EFFECT OF SQ, HRQ, ISP AND TECHNOLOGY SOFTWARE ON ACCOUNTING INFORMATION SYSTEM EFFECTIVENESS

Siti Dini*[1], Desy[2], Vanny Fiorentina[3]

[123]Universitas Prima Indonesia

* Corresponding Email: siti.dni@gmail.com

Abstract

Background : The domestic animal feed industry encourages the livestock industry to consume meat and its processed products for the community as a source of protein. According to BPS Indonesia, feed contributes 70% of all funds for livestock production. **Method :** The research method is a scientific technique to obtain data with an achievement and benefit. **Result :** The results of the coefficient of determination test, namely the adjusted R^2 value, which is 0.950, the impact of the quality of the system and human resources, individual work systems and technological sophistication have an impact on the effectiveness of AIS at PT Leong Hup Jayaindo Medan which is 95%, the remaining 5% gets the impact of the variables studied. **Conclusion :** Variables of system quality and human resources, individual performance systems and technological sophistication simultaneously have an impact on the effectiveness of SIA at PT Leong Hup Jayaindo Medan.

Keywords: Service Quality, Human Resouces Quality, Individual System Perfomance, Technology, Software

INTRODUCTION

The domestic animal feed industry encourages the livestock industry to consume meat and its processed products for the community as a source of protein. According to BPS Indonesia, feed contributes 70% of all funds for livestock production, so it is a promising business. PT Leong Hup Jayaindo Medan is engaged in the animal feed production sector. The product of PT Leong Hup Jayaindo Medan is chicken and duck feed. it can be seen that poultry-based animal foods (poultry meat and eggs) have the highest level of participation. If in 2016 the level of public consumption participation for eggs was 86.58%, it increased in 2018 by 89.37%. If in 2016 the level of public consumption participation for poultry meat was 50.33%, it increased in 2018 by 53.62%[1][2].

As a result of soaring feed prices, farmers choose to make their own feed for farmed animals so that they still have a selling value. Information systems encourage companies to make accurate and reliable financial reports, many parties use accounting information systems (AIS) to make companies excel. AIS enables entrepreneurs to increase efficiency and effectiveness when making decisions to make companies competitive advantage[3].

At the PT Leong Hup Jayaindo Medan company, sales according to the results did not match the sales targets determined by the company because the SIA was not perfect. The quality of the information system used by the company, related to the information system that is implemented according to the needs and skills of the user so that it can be used for processing quality information data and functions for information users. At the company PT Leong Hup Jayaindo Medan, reports on accounting such as cash, stock of goods and purchases of goods have not been optimally used in SIA. The quality of human resources is an asset of the organization's ability and plays a role in achieving organizational goals. The quality of human resources is assumed to be the driving force of the organization. At the company PT Leong Hup Jayaindo Medan, it is still not optimal to use SIA for human resource decision making in optimal company costs. The Individual Work System is an illustration of the goals, programs, businesses, and regulations that are carried out to realize the vision, mission, and goals of the organization. High performance means increasing efficiency, effectiveness, and quality in carrying out the tasks assigned to each individual. PT Leong Hup Jayaindo Medan has not carried out socialization regarding the individual work system for employees resulting in a poor individual work system causing SIA to be imperfect[4][5].

Sophisticated technology enables companies to obtain more accurate and timely information for effective decisions. Many information technologies are used by small businesses. The use of IT is able to support administrative services, and when making decisions. At the company PT Leong Hup Jayaindo Medan sales decreased resulting in not getting the sales targets set by the company because the company had not used IT on an ongoing basis resulting in SIA not being perfect.

This difference is a research motivation because it is a problem that can be researched. The author is interested in researching with the title: Effect of System Quality, Quality of Human Resources,

Individual Performance Systems and Technological Sophistication on the Effectiveness of Accounting Information Systems at PT Leong Hup Jayaindo From the test results that the system quality variable has a positive impact on the effectiveness of AIS[6][7]. This means that the greater the quality of the system used, the greater the impact on user satisfaction[8].

From the test results that the system quality variable has a positive impact on the effectiveness of AIS. This states that the quality of the system is assumed to be a variable that has an impact on the effectiveness of the AIS. Information systems have become an important part when select the effectiveness of the organization's AIS. From the test results, the information system quality variable has an impact on the effectiveness of the AIS. This means that the higher the quality of the information system, the more effective the SIA work used by BRI in Samosir Regency will be. From the previous description, the system quality variable has an impact on the effectiveness of the AIS. This means that the greater the quality of the system used, the AIS becomes fast, flexible and stable[9][10].

From the test results that the HR quality variable has an impact on the effectiveness of the AIS. This states that with the quality of human resources, the results of good financial reports will be obtained. From the test results, the quality of HR variables has an impact on the effectiveness of the AIS. This means that the higher the competence of HR, the more the effectiveness of AIS will increase[10]. From the test results that the HR quality variable has a positive impact on the quality of Financial Reports. This means

that improving the skills of human resources is able to improve the quality of regional financial reports[11]. Stated from the test results that individual performance variables have a positive effect on the effectiveness of AIS. The better the individual work in the company, the quality of the information will decrease, and vice versa, to help the individual work[12][13].

From the test results, the individual work system variables have a positive effect on the effectiveness of the AIS. This means that the level of education, training, work experience can improve the effectiveness of work using the SIA system and can have an impact on the salaries earned by employees because of the better evaluation of individual work since the implementation of SIA in the company[14]. From the test results that individual work variables have a significant impact on the effectiveness of the AIS. This means that the better the individual work of Bank BRI employees in Samosir Regency, the more effective SIA will be[15]. From the test results, the IT sophistication variable has a positive impact on the effectiveness of the AIS. This means that IT sophistication, assisted by accounting support applications, a stable internet network, and related systems, facilitates access to the AIS application, can improve the effectiveness of obtaining job targets that automatically improve the effectiveness of using AIS[16].

RESEARCH METHODS

The research method is a scientific technique to obtain data with an achievement and benefit. This study uses a quantitative descriptive technique. This research method means a research method based on the philosophy of positivism, used

for research on a population/sample, collecting data using research instruments, analyzing data quantitatively, with the aim of achieving predetermined hypothesis testing. This research was carried out in order to know and analyze the impact of independent variables including the quality of the system and human resources, individual work systems and technological sophistication on the dependent variable, namely the effectiveness of AIS which was processed using SPSS version 26. The population of this study were 80 employees of PT Leong Hup Jayaindo Medan.

In this study using simple random sampling with the Slovin formula because not all existing employees were studied due to the limited time of the study.

n = N / (1+Ne2)

Information:

n = sample size

N = total population

e = tolerance of inaccuracy (in percent) 5%

With a population of 80 people and an error rate (a) of 5%, the sample

(n) this research is:

$$n = \frac{80}{1 + (80) \times (0.05)^2} = 67$$

This means that the total sample to be used in this study is 37 employees of PT Leong Hup Jayaindo Medan and 30 respondents are used to test the validity and reliability taken from PT Leong Hup Jayaindo Medan.

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

It is descriptive of the data displayed with min, max variance, mean value, and standard deviation of working capital, CR, fixed assets, sales and net income variables. Minimum value of the system quality variable ($X1$) is 3.00 and the maximum is 5.00. The mean value is 3.8465 and the standard deviation is 0.54262. The minimum value of the HR quality variable ($X2$) is 3.13 and the maximum is 4.75. The mean value is 3.9962 and the standard deviation is 0.45951. The minimum value of the individual work system variable ($X3$) is 3.00 and the maximum is 5.00, the mean value is 3.8608 and the standard deviation is 0.49155. The minimum value of the technological sophistication variable ($X4$) is 3.13 and the maximum is 5.00, the mean value is 4.0530 and the standard deviation is 0.55380. The minimum value of the SIA effectiveness variable (Y) is 3.25 and the maximum is 5.00, the mean value is 4.0249 and the standard deviation is 0.49713.

Validity test for the feasibility test of the questionnaire, which was used as a research instrument. Valid means that the data obtained from the questionnaire is able to answer the research. The questionnaire is declared valid if the statement can explain something that is measured by the questionnaire. Appendix 2, states the value of rcount > rtable where rtable = 0.361. This means that this research questionnaire is valid, the statement can be used in research.

Reliability is a questionnaire measuring instrument which is an indicator of a variable. The questionnaire is declared reliable if the answer to the statement is fixed. The reliability test method used is Cronbach's alpha > 0.60, this variable statement is reliable. If Cronbach's alpha < 0.60, the variable statement is not reliable. Appendix 2 states that the Cronbach's Alpha value obtained by the system quality

variable is 0.880 > 0.60. The human resource quality variable is 0.950 > 0.60. The individual work system variable is 0.943 > 0.60. The variable of technological sophistication is 0.994 > 0.60. . Variable effectiveness of SIA 0.967 > 0.60. In conclusion, the quality of the system and human resources, individual work systems, technological sophistication and the effectiveness of the AIS is worth consistent reliability.

Classic Assumption Test

There are 2 techniques for normality test of residual distribution:

- Test the chart.

   The easiest way to understand residual normality is by observing a histogram graph that compares the observed data with a distribution close to the normal distribution. The results are observed in the histogram graph, namely:
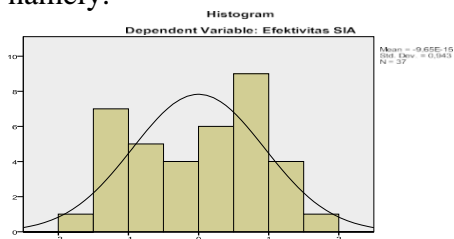

Figure 1. Histogram

means that the histogram diagram shows high beams based on the pattern of curved lines making mounds, thus the histogram diagram gives a normal data distribution. Normal P-P Plot chart results:
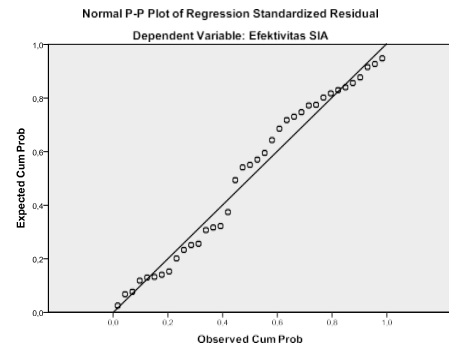

Figure 2. P-P Plot

Figure above shows the distribution of points around and near the diagonal line.

- Statistical test

   The statistical normality test can use the K-S non-parametric statistical test, the requirements for testing are:

   o if sig < 0.05, the data does not give a normal distribution.

   o if sig > 0.05, the data gives a normal distribution

N			37
Normal Parameters[a,b]	Mean		,0000000
	Std. Deviation		,10494130
Most Extreme Differences	Absolute		,106
	Positive		,094
	Negative		-,106
Kolmogorov-Smirnov Z			,644
Asymp. Sig. (2-tailed)			,801

Table 3 . Normality Test Results

States the normalization test for a significant value of 0.801. This means that it has a normal distribution, because statistically sig > 0.05.

Multicollinearity Test

   This test can be known t from the number of tolerance and VIF. If the tolerance score is low = high VIF score

(because VIF = 1/tolerance) is used to prove the occurrence of multicollinearity, namely tolerance score > 0.10 or VIF < 10.

Model	Collinearity Statistics	
	Tolerance	VIF
Kualitas Sistem	,93	1,068
Kualitas SDM	,94	1,060
Sistem Kinerja Indiv	,96	1,039
Kecanggihan Teknol	,96	1,036

Table 4. Multicollinearity Test Results

Result of the system quality value is 0.935 > 0.1 or 1.068 < 10. The value for HR quality is 0.944 > 0.1 or 1.060 < 10. The value for individual work systems is 0.962 > 0.1 or 1.039 < 10. The value of technological sophistication is 0.965 > 0.1 or 1.036 < 10. In conclusion, all independent variables are not tested for multicollinearity.

Heteroscedasticity Test

This test is carried out to see the difference in residual variance from one observation period to another observation period. There are various ways to determine the occurrence of heteroscedasticity. A scatterplot image to examine the occurrence of heteroscedasticity or homoscedasticity by observing the distribution of points.
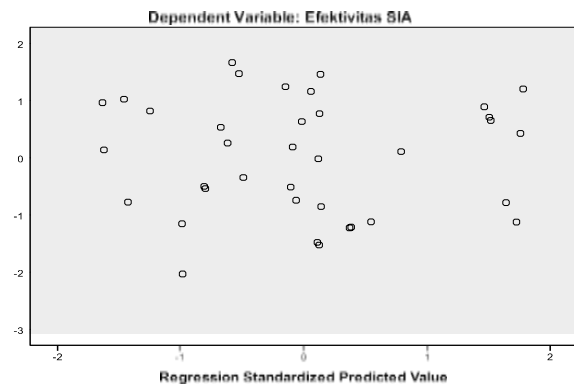

Dependent Variable: Efektivitas SIA

Figure 3. Scatterplot

Figure above shows the distribution of points p randomly creating a pattern as well as above or below 0 on the Y axis.

The occurrence of heteroscedasticity can be observed from the probability of its significance, if the significance number is more than the 5% confidence level, it can be concluded that there is no heteroscedasticity. The results of heteroscedasticity testing using the glejser method are:

Model		Unstandardized Coeffi		Standardized Coefficient	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,132	,115		1,142	,262
	Kualitas Sistem	-,018	,017	-,191	-1,076	,290
	Kualitas SDM	-,007	,019	-,067	-,381	,706
	Sistem Kinerja In	,017	,018	,163	,933	,358
	Kecanggihan Tek	-,002	,016	-,021	-,121	,904

Table 5. Results of the Glejser Method

Describes the glejser test score with a system quality significance number with a significant value of 0.290. The value of the glejser test for the quality of human resources with a significant value of 0.706. The individual performance system glejser test value with a significant value of 0.358.

Glacier test value of technological sophistication with a significant value of 0.904. This does not experience heteroscedasticity in the regression model, so the regression model is feasible to use in
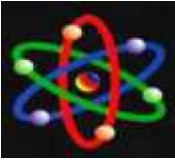
this study, because the significance of system quality, human resource quality, individual performance systems, and technological sophistication is > 0.05 statistically.

From these data, the regression equation for the influence of system quality, human resource quality, individual performance systems and technological sophistication on the effectiveness of AIS at PT Leong Hup Jayaindo Medan are:

$Y = 0.284 + 0.010$ system quality $+ 0.040$ human resource quality $+ 0.004$ individual performance system $+ 0.870$ technological sophistication

The coefficients on the multiple linear regression equation are:

- Constant value (a) 0.284 units means the quality of the system and human resources, individual work systems and technological sophistication on the effectiveness of AIS at PT Leong Hup Jayaindo which is 0.284 units.
- The regression coefficient of the system quality variable (b1) is 0.010 units. This means that an increase of 1 unit of system quality resulted in an increase in the effectiveness of the AIS at PT Leong Hup Jayaindo by 0.010 units.
- The regression coefficient of the HR quality variable (b2) is 0.040 units. This means that an increase in 1 unit of HR quality resulted in an increase in the effectiveness of SIA at PT Leong Hup Jayaindo by 0.040 units.
- The regression coefficient for individual performance system variables (b3) is 0.004 units. This means that an increase of 1 unit of

individual performance system resulted in an increase in the effectiveness of SIA at PT Leong Hup Jayaindo by 0.004 units.

- The regression coefficient of the technological sophistication variable (b4) is 0.870 units. This states that an increase of 1 unit of technological sophistication resulted in an increase in the effectiveness of SIA at PT Leong Hup Jayaindo 0.870 units.

CONCLUSION

1. The system quality variable partially has no impact on the effectiveness of the AIS at PT Leong Hup Jayaindo Medan.
2. The variable quality of human resources partially has no impact on the effectiveness of SIA at PT Leong Hup Jayaindo Medan.
3. Individual performance system variables partially have no impact on the effectiveness of AIS at PT Leong Hup Jayaindo Medan.
4. The debt default variable partially has no impact on the going concern audit opinion in trading companies listed on the IDX in 2016-2019.
5. Variables of system quality and human resources, individual performance systems and technological sophistication simultaneously have an impact on the effectiveness of SIA at PT Leong Hup Jayaindo Medan.

BIBLIOGRAPHY

[1] W.-K. Chen, *Linear Networks and Systems*. 2nd ed., R. M. Osgood, Jr., Ed.
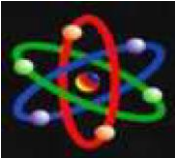
Belmont, CA: Wadsworth, 1993, pp. 23–35.

[2] G. O. Young, "Synthetic structure," in *Plastics*, 2nd ed., vol. 3, J. Peters, Ed. New York: McGraw-Hill, 1964, pp. 15–64.

[3] J. U. Duncombe, "Infrared navigation—Part I: An assessment of feasibility," *IEEE Trans. Electron Devices*, vol. ED-11, pp. 34–39, Jan. 1959.

[4] E. P. Wigner, "Theory of traveling-wave optical laser," *Phys. Rev*., vol. 134, pp. A635–A646, Dec. 1965.

[5] E. H. Miller, "A note on reflector arrays," *IEEE Trans. Antennas Propagat*., to be published.

[6] D. B. Payne and J. R. Stern, "Wavelength-switched passively coupled single-mode optical network," in *Proc. IOOC-ECOC*, 1985, pp. 585–590

[7] D. Ebehard and E. Voges, "Digital single sideband detection for interferometric sensors," presented at the 2nd Int. Conf. Optical Fiber Sensors, Stuttgart, Germany, 1984

[8] G. Brandli and M. Dick, "Alternating current fed power supply," U.S. Patent 4 084 217, Nov. 4, 1978.

[9] E. E. Reber, R. L. Mitchell, and C. J. Carter, "Oxygen absorption," Aerospace Corp., Los Angeles, CA, Tech. Rep. TR-0200 (4230-46)-3, Nov. 1968

[10] J. Jones. (1991, May 10). *Networks Architechture*. (2nd ed.) [Online]. Available: http://www.atm.com/

[11] R. J. Vidmar. (1992, Aug.). On the use of atmospheric plasmas. *IEEE Trans Plasma Sci.* [Online]. *21(3)*, pp. 876–880. Available: http://www.halcyon.com/pub/jos/

[12] PROCESS Corp., MA. Intranets: Internet technologies deployed. Presented at INET96 Annu. Meeting. [Online]. Available: http://home.process.com/wp2.htp

[13] S. L. Talleen. (1996, Apr.). The Intranet Architecture. Amdahl Corp., CA. [Online]. Available: http://www.amdahl.com/infra/