

The Influence of Individual Characteristics and Work Environment on Employee Performance at PT. PLN (Persero) ULP Karang

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Abstract

One In the context of an organization, there are various resources that play an important role in driving its activities. However, it needs to be recognized that human resources play a very significant role in achieving success. In this era of intense competition, organizations are increasingly aware that the active participation of employees, which goes beyond their formal duties, is crucial to improving the overall effectiveness of the organization's employees. Problems at PT PLN (Persero) ULP Karang include high absenteeism rates and employee performance that has not reached the target. This study seeks to assess how individual attributes as well as the work environment influence the performance of PT PLN (Persero) ULP Karang employees. This research uses quantitative methodology to analyze primary data obtained through sending questionnaires to 56 participants. Secondary data was collected from various sources including literature, books, articles, scientific journals, theses, and related online information. Data analysis used multivariate linear regression on SPSS 27. The results showed that individual quality has a good but insignificant effect on employee performance, while the work environment has a positive and significant effect on employee performance. The results showed that the performance of PT PLN (Persero) ULP Karang personnel was influenced by individual characteristics as well as the work environment. Keywords: Individual Characteristics; Work Environment; Employee Performance.

Keywords: *Individual Characteristics, Work Environment, Employee Performance*



INTRODUCTION

The existence of human resources (HR) plays a vital role for a company or organization. They are the main subjects who are actively involved in various daily operational processes. Workforce is considered a valuable asset for a company or organization because they have a significant impact on the progress and success of the company. Schermerhorn describes workforce as individuals or groups who contribute to the production of goods or services for an organization (Rumawas, 2018).

In the field of service to the community, human resources in companies and organizations are the spearhead of the company in achieving its goals. The alertness and good performance of a company's employees will support a company or organization to be able to get closer to the goals it wants to achieve. Good quality HR is a valuable asset for the company, which will help in achieving strategic goals and bring the company closer to the vision and mission that has been set. Vice versa, poor quality HR will slow down the company or organization in developing (Indrastuti, 2020). Based on this, the company has certain criteria to be able to create a quality of service needed by a company. Thus, many companies strive to improve the competence and quality of the workforce so that employees can carry out their duties more effectively and efficiently.

PT PLN (Persero) is a state-owned company that operates in the electricity procurement and distribution industry for the people of Indonesia. PT PLN (Persero) has the main responsibility as an electricity service provider to meet the electricity needs of the Indonesian people. One of the service units responsible for electricity management in the Tanjung Karang Area, Lampung, is PT PLN (Persero) ULP Karang, located on Jalan Diponegoro Number 14 Bandar Lampung. The company adopts a vision and mission that emphasizes achievement as a leading company that continues to grow, excel, and be reliable at the global level, with a focus on utilizing the potential of human resources and commitment to operations in the electricity sector and other related fields. The priority is to prioritize the pleasure of consumers, employees, and shareholders, utilizing human resources as a means to improve the quality of life of the community. PT PLN (Persero) also strives for electricity supply to be the main driver of economic activity, while carrying out operations that pay attention to environmental sustainability.

Each employee as an individual has primary needs that must be considered and fulfilled in order to develop according to their respective characteristics. Individual characteristics have an impact on the quality of employee performance, in accordance with the concept conveyed by Maulina et al. (2020) describe individual characteristics as



abilities, backgrounds, and demographic factors such as gender and race. Employee behavior plays an important role in producing work results, be it positive long-term achievement, personal growth, or otherwise. Performance, as described by Gaffar et al. (2017) is the result of work carried out by individuals, related to ability, initiative, experience, dedication, and time invested in carrying out assigned tasks.

Another factor that affects employee performance is the work environment. According to Najib et al. (2018) the work environment includes all aspects within the scope of employees that affect how they complete their obligations. Surijadi & Idris (2020) explain that the work environment is all the facilities available at the work site, such as equipment and materials that can influence employees in completing their responsibilities, thus creating a pleasant, comfortable, and safe perception for workers. An uncomfortable work environment can hinder work concentration and cause suboptimal performance or achievement.

Achievements in various aspects of the work process of employees at PT PLN (Persero) ULP Karang are an integral part of the service process offered to the community as a whole with the aim of providing optimal service and ensuring customer satisfaction. PT PLN (Persero) is a service provider in the energy sector, so that various services are offered to the public.

aspects of handling are intertwined with each other, including customer service, energy transactions, and engineering. Collaboration between these areas is essential for effective service delivery, as data and work processes are interconnected.

Based on the prariset conducted by researchers through interviews with employees at PT PLN (Persero) ULP Karang, it shows that employee absenteeism is still above the company's tolerance limit and the results of employee performance in each month are still there that have not reached targets such as adding power and installing new kwh meters, because every year there will be a surge in customers which is influenced by the discounts given by the company on certain days such as Eid al-Fitr celebrations, Independence Day, and National Electricity Day. For example, in October 2023, PLN launched a power addition program as part of the National Electricity Day celebrations, which included offering discounts to customers who wanted to increase their electricity capacity. However, this increase posed its own challenges in achieving the targets set by the field team, which is usually represented by work orders that assign field officers to carry out power addition installations. The biggest challenge lies in the lack of installation staff, which has led to the inability to achieve the set targets. As a result of this



discount policy, the demand for additional power from customers has increased significantly. The target that has been set for the installation of additional power is 10 installations a day.

Therefore, the results of these interviews indicate that the quality of employee performance has a relationship with individual characteristics and the work environment in carrying out their work as well as possible and how employees can overcome the challenges faced. This is in line with the findings of Fatawa (2020) who found that a character in individuals and the work environment affects employee performance with significant positive.

Based on the above description, the researcher then has an interest in conducting a series of research activities to prove how the characteristics of PT PLN Indonesia employees affect the quality of employee performance. Therefore, researchers are very interested in conducting a study with the title "The influence of individual characteristics as well as the work environment for employee performance at PT PLN (Persero) ULP Karang".

RESEARCH METHODS

The type of research conducted is explanatory research using quantitative descriptive research methods and utilizing the SPSS program. According to Sugiyono (2019), explanatory research is a type of research whose purpose is to test hypotheses to explain the cause-and-effect correlation between research variables and validate the hypotheses developed. This research applies the saturated sampling method, which uses all members of the population as the sample. The saturated sampling method was chosen because the total population was below 100 individuals. Therefore, from the entire population, 56 employees of PT PLN (Persero) ULP Karang were selected as the sample of this study.

In this test, data was collected through distributing questionnaires and analyzed using the SPSS version 27 application. Responses to each statement were evaluated using a Likert scale and scored. The Likert scale is explained through a range of values from the most negative to the most positive regarding employee performance. In this test, there are several methods used, which include: 1) Instrument test, including validity and reliability tests; 2) Classical assumption tests, including normality, multicollinearity, and heterocedasticity tests; and 3) Hypothesis testing with multiple regression analysis includes t test, F test as well as R².



RESULTS AND DISCUSSION**Table 1. Individual Characteristics Variable Validity Test Results (X1)**

Variabel	Item	R hitung	R tabel	Keterangan
Karakteristik Individu (X1)	X1.1	0,528	0,265	Valid
	X1.2	0,635	0,265	Valid
	X1.3	0,710	0,265	Valid
	X1.4	0,708	0,265	Valid
	X1.5	0,651	0,265	Valid
	X1.6	0,667	0,265	Valid
	X1.7	0,600	0,265	Valid
	X1.8	0,705	0,265	Valid
	X1.9	0,746	0,265	Valid
	X1.10	0,762	0,265	Valid

Source: Data Managed by Researchers, 2024

From the results of validity testing on the individual characteristics variable, all questionnaire statements on all items are said to be valid because r count exceeds r table.

Table 2. Results of the Work Environment Variable Validity Test (X2)

Variabel	Item	R hitung	R tabel	Keterangan
Lingkungan Kerja (X2)	X2.1	0,528	0,265	Valid
	X2.2	0,635	0,265	Valid
	X2.3	0,710	0,265	Valid
	X2.4	0,708	0,265	Valid
	X2.5	0,651	0,265	Valid
	X2.6	0,667	0,265	Valid
	X2.7	0,600	0,265	Valid
	X2.8	0,705	0,265	Valid
	X2.9	0,746	0,265	Valid
	X2.10	0,762	0,265	Valid

Source: Data Managed by Researchers, 2024

From the results of validity testing on work environment variables, all questionnaire statements on all items are said to be valid because r count exceeds r table.



Table 3. Employee Performance Variable Validity Test Results (Y)

Variabel	Item	R hitung	R tabel	Keterangan
Lingkungan Kerja (X2)	Y.2	0,717	0,265	Valid
	Y.3	0,705	0,265	Valid
	Y.4	0,629	0,265	Valid
	Y.5	0,695	0,265	Valid
	Y.6	0,593	0,265	Valid
	Y.7	0,594	0,265	Valid
	Y.8	0,803	0,265	Valid
	Y.9	0,793	0,265	Valid
	Y.10	0,453	0,265	Valid
	Y.2	0,717	0,265	Valid

Source: Data Managed by Researchers, 2024

From the results of validity testing on employee performance variables, all questionnaire statements on all items are said to be valid because r count exceeds r table.

Table 4. Reliability Test Results

No	Variabel	Cronbach's Alpha	Keterangan
1	Karakteristik Individu (X1)	0,863	Reliabel
2	Lingkungan Kerja (X2)	0,863	Reliabel
3	Kinerja Karyawan (Y)	0,865	Reliabel

Source: Data Managed by Researchers, 2024

The table indicates that all variables have significant Cronbach's Alpha values, which exceed 0.60, indicating that all concepts measured by each variable in the questionnaire are reliable. Therefore, the items on each variable can be considered suitable for use as a measuring tool in research.

Table 5. Normality Test**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		56
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	3.73727290
Most Extreme Differences	Absolute	.266
	Positive	.266
	Negative	-.145
Test Statistic		.266
Asymp. Sig. (2-tailed) ^c		.193
Monte Carlo Sig. (2-tailed) ^d	Sig.	.133
	99% Confidence Interval	Lower Bound .144
		Upper Bound .155

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

Source: Data Managed by Researchers, 2024



The test results show a significance value of $0.193 > 0.05$, which means that it can be considered that the residual data follows a normal distribution.

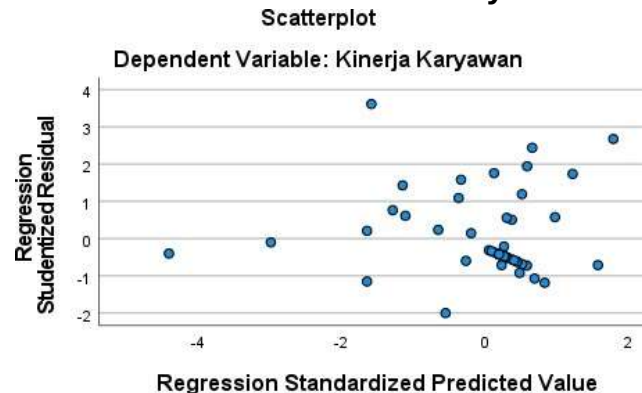
Table 6. Multicollinearity Test

		Coefficients ^a					Collinearity Statistics	
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
	B	Std. Error	Beta					
1	(Constant)	9.336	4.573		2.042	.046		
	Karakteristik Individu	.104	.114	.129	.912	.366	.589	1.699
	Lingkungan Kerja	.513	.139	.523	3.699	<.001	.589	1.699

a. Dependent Variable: Kinerja Karyawan

Source: Data Managed by Researchers, 2024

The results of data testing indicate that there are no signs of multicollinearity in the two independent variables. This can be seen from the VIF value < 10 , and the tolerance value > 0.1 .

Table 7. Heteroscedasticity Test

Source: Data Managed by Researchers, 2024

The dots in Figure 1 are scattered randomly and evenly around the zero line on the Y-axis, which means that there is no indication of heteroscedasticity in the regression model in this study.

Table 8. Multiple Linear Regression Analysis Test Results**Coefficients^a**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.336	4.573		2.042	.046
	Karakteristik Individu	.104	.114	.129	.912	.366
	Lingkungan Kerja	.513	.139	.523	3.699	<.001

a. Dependent Variable: Kinerja Karyawan

Source: Data Managed by Researchers, 2024

The following are the results of the multiple linear regression equation:

$$Y = 9.336 + 0.104 X_1 + 0.513 X_2 + e$$

Based on that equation, it can be interpreted that:

- If The constant value (a) of 9.336 indicates that without the influence of individual characteristics (X1) as well as the work environment (X2), the value of employee performance (Y) is 9.336.
- The constant value (a) of 9.336 indicates that without the influence of individual characteristics (X1) as well as the work environment (X2), the value of employee performance (Y) is 9.336.
- The constant value (a) of 9.336 indicates that without the influence of individual characteristics (X1) as well as the work environment (X2), the value of employee performance (Y) is 9.336.
- d)

Table 9. Results of the t-test**Coefficients^a**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.336	4.573		2.042	.046
	Karakteristik Individu	.104	.114	.129	.912	.366
	Lingkungan Kerja	.513	.139	.523	3.699	<.001

a. Dependent Variable: Kinerja Karyawan

Source: Data Managed by Researchers, 2024

From the t test results, individual characteristics (X1) provide a significance t value of 0.366. This indicates that the sig t value is > .05. Therefore, H0 is accepted while H1



is rejected. In conclusion, there is no significant influence between individual characteristics and employee performance.

Work environment (X2) provides a significance t value of .001. This indicates that the significance value of $t < .05$. Therefore, H_0 is rejected while H_2 is accepted. In conclusion, there is a significant influence between work environment and employee performance.

Table 10. Simultaneous Significant Test (F)

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	463.804	2	231.902	16.000	<.001 ^b
	Residual	768.196	53	14.494		
	Total	1232.000	55			

a. Dependent Variable: Kinerja Karyawan

b. Predictors: (Constant), Lingkungan Kerja, Karakteristik Individu

Source: Data Managed by Researchers, 2024

From the F test results, the sig. value is $.001 < .05$. Therefore, the regression analysis model is considered significant. This indicates the rejection of H_0 and acceptance of H_3 , which states that the variables of individual characteristics (X1) as well as work environment (X2) simultaneously affect employee performance (Y) significantly.

Table 11. Coefficient of Determination (R)²

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.614 ^a	.376	.353	3.807	1.376

a. Predictors: (Constant), Lingkungan Kerja, Karakteristik Individu

b. Dependent Variable: Kinerja Karyawan

Source: Data Managed by Researchers, 2024

From the test results, the R square value is 0.376 or 37.6%. This means that 37.6% of the variation in employee performance can be explained on the individual characteristics variable as well as the work environment. Thus, there is an influence of



37.6% of individual characteristics as well as the work environment on the performance of employees of PT PLN (Persero) ULP Karang. The remaining 62.4% (100% - 37.6%) is influenced by variables outside the study.

Discussion Effect of Individual Characteristics on Employee Performance

The results of the H1 test using the t test indicate that the individual characteristics variable has no significant effect on employee performance at PT PLN (Persero) ULP Karang, because the significance value is $0.366 > 0.05$.

Each person has unique characteristics that are distinctive and different from others. When an organization is unable to accommodate the individual characteristics of each employee, cooperation between them cannot be realized, which in turn can affect their performance. Thus, individual characteristics include various aspects such as the amount of responsibility, the variety of tasks, and the level of performance that is influenced by the individual's own traits. The relationship between individual characteristics and performance is very close, and if there is alignment between the values and desires of an employee and the tasks in the organizational structure, it will improve their performance. This is reflected in the sense of belonging and responsibility that employees feel towards their work.

This research is in line with the findings by Islamiyah & Suhaeli (2019) conducted on employees of the Muntilan Hospital, Magelang Regency, which resulted in individual characteristics having no significant effect on employee performance.

Effect of Work Environment on Employee Performance

The H2 test results using the t test indicate that the work environment variable has a significant positive effect on the performance of PT PLN (Persero) ULP Karang employees, because the significance value is $0.001 < 0.05$.

The work environment is categorized into physical and non-physical components. An efficient arrangement of the physical work environment, such as lighting, color schemes, cleanliness, and other factors, can increase employee productivity. It is important to improve the effectiveness and efficiency of employee work by fostering non-physical characteristics of the work environment such as comfort, safety, and good relationships with leaders and coworkers. An environment conducive to productivity can inspire employees to work with increased vigor and enthusiasm. Increased employee morale can increase the efficiency of the work system that has been established.



Improving the physical and non-physical aspects of the work environment is vital to improving employee performance.

This research is in line with the findings of Ahmad et al (2022) conducted on DISDIKBUD employees of Bulukumba Regency, which found that the work environment positively and significantly affects employee performance.

Effect of Individual Characteristics and Work Environment on Employee Performance

The F test results indicate that the individual characteristics variables as well as the work environment have a significant effect together on the performance of PT PLN (Persero) ULP Karang employees, with a significance value of $0.001 < 0.05$.

This research is in line with the findings of Lim & Rustam (2021) conducted on employees of PT Batam Teknologi Gas. This study shows that together these variables have a considerable positive impact on employee performance.

These two variables have the potential to affect employee performance simultaneously because they can create a pleasant work environment. Even if an employee has a high level of work ethic, an inadequate work environment can gradually reduce their performance. While a favorable work environment can improve performance, individual employee characteristics such as a lack of discipline or a tendency to be irritable can also interfere with performance. Therefore, companies need to pay attention to the balance between these two factors.

CONCLUSIONS

Offering Based on the results of research that has been conducted on employees of PT PLN (Persero) ULP Karang regarding the impact of individual characteristics as well as the work environment on employee performance, it can be concluded:

1. The t-test result has a significance value of 0.366, explaining the positive but insignificant effect of individual characteristics (X1) on employee performance (Y) of PT PLN (Persero) ULP Karang. Thus H1 is rejected.
2. The t-test result has a significance value of 0.001, explaining that there is a positive and significant influence of the work environment (X2) on employee performance (Y) of PT PLN (Persero) ULP Karang. Thus H2 is accepted.

The results of the F test (simultaneous) have a significance value of 0.001 which explains the significant influence simultaneously in individual characteristics and the work



environment on the performance of employees of PT PLN (Persero) ULP Karang. Thus H3 is accepted.

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