

**ANALYSIS OF FACTORS AFFECTING THE QUALITY OF ACCOUNTING  
INFORMATION SYSTEMS (CASE STUDY AT PT. NIPSEA PAINT AND CHEMICALS  
LTD JEMBER)**

**Mareta Susana<sup>1</sup>,  
Suwignyo Widagdo<sup>2</sup>,  
Lia Rachmawati<sup>3</sup>**

*Student of Accounting, Faculty of Economics and Business, Institute of Technology and Science  
Mandala, Sumatera Street 118-120 Jember, 68121<sup>1</sup>*

*Associate Professor, Faculty of Economics and Business, Institute of Technology and Science  
Mandala, Sumatera Street 118-120 Jember, 68121<sup>2</sup>*

*Assistant Professor, Faculty of Economics and Business, Institute of Technology and Science  
Mandala, Sumatera Street 118-120 Jember, 68121<sup>3</sup>*

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Corresponding author:  
Name: Mareta Susana  
E-mail: [maretasusana41@gmail.com](mailto:maretasusana41@gmail.com)

## **ABSTRACT**

*This study aims to analyze the Education and Training Program, System User Involvement, HR Competence, and Information Technology on the Quality of Accounting Information Systems at PT. Nipsea Paint and Chemicals LTD Jember branch. This research is quantitative research by distributing questionnaires and the data analysis methods used are Validity Test, Reliability Test, Classical Assumption Test, Normality Test, Multicollinearity Test, Heteroscedasticity Test, Multiple Linear Regression Analysis, Hypothesis Test (partial and simultaneous) and Determination Test. The results of this study indicate that the Education and Training Program, System User Involvement, HR Competence, and Information Technology have a positive influence or simultaneously affect the Quality of the Accounting Information System and Information Technology partially affects the Quality of the Accounting Information System while the variables of the Education and Training Program, System User Involvement, HR Competence have a negative influence or have no partial effect on the Quality of the Accounting Information System.*

**Keywords:** *Quality of Accounting Information System.*

## INTRODUCTION

Technology is developing so rapidly that it can develop information systems that will support the performance of a company. An information system is a system consisting of people, equipment and procedures that interact with each other to collect information needed to support decision making in an organization (Laudon & Laudon, 2019). An accounting information system is an information system specifically designed to report financial & non-financial information that is relevant for decision making in an organization. Accounting information systems include the use of information technology to provide information to users. Users of accounting information are divided into two, namely internal and external. Internal are employees who need information for operational purposes or decision making, while external are parties outside the company who need information for business purposes (Jogiyanto, 2013). Information systems make it easy to improve the performance of each company in using the system well, such as the phenomenon that exists in Indonesia, many information system users make mistakes in recording or inputting data and do not store evidence of transactions, causing the AIS quality to be irrelevant. As happened in data input carried out by PT employees. Nipsea Paint and Chemicals Jember branch will be late or not according to the specified time when the approval request is not properly approved even if there is a problem with the internet network or a power outage. In this study, researchers used the Education and Training Program variable, with education and training users can gain the ability to identify their information requirements and the seriousness and limitations of the Information System and this ability can lead to increased performance. With a training program, system users can use the company's existing systems correctly, this has an important impact on the continuity of the company. Other factors that influence the quality of AIS in the involvement of system users. In the design and development of information systems, the involvement of system users is more emphasized on the role of users in the information system design process and what steps are taken to support and direct their contribution, while what is meant by user support for AIS design and development is related to the direction carried out by the user when the Information System is operated using a computer effectively. The next factor that influences AIS quality, namely HR Competency, is a factor that influences the readiness and effectiveness of the implementation of the Accounting System. Competency is the knowledge and skills needed to complete a task. Adequate human resource competency in terms of quantity and quality can increase the value of information in a report which can improve the quality of the information system. The final factor that influences AIS quality is Information Technology. With the existence of Information Technology, AIS quality is getting better and can provide relief for a company in reporting on these activities. The application of Information Technology can improve the quality of AIS by speeding up data processing, increasing accuracy, improving efficiency, improving internal processing, and increasing accessibility in the Accounting Information System which is expected to improve the quality of the accounting information system. Based on the description above, researchers will examine "Analysis Of Factors Affecting The Quality Of Accounting Information Systems (Case Study At Pt. Nipsea Paint And Chemicals Ltd Jember)"

This research activity aims to partially analyze the influence of Education and Training Programs, System User Involvement, HR Competency, and Information Technology on the Quality of Accounting Information Systems and to analyze the influence of Education and Training Programs, System User Involvement, HR Competency, and Information Technology simultaneously on the Quality of Accounting Information Systems.

## **RESEARCH METHODS**

### **Population and Sample**

The population in this study were employees of PT. Nipsea Paint and Chemicals Jember. Sample in employees who work at PT. Nipsea Paint and Chemicals Jember which uses an Accounting Information System (AIS).

This research sample was taken using a purposive sampling technique using Roscoe's theoretical formula with a minimum number of sample members of 10 times the number of variables studied (Sugiyono, 2016).

### **Types of research**

This research uses a quantitative approach using a quantitative research design that focuses on numerical aspects of the data both in the collection process and in the results of the analysis. The data obtained in this research is primary data.

Research Instrument.

1. Education and Training Program (X1)

Education and training programs are a planned and systematic process to acquire, develop and improve employees' skills, knowledge, behavior and work values so they can work effectively and efficiently (Dessler, 2015).

2. System User Involvement (X2)

System User Involvement is a process where system users interact with the system, provide input, and influence system development and users (Laudon Laudon, 2012).

3. HR Competency (X3)

Human Resource Competency is the ability a person has to fulfill job demands, including knowledge, skills and attitudes (Mulyadi, 2021).

4. Information Technology (X4)

Information Technology is a combination of hardware, software, networks, infrastructure and applications used to manage information and assist decision making in an organization (Laudon Laudon, 2021)

5. Quality of Accounting Information Systems (Y)

AIS quality is the integrity of all elements and sub-elements related to forming an AIS to produce quality information (Susanto, 2013).

Data analysis in this research uses statistical or numerical techniques from data collections and is used to process data into information, namely by observation, interviews and questionnaires.

## **RESULTS AND DISCUSSION**

### **Instrument Test**

According to Ghozali (2013) validity tests are used to measure whether a questionnaire is valid or not. From the validity test, the resulting  $r$  count  $>$   $r$  table is above 0.2732. From the reliability test, Cronboach-Alpha results were obtained with a value of  $>$  0.60. This indicates that all variables are valid and reliable.

**Test results Validation**

<b>Variable</b>	<b>Statement</b>	<b>R-count</b>	<b>R-table</b>	<b>Information</b>
Education and Training Program (X1)	X1.1	0.800	0.2732	Valid
	X1.2	0.760	0.2732	Valid
	X1.3	0.735	0.2732	Valid
System User Involvement (X2)	X2.1	0.784	0.2732	Valid
	X2.2	0.686	0.2732	Valid
	X2.3	0.790	0.2732	Valid
Human Resources Competency (X3)	X3.1	0.791	0.2732	Valid
	X3.2	0.731	0.2732	Valid
	X3.3	0.766	0.2732	Valid
Information Technology (X4)	X4.1	0.821	0.2732	Valid
	X4.2	0.776	0.2732	Valid
	X4.3	0.748	0.2732	Valid
	X4.4	0.696	0.2732	Valid
	X4.5	0.757	0.2732	Valid
Quality of Accounting Information Systems (Y)	Y1.1	0.714	0.2732	Valid
	Y1.2	0.640	0.2732	Valid
	Y1.3	0.460	0.2732	Valid
	Y1.4	0.572	0.2732	Valid
	Y1.5	0.731	0.2732	Valid
	Y1.6	0.705	0.2732	Valid
	Y1.7	0.810	0.2732	Valid
	Y1.8	0.720	0.2732	Valid

Source: Primary Data 2023 (processed)

### Test results Reliability

Variable	Cronbach's Alpha	Alpha Standard	Information
Education and Training Program (X1)	0.644	0.600	Reliable
System User Involvement (X2)	0.619	0.600	Reliable
Human Resources Competency (X3)	0.640	0.600	Reliable
Information Technology (X4)	0.798	0.600	Reliable
Quality of Accounting Information Systems (Y)	0.820	0.600	Reliable

Source: Primary Data 2023 (processed)

### Classic assumption test

#### 1. Normality Test Results

From the results of the Kolmogorov-Smirnov test, the Monte Carlo significance was obtained at 0.240, which means  $> 0.05$ , so it can be concluded that the data is normally distributed.

#### Normality Test Results

#### One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residuals	
N		50	
Normal Parameters, b	Mean	.0000000	
	Std. Deviation	2.38380981	
Most Extreme Differences	Absolute	,157	
	Positive	,079	
	Negative	-.157	
Statistical Tests		,157	
Asymp. Sig. (2-tailed)		.004c	
Monte Carlo Sig. (2-tailed)	Sig.	.240d	
	99% Confidence Interval	Lower Bound	,084
		Upper Bound	,396

Source: Primary Data 2023 (processed)

#### 2. Multicollinearity Test

From the knowledge of the multicollinearity test results in the table above, it can be seen that the education and training program variable has a tolerance value of 0.919, the system user involvement variable has a tolerance value of 0.946, the human resource competency

variable has a tolerance value of 0.930, and the information technology variable has a tolerance value of 0.885, which means no variable has a tolerance value of less than 0.10. Then the VIF calculation results show that the independent variable education and training programs have a VIF value of 1,088, system user involvement has a VIF value of 1,058, human resource competency has a VIF value of 1,076, and information technology has a VIF value of 1,129, which means there are none independent variables that have a VIF value of more than 10. So it can be concluded that the proposed regression model equation is free from multicollinearity.

### Multicollinearity Test Results

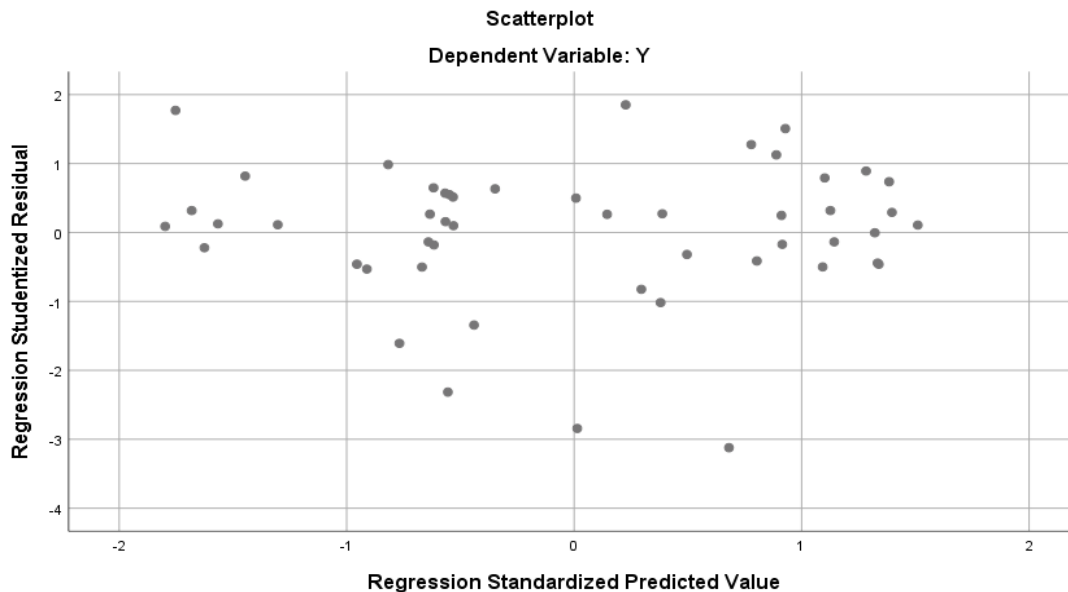
Model	Coefficientsa	Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Education and Training Program	,919	1,088
	System User Involvement	,946	1,058
	HR Competency	,930	1,076
	Information Technology	,885	1,129

Source: Primary Data 2023 (processed)

### 3. Heteroscedasticity Test

The dots spread above and below zero on the Y-axis and do not form any particular pattern. So it can be concluded that there is no heteroscedasticity problem in this research.

#### Test results Heteroscedasticity



Source: Primary Data 2023 (processed)

## Results of Multiple Linear Regression Analysis

### Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5,565	5,043		-1.103	,276
	Education and Training Program	,335	,231	.117	1,450	,154
	System User Involvement	,246	,263	,075	,938	,353
	HR Competency	,198	,188	,085	1,056	,297
	Information Technology	1,305	.137	,785	9,525	,000

Source: Primary Data 2023 (processed)

Based on table 4.14, the results of the multiple linear regression equation with a standard error of 0.05 are obtained as follows:

$$Y = - 5.565 + 0.335 (X1) + 0.246 (X2) + 0.198 (X3) + 1.305 (X4) + 5.042 (e)$$

1. From the multiple linear regression equation above, it can be seen that the constant value shows a value of -5.565, meaning that if the value of the independent (free) variable is zero, then the value of the dependent (bound) variable is 5.565, in this case if the ratio is X1, value is 0.00 (zero) then Y will decrease by 5.565%.
2. The coefficient value of X1 shows a positive sign with a value of 0.335, meaning that for every increase of one value or one unit in
3. The coefficient value of X2 shows a positive sign with a value of 0.246, meaning that for every increase of one value or one unit in
4. The X3 coefficient value shows a positive sign with a value of 0.198, meaning that for every increase of one value or one unit in
5. The X4 coefficient value shows a positive sign with a value of 1.305, meaning that for every increase of one value or one unit in.

### t Test Results (Partial)

### Coefficientsa

Model		Q	Sig.
1	(Constant)	-1.103	,276
	Education and Training Program (X1)	1,450	,154
	System User Involvement (X2)	,938	,353
	HR Competency (X3)	1,056	,297
	Information Technology (X4)	9,525	,000

Source: Primary Data 2023 (processed)

Based on table 4.15, the t test results can be seen that:

1. Based on the significant value (sig.) and from the output coefficients, it is known that the significance value of variable X1 is 0.154, which means that the significance value is > 0.05, meaning it does not affect variable Y. So H1 is rejected.
2. Based on the significant value (sig.) and from the output coefficients, it is known that the significance value of variable X2 is 0.353, which means that the significance value is > 0.05, meaning it does not affect variable Y. So H2 is rejected.
3. Based on the significant value (sig.) and from the output coefficients, it is known that the significance value of variable X3 is 0.297, which means that the significance value is > 0.05, meaning it does not affect variable Y. So H3 is rejected.
4. Based on the significant value (sig.) and from the output coefficients, it is known that the significance value of variable X4 is 0.000, which means that the significance value is <0.05, meaning that variable

### F Test Results (Simultaneous)

#### ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	750,275	4	187,569	30,313	,000b
	Residual	278,445	45	6,188		
	Total	1028.720	49			

Source: Primary Data 2023 (processed)

From table 4.16 it shows that the simultaneous calculation of the education and training program variables (X1), system user involvement (X2), human resource competency (X3), information technology (X4), on the quality of the accounting information system (Y) with numbers The significance is 0.000 which can be proven that all independent variables simultaneously have a positive effect on the quality of the accounting information system.

### Coefficient of Determination (R<sup>2</sup>)

#### Model Summary b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854a	,729	,705	2,488

Source: Primary Data 2023 (processed)

Based on the SPSS output table, it is known that the Adjusted R square value is 0.705 or 70.5%, which is the influence of the independent variable (X) on the dependent variable (Y) of 0.705 or 70.5%. Meanwhile, 0.295 or 29.5% is a contribution from other variables not examined in this research.



## INTERPRETATION

1. The results of this research indicate that the education and training program variables have a negative relationship and have no effect on the quality of the accounting information system. The hypothesis stating that there is an influence of education and training programs on the quality of accounting information systems is rejected. So it can be said that the existence of education and training programs is less useful and therefore education and training programs do not affect the quality of the accounting information system.
2. The results of this research indicate that the system user involvement variable has a negative relationship and does not affect the quality of the accounting information system. The hypothesis which states that there is an influence of system user involvement on the quality of the accounting information system is rejected. So it can be said that the involvement of system users is less useful so the involvement of system users does not affect the quality of the accounting information system.
3. The results of this research indicate that the human resource competency variable has a negative relationship and does not affect the quality of the accounting information system. The hypothesis which states that there is an influence of human resource competence on the quality of the accounting information system is rejected and therefore human resource competence does not affect the quality of the accounting information system.
4. The results of this research indicate that the information technology variable has a positive relationship and influences the quality of the accounting information system. The hypothesis stating that there is an influence of information technology on the quality of accounting information systems is accepted. So it can be said that information technology is very useful and therefore information technology influences the quality of accounting information systems.
5. The influence of education and training programs, involvement of system users, human resource competence, and information technology simultaneously influence the quality of accounting information systems.

## CONCLUSION

This research discusses the analysis of the influence of education and training programs, system user involvement, human resource competence, and information technology on the quality of accounting information systems using the multiple linear regression method and there were 50 respondents in this study. The results of this research indicate that the education and training program variables have a negative relationship and have no effect on the quality of the accounting information system, the system user involvement variable has a negative relationship and does not affect the quality of the accounting information system, the human resource competency variable has a negative relationship and does not affect the quality of accounting information systems, information technology variables have a positive relationship and influence the quality of accounting information systems. Meanwhile, the research results show that the influence of education and training programs, involvement of system users, human resource competence, and

information technology have a positive relationship and simultaneously influence the quality of accounting information systems.

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