THE EFFECT OF SYSTEM QUALITY AND INFORMATION QUALITY ON THE SATISFACTION OF USER ENTERPRISE RESOURCE PLANNING-SYSTEM APPLICATION AND PRODUCT IN DATA PROCESSING (ERP-SAP) WITH PERCEIVED USEFULNESS AS A VARIABLE MODERATING IN PTPN III (PERSERO) UNIT OF LABUHAN BATU-II DISTRICT

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Abstract: This study aims to determine the Effect of System Quality and Information Quality on User Satisfaction of Enterprise Resource Planning-Systems Application and Product In Data Processing (ERP-SAP) with Perceived Usefulness as Moderating Variables in PTPN III (Persero) Unit of Labuhan Batu II District. This type of research is causal research. This study took a sample of 110 respondents with the census method, questionnaires were given to implementing employees who use ERP-SAP at PTPN III (Persero) (Persero) Unit of Labuhan Batu II District. The type of data in this study is primary data obtained from the answers to the questionnaire. Testing the research hypothesis using multivariate with Structural Equation Modeling (SEM) and moderating testing using the interaction test. The test results indicate that the quality of the system and the quality of information has a positive and significant effect on SAP user satisfaction. The moderating variable perceived usefulness does not significantly moderate the effect of system quality and information quality on SAP user satisfaction.

Keywords: System quality, information quality, perceived usefulness, user satisfaction.

1. INTRODUCTION

Accounting is an information system that can help companies in making decisions to allocate resources efficiently so that organizational goals can be achieved. The development of information technology affects the role of accounting information systems in companies because information technology has drastically changed the organization in carrying out its business activities. The use of computer-based accounting information systems that are directed and well-integrated is absolutely necessary for companies to obtain accurate and reliable information in the decision making process.

The accounting information system has become one of the sources of information about the means to gain an edge in business competition. An effective accounting information system is important for the company in supporting the company's success. Istianingsih and Utami (2009) stated that by having a good accounting information system, the company will be able to ensure the security and availability of the required data. If a company does not have a good Accounting Information System (AIS), it will not be able to provide good information to its problem solvers (Mcleod and Schell, 2001). Accounting information systems can be used for

management in planning and controlling the activities of company organizations that are used as a communication tool for management needs, both the needs of internal parties and external needs of the company.

Enterprise Resources Planning (ERP) is a system of change that includes all functions contained within the company which are driven by several integrated software modules to support the company's internal business processes. ERP, makes it easy with multi-module, business packaging application solutions that enable organizations to integrate business processes and company performance, general data distribution, resource management and provide actual access to information (Amri, 2003). ERP systems offer significant improvements in efficiency, productivity, profitability, decisions to minimize costs and effective decision makers. ERP software also supports the efficient operation of business processes by integrating the activities of the entire business including sales, marketing, manufacturing, logistics, accounting and staffing.

PT. Perkebunan Nusantara III (Persero) Holding is a State-Owned Enterprise engaged in the management, processing and marketing of Plantation Products. Commodities cultivated are oil palm, rubber, sugar cane, tea, coffee, cocoa, tobacco, various woods, fruits and various other plants. An ERP system is needed to integrate data in real time across PTPN starting from PTPN I to PTPN XIV quickly, effectively, and efficiently. The aim is to support the decision making process quickly and accurately using data and information that is integrated in an accurate, timely manner, and can improve the quality and accuracy of internal and external reporting, including to holding. ERP Implementation Strategy in PTPN III (Persero) Holding is carried out in stages, firstly, the preparation of a global template, where all PTPN representatives do business process harmonization and PTPN's global template preparation. Second, the pilot project in the early stages of ERP implementation was carried out at the Holding Office, PTPN XI (for annual crops) and PTPN V (for annual plants). Third, roll out after successful pilot project will be rolled out to all PTPN. Fourth, business planning and consolidation (BPC) and fifth, business intelligence intelligent-dashboard. All stages have been completed by March 2018.

The success of a company's information system depends on how the system is run, the ease of the system for its users and the use of technology used (Goodhue, 1995). The success of the system contained in PTPN III Kebun / unit in Labuhan Batu II District can be measured through the satisfaction of software users that affect the performance of individuals as end users of information systems. Information system user satisfaction can be used as a measure of success of information systems (Doll and Torkzadeh, 1988). Based on the phenomena above, the researcher is interested in conducting research with the title "The Effect of System Quality and Information Quality on Enterprise User Satisfaction of Enterprise Resource Planning-System Application and Product In Data Processing (ERP-SAP) with Perceived Usefulness as Moderating Variables in PTPN III (Persero) Unit of Labuhan Batu II District".

2. LITERATURE REVIEW

2.1 Theory of Reasoned Action (TRA)

The user of the system is a human being (man) who psychologically has a certain behavior that is attached to him, that behavioral aspects in the human context as a user (brainware) of information technology become important as a determining factor in everyone who runs information technology. TRA states that behavior is influenced by intentions, while intentions are influenced by attitudes and subjective norms. The attitude itself is influenced by confidence in the results of past actions. Subjective norms are influenced by beliefs in the opinions of others and motivation to obey those opinions. If users of information systems have good confidence in the quality of an information system, this will lead to the satisfaction of users of information systems.

2.2 Technology Acceptance Model (TAM) and End User Computing Satisfaction (EUCS)

The theory of user acceptance of an information technology is called The Technology Acceptance Model (TAM), which was first introduced by Davis in 1989, is a model adopted from the TRA model. The technology acceptance model or TAM is a model used to predict user acceptance of technology based on two variables, namely perceived usefulness and perceived ease of use (Davis, 1989). EUCS is a method for measuring the level of satisfaction of users of an application system by comparing the expectations and reality of an information system. The definition of EUCS according to Doll and Torkzadeh (1988) is an overall evaluation of users of information systems based on their experience in using the system.

2.3 Quality of Information Systems

The quality of information systems is a characteristic of inherent information about the system itself (DeLone and McLean, 1992). This shows that if information system users feel that using the system is easy, they do not need much effort to use it, so they will have more time to do other things that are likely to improve their overall performance. The quality of the system requires indicators to measure how much the quality of the information system. System quality indicators are manifested in a set of system quality questions that can be measured through several indicators namely Ease of use, Response Time, Reliability, Flexibility, Security.

2.4 Information Quality

Information quality is output quality in the form of information generated by the information system used (Rai, 2002). Some characteristics to judge regarding the quality of this information are: accuracy, completeness, uniqueness (non-redudancy), timeliness, relevance, comprehensibility, precision, conciceness, and informativeness (Weber, 1999). The better the quality of information, the more informed decisions will be taken. If the information produced is not quality, it will negatively affect user satisfaction. Seddon and Kiew (1996) have tested the effect of the quality of this information on the satisfaction of users of information systems. Their test results show that the quality of information is positively related to the satisfaction of end users of information systems.

2.5 Perceived Usefulness

Davis (1989) defines usefulness as a level where someone believes that the use of a particular subject will be able to improve the work performance of that person. Perceived usefulness is defined as the extent to which a person believes that using a technology will improve the performance of his work. The above definition reveals that perceived usefulness is a belief about the decision making process. Indicators of perceived usefulness used adopted from Davis (1989) include: work more quickly, increase productivity, job performance, effectiveness, make a job easier, and useful.

2.6 Accounting Information System User Satisfaction

User satisfaction with an information system is how the user views the information system in real terms, but not on the quality of the system technically. In the 1992 model of the success of the DeLone and McLean information systems, argues

User satisfaction refers to the response given by the user. Chin and Todd (1997) describe satisfaction as the user's attitude as the attitude of someone who directly interacts with an application system itself. Doll and Torkzadeh (1988) describe indicators to measure user satisfaction, namely Content, Accuracy, Format, Ease of use, Timeliness.

2.7 Understanding ERP-SAP System

According to Dewanto and Falahah (2007) SAP is an ERP software that is highly integrated between various modules such as Sales Distribution, Material Management, Financial and Controlling, Human Resources and many more. Because of its integration and its very generic nature, this software is widely used by large companies throughout the world and makes everything related to SAP very expensive, ranging from licenses, SAP training, hardware, and so on.

Enterprise Resource Planning (ERP) according to O'Brien, J. A., & Marakas, G. M. (2010) is a corporate system that includes all functions contained within the company which are driven by several integrated software modules to support the company's internal business processes.

Conceptual Framework

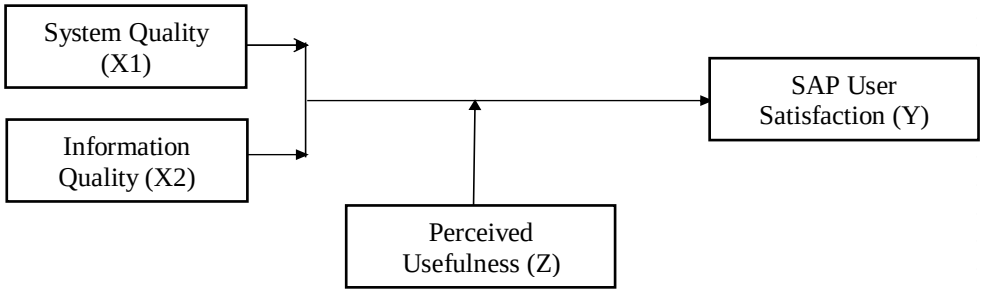

Figure 1. Conceptual Framework

Hypothesis

Based on the theoretical and conceptual framework, the hypotheses of this study are as follows:

H1: System Quality and Information Quality have a significant positive effect on SAP user satisfaction at PTPN III (Persero) Kebun / Unit in Labuhan Batu II District.

H2: Perceived usefulness can moderate the relationship between system quality and information quality with SAP user satisfaction at PTPN III (Persero) Kebun / Unit in Labuhan Batu II District.

3. RESEARCH METHODS

The type of research used is causality research, namely research that aims to determine the effect of two or more variables (Sugiyono, 2012). This study is intended to examine the causal relationship between system quality and information quality, which is moderated by perceived usefulness. The survey method was chosen to conduct this research by field study through questionnaires to obtain primary data. In collecting the data, the steps taken by the researcher are:

a. Give questionnaires to all members of the population.

b. Give respondents about one day time to study the questionnaire.

c.After being filled in by respondents, researchers collected the questionnaire.

Research Location and Time

The location of this study was conducted at PTPN III (Persero) Kebun / Unit in Labuhan Batu II District in Torgamba District, Labuhan Batu Selatan Regency. Research time from March to June 2019.

Population and Research Samples

The study population is implementing employees who work at PTPN III (Persero), especially gardens / units in Labuhan Batu II District. The sample is a portion of the number and characteristics possessed by the population. Although the sample is only part of the population, the facts obtained from the sample must be able to describe in the population. Determination of the number of samples used in this study is the saturated census / sampling method based on the provisions proposed by Sugiyono (2012), census / saturation sampling is a sampling technique when all members of the population are used as samples. The population in this study was 110 employees and overall the population was used as a sample to achieve conformity.

Method of collecting data

The data collection method used in this study is primary data collection that is the source of data obtained directly from the original source or the first party. The data used in this study are primary data collected through questionnaires. The questionnaire consisted of 28 questions with answers using a 7-point interval scale. That is, respondents were asked to provide answers to how far the respondents agreed or disagreed with the questions asked in the questionnaire. For system quality, information quality, perceived usefulness and satisfaction of SAP users the answers and scoring are as follows:

a. Very Strong Agree Answer (SSS) = 7

b. Highly Agreeing Answers (SS) = 6

c. Agree Answer (S) = 5

d. Neutral Answer (N) = 4

e. Disagree Answer (TS) = 3

f. Very Disagree Answer (STS) = 2

g. Very Very Disagree Answer (SSTS) = 1

3.1 Data analysis method

Data analysis method is a method used to process research results in order to obtain a conclusion. By looking at the theoretical framework, the data analysis technique used in this study is a quantitative analysis using the SEM (Structural Equation Modelling) model or the Structural Equation Model with the AMOS program.

3.2 Descriptive Statistics

Descriptive statistics will give a description or description of the data obtained from the average value, standard deviation, maximum, minimum, sum, and range.

3.3 Match Measurement Model

To test the suitability of the measurement model carried out on each construct separately through an evaluation of the construct validity and reliability (Wijanto, 2008). This testing aims to ensure that the constructs used in this study meet valid and reliable criteria.

3.4 Causal Relationship Test

To test the causality of this primary data, the researchers did it through the SEM method with the Maximum Likelihood Maximum (parametric) approach, which will give accurate results. To test the hypothesis, multivariate analysis using Structural Equation Modelling (SEM) using the AMOS program is used. Significant determination or not in SEM Maximum Likelihood approach used the value of probability (P), If the value of P <0.05, then the effect of an exogenous variable on endogenous variables is significant. While the determination of significance or not in SEM Bayes approach used credible interval values. Ghozali (2008) states that if in the lower bound and upper bound literval range contains the number 0, then the effect is not statistically significant.

3.5 Moderation Test

Testing the significance of moderation in this study used moderation testing with an interaction approach.

4. RESULTS AND DISCUSSION

4.1 RESULT

Hypothesis testing

Testing for Causal Relations

Causal relationship analysis is intended to see and evaluate the parameters that show the causal relationship or the influence of one variable with another variable and usually these causal relationships are used as hypotheses in a study.

Regression Weights: (Group number 1 - Default model)

		Estimate	S.E.	C.R.	P	Label
Y	<--- X1	,410	,075	5,442	***	par_1
Y	<--- X2	,329	,063	5,234	***	par_2

Figure 2. AMOS Results with the Maximum Likelihood (Parametric) Method

Based on the AMOS results in Figure 2, it is known: The value of the path coefficient (Mean) of the quality of the system to SAP user satisfaction is 0.410, which is positive. This means that the quality of the system has a positive effect on SAP user satisfaction. To find out whether the positive effect is significant or not, it is necessary to consider the lower bound credible interval value of 0.359 and upper bound of 0.462. Ghozali (2014: 349) states if in the lower bound and upper bound interval range contains the number 0, then the effect is not statistically significant. because it does not contain the number 0 in the credible interval, the effect of system quality on SAP user satisfaction is significant.

Moderation Testing

The significance of moderation testing, namely testing whether perceived usefulness are significant in moderating the influence of system quality, information quality on perceived usefulness.

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P
Y <--- X1	,912	,434	2,100	,036
Y <--- Z	,544	,483	1,126	,260
Y <--- X1Z	-,066	,086	-,764	,445

Figure 3. Perceived Usefulness Testing in Moderating the Effect of System Quality on SAP User Satisfaction

Figure 3 presents the results of moderation testing, namely testing perceived usefulness in moderating the influence of system quality on SAP user satisfaction. Given the probability value (P) in line Y ← X1Z is 0.445> 0.05, it is concluded that perceived usefulness is not significant in moderating the effect of system quality on SAP user satisfaction.

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Y <--- X2	,730	,405	1,803	,071	
Y <--- Z	,421	,448	,939	,348	
Y <--- X2Z	-,051	,080	-,633	,527	

Figure 4. Perceived Usefulness Testing in Moderating the Effect of Information Quality on SAP User Satisfaction

Figure 4 presents the results of moderation testing, namely testing perceived usefulness in moderating the effect of information quality on SAP user satisfaction. Given the probability value (P) in line Y ← X2Z is 0.527> 0.05, it is concluded that perceived usefulness is not significant in moderating the effect of information quality on SAP user satisfaction. Therefore the perceived usefulness variable needs to be tested again as an independent variable and its effect on user satisfaction.

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Y <--- X1	,407	,074	5,498	***	par_1
Y <--- X2	,313	,062	5,019	***	par_2
Y <--- Z	,134	,068	1,973	,049	par_3

Figure 5. AMOS Results with the Maximum Likelihood (Parametric) Method

Based on the results of Amos in Figure 5 it is known that the path coefficient (Mean) of perceived usefulness on SAP user satisfaction is 0.134, which is positive. This means that perceived usefulness has a positive effect on SAP user satisfaction. To determine whether the positive effect is significant or not, then based on the value of the lower bound 0.087 and upper bound 0.182 credible intervals, the effect of perceived usefulness on SAP user satisfaction is significant.

4.2 DISCUSSION

The Effect of System Quality on SAP User Satisfaction

The results of this study indicate that the system quality variable has a significant positive effect on SAP end user satisfaction. This positive effect indicates that the system quality variable is in line with SAP end user satisfaction. This means that the higher the quality of the system, the higher the level of satisfaction of SAP end users. The quality of information systems as perceived ease of use which is the level of how much computer technology is felt is relatively easy to understand and use. This shows that if information system users feel that using the system is easy, they don't need much effort to use it, so they will have more time to do other things that are likely to improve their overall performance. The higher the user's perception of the quality of the system, the more satisfied they are with the system. The results of this study are in accordance with behavior influenced by intention, while intention is influenced by attitudes and subjective norms. The attitude itself is influenced by confidence in the results of past actions. Subjective norms are influenced by beliefs in the opinions of others and motivation to obey those opinions. If the user of an information system has good confidence in the quality of an information system, this will lead to the satisfaction of users of the information system and raises the desire to use the information system continuously. The results of this study are in line with Al-Mamary (2014), Kerta (2013) and Xu (2013) who show that the quality of information systems has a positive effect on user satisfaction.

The Effect of Information Quality on SAP User Satisfaction

The results of this study indicate that the information quality variable has a positive and significant effect on SAP end-user satisfaction. Indicates that the information quality variable is in line with SAP end user satisfaction. The measurement of user satisfaction in information systems is reflected by the quality of information produced by a system. If information system users believe that the information generated from the system is optimal, they will feel satisfied using the system. The higher the quality of information produced by an information system,

the system user will feel satisfaction in using the information system because the information provided is optimal according to user needs. This is in line with research conducted by Seddon and Kiew (1994) who have tested the effect of the quality of this information on the satisfaction of users of information systems. Their test results show that the quality of information is positively related to the satisfaction of end users of information systems. This is also in line with the results of research by Al-Mamary (2014), Kerta (2013) and Xu (2013) who state that information system users believe that the quality of information generated from the system used is good, they will feel satisfied using the system.

Perceive Usefulness Moderates the Relationship Between System Quality and Information Quality To SAP User Satisfaction.

The test results of SAP user satisfaction concluded that Perceive Usefulness did not significantly moderate the relationship between system quality and information quality with SAP user satisfaction. This contrasts with livari research (2005) which states that Perceived Usefulness has a strong relationship with User Satisfaction.

5. CONCLUSION AND SUGGESTION

5.1 Conclusion

Based on the results of data analysis and discussion, the researcher can conclude that:

1. System quality and information quality have positive and significant effect on SAP user satisfaction.
2. Perceived usefulness is not significant in moderating the influence of system quality and information quality on SAP user satisfaction.

5.2 Suggestion

From the results of the research conclusions and limitations of the study, the suggestions that can be given are as follows:

1. The next researcher is expected to be able to research in other business fields this is because the results of the study may be different if applied to other business fields, so that the research results can be compared later with previous studies.
2. To the next researcher who wants to conduct research development should consider other variables that affect user satisfaction besides the variables that have been examined in this study.

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