



The Influence of Recruitment and Selection System on Improving Employee Performance at PT Perkebunan Nusantara III (Persero) Medan

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Abstract. The recruitment and selection process is a process of finding, selecting, and determining potential employees in accordance with the needs, requirements, and culture of the company. Companies must be meticulous in the procurement of recruitment process activities and selection of prospective employees to prevent incompatibility between what the company expects and what the company gets after the recruitment and selection process activities occur because it can affect the effectiveness and efficiency of the company. The recruitment and selection process can be said to be good if a company manages to get prospective employees who are in accordance with the requirements that have been determined by the company, and the employee produces good performance as well so that the overall company's goals can be met. The purpose of this study is to analyze the effect of the recruitment system on employee performance at PT Perkebunan Nusantara III (Persero) Medan and analyze the effect of the selection system on employee performance at PT Perkebunan Nusantara III (Persero) Medan. The type of research used in this study is correlational analytical research. The sample in this study was 45 samples with a population of 538 employees. The data collection technique in this study used questionnaires and data analysis techniques using partial least square (PLS) software. The results of this study explained that the recruitment process (X1) of PT Perkebunan Nusantara III (Persero) Medan had a positive and significant effect on the performance of (Y) PT Perkebunan Nusantara III (Persero) Medan and the selection process (X2) of PT Perkebunan Nusantara III (Persero) Medan had a positive and significant effect on the performance of (Y) PT Perkebunan Nusantara III (Persero) Medan.

Keywords: Recruitment · Selection · Performance

1 Introduction

Human resources (HR) have a very crucial role because the performance produced by these human resources (HR) determines the success of a company. Companies must be able to find and obtain good quality and competent human resources in their fields

to be able to be hired and placed in positions that are in accordance with their expertise. Companies must also know how efforts are made in the development, use, and utilization of existing human resources (HR). A company must also be vigilant in the employee selection process because the role of recruitment and selection is the first step in determining how prospective employees contribute to a company. According to Chao-Ton Sua and Tsung-Ming Yang (2015) [1], recruitment is a process of obtaining candidates from a specific area who are suitable for a specific position. Recruitment is related to the selection process at the stage of selecting prospective employees to select and determine prospective employees who meet the specifications according to the company's needs. According to Dassler (2013) [2], the selection is the process of selecting prospective employees according to qualifications such as knowledge, skills, ability, and competence in carrying out existing work in a company.

PT Perkebunan Nusantara III (Persero) Medan has vacant positions in work units at the company. Total positions in 2019 were 85 and in 2020 were 60. The vacancies were caused by pensions, employees who found better jobs, low performance, and death. Recruitment and selection of human resources (HR) are beneficial for companies in achieving company or employee performance. According to Yang et al. (2016), performance is the amount and quality of work that can be obtained by employees in accordance with the roles and obligations given by the company. The performance of PT Perkebunan Nusantara III (Persero) Medan in several fields, such as the general sector, procurement, and information technology, as well as the financial and accounting sector, has decreased performance every year. The performance of PT Perkebunan Nusantara III (Persero) Medan in 2018 for the general sector was 94.58, the procurement and information technology sector was 96.75, and the finance and accounting sector was 95.91. In 2019, the general sector was 93.69, the procurement and information technology sector were 97.47, and the finance and accounting sector was 95.59. And in 2020, for the general field, 93.13, the procurement and information technology field 97.30, and the finance and accounting field 94.08. The decline in performance is due to work imposed on other workers, which makes employees overwhelmed, so there is a workload that is not in accordance with the capacity of existing employees due to a shortage of members.

According to Muaja et al. (2017) [3], employees who successfully pass the selection must match their expertise because it can affect employee performance. Employee performance that does not match the demands and expectations of the company will result in saturated employees, so the resulting performance is low. Employee performance in accordance with the demands and expectations of the company will provide enthusiasm and motivation for employees at work. The purpose of this study is to analyze the effect of the recruitment system on employee performance at PT Perkebunan Nusantara III (Persero) Medan, analyze the effect of the selection system on employee performance at PT Perkebunan Nusantara III (Persero) Medan, and formulate strategies or policies for the recruitment and employee selection process to improve effective employee performance for PT Perkebunan Nusantara III (Persero) Medan in meeting company needs.

2 Material and Method

The type of research used in this study is correlational analytical research. According to Sekaran (2010) [4], correlational analysis is a study used to find out how a variable relates to another variable that does not care whether a particular variable depends on another variable. The location of this study is PT Perkebunan Nusantara III (Persero) Medan, which is located at Jalan Sei Batanghari No. 2 Medan. According to Sekaran (2010) [4], a population is a group of people, events, or other things of interest to research by the researchers. The population used in this study was 538 employees. According to Sekaran (2010) [4], the sample is a portion of the respondents from the population chosen by the researcher. According to Roscoe (in Sekaran, 2006) [5], correlational and multivariate studies (including multiple linear regression analysis) for sample size should be 10–15 times greater than the variables total in the study. So that the number of samples used in this study was 45 samples. The research instrument used in this study was in the form of a questionnaire with a sampling technique carried out employing simple random sampling. The measuring scale used is the Likert scale.

Before conducting data analysis using partial least square (PLS), it must first be tested for the validity and reliability of a research instrument. According to Deniz (2013) [6], validity and reliability tests are used to measure variables prepared as questionnaires in a study. A validity and reliability test is a measuring tool used to determine the accuracy and consistency of a questionnaire in research. According to Esposito (2010) [7], the data analysis method in this study used partial least square (PLS). Partial least square (PLS) is multivariate data analysis in the form of a structural equation modeling (SEM) approach based on variants or components. Partial least square (PLS) has no assumptions regarding data distribution. Partial least square (PLS) aims to find out the alleged influence of independent variables on dependent variables and a description in the theory of how the relationship between the two variables.

Partial least square (PLS) testing, according to Ghozali and Latan (2014) [8], consists of:

a Measurement (outer) model

The measurement (outer) model is carried out to determine the level of validity in each indicator under study or to find out how each indicator relates to its latent variables. The measurement (outer) model consists of a convergent validity test, discriminants validity test, and composite reliability test.

b Structural (inner) models

Structural (inner) models are carried out when measurement (outer) testing of the model has been carried out previously to determine how the constructs are interconnected. The structural testing (inner) model consists of the goodness of fit test (R-Square and Q-Square tests) and the multicollinearity test.

c Hypothesis testing

Hypothesis testing is used to determine the partial influence between independent variables on the dependent variables studied in the study. The hypothesis test can be done by testing the t-statistical and p-values obtained from bootstrapping results in Partial least square (PLS) software.

3 Results and Discussion

The partial least square (PLS) test has 3 tests, namely measurement (outer) model testing, structural (inner) model testing, and hypothesis testing.

3.1 Measurement (Outer) Model

Measurement (outer) model testing is carried out to prove that the measurements used are feasible to be used as measurements or are valid and reliable. This outer model analysis consists of convergent validity, discriminant validity, and composite reliability.

Convergent Validity.

Convergent validity is used to measure how much the relationship between the latent variable and the indicator variable in the measurement model is. The convergent validity value can be known through the outer loading value of each variable indicator. The results of the convergent validity test in this study are described in Table 1.

The results of this convergent validity test show that overall the loading factor values of all indicators in this study have good validity values because the outer loading value >0.7 . According to Hair et al. (2011) [9], an indicator can be said to have an excellent convergent validity if the outer loading value >0.7 .

Discriminant Validity.

Discriminant validity is used to measure the degree of correlation between the indicators of a construct and the indicators of other constructs studied. The discriminant validity value can be known through the cross-loading value and the average variance extracted (AVE) value of each variable indicator. The results of the discriminant validity test for cross-loading values are described in Table 2.

The result of the overall cross-loading value shows that the discriminant validity value has been met because the cross-loading value for the other variables is lower than the cross-loading value for the measured variable. According to Ramayah et al. (2013) [10], the validity of discriminants is fulfilled if the value of cross-loading to the measured variable must be higher than the result of the cross-loading value to other variables. In addition, the average variance extracted (AVE) value is described in Table 3.

The results of the average variance extracted (AVE) value for the performance variable 0.609, the recruitment Ramayah et al. (2013) [10], the validity of discriminants can be said to be met if the value of AVE in each construct >0.5 .

Composite Reliability.

Composite reliability is a reliability test carried out to determine the level of internal consistency of measuring instruments. The value of composite reliability can be known through the value of Cronbach's alpha and the value of composite reliability. Composite reliability test results for Cronbach's alpha value and composite reliability value are described in Table 4.

The test results showed that the composite reliability value for the performance variable was 0.945, the recruitment variable was 0.956, and the selection variable was 0.927. While the value of Cronbach's alpha for the performance variable is 0.936, the

Table 1. Outer Loading Value

Indicator	Performance (Y)	Recruitment (X1)	Selection (X2)	Description
X.10		0.723		Valid
X1.1		0.862		Valid
X1.11		0.727		Valid
X1.2		0.898		Valid
X1.3		0.907		Valid
X1.4		0.816		Valid
X1.5		0.730		Valid
X1.6		0.826		Valid
X1.7		0.841		Valid
X1.8		0.804		Valid
X1.9		0.802		Valid
X2.1			0.811	Valid
X2.2			0.784	Valid
X2.3			0.796	Valid
X2.4			0.714	Valid
X2.5			0.773	Valid
X2.6			0.834	Valid
X2.7			0.732	Valid
X2.8			0.718	Valid
X2.9			0.721	Valid
Y1	0.837			Valid
Y10	0.783			Valid
Y11	0.757			Valid
Y2	0.829			Valid
Y3	0.756			Valid
Y4	0.762			Valid
Y5	0.778			Valid
Y6	0.821			Valid
Y7	0.761			Valid
Y8	0.729			Valid
Y9	0.764			Valid

recruitment variable is 0.949, and the selection variable is 0.911. These results show that the reliability of the instrument has been met because each variable has a Cronbach's

Table 2. Cross Loading Value

Indicator	Performance (Y)	Recruitment (X1)	Selection (X2)	Description
X1.10	0.357	0.723	0.308	Valid
X1.1	0.611	0.862	0.388	Valid
X1.11	0.440	0.727	0.410	Valid
X1.2	0.483	0.898	0.419	Valid
X1.3	0.557	0.907	0.470	Valid
X1.4	0.425	0.816	0.323	Valid
X1.5	0.406	0.730	0.309	Valid
X1.6	0.593	0.826	0.540	Valid
X1.7	0.417	0.841	0.411	Valid
X1.8	0.568	0.804	0.522	Valid
X1.9	0.381	0.802	0.186	Valid
X2.1	0.500	0.351	0.811	Valid
X2.2	0.581	0.351	0.784	Valid
X2.3	0.581	0.330	0.796	Valid
X2.4	0.477	0.411	0.714	Valid
X2.5	0.474	0.336	0.773	Valid
X2.6	0.596	0.342	0.834	Valid
X2.7	0.426	0.437	0.732	Valid
X2.8	0.498	0.416	0.718	Valid
X2.9	0.578	0.444	0.721	Valid
Y1	0.837	0.593	0.588	Valid
Y10	0.783	0.523	0.591	Valid
Y11	0.757	0.452	0.456	Valid
Y2	0.829	0.401	0.548	Valid
Y3	0.756	0.337	0.602	Valid
Y4	0.762	0.215	0.510	Valid
Y5	0.778	0.533	0.522	Valid
Y6	0.821	0.608	0.588	Valid
Y7	0.761	0.407	0.527	Valid
Y8	0.729	0.526	0.399	Valid
Y9	0.764	0.460	0.562	Valid

alpha value of >0.6 and a composite reliability value of >0.7 , which can indicate the consistency and stability of the instrument used. According to Ghazali and Latan (2014)

Table 3. Average Variance Extracted (AVE) Value

Variable	Average Variance Extracted (AVE)
Performance (Y)	0.609
Recruitment (X1)	0.664
Selection (X2)	0.586

Table 4. Cronbach’s Alpha Value and Composite Reliability Value

Variable	Cronbach’s Alpha	Composite Reliability	Description
Performance (Y)	0.936	0.945	Reliable
Recruitment (X1)	0.949	0.956	Reliable
Selection (X2)	0.911	0.927	Reliable

[8], the composite reliability value is met if the value of Cronbach’s alpha >0.6 and the composite reliability value >0.7.

3.2 Structural (Inner) Model

Structural (inner) testing of the model is carried out to determine how the constructs are interconnected. Structural (inner) testing of this model includes a goodness of fit test and a multicollinearity test.

Goodness of Fit.

The Goodness of Fit test in its model assessment can be known through the test results on the R-Square and Q-Square values. The test results of the R-Square and Q-Square values are described in Table 5.

The results showed that the R-Squared value in the performance variable was 0.567, which means that the model falls into the moderate category or the performance variable (Y) is influenced by 56.7% by the recruitment variable (X1). The Q-Squared value of the performance variable of 0.335, which means that the data in the research that has been disseminated already has good control, and the model has predictive relevance.

Table 5. R-Square and Q-Square values

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R-Squared	0,567
Q-Squared	0,335

The model used in this study can explain the information in the research data by 33.5%. According to Hair (2011) [9], if the Q-Squared value > 0 , it can be said to have predictive relevance.

Multicollinearity Test.

The multicollinearity test is used to determine the presence or absence of a high relationship between the variables present in the study. The multicollinearity test in this study can be seen from the test results on the VIF (variance inflation factor) value. The results of the VIF (variance inflation factor) value test are described in Table 6.

The results of the VIF (variance inflation factor) value showed that there was no multicollinearity in the research model because, overall, the VIF value was < 10 . According to Ghozali and Latan (2014) [8], $VIF < 10$ can be said to have no multicollinearity.

3.3 Hypotheses Testing

Hypothesis testing is used to test how the partial influence between independent variables (X) on the dependent variable (Y) under study. Hypothesis testing can be known through test results on signification values between constructs, namely t-statistics and p-values. The test results of the research model and hypothesis test are described in Fig. 1 and Fig. 2.

The t-table value used in this study was 1.96, with a confidence level of 95%. As for establishing whether the hypothesis in the study is accepted or rejected, it can use a p-value with significance $\alpha = 5\%$ or 0.05.

The first hypothesis test was performed to test whether the recruitment variable (X1) positively had an influence on the performance variable (Y). The results of the t-statistical value are 3,427, which means it has a significant relationship because the t-statistical value is greater than the t-table value (1.96). Furthermore, the result of p-values of 0.001 means that H_0 is rejected or has an influence because the value of the p-value < 0.05 , so it can be said that the first hypothesis is accepted.

The second hypothesis test was carried out to test whether the selection variable (Y2) positively had an influence on the performance variable (Y). The result of the t-statistical value is 5,067, which means it has a significant relationship because the t-statistical value is greater than the t-table value (1.96). Moreover, the result of p-values of 0.000 means that H_0 is rejected or has an influence because the value of the p-value < 0.05 , so it can be said that the second hypothesis is accepted.

Table 6. VIF (variance inflation factor) value

Indicator	Performance (Y)
X.10	8.565
X1.1	4.195
X1.11	8.178
X1.2	7.827
X1.3	5.765
X1.4	5.778
X1.5	3.014
X1.6	5.558
X1.7	4.309
X1.8	3.400
X1.9	3.380
X2.1	4.808
X2.2	2.696
X2.3	5.206
X2.4	2.208
X2.5	2.971
X2.6	3.341
X2.7	2.351
X2.8	2.106
X2.9	2.615
Y1	3.134
Y10	3.781
Y11	2.517
Y2	3.131
Y3	4.119
Y4	3.348
Y5	3.885
Y6	3.014
Y7	2.820
Y8	2.216
Y9	3.256



Fig. 1. Research model

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O STDEV)	P Values	Description
Recruitment (X1) → Performance (Y)	0.344	0.340	0.100	3.427	0.001	Received
Selection (X2) → Performance (Y)	0.522	0.541	0.103	5.067	0.000	Received

Fig. 2. Hypothesis test results

4 Conclusion

Referring to the results of the research and discussion in the research that has been carried out, the following conclusions can be drawn:

1. The recruitment process (X1) has a positive and significant influence on performance (Y),
2. The selection process (X2) has a positive and significant influence on performance (Y).

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