The effect of the quality of human resource information systems, training and development on employee performance through work discipline at PT. Era mulia abadi sejahtera

by

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Abstrak: The aim of this study is to analyze the effect of the quality of human resource information systems, training & development, and work discipline on employee performance. Primary data obtained by questionnaires are the main data in this analysis. The Respondents are employees of PT. Era Mulia Abadi Sejahtera, as users of the human resource management system which has been introduced in their companies. The population of this sample was 116 workers. The data collection instrument was a survey with a sample of the general population. The technique of analysis uses a linear regression analysis. The findings have shown that the quality of human resource information systems and training & development will enhance the discipline of work. This ensures that the quality of human resource systems accompanied by the seriousness of the workers in training & development will strengthen work discipline. Therefore, the quality of human resource information systems and training & development will enhance the employee performance. This means that employee performance can be improved through a quality information system for human resources and through training and capacity building. Work discipline can improve employee performance. Moreover, the work discipline mediates the impact of the quality of human resources information system as well as training & development on employee performance.

Kata kunci: quality of human resource information systems, training and development, work discipline, employee performance.

1 Introduction

For companies, employee performance is significant. The usage of information systems is one step towards optimum employee efficiency (Rivai, 2014). Quality of information is a significant factor for the effectiveness of information systems in an organization (Pratama, et al., 2019). It is important to hire information systems because of the value of integrated information, which encourages a more efficient and competitive business (Kaci, et al., 2017). The need to improve the information system is synergistic in accessing the organization's business knowledge requirements (Prasetya, 2019). The practice of human resource management is developed to promote, motivate, and maintain employees to ensure the longevity of the company (Setyadi, 2017).

PT. Era Mulia Abadi Sejahtera is a consultancy firm dedicated to market management services. One of the current challenges is inefficient and ineffective employee performance appraisal, which requires a long time to complete. Employee performance appraisals are expected to be carried out in real-time. Research findings from Mia (2016) have shown that the factors that are perceived as most potential in delivering a competitive edge for firms are human resources and human resource management. In an organization, Employee training & development is very essential to help enhance skills and abilities of trustworthy, qualified, and adaptable employees for the future of a company.

The study findings undertaken by Felicia (2018) indicate that training influences the productivity of the workers. The more the training is performed, the better the production of the employee. Meanwhile, Syafrina (2017) suggests that work discipline may influence performance. The better the employee discipline, the greater the efficiency of the job. According to Pangarso (2016), good work discipline would result in good efficiency of employees. On the other hand, if the work discipline is not good, it can often result in poor employee performance.

This study's main purpose is to investigate the influence of the quality of human resource information systems, training & development, and work discipline that has an indirect or direct impact on employee performance.

2 Literature Review

This section will discuss the definition of the quality of human resource information systems, training and development, work discipline and employee performance as parameters in this study.

2.1 The Quality of Human Resource Information System (HRIS)

In achieving the targeted organizational goals, human resources play an essential role in organization's performance. Therefore, an enterprise's effectiveness and failure will heavily rely on how much the efficiency of human resources (Wala, 2018). Rivai (2014) defines human resource information system as a systematic procedure for gathering, storing, maintaining, withdrawing and validating company data to enhance the decision-making process and HR policies. The usage of systems for human resources information will increase the company's efficiency and productivity when fast, reliable and accessible information for the decision-making process is required (Mia, 2016).

Many studies have been extensively explored on job performance, including studies on the impact of the quality of human resource information systems on work discipline (Mia, 2016; Ferry, 2017; Fitria, 2019; Wala, 2019). They claimed that the human resource information system (HRIS) is significantly related to employee discipline. The metrics for quality human resources systems, according to Alter (2002), are accessibility, access speed, system reliability, flexibility and protection. Rivai (2014) asserted that the quality of human resource information systems consist of timely, reliable, succinct, sufficient, and comprehensive information.

Based on the definition mentioned above, the information systems' indicators for human resources in this study are information quality, easy-to-use framework, speed of system access and system protection (Rivai, 2014) (Alter, 2002).

2.2 Training and development

Yani (2012) proposes that training & human resource development improve skills and provide quality assets about knowledge, work skills, and high levels of professionalism to accomplish company goals efficiently. Contrary to the view of Metha (2017) who suggests that training & development are not planned exclusively to retain and enhance employee discipline alone, the findings of the research conducted by Sulaefi (2017) and Felicia (2018) indicate powerful impact between training and development and work discipline.

Yani (2012) mentions four training and development indicators i.e., effective knowledge transfer, intra-organizational validation, inter-organizational validation, and clarity of purpose.

In the current research, based on the explanation above, indicators of training & development include the magnitude of learners, quality of information, clarity of course goals, and treatments to understand the users' needs (Mangkunegara, 2011).

2.3 Work Discipline

Study findings by Sedarmayanti (2011) illustrate a concept of discipline as corrections or a penalty for workers who infringe on regulations or procedures. In addition, Siagian (2010) describes discipline as a management action, promoting organizational participants to follow the regulations' requirements. According to Felicia (2018), discipline is a character training in establishing self-control and compliance with relevant regulations.

Previous studies (Pangarso, 2016 and Syafrina, 2017) shows that work discipline has a substantial influence on employee performance. The more disciplined an individual is at work, the greater their performance. According to Hasibuan (2010), work discipline parameters are as follows: compliance with regulations, time efficiency, job duties, and the absenteeism rate.

Based on the above definition, this analysis's work discipline indicators involve conformity with the regulations, time efficiency, job duties, and attendance rate (Hasibuan, 2010).

2.4 Employee performance

Employee performance is fulfillment with job requirements in which the output can be clearly observed from job quantity and job quality. As discussed above, the output can be physical or non-physical (Simamora, 2017). According to Mangkunegara (2007), employee performance is an endeavor accomplished by workers in performing his duties based on their responsibilities. Mangkunegara (2009) asserts that factors of employee performance include internal factors and external factors. Internal (dispositional) factors are variables correlated with the characteristics of the individual.

In determining the impact of human resource system quality on work discipline, researchers concentrate on the previous findings (Mia, 2016; Wala, 2019; and Fitria, 2019). Their study findings indicate a major influence between the human resource system quality and employee performance. According to Triasmoko (2014), employee performance indicators include work quantity, work quality, punctuality, and cooperation. Meanwhile, according to Wilson (2012), employee performance indicators include the capacity to increase the number of jobs created, quality of work completed, time to finish the job, employee attendance on time, and collaboration between employees.

Based on the aforementioned definition, employee performance indicators in this study include quality of work, the quantity of work, time occupancy, and collaboration on the job (Triasmoko, 2014) and (Wilson, 2012).

3 Research methods

3.1 Population and sample

The population in this study were employee at PT. Era Mulia Abadi Sejahtera as many as 116 people. The sampling technique used was non probability sampling, with a census. The research instrument used a questionnaire with a Likert scale of 1 sd. 5. Types of data obtained from the distribution of questionnaires are interval data. This study uses path analysis.

3.2 Data analysis

The data analysis technique used in this study is linear regression using SPSS 25 analysis. The linear regression equation is as follows:

 $Y2 = \alpha + b1X1 + b2X2 + b5Y1$

Description:

The existence of differences in previous research is used by researchers as a basis in analyzing this research variable. The analysis used is linear regression analysis. In conducting the test, a classic assumption test is also carried out so that the variables and indicator items are proven valid and reliable. In addition, normality testing, data autocorrelation, heteroscedastity test and multicollinearity test were carried out.

4 Results and discussion

4.1 The results from classical assumption test

The results of the analysis of the thirty six question items obtained valid results indicated by statistical tests that the correlation coefficient value of each question item was greater than the t table. Likewise, the Alpha Chronbach value (0.60) for each variable is greater than the r-table value, meaning that it is reliable. The results of the reliability test for each indicator and research variable are as follows:

Table 1 The results from reliability test

Variable	Reliability Coefficient	Result
Quality of HRIS	0,783	Reliable
Training and development	0,781	Reliable
Work discipline	0,771	Reliable
Employee performance	0,797	Reliable

Note: Predictors: (constant), quality of HRIS, training and development, work discipline.

The dependent variable: employee performance.

The results of testing the classical assumptions are summarized as follows:

Table 2 The results from classical assumption test

Variable	VIF	Du	Durbin Watsion	4-Du	Prob. Sig t
Quality of HRIS	1,728	1,732	1,950	2,268	0,000
Training and development	1,728	1,750	1,922	2,250	0,000
Work discipline	1,728	1,715	1,771	2,285	0,000

Note: Predictors: (constant), quality of HRIS, training and development, work discipline.

The results from classical assumption test in table 2 show that the VIF value for each independent variable is more than 5, meaning that it is multicollinearity free. The DW value of 1.950 between du 1.732 and 4-du 2.268 means that there is no autocorrelation, while the residual probability for each independent variable on the dependent variable shows insignificance, which is greater than the value α (0.05), which means that it is free of heteroscedasticity.

4.2 The results from a multiple linear regression analysis

The results of model testing can be seen in the results of linear regression analysis. The results of the analysis can be presented in Table 3 as follows.

Table 3 The Results of linear regression analysis

Independent Variable	Dependent Variable	Standard Result's coefficient	P-Value	Result
Quality of HRIS (X1)	Performance (Y2)	0.658	0,000	Significant
Training & development (X2)	Performance (Y2)	0.259	0,000	Significant
Work Discipline (Y1)	Performance (Y2)	0.883	0,000	Significant

Note: Predictors: (constant), quality of HRIS, training and development, work discipline. The dependent variable: employee performance.

Referring to the result of multiple linear regression analysis, it is obtained:

- 1. The effect of HRIS quality, training, and development on work discipline. The beta coefficient value of the human resource information system (HRIS) quality with a value of 0.639 and a t value of 9.113 and a p value of 0.000 is lower than p = 0.05 ($\alpha = 5\%$), meaning that the quality of human resource information system (HRIS) has an influence on work discipline.
- 2. The effect of HRIS quality, training, and development on employee performance. The beta coefficient value of the quality of the filman resource information system (HRIS) is 0.658, and the t value is 4.073, and the p-value is 0.000, which is smaller than p = 0.05 ($\alpha = 5\%$), which means that the quality of human resource information system (HRIS) has an influence on employee performance.
- 3. The effect of work discipline on employee performance. The work discipline's betacoefficient value is 0.883, and the t-value is 8.221, and the p-value is 0.000, which is less than p = 0.05 ($\alpha = 5\%$). It implies that the work discipline influences the employee performance. The third hypothesis is that the work discipline has a statistically tested effect on employee performance.

4.3 Hypothesis testing

4.3.1 First hypothesis test

Based on SPSS calculations, a summary of the model is presented in Table 4.

Tabel 4 Summary of the hypothetical model 1

Variable	Regression Coefficient	Value of t	P value	
Quality of HRIS	0.543	9,113	0,000	
Training and development	0.366	3,537	0,000	
Dependent variable = Work Discipline R = 0.824 R square (R2) = 0.679				

Note: Predictors: (constant), quality of HRIS, training and development. The dependent variable: employee performance.

The effect of the quality of HRIS has a regression coefficient v 21e of 0.543 with a significant value of 0.000 while training and development obtained a regression coefficient value of 0.366 with a significant value of 0.001.

The contribution of the quality of the human resource information system (HRIS) and training and development to the work discipline was 67.9 %, whereas 32.1 % of the work discipline was affected by other factors.

4.3.2 Second hypothesis test

Based on the calculation of the results of the SPSS regression analysis is presented in Table 5.

Table 5 Summary of the hypothetical model 2

Variable	Regression Coefficient	Value of t	P value
Quality of HRIS	0.718	10,052	0,000
Training and development	0.485	3,953	0,000
Dependent variable = Employee R = 0.849 R square (R2) = 0.720	e Performance		

Note: Predictors: (constant), quality of HRIS, training and development. The dependent variable: employee performance.

2

The effect of the quality of HRIS has a regression coefficient value of 0.718 with a significant value of 0.000 while training and development obtained a regression coefficient value of 0.485 with a significant value of 0.000.

The contribution of the quality of human resource information system (HRIS) and training and development to the work discipline was 72.0 %, whereas 28.0 % of the employee performance was affected by other factors.

4.3.3 Third hypothesis test

Based on SPSS calculations, a summary of the model is presented in Table 6.

Table 6 Summary of the hypothetical model 3

Varia	ble	Regression Coefficient	Value of t	P value
Work discipline		1,133	20,094	0,000
Dependent varia R R square (R2)	ble = Employee = 0,883 = 0,780	e performance		

Note: Predictors: (constant), work discipline.

The dependent variable: employee performance.

The effect of work discipline has a regression coefficient value of 1.133 with a significant value of 0.000 to employee performance.

The contribution work discipline to the employee performance was 78.0 %, whereas 22.0 % of the employee performance was affected by other factors.

4.3.4 Fourth hypothesis test

Based on the calculation of the results of the SPSS regression analysis is presented in Table 7.

Tabel 7 The coefficient of the results of the linear regression analysis

Variable	Direct Influence	P value	Indirect Influence	Total Effect
(X1) to (Y1)	0,639	0,000	-	-
(X2) to (Y1)	0,251	0,000	-	-
(X1) to (Y2)	0,658	0,000	-	-
(X2)to (Y2)	0,259	0,000	-	
(Y1) to (Y2)	0,883	0,000	-	
(X1) to $(Y2)$ through $(Y1)$	0,658	-	0,639 X 0,883 = 0,564	1,222
$(X2)$ to $(\underline{Y2})$ through $(Y1)$	0,259	-	0,251 X 0,883 = 0,221	0,480

Note: Predictors: (constant), quality of HRIS, training and development, work discipline, The dependent variable: employee performance.

The results of linear regression analysis in table 7 show that the value of the indirect effect is greater (1.21) than the direct effect (0.658), indicating that the work discipline $\sqrt{7}$ able has the status as an intervening variable that can mediate the quality variable of the human resource information system (HRIS) on employee performance. The effect of training and development on employee performance through work discipline obtained a total value of (0.662) greater than the direct effect (0.259).

43.4.1 The influence of the quality of human resource information systems, training and development on work discipline

The quality of human resource information systems (HRIS) with a value of 0.639 with a significant value of 0.000 smaller than p = 0.05 ($\alpha = 5\%$), which means that the quality of the human resource information system (HRIS) affects work discipline. The beta coefficient value of training and development with a value of 0.251 with a significant value of 0.000 is smaller than p = 0.05 ($\alpha = 5\%$). This mean that training and development have an effect on work discipline.

43.4.2 The influence of the quality of human resource information systems, training and development on employee performance

The quality f human resource information systems (HRIS) has 0.658 of total value with a significant value of 0.000 smaller than p = 0.05 ($\alpha = 5\%$), which means that the quality of the human resource information system (HRIS) to employee performable. The beta coefficient value of training and development is 0.259 with a significant value of 0.000 smaller than p = 0.05 ($\alpha = 5\%$), which means that training and development have an effect on employee performance.

4.3.4.3 Effect of work discipline on employee performance

Work discipline has 0.883 of total value with a significant value of 0.000 which is smaller than p = 0.05 ($\alpha = 5\%$), which means that work discipline affects employee performance.

43.4.4 The influence of the quality of human resource information systems, training and development on employee performance through work discipline

Work discipline has the status of an intervening variable that in mediate the quality of the human resource system (SISDM) on employee performance, because the total effect value is greater (1.222) than the direct effect (0.658), while the influence of the training and development variables on employee performance through work discipline is (0.480) greater than the direct effect (0.259).

4.3.5 Dominant influence test

The quality of HRIS has 1.222 of total value, while training and development has 0.480 of total value to employee performance through work discipline. This shows that the quality of HRIS has a stronger influence than training and development on employee performance through work discipline as an intervening variable.

4.3 The interactions among variables

4.3.1 The influence of the quality of HRIS, training, and development on work discipline $(X1, X2 \rightarrow Y1)$

The standard of HRIS, training, and development influences the work discipline. This implies that the higher the quality of the information system for human resources and the training and development provided by PT. Era Mulia Abadi Sejahtera, the stronger the discipline of employees. This is in accordance with the research conducted by (Ferry, 2017), which reports that enhancing the quality of HRIS in companies would have a real effect on improving employee discipline.

Training and development were supported by the learners' commitment to understanding the materials, the accuracy of the training methods, and the clarity of the training goals. The more employees understand the purpose of the training, the more enthusiastic they will be to complete the training. This correlates to the study carried out by (Sulaefi, 2017), which reports that human resource training and development has a major effect on employee discipline. If human resource training improves, work discipline will increase.

4.3.2 The influence of the quality of HRIS, training and development on employee performance $(X1, X2 \rightarrow Y2)$

The quality of training and development of HRIS impacts employee performance. It indicates that the better the quality of human resource information system supported with skill training and development will further enhance the employee performance at PT. Era Mulia Budi Sejahtera. It is in accordance with the research performed by (Mia, 2016), which indicates that HRIS has a significant influence on employee performance, demonstrating that professionalism can boost employee performance. Previous studies (Wala, 2019) have indicated that the quality of human resource information directly influences employee performance. As HRIS improves, employee performance rises.

Employee training and skill development are required to enhance employee performance. Before delivering training materials, every employee must comprehend the required materials to provide alternatives for clients to fulfill their needs. The previous research carried out by Felicia (2018) pointed out that training has a significant effect on employee performance. If training increases, employee performance will also increase. Findings have revealed a more significant impact of the quality of human resources information systems on employee performance than of training and development.

4.3.3 The Effect of work discipline on employee performance $(Y1 \rightarrow Y2)$

Work discipline has a significant influence on employee performance. It implies that the more disciplined the workers are, the better the employee performance. The primary factor that promotes discipline is time effectiveness, expressed by the use of spare time by employees to complete other work. According to research from (Pangarso, 2016) and (Syafrina, 2017), the work discipline has a significant positive impact on employee performance. The work discipline generally plays a substantial role in improving employee performance. Therefore employees with strong work discipline perform their jobs in the highest capacity to ensure optimum employee performance.

4.3.4 The influence of the quality of human resource information systems, training & development on employee performance through work discipline $(X1, X2 \rightarrow Y2 \text{ through } Y1)$

The quality of HRIS, training, and development significantly influences employee performance through work discipline. HRIS quality has a role as a medium in delivering multiple information correctly and reliably that PT. Era Mulia Abadi Sejahtera Human Resources need. Training & development will promote the expertise and experience of the employees to provide solutions to customer issues. The more employees as experts will help improve the client's business, the effective the employee would be.

Based on these findings, HRIS quality has a more significant impact on employee performance through work discipline than training and development. With the improvement in the quality of information systems as information media, adequate training and development, and work discipline, the employee performance at PT Mulia Abadi Sejahtera will improve.

5 Conclution

Based on the hypothesis test results, the conclusions in this analysis are:

- a. Descriptive analysis results indicate that the quality of HRIS is determined based on information quality, ease of use, access speed, and system security. If the information is complete, precise, and can also be retrieved by the staff at any moment, the quality of the Human Resources information system would optimize the employee performance at PT. Era Mulia Abadi Sejahtera. The success in training & development has been accomplished by the learners' seriousness, the accuracy of the method, and the clarity of the objectives. What is most critical in training and development is the clarity of the education goals that allow employees to implement the lessons gained in training and explain the outcomes of the training to the division team. Work discipline requires compliance with the laws, time efficiency, job responsibilities, and attendance rate. The most crucial factor in creating discipline is the quality of time, as shown by the workers' desire to use free time to work and be on time every day.
- b. The quality of HRIS, training, and development can increase work discipline. Complete and accurate information systems can improve the quality of the system. It must be accompanied by a system that is readily available at any time to increase conformity with company regulations, which subsequently increases employee discipline at work.
- c. The quality of HRIS, training, and development can improve employee performance. This indicates that the better the human resource information system's quality which is assisted by training & development, the higher the employee performance. Training and skill development are also important to enhance employee performance. It can be accomplished by increasing participants' dedication to skill training & development to increase employee performance at PT. Era Mulia Abadi Sejahtera.
- d. The awareness of work discipline can improve employee performance. The most important factor that can encourage discipline is time efficiency. When employees can finish their job on time, they fulfill their duties with maximum performance.
- e. HRIS quality, training & development can enhance employee performance through work discipline. Employee success can be achieved through high quality information system which offers clearer purpose of training & developments, promotes disciplined conduct, and productive use of time.

6 Recommendations

Based on the findings of the study, the following recommendations include:

- a. Leaders can continue to utilize HRIS which has been implemented in the office to enhance its quality so the work that has been scheduled will run well.
- b. Training and development would be more successful if the workers know their goals in order to improve their enthusiasm for taking part in the training.
- c. Leaders can carry out performance appraisals through work discipline because employee discipline can improve their performance
- d. Variables that have not been examined in this research should be used for further studies in order to predict the quality of human resource information systems such as service quality, competence, employee morale, and job performance.

7 Reearch Limitations

The investigation is restricted to PT. Era Mulia Abadi Sejahtera by considering the quality of human resources information systems, training & development, discipline and employment performance. In addition, it can be extended to include other similar companies and consider factors that have not been researched yet such as: service excellence, work competence, work morale, and job performance, to deliver more benefits for other companies.

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