Determinants of Accounting Information System in PT. Indomarco Adi Prima, Jember Branch

by Muhammad Firdaus
Determinants of Accounting Information System in PT. Indomarco Adi Prima, Jember Branch

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ABSTRACT

This study aims to analyze the influence of Education and Training Programs, Involvement of System Users, and HR Competence on the Quality of Accounting Information Systems at PT. Indomarco Adi Prima Jember Branch. The population in this study are all employees who use Information Systems at PT. Indomarco Adi Prima Jember Branch. The analytical method in this study uses the validity and reliability test, the Classic Assumption Test is a normality test, a multicollinearity test, a heteroscedasticity test. Multiple Linear Regression Analysis, hypothesis test, using t test and coefficient of determination ($R^2$). The results showed that the three variables used in the study had a significantly influence the Quality of Accounting Information Systems, namely the Education and Training Programs, System User Involvement, and HR Competence. The results of the coefficient of determination ($R^2$) of all independent variables in explaining the dependent variable is 65.1%, while the rest is equal to 34.9% is explained by other variables not used in this study.

INTRODUCTION

Information technology is currently developing very fast. The involvement of Information Technology in the development of Information Systems is very necessary to support company performance. Information systems are very important in the decision making process, therefore information is needed that is relevant to the needs of the organization (Romney & Steinbart, 2012: 25). Information that is managed effectively within an organization will be very important because it can be the basis for gaining competitive advantage. In addition, well-managed information
can be used to increase other company resources.

 Accounting Information System (AIS) is a structure that is united in organizational entities that employ resources and other components to convert economic data into accounting information with the aim of satisfying the information needs of users. Integration (collection) of sub-systems / components both physical and non-physical that are interconnected and work together in harmony to process transaction data related to financial problems into financial information (Azhar Susanto, 2008: 72). The fundamental role of Accounting Information Systems (AIS) in organizations as a reservoir and processor of accounting data to produce quality accounting information to support the company's internal activities carried out by managers and employees as well as the company's internal activities with external parties such as with consumers, suppliers, government and others (Azhar Susanto, 2013: 374).

 DeLone and McLean (2003) stated that System Quality is a measurement of technical success, Information Quality is a measure of semantic success, user satisfaction illustrates the influence of individuals and organizations which is a measure of success effectiveness. Information Quality is the level at which a data that has been processed by the Information System has meaning for its users, which can be in the form of facts and a useful value. There are several factors that can affect the quality of AIS including:

 Education and Training Programs, with education and training, users can gain the ability to identify their information requirements and the seriousness and limitations of this Information System and capabilities can lead to improved performance. With the existence of a system user training program can use the existing system in the company properly, it has an important effect on the survival of the company.

 System User Involvement, in the design and development of Information Systems System User Involvement is emphasized more on how the role of the user in the information system design process and what steps are taken in supporting and directing its contribution, while the intended user support for the design and development of AIS is related to direction conducted by the user when the Information System is operated, one of which is to use computers effectively. Information system by involving users will give satisfaction to the users and those users will be willing to use the AIS applied in the company. If the user is given the opportunity to provide opinions and proposals in the development of the Information System, then the user feels that the Information System is his responsibility, so expect the Quality of the Information System to improve.

 HR Competency. Human Resources is a factor that influences the readiness and effectiveness of the implementation of the Accounting System. Competence is
the knowledge and expertise needed to complete a task. Adequate HR competencies in terms of quantity and quality will increase the value of information in a report.

Based on the background stated, this research is aimed at 1) analyzing the influence of the Education and Training Program, Involvement of System Users, and HR Competence on SIA Quality at PT. Indomarco Adi Prima Jember Branch. 2) analyze the ability of independent variable variation models in explaining the dependent variable.

LITERATURE REVIEW AND FORMULATION OF HYPOTHESES

A good information system needs to be well prepared and planned. The manager in charge of the functional information system unit, called the Chief of Information Officer (CIO) is responsible for managing the unit and information resources properly and providing information services to their users at an agreed service level. As a service department, CIOs must provide the best technical staff (information systems experts) to be able to provide Information Systems service support to users of information services in a high level of user satisfaction. Information System Products for support and fulfillment of user needs must be reliably able to meet the needs and satisfy.

Accounting Information System is basically an integration of various transaction processing systems (SPT) or sub SIAs. Because every SPT has a transaction processing cycle, SIA can be said to be an integration of various transaction processing cycles (Azhar Susanto, 2013: 72). In every processing it does, the SPT or sub-SIA uses various components it has, such as hardware, software, brainware, procedures, databases and communication networks (Azhar Susanto, 2013: 72). The integration of the components mentioned above is a company's information resources in order to achieve substantial excellence (McLeod and Schell, 2007: 29). SIA was built with the main objective to process accounting data from various sources into accounting information needed by various users to reduce risks when making decisions (Azhar Susanto, 2013: 8), Laudon and Laudon, state that the application of Quality SIA will produce Quality Accounting Information that is also used by users in making decisions.

In measuring the quality of the AIS is influenced by several factors including:

1. Education and Training Programs

The user education and training program is a process of education within a certain period that teaches new employees and current employees a basic skill that will be used to help carry out their work and achieve company goals. In the case of
the development of an existing Information System in a company, the Education and Training Program is very influential for the company in determining the quality or performance of the system, with education and training users can get the ability to identify their information requirements and the seriousness and limitations of the Information System and this ability can lead to improved performance (Montazemi, 1988). The purpose of having an Education and Training Program in the company is to provide direction to System users / employees to use the system properly, and with the existence of an Education and Training Program the company hopes to be able to direct improvements to the Quality of the existing System.

2. System User Involvement

Information system by involving users will give satisfaction to the users and those users will be willing to use the AIS applied in the company. If the user is given the opportunity to provide opinions and proposals in the development of the Information System, then the user feels that the Information System is his responsibility, so expect the Quality of the Information System to improve.

3. HR Competency

HR in an organization or company has the same importance as the work itself, given the important role of HR in the organization or company, HR as a determining factor for the organization, so competence is an aspect that determines the success of the organization or company. With high competencies possessed by HR in the company, of course this will determine the quality of human resources that will ultimately determine the competitive quality of the company itself.

Based on the problems discussed earlier, the research results in a hypothesis

1. Effects of Education and Training Programs on SIA Quality

With education and training users can get the ability to identify their information requirements and the seriousness and limitations of the Information System and this ability can lead to improved performance (Montazemi, 1988). From the explanation of the theory and research results above, the hypotheses proposed in this study are:

H1 = Allegedly Education and Training Programs Affect SIA Quality

2. Effect of involvement of system users on the quality of the AIS

User involvement in the development of the system is predicted to develop or improve the quality of the system by providing a more accurate and complete research on user information requirements. Many researchers have investigated user involvement. They believe that involvement influences key criteria such as system quality, user satisfaction and system use (Ives and Olson 1984), Bruwer (1984) and Hirschheim (1985). They believe that user involvement in the system development
process has a positive influence on satisfaction with the Computerize Based Information System (CBIS).

From the explanation of the opinions and theories above, the hypotheses proposed in this study are:

**H2 = Alleged involvement of system users has an effect on the quality of the AIS**

**3. Effect of HR Competency on Quality of AIS**

HR competencies are abilities possessed by a person related to knowledge, skills and personality characteristics that directly affect the performance that can achieve the desired goals. From the explanation of the theory and research results above, the hypotheses proposed in this study are:

**H3 = Allegedly HR Competence Influences SIA Quality.**

**RESEARCH METHODS**

The population in this research is the area that the researcher wants to study. According to Sugiyono (2016: 80), population is a generalization area consisting of objects/subjects that have certain qualities and characteristics determined by researchers and then conclusions are drawn. The population in this study were all staff/employees of PT. Adiarco Adi Prima, Jember Branch, amounting to 150 employees in 2019. Samples are part of the population to be investigated. According to Sugiyono (2016: 81).

The sample in this study used a purposive sampling technique. The purposive sampling is a data source sampling technique with certain considerations (Sugiyono, 2016: 85). The reason for using a purposive sampling technique is because not all samples have criteria in accordance with the phenomenon being studied. Therefore, the researcher chooses the technique purposive sampling which sets certain considerations or criteria that must be met by the samples used in this study. The criteria used as samples include:

1. Status of active and permanent employees
2. Employees who work more than one year
3. Employees working at PT Indomarco Adi Prima Jember Branch who use SIA include IT / EDP, Controller, Administration, Finance, Accounting, Logistics, Gaff / HRD, and Warehouse Staff.

<table>
<thead>
<tr>
<th>No</th>
<th>Information</th>
<th>Total Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Active employee and permanent employees</td>
<td>150</td>
</tr>
<tr>
<td>2</td>
<td>Employees working less than 1 year</td>
<td>90</td>
</tr>
<tr>
<td>3</td>
<td>Employees who work do not use Accounting Information Systems</td>
<td>25</td>
</tr>
</tbody>
</table>

Sample Determination
Total Samples | 35
---|---
Source: PT. Indomarco Adi Prima Jember Branch

The method of data collection that will be carried out in research is by conducting field surveillance by directly observing the object of research. Data collection techniques used in this study are questionnaires. The measurement scale used in this study is the Likert scale. Likert scale is used to measure the attitudes, opinions, and perceptions of a person or group of people about social phenomena, where this phenomenon has been specifically determined by researchers hereinafter referred to as the research variable. Questions are given in stages, starting from the lowest level to the highest level. Here are the Likert scales used from 1-5:

<table>
<thead>
<tr>
<th>No</th>
<th>Jenis Jawaban</th>
<th>Information</th>
<th>Skor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SS</td>
<td>Strongly Agree</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>SS</td>
<td>Agree</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>Neutral</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>TS</td>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>STS</td>
<td>Strongly Disagree</td>
<td>1</td>
</tr>
</tbody>
</table>

Data analysis methods used in this study, data quality tests namely, 1) validity and reliability tests, 2) classic assumption tests include normality tests, multicollinearity tests, heteroscedasticity tests, 3) multiple linear regression analysis, 4) hypothesis testing using tests t-test, and 5) the coefficient of determination (R2). Analysis of the data in this study using SPSS software.

ANALYSIS AND DISCUSSION
The results of the analysis in this study were obtained as follows:
1) Data Quality Test
   - Test Validity

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item Questions</th>
<th>Corrected Item Total Questions Correlation</th>
<th>r table</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and Training Program ($X_1$)</td>
<td>X1.1</td>
<td>0.394</td>
<td>0.334</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.2</td>
<td>0.512</td>
<td>0.334</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.3</td>
<td>0.361</td>
<td>0.334</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.4</td>
<td>0.724</td>
<td>0.334</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.5</td>
<td>0.768</td>
<td>0.334</td>
<td>Valid</td>
</tr>
<tr>
<td>System User Engagement ($X_2$)</td>
<td>X2.1</td>
<td>0.744</td>
<td>0.334</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X2.2</td>
<td>0.901</td>
<td>0.334</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X2.3</td>
<td>0.798</td>
<td>0.334</td>
<td>Valid</td>
</tr>
<tr>
<td>HR Competency (X₃)</td>
<td>Reliability</td>
<td>Alpha</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------</td>
<td>-------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>X2.4</td>
<td>0.688</td>
<td>0.334</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X2.5</td>
<td>0.896</td>
<td>0.334</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X3.1</td>
<td>0.75</td>
<td>0.334</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X3.2</td>
<td>0.697</td>
<td>0.334</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X3.3</td>
<td>0.592</td>
<td>0.334</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X3.4</td>
<td>0.554</td>
<td>0.334</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X3.5</td>
<td>0.701</td>
<td>0.334</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>Quality of AIS (Y)</td>
<td>Reliability</td>
<td>Alpha</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>Y1.1</td>
<td>0.629</td>
<td>0.334</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>Y1.2</td>
<td>0.44</td>
<td>0.334</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>Y1.3</td>
<td>0.419</td>
<td>0.334</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>Y1.4</td>
<td>0.597</td>
<td>0.334</td>
<td>Valid</td>
<td></td>
</tr>
</tbody>
</table>

- **Reliability Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Reliability Coefficients</th>
<th>Alpha</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and Training Program</td>
<td>5 Item</td>
<td>0.700</td>
<td>Reliable</td>
</tr>
<tr>
<td>(X₁)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System User Engagement (X₂)</td>
<td>5 Item</td>
<td>0.801</td>
<td>Reliable</td>
</tr>
<tr>
<td>HR Competency (X₃)</td>
<td>5 Item</td>
<td>0.782</td>
<td>Reliable</td>
</tr>
<tr>
<td>Quality of AIS</td>
<td>5 Item</td>
<td>0.795</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

2) **Classical Assumption Test**

- Testing the normality of data in the study using the Kolmogorov-Smirnov OneSample test, resulting in Kolmogorov-Smirnov Z of 0.464 with a significance level of 0.982. This shows that the research variables are normally distributed because they are at a significant level> 0.05.
- The results of multicollinearity testing carried out are known that the value of Variance Inflation Factor (VIF) of Education and Training Program variables, System User Involvement, and HR Competence are less than 10 and Tolerance values greater than 0.10, so it can be assumed that there is no multicollinearity between independent variables in the regression model.
- Testing heteroscedasticity using scatterplot graphs, the results show that there are clear patterns and points that spread above and below the number 0 on the Y axis. So it can be concluded that there is no heteroscedasticity in the regression model. This shows that all independent variables can be used to predict SIA quality.

3) **Multiple Regression Analysis**

In this research, multiple linear regression analysis aims to explain the magnitude of the influence of the Education and Training Program, System User
Involvement, and HR Competence on SIA Quality. The following table general linear regression analysis to test the hypotheses in the study.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>9.411</td>
<td>2.164</td>
<td></td>
<td>4.349</td>
</tr>
<tr>
<td>Education and Training Program (X1)</td>
<td>.540</td>
<td>.178</td>
<td>.594</td>
<td>3.030</td>
</tr>
<tr>
<td>System User Engagement (X2)</td>
<td>-.472</td>
<td>.182</td>
<td>-.452</td>
<td>-2.593</td>
</tr>
<tr>
<td>HR Competency (X3)</td>
<td>.429</td>
<td>.120</td>
<td>.588</td>
<td>3.566</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Quality of AIS (Y)

So that the regression equation is obtained as follows:

\[ Y = 9.411 + 0.540X1 - 0.472X2 + 0.429X3 \]

1. \( Y \) = SIA quality equal to constant = 9,411 if the value of the independent variable (Education and Training Program, System User Involvement, and HR Competency) is 0, this can be explained that there is already SIA Quality even though there is no Education and Training Program, User Involvement Systems, and HR Competence.

2. If all other variables are constant then an increase in the Education and Training Program will result in an increase in the quality of the AIS.

3. If all other variables are constant then an increase in System User Engagement will result in a decrease in the quality of the AIS.

4. If all other variables are constant then an increase in HR Competency will result in an increase in the quality of the AIS.

4) Hypothesis Test (t-test)

Hypothesis t-test results Obtained results (a) Education and Training Program variables have a significance level of 0.005 <0.05, which means that Education and Training Program variables have a significant effect on the Quality of AIS, (b) System User Involvement has a significance level of 0.014> 0.05 which means that the System User Engagement variable significantly influences the SIA Quality, and (c) HR Competency has a significance level of 0.001 <0.05, which means that the HR Competency variable has a significant effect on the SIA Quality.
1) **Determination Coefficient (R²)**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.807*</td>
<td>0.651</td>
<td>0.617</td>
<td>1.196</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Education and Training Program (X₁), System User Engagement (X₂), HR Competency (X₃)

Regression calculation results can be seen that the coefficient of determination obtained by 0.651. This means that 65.1% of the quality of the AIS can be explained by the Education and Training Program, System User Involvement, and HR Competence, while the remaining 0.349 or 34.9% is explained by other variables not used in this study.

**INTERPRETATION**

1. **Effects of Education and Training Programs on SIA Quality**

Based on the results of the regression test through the test (t-test) it can be seen that the Education and Training Program factor is 0.005 < 0.05, which means that the Education and Training Program factor has a significant effect on the Quality of the AIS. Then the hypothesis H₁ is accepted and H₀ is rejected. This can be seen from the respondents' answers, the respondents felt agree with the statement that 'with the Education and Training Program can provide direction to employees who use the Information System in PT. Indomarco Adi Prima Jember Branch and Education and Training Program are important for the development of the system to support the company's work operations in order to achieve its objectives.

The results of this test are consistent with Holmes and Nocholls (1988) research showing that formal training influences the preparation of accounting information. Gustiyan's research (2014) shows that the System User Education and Training Program has a significant effect on the performance of the AIS and other researchers have proposed a positive relationship between user training, user attitudes and the success of the Information System.

2. **Effect of involvement of system users on the quality of the AIS**

Based on the results of the regression test through the test (t-test), it can be seen that the System User Engagement factor is 0.014 > 0.05, which means the System User Engagement factor significantly influences the SIA Quality. So for the hypothesis H₂ accepted and H₀ rejected. This can be known from the answers of
respondents, respondents felt agree with the statement that the level of participation of employees / users of Information Systems at PT. Indomarco Adi Prima Jember Branch in the development of the system is very high, and employees are satisfied with the Quality of Information Systems in the company, and employees / users are proficient in operating the System. So that the System User Involvement factor has an important influence on the quality of SIA at PT. Indomarco Adi Prima Jember Branch.

The results of this study are consistent with research conducted by Gustiyan (2014) which states that the involvement of system users significantly influences the performance of the AIS. Many researchers have investigated user involvement. They believe that involvement influences key criteria such as system quality, user satisfaction and system use (Ives and Olson 1984), Bruwer (1984) and Hirschheim (1985). They believe that user involvement in the system development process has a positive influence on satisfaction with the Computerize Based Information System (CBIS).

3. Effect of HR Competence on SIA Quality

Based on the results of the regression test through the test (t-test) it can be seen that HR Competency factor is 0.001 > 0.05, which means HR Competence factor significantly influences the SIA Quality. So for the hypothesis H3 is accepted and H0 is rejected. This can be known from the answers of respondents, respondents felt agree with the statement that they understand the clear role and function in developing the Information System and they work based on guidelines regarding the Information System process in the company.

The results of this study are consistent with research from Syarif (2016) which states that HR competence has a significant effect on the quality of information on the Makassar City government's financial statements.

CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS

CONCLUSION

1. The results of the t-test test analysis showed that the three variables used in the study had a significant effect on the quality of the AIS, namely the Education and Training Program, the Involvement of System Users, and HR Competence.

2. The results of the determination coefficient R2 for all independent variables (Education and Training Programs, System User Involvement, and HR Competency) in explaining the dependent variable (SIA Quality) are 65.1%, while the remaining 34.9% is explained by other variables which was not used in
this study.

IMPLICATIONS

Based on the conclusions above the 3 variables used in this study affect the quality of the AIS, namely (1) the variable Education and Training program significantly influences the quality of the AIS, with education and training, users can get the ability to identify their information requirements and the seriousness and limitations of the System This information and capability can lead to improved performance. With the existence of a system user training program can use the existing system in the company properly, it has an important effect on the survival of the company. (2) System User Engagement variable significantly influences the SIA Quality, in the design and development of Information Systems Involvement of System Users is more emphasized on how the role of the user in the process of designing the Information System and what steps are taken in supporting and directing its contribution, while what is meant by user support for the design and development of the AIS is related to the direction made by the user when the Information System is operated, one of which is to use a computer effectively. Information systems involving users will provide satisfaction for users and those users will be willing to use the AIS applied in the company. If the user is given the opportunity to provide opinions and proposals in the development of the Information System, then the user feels that the Information System is his responsibility, so expect the Quality of the Information System to improve. (3) HR competency variable significantly influences the quality of SIA, so competence is needed within the company, with adequate competence in terms of quantity and quality will increase the content of information in a report.

SUGGESTION

Based on the results of research, discussion, and conclusions above, the suggestions that researchers can give are:

a. In subsequent studies, it can find other factors that affect the quality of the AIS, for example internal control.

b. The right timing when distributing a questionnaire, so that the questionnaire answers can be obtained optimally.

c. Future studies should not only use questionnaires to collect data, but be accompanied by interviews with respondents so that respondents' answers better reflect the actual answers.
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