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The Influence of OWL-Plantation System Application towards Employees Performance in Indonesia: A study case at PT Sebakis Inti Lestari

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Abstract

The study seeks to determine and analyze the effect of the OWL - Plantation System application towards employee's performance at PT. Sebakis Inti Lestari. It was conducted at PT. Sebakis Inti Lestari and the sample consisted of 40 office workers. Purposive sampling is a non-probability sampling technique of superior quality in which the researcher creates a limit based on the characteristics of the subjects to be sampled. The investigation employs SPSS version 25 for data analysis. According to the findings of this study, the OWL – plantation system significantly impacts employee performance.

Keywords: - OWL-Plantation System application, employee performance

1. Introduction

The development of science and technology is occasionally advancing at an accelerated rate, making it a fascinating topic to observe. The evolution of this technology has an impact on all organizational activities. Thus, the need for data and information within the organization is essential for achieving its objectives. Operating a computerized system is one technology that can aid in data processing within an organization. The system referred to here is a company-required system or application that can aid in completing work and enhance employee performance.

To improve employee performance, the organization offers a specialized system or application. With these systems or applications, work can be completed more quickly, easily, and in various ways. Even the most complex tasks within the organization are facilitated by using these systems or applications. With this system, the company's expectations for individual and group performance can be met effectively.

The success of an organization can be determined by the outcomes of the employees' efforts. Organizations require employee development because the prevalence of employee development activities involving activities performed by these employees demonstrates that the organization values its employees and expects them to grow.

If a company or organization implements a performance appraisal system, it will be possible to determine whether an employee is progressing at work. Performance is a condition that must be known and confirmed by specific parties to determine the level of achievement of results of an agency or company concerning the vision of an organization or company and to comprehend the positive and negative effects of an operational policy. Therefore, both the company or organization and the personnel themselves value performance. Employee efficacy is influenced by several factors related to both the workforce and the company or organization environment.

The system employed is one of the factors that can enhance employee performance when completing work. Employees can work effectively and efficiently with the system. The OWL-Plantation System is one of the

systems described in this study. It is utilized by plantation and oil palm companies. The OWL-Plantation System is a web-based Enterprise Resource Planning (ERP) application designed specifically to satisfy the needs of businesses in the plantation industry. Unique characteristics of plantation management distinguish the OWL-Plantation System.

The palm oil company PT. Sebakis Inti Lestari is in Sebakis, Nunukan Regency, North Kalimantan Province. It has the vision of becoming a highly competitive agribusiness firm that develops in collaboration with its Partners. The mission of PT. Sebakis Inti Lestari is to manage an oil palm-based plantation Agribusiness by relying on Human Capital, supporting high corporate values as the foundation of corporate culture, working based on best business practice standards, strong strategic partnerships, being environmentally sound, and adhering to business ethics fairly and sustainably. PT. Sebakis Inti Lestari is very concerned about the performance of its employees, which is why the company uses the OWL (Ontology Web Language) system, where input using the OWL system is very useful for all office staff, including HRD, finance, logistics, and plantation administration. The current problem faced by PT. Sebakis Inti Lestari is the unstable signal on the OWL system that may influence employee performance. Therefore, the author is interested in conducting a study to acknowledge the influence of the OWL-Plantation System application on employee performance.

2. Methodology

2.1 Employee Performance

The success of an organization's success depends on its employees' performance (job performance); consequently, every company will strive to enhance the performance of its employees in attaining predetermined organizational objectives. (Supatmi et al., 2013; Hasibuan & Silvya, 2019; Wardani et al., 2016) A growing and well-maintained organizational culture will be able to accelerate the organization toward greater development. On the other hand, performance will be affected by leaders' capacity to mobilize and empower employees when employees can provide excellent service.

2.2 Employee Performance Evaluation

According to Mathis and Jackson (2006), performance evaluation evaluates how well employees perform their tasks relative to a set of standards and then communicates this information to employees (Rani & Mayasari, 2015). Performance evaluation aims to communicate to employees what is expected of them and to increase mutual understanding. Performance assessment focuses on assessment as a procedure for measuring the extent to which the work of a person or group can contribute to the achievement of predetermined goals (Silaen et al., 2021). Every company or organization must be able to assess employee performance, and the results can be used to inform management decisions regarding salary/wages increases, further mastery, increased employee welfare, and a variety of other important factors that can influence employees' work performance.

Employee performance evaluation is extremely useful for determining appropriate job training requirements, assigning appropriate responsibilities to employees so they can perform better in the future, and as a basis for determining promotion and compensation policies. Performance appraisal is a formal and structured method for measuring, evaluating, and influencing job-related characteristics.

2.3 Factors that Influence the Employee Performance

According to Simanjuntak (2005), three factors influence the performance of employees or workers. The first is individual factors, which include the ability and skills to execute the job. Several factors influence a person's competence, which can be categorized into two groups: aptitude and work skills and motivation and work ethic.

The second factor is support from the organization. To perform their duties, employees require the assistance of their employer. This assistance consists of organizing and providing work facilities and infrastructure, a convenient work environment, and favorable working conditions and conditions. Organizing is intended to provide everyone with clarity regarding the desired outcomes and the actions required to achieve them. Everyone must have and comprehend precise job descriptions and responsibilities.

The third factor, management support, company performance, and everyone's performance are also highly dependent on the managerial ability of management or leaders, both by developing employee competence and fostering the motivation of all employees to work optimally.

2.4 OWL-Plantation System Application

The OWL-Plantation System is a web-based Enterprise Resource Planning (ERP) application designed specifically to satisfy the needs of businesses in the plantation industry. Unique characteristics of plantation management distinguish the OWL-Plantation System.

In Indonesia, the OWL-Plantation System is an enterprise resource planning (ERP) system adapted to modern oil palm plantations. Suppose the customer wants to reduce implementation costs and use it immediately. In that case, the OWL-Plantation System is ready to be used without modification because it is specifically designed and by the business processes of modern Indonesian Palm Oil plantations. Due to the unique characteristics of each business, the OWL-Plantation System can adjust itself to the conditions it encounters if necessary (Nangkoel, 2016).

Plantation companies typically oversee numerous business divisions and expansive areas. Generally, business divisions are situated in remote areas. Thus, it can be determined that data access is a costly commodity. To address this issue, the OWL-Plantation System was

developed and employs web technology so that network data consumption is minimal and data expansion is modest. Because the managed area is so vast, regional policies will probably be modified frequently. Thus, the employed application system must also accommodate potential policy changes and variations between business units. To address these issues, the OWL-Plantation System is based on an open-source platform with a unique architecture, making it simple to customize and develop.

2.5 The Relationship between OWL-Plantation System and Employee Performance

OWL – Plantation System is a web-based Enterprise Resource Planning (ERP) application designed specifically to satisfy the needs of businesses in the plantation industry. Unique characteristics of plantation management distinguish the OWL-Plantation System. In contrast, performance results from activities or work performed by employees to achieve the organization's objectives.

A system plays a crucial role in improving employee performance by facilitating the completion of certain organizational duties. The OWL system is one of the systems used by oil palm plantation enterprises. This system greatly assists employees in carrying out their assigned duties.

3. Methodology

The quantitative study was conducted in the Logistics and Purchasing department of PT. Sebakis Inti Lestari, Nunukan Regency, North Kalimantan Province. In research, the sampling technique, specifically the purposive sampling technique, is a superior quality non-probability sampling technique. The researcher creates a grid or boundaries based on the characteristics of the subjects to be sampled for research. As many as forty office employees will be surveyed to become research respondents. Through the distribution of questionnaires and documentation, quantitative data collection methods are executed.

4. Finding and Analysis

4.1 Finding

a. Validity Test

A validity test is a measurement of validity used by researchers in obtaining data from respondents. Table 1 below shows the output of the validity test.

Table 1. The validity test output of variable X

No	Variable X Indicator	[illegible]	[illegible]	S.Sig	Sig. Value	Score
1	Target ($X_{1.1}$)	0,702	0,3120	0,05	0,000	Valid
2	Ability ($X_{1.2}$)	0,711	0,3120	0,05	0,000	Valid
3	Support ($X_{1.3}$)	0,757	0,3120	0,05	0,000	Valid
4	Cooperation ($X_{1.4}$)	0,827	0,3120	0,05	0,000	Valid
5	Well Data Transfer ($X_{1.5}$)	0,808	0,3120	0,05	0,000	Valid
6	Workforce Training ($X_{1.6}$)	0,719	0,3120	0,05	0,000	Valid
7	Enthusiasm ($X_{1.7}$)	0,655	0,3120	0,05	0,000	Valid

Table 2. The validity test output of variable X

No	Variable X Indicator	[illegible]	[illegible]	S.Sig	Sig. Value	Score
1	Target ($X_{1.1}$)	0,702	0,3120	0,05	0,000	Valid
2	Ability ($X_{1.2}$)	0,711	0,3120	0,05	0,000	Valid
3	Support ($X_{1.3}$)	0,757	0,3120	0,05	0,000	Valid
4	Cooperation ($X_{1.4}$)	0,827	0,3120	0,05	0,000	Valid
5	Well Data Transfer ($X_{1.5}$)	0,808	0,3120	0,05	0,000	Valid
6	Workforce Training ($X_{1.6}$)	0,719	0,3120	0,05	0,000	Valid
7	Enthusiasm ($X_{1.7}$)	0,655	0,3120	0,05	0,000	Valid

Table 1 and 2 shows that the correlation on each indicator towards the total score gives a significant result namely < 0, 05 and indicates that *rcount* > *rtable* until it can be concluded that the item is valid.

b. Reliability Test

The results from the statistical test of Cronbach Alpha indicate the reliability level of an item. It is stated reliable if the Cronbach Alpha value is > 0.60 (Umar, 2013). Table 3 shows the result.

Table 3. The output results of variable X reliability test

No	Variable X Indicator	S. Sig	Sig. Value	Score
1	Target ($X_{1.1}$)	0,06	0,850	Reliable
2	Ability ($X_{1.2}$)	0,06	0,849	Reliable
3	Support ($X_{1.3}$)	0,06	0,843	Reliable
4	Cooperation ($X_{1.4}$)	0,06	0,830	Reliable
5	Well Data Transfer ($X_{1.5}$)	0,06	0,831	Reliable
6	Workforce Training ($X_{1.6}$)	0,06	0,847	Reliable
7	Enthusiasm ($X_{1.7}$)	0,06	0,855	Reliable

Table 4 indicates that the reliable score on each indicator gives a significant result namely >0, 06, therefore it can be concluded that all the items are reliable.

Table 4. The output results of variable Y reliability test

No	Variable Y Indicator	S. Sig	Sig. Value	Score
1	Comprehension ($Y_{1.1}$)	0.06	0,823	Reliable
2	Innovation ($Y_{1.2}$)	0.06	0,816	Reliable
3	Working Rapidity ($Y_{1.3}$)	0.06	0,859	Reliable
4	Working Accuracy ($Y_{1.4}$)	0.06	0,810	Reliable
5	Cooperation ($Y_{1.5}$)	0.06	0,802	Reliable

c. Simple Linear Regression Test

In Table 5, it is known that the regression coefficient OWL – Plantation System (X) is 0.730, indicating that for every addition of 1 (one) percent, employee performance will increase by 0.730 so that it can be explained that the OWL – Plantation System (X) has a positive direction coefficient on employee performance (Y).

Table 5. The output result of simple linear regression test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	1.400	.451		3.106	.004
	OWL-Plantation System	.688	.105	.730	6.581	.000

a. Dependent Variable: Employee Performance

Source: SPSS Ver. 25
Y = a + bX + e
Y = 1.400 + 0.730X + e

d. Hypothesis Testing

Based on Table 6, it is explained that the X OWL – Plantation System variable affects employee performance because the value of 6,581 is more significant than 2.02439 and 0.000 is significantly less than 0.05.

Table 6. T-test (Partial)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	1.400	.451		3.106	.004
	OWL-Plantation System	.688	.105	.730	6.581	.000

a. Dependent Variable: Employee Performance

T-table = t (a ; n – k – 1)
= t (0,05 ; 40 – 1 – 1) = 0.025 ; 38 = 2,02439

e. Coefficient of Determination(R-Square)

Based on Table 7, it is known that the R Square value is 0.520. It shows that the influence of variable X on variable Y is 52 percent and 48 percent is influenced by other factors not examined by researchers.

Table 7. The output of determination (R-Square)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.730[a]	.533	.520	.41542

a. Predictors: (Constant), OWL-Plantation System

4.2 Analysis

Based on the findings of research conducted at PT. Sebakis Inti Lestari, this chapter details research findings involving two variables: the use of the OWL – Plantation System (X) and Employee Performance (Y).

According to the results presented above, at the time of testing, all the statements in the questionnaire were deemed valid if they exceeded the value of the r table, which was 0.3120. The reliability value of the OWL - Plantation System was 0.863, and the reliability value of employee performance was 0.853; conditions with reliability values exceeding 0.60 can be declared reliable.

PT. Sebakis Inti Lestari employee performance is significantly impacted by the variable Use of OWL – Plantation System (X). It demonstrates by a significant value of 0.000 0.05. The regression equation is Y = 7,001 + 0.075X, where 0.075 is the regression coefficient of the variable X on Y, indicating that if X increases by one unit, Y will increase by 0.075 units or 7.5%. Ho is rejected, and Ha is admitted based on the partial test (t-test) results, which determined that the t-count is greater than the t-table.

According to the R-Square test results, the influence of the variable using the OWL-Plantation System on employee performance at PT. Sebakis Inti Lestari is 0.520, or 52 percent, while 48 percent are influenced by other factors not investigated by researchers.

It was also demonstrated by prior research by Khairaningrum Mulyanti (2020), namely the effect of accounting information systems on employee performance at PT. Iron Bird Logistics concluded that there is a significant relationship between work facilities and employee performance.

A simple regression analysis indicates a unidirectional (positive) relationship between the OWL – Plantation system and employee performance. As a result, PT. Sebakis Inti Lestari must maintain the positive relationship between the OWL – Plantation system and

employee performance.

5. Conclusion

Based on the results of the tests carried out on the analysis and discussion, it can be concluded that the results of a simple linear regression analysis using the OWL – Plantation System have a positive and significant effect on employee performance at PT. Sebakis Inti Lestari. From the results of the Partial test (t-test) above, it can be seen that after testing the variable (X), namely the use of the OWL - Plantation System, influences employee performance at PT. Sebakis Inti Lestari this can be seen from the t-count value of 6.581, which is greater than 2.02439 and significant where 0.000 is less than 0.05 according to the basis for decision making, namely if the t-count value> t-table then the independent variables individually affect the dependent variable, otherwise if the tcount value is < t-table, the independent variables individually do not affect the dependent variable and the significant value is <0.05. So that Ho is rejected, and H1 is accepted.

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