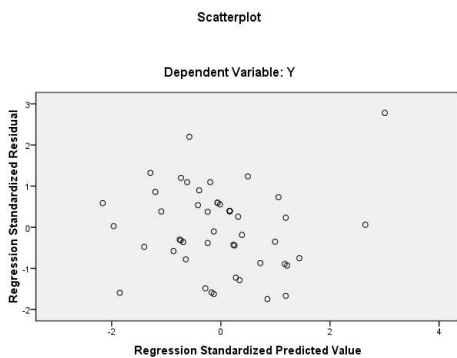


Figure 4 Graphic of Heteroscedasticity

In the scatterplot above can be seen that there are points on the graph does not spread and form a specific pattern so it can be concluded that the residuals have constant variance (homoscedasticity) or absence of heteroscedasticity.

Multiple Regression Analysis

Table 11 Model Summary of Multiple Regression Analysis

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin - Watson
1	.676 ^a	.457	.435	2.63093	1.758

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y

Source: Primary data processed

Based on the model of summary table through multiple linear analysis above, we mentioned that the value of the correlation coefficient $R=0.676$, which means greater than 0, thus it can be stated the influence of X1 and X2 on Y.

Table 12 Coefficient of Multiple Regression Analysis

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	24.066	4.145		5.806	.000		
	X1	.423	.103	.457	4.088	.000	.888	1.126
	X2	.265	.080	.369	3.299	.002	.888	1.126

a. Dependent Variable: Y

Source: Primary data processed

Based on the results of multiple linear regression analysis of each variable quality of information (X1)

and system quality (X2), the results indicate that the independent variables X1 and X2 significantly affect the dependent variable Y.

Independent Variable	Significance	Value of Coefficient t	
		Count	Table
Information Quality (X1)	0,000	4,088	0,688 ($\alpha = 5\%$)
System Quality (X2)	0,002	3,299	

Hypothesis Partial Testing (T-test)

Table 13 Result of Hypothesis Partial

Dependent Variable: User Satisfaction

Source: Secondary data processed

Table of T-test result has shown that:

- a. In the variable quality of information, from the results of partial calculations indicate that value of $t = 4,088 > t_{table} = 0,688$ or $Sig.t \text{ value} = 0,000 < 0,05$ then partially no significant relationship between the quality of information on user satisfaction BRINETs system.
- b. In the variable quality of the system, from the results of partial calculations indicate that value of $t = 3,299 > t_{table} = 0,688$ or $Sig.t \text{ value} = 0,002 < 0,05$ then partially no significant effect of system quality on user satisfaction BRINETs system.

Hypothesis Simultan Testing (F-test)

Table 14 Result of Hypothesis Simultan Testing (F-test)

Source: Primary data processed

Based on the data above ANOVA can be seen from the results of simultaneous calculations indicate that value of $F = 20,625$, while the results of a calculation of the value of $F \text{ table} = 3,186$ ($df = 49$ and $\alpha = 0,05$). Because of $F = 20,625 > F = 3,186$ and $sig. F = 0,000 < 0,05$ so it can be concluded that there are significant independent variables (X1 and X2) simultaneously (together) on the dependent variable (Y).

Discussions

Influence of information quality on BRINETs user satisfaction in PT Bank Rakyat Indonesia (Persero) Tbk. Malang.

Based on the research method that is done, the researchers stated that information quality partially influence on user satisfaction. The higher value of information quality used, the user satisfaction will increase, whereas if information quality low then, user satisfaction will decrease.

Influence of system quality on BRINETs user satisfaction in PT Bank Rakyat Indonesia (Persero) Tbk. Malang.

Based on the research method that is done, the researchers stated that the system quality partially influence on user satisfaction. The higher the system quality used, user satisfaction will increase.

Whereas, if the system quality is low user satisfaction will decrease.

Influence of information quality and system quality on BRINETs user satisfaction simultaneously in PT Bank Rakyat Indonesia (Persero) Tbk. Malang.

Based on the research methods, researchers stated that there are significant influenced information quality and system quality simultaneously (together) on User Satisfaction. The higher of information quality and systems quality, user satisfaction will increase, whereas if information quality and system quality is low then user satisfaction will decrease.

From the results of tests performed can be concluded that the two hypotheses proposed in this study are correct. Both information quality and system quality variables have a positive influence on user satisfaction BRINETs system. The company must pay attention to the ability of the system chosen to support all activities in banking. Although the

ANOVA^b

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	285.525	2	142.762	20.625	.000 ^a
Residual	339.168	49	6.922		
Total	624.692	51			

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y

results of the study showed that there is a positive correlation between the independent variables and the dependent variable, but it proven less powerful. Based on this, it is necessary to take into account improvements in the quality of systems and information.

Regardless of the final outcome of the research, the quality of the system is also important in contributing to the company to support operations and utilize existing information that will optimize the user satisfaction precisely that will eventually be used as a basis for judgment in managerial decision making and strategic. It can be used as a reference in selecting an information system in accordance with the company that is expected to improve performance and give satisfaction to the users of the system. Attention also needs in quality system to be balanced by an increase in the quality of human resources so that they can understand and use the

existing system well and can indirectly have a positive influence on the company.

CONCLUSIONS AND SUGGESTIONS

Conclusions

The conclusion of this study, namely:

1. Based on the research, there are has significant impact simultanly and parcially between information quality and system quality on user satisfaction at Bank Rakyat Indonesia Kawi Malang. However, the user satisfaction that employees felt not too big because some of them found the system and information quality on BRINETs system still not good enough.
2. System quality in BRINETs system has not good enough. It is basically have a significant impact on user satisfaction but, not too dominant in comparison to the information quality. In addition, generally some employees believe that system quality is not good even worse.
3. Information quality in BRINETs has not good enough. It is a dominant variable but, the results showed that the effect is less strong. In addition, some employees found lack of information quality caused by a problem that occurs.

Suggestions

Based on the conclusion of the study, the researchers propose some suggestions are as follows:

1. Based on the results of questionnaires on the users BRINETs system in Branch Office Kawi Malang, information quality and system quality is not good enough. However, the opinion of some employees who indicate that the information and system quality are not good even worse can be a reference for Bank Rakyat Indonesia to develop the BRINETs system so that the system can be better and user satisfaction can be increase.
2. Based on the test results through the deployment of questionnaire, generally the system quality is not good enough and the use of the system is still too complicated for the users and any problems occur. Needed develop and improve the BRINETs system in the future especially for network or internet used (eg. add bandwitch, etc.) so that the error rate can be minimized and operational activity not hampered because of frequent offline and did not experience significant obstacles.

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