

## THE INFLUENCE OF WORK ENVIRONMENT AND CAREER DEVELOPMENT ON EMPLOYEE PERFORMANCE AT PT. PLN NUSANTARA POWER UMRO UPHK MEDAN

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### ABSTRACT

*This study aims to determine the effect of work environment and career development on employee performance at PT. PLN Nusantara Power UMRO UPHK Medan. The research method used quantitative data. The results of this study indicate that the significant value of the work environment variable (X1) is smaller than the probability value of 0.05, or a value of  $0.000 < 0.05$ , then  $H_a$  is accepted  $H_0$  is rejected. Variable X1 has a tcount value (8.186) greater than ttable (1.9869). So it can be concluded that the work environment partially has an influence and is significant on employee performance. The significant value of the career development variable (X2) is smaller than the probability value of 0.05, or a value of  $0.000 < 0.05$ , then  $H_a$  is accepted  $H_0$  is rejected. Variable X2 has a tcount value (8.306) greater than ttable (1.9869). So it can be concluded that career development partially has an influence and is significant on employee performance. Fcount value = 146.393 > Ftable 3.10 with a significance value of 0.001 smaller than 0.05. So it can be concluded that simultaneously the work environment and career development affect employee performance at PT. PLN Nusantara Power UMRO UPHK Medan. The R Square value has a value of 0.767. Thus, the contribution of the current ratio of the work environment (X1) and career development (X2) to profitability is 76.7% and the remaining 23.3% is influenced by other independent factors or variables.*

*Keywords: Work Environment, Career Development, and Employee Performance*

## I. INTRODUCTION

### A. Research Background

Human Resources are a crucial factor that influences the success of a company, so they are considered the most valuable asset and play a major role in the overall planning and evaluation of the company. Employees who demonstrate high performance and are able to carry out their duties well provide significant benefits to the company. Conversely, poor employee performance can potentially harm the work results obtained by the company.

PT. PLN Nusantara Power UMRO UPHK is a subsidiary of PT. PLN which is engaged in the field of power generation that provides EPC services, investment in power generation and provides power generation spare parts.

Based on the observations made by the researcher, the working environment at PT. PLN Nusantara Power UMRO UPHK Medan is quite good, with a cool room temperature and maintained cleanliness, but the working environment conditions at PT. PLN Nusantara Power UMRO UPHK Medan are not yet fully conducive.

No	Phenomenon	Number of employees
1	Lighting	LightingIn some office rooms there is excessive lighting.
2	Cleanliness	Hygiene issues related to strong fragrances and cleaning products.

3	Air Exchange	Air circulation is slightly disturbed by the pungent aroma of air fresheners and unpleasant odors in several rooms.
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Source: PT. PLN Nusantara Power UMRO UPHK Medan (2024)

The success of employee performance is not only a demand from the organization or company, but also related to the comfort of the work environment faced. A safe, comfortable, and pleasant work environment can lead to focused concentration on work. Given that most of the time is spent at work, changes in the work environment can have a major impact on the health, well-being of individuals, and consequently on the overall performance of the organization.

In addition to the work environment, career development is also an important process in which employees plan steps to achieve their career goals. The existence of a career development program not only aims to improve technical skills, but also plays a role in motivating employees, raising work enthusiasm, and encouraging maximum work results for the success of the company.

The phenomenon that occurred based on the researcher's observations showed that some employees still did not fully understand the career development program at PT. PLN Nusantara Power UMRO UPHK Medan. The company provides equal opportunities for all competent employees to be able to move up a grade and occupy a position. However, some employees feel that in the implementation of the program there is different treatment between high school graduates and undergraduates in getting job promotions. Employees feel that the company prioritizes undergraduate graduates in the career development process.

PT. PLN Nusantara Power UMRO UPHK Medan has a high interest in monitoring employee performance by paying special attention to the quality of employee performance, work environment and career development. Based on this background, the author determines the title "The Influence of Work Environment and Career Development on Employee Performance at PT. PLN Nusantara Power UMRO UPHK Medan."

### *B. Identification of problems*

1. The work environment does not support employees to work comfortably.
2. Lack of employee understanding in career development at PT. PLN Nusantara Power UMRO UPHK Medan.
3. Employee performance is demotivated.

### *C. Formulation of the problem*

1. Does the work environment affect employee performance at PT. PLN Nusantara Power UMRO UPHK Medan?
2. Does career development affect employee performance at PT. PLN Nusantara Power UMRO UPHK Medan?
3. Does the work environment and career development affect employee performance at PT. PLN Nusantara Power UMRO UPHK Medan?

## **II. LITERATURE REVIEW**

### *A. Work environment*

Pianda (2018:65) The work environment is all the work facilities and infrastructure that are around employees who are doing work, including the workplace, facilities and work

aids, cleanliness, lighting, tranquility, including work relationships between people in that place.

Sudaryono, et al (2018:51) work environment indicators are:

1. Lighting, Sufficient lighting will increase employee enthusiasm, because they can complete their tasks more quickly, their eyes will not tire easily because of the bright light and mistakes can be avoided.
2. Cleanliness, A clean work environment will create a calm feeling at work, so that employees can work as well as possible.
3. Air exchange, Fresh and comfortable air has its own comfort with temperature and humidity that do not interfere with breathing and body freshness.

### B. Career Development

Handoko in Lijan (2016:260), career development is a personal improvement carried out by someone to achieve the desired career plan. Career development is an activity in developing employee potential to occupy a higher position in order to realize a career plan in the future.

I Nyoman, et al (2023:117), Career development indicators are:

1. Educational Qualification Enhancement. This indicator includes the acquisition of additional educational degrees or certifications relevant to the field of work or industry of interest. The higher the educational qualifications an individual has, the greater their opportunities for career advancement.
2. Participation in Training and Development. Individuals who actively participate in training and professional development programs demonstrate their commitment to improving their skills and knowledge. This participation can improve work competence and relevance in the workplace.
3. Achievements and Performance. Awards, recognition, or recognition for career accomplishments or achievements can be significant indicators of career development. These achievements reflect the level of success and quality of an individual's performance.

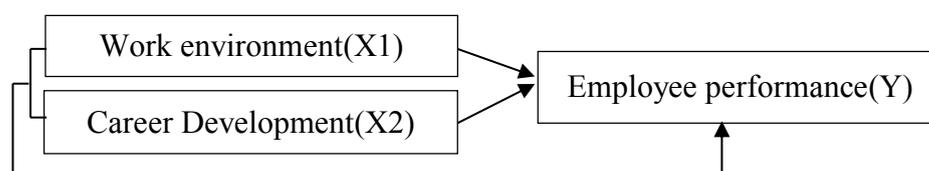
### C. Employee performance

Eko & Mochamad (2020:09), employee performance is an achievement achieved by employees in their work according to certain criteria that apply to a particular job.

Kasmir in Nurfitriani (2022:16), the performance indicators are:

1. Quality, performance measurement can be done by looking at the quality of work produced through a particular process.
2. Quantity (amount), to see performance can also be done by looking at the quantity (amount) produced by a person.
3. Time limit (time period), for certain types of work a time limit is given to complete the work.

### Framework



*D. Hypothesis*

H0: There is no influence between the work environment and employee performance at PT. PLN Nusantara Power UMRO UPHK Medan.

H1: There is an influence between the work environment and employee performance at PT. PLN Nusantara Power UMRO UPHK Medan.

H0: There is no influence between career development and employee performance at PT. PLN Nusantara Power UMRO UPHK Medan.

H2: There is an influence between career development and employee performance at PT. PLN Nusantara Power UMRO UPHK Medan.

H0: There is no influence between work environment and career development on employee performance at PT. PLN Nusantara Power UMRO UPHK Medan.

H3: There is an influence between the work environment and career development on employee performance at PT. PLN Nusantara Power UMRO UPHK Medan.

**III. RESEARCH METHODOLOGY**

This research was conducted in PT. PLN Nusantara Power UMRO UPHK Medan located at Jalan Pembangkit Listrik No. 1, Paya Pasir, Medan Maralen, Rengas Pulau, Medan Maralen District, Medan City, North Sumatra 20255. This study uses a population of all employees of PT. PLN Nusantara Power UMRO UPHK Medan with a total number of employees of 92 people. The number of samples used was 92 respondents.

Data Collection Methods: observation, interviews and questionnaires.

Data Analysis Techniques: validity test, reliability test, classical assumption test (normality test, multicollinearity test), hypothesis testing (multiple linear regression, t-test, F-test, determination test)

**Operational Definition Table of Variables**

No	Variables	Definition	Indicator	Scale
1	Work Environment(X1)	All something that is around the employee that can influence him in doing his work. (Saiful, 2018:40).	1. Lighting 2. Cleanliness 3. Air exchange Sudaryono, et al. (2018:51)	Likert
2	Development Career (X2)	Personal improvement what someone does to achieve the desired career plan. Handoko in Lijan (2016:260)	1. Educational background 2. Training 3. Work performance INyoman, et al (2023:117)	Likert
3	Performance Employee (Y)	The achievements achieved by employees in their work according to certain criteria that apply to a particular job. (Eco & Mochamad, 2020:9).	1. Quality 2. Quantity 3. Punctuality Cashmere in Nurfitriani (2022:16)	Likert

**IV. RESULT AND DISCUSSION**

**Work Environment Validity Test Table (X1)**

Statement	Rcount	Rtable	Note
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The lighting/light in the workplace is adequate	0.800	0.203	Valid
There is backup lighting when there is a power outage	0.753	0.203	Valid
The workplace is always clean and comfortable	0.867	0.203	Valid
There is no unpleasant odor in the workplace	0.833	0.203	Valid
The air temperature of the workplace makes it comfortable to work in	0.840	0.203	Valid
Air circulation in the room works well	0.802	0.203	Valid

Source: Researcher Processed Data (2024)

The table above shows that the Work Environment variable has an average that shows validity. Where it shows the rtable value obtained is 0.203, so that the items from the work environment in each variable, both independent and dependent, have an rcount value > rtable, then the data is declared valid.

### Career Development Validity Test Table (X2)

Statement	Rcount	Rtable	Note
Have good communication skills	0.643	0.203	Valid
Leaders always open access for employees to develop their careers	0.779	0.203	Valid
The company provides opportunities through training/course programs.	0.786	0.203	Valid
Get fair treatment in the current career system.	0.827	0.203	Valid
Employee have satisfaction Whichhigh towards career development	0.845	0.203	Valid
Work performance is a consideration in employee career development.	0.832	0.203	Valid

Source: Researcher Processed Data (2024)

The table above shows that the career development variable has an average that shows validity. Where it shows the rtable value obtained is 0.203, so that the items from the work environment in each variable, both independent and dependent, have an rcount value > rtable, then the data is declared valid.

### Employee Performance Validity Test Table (Y)

Statement	Rcount	Rtable	Note
Employee work results can meet the quality standards set by the Company	0.829	0.203	Valid
Always accept criticism and input from others	0.778	0.203	Valid
Do work in accordance company terms and conditions	0.847	0.203	Valid
Give appreciation to employees who have good performance	0.815	0.203	Valid
Alwaysachieve work targets set	0.828	0.203	Valid
Dowork according to your abilities	0.842	0.203	Valid

Source: Researcher Processed Data (2024)

The table above shows that the employee performance variable has an average that shows validity. Where it shows the rtable value obtained is 0.203, so that the items from the work environment in each variable, both independent and dependent, have an rcount value > rtable, then the data is declared valid.

**Variable Reliability Test**

Variables	Cronbach Alpha	Rtable	Conclusion
Work Environment (X1)	0.897	0.6	Reliable
Career Development (X2)	0.878	0.6	Reliable
Employee Performance (Y1)	0.904	0.6	Reliable

Source: Researcher Processed Data (2024)

As seen in the table above, the variables of Work Environment (X1), Career Development (X2) and Employee Performance (Y1) show that for all variables can be stated as reliable. Because the overall reliability value of the Cronbach Alpha variables > 0.6.

**Normality Test Table**

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		92
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	1.53412517
Most Extreme Differences	Absolute	.088
	Positive	.062
	Negative	-.088
Test Statistics		.088
Asymp. Sig. (2-tailed)		.078 <sup>c</sup>
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: Researcher data processing results (2024)

From the table above, it can be seen that the Asymp. Sig value is 0.078 > 0.05 so it can be stated that the regression model in this study is normally distributed.

**Multicollinearity Test Results**

Coefficients <sup>a</sup>			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Work Environment (X1)	.713	1,402
	Career Development (X2)	.713	1,402
a. Dependent Variable: Employee Performance (Y)			

Source: Researcher Processed Data (2024)

In the table above, the tolerance value of the work environment variable and career development variable is 0.713 > 0.10, while the VIF value of the work agreement and career development variables is 1.402 < 10, so it can be concluded that there is no symptom of multicollinearity in the regression model.

**Heteroscedasticity Test Table**

B		Std. Error	Beta	t	Sig.
1	(Constant)	2.488	.851	2.923	.004
	Work Environment (X1)	.011	.033	.041	.740
	DevelopmentCareer (X2)	-.064	.039	-.202	.105

a. Dependent Variable: ABSTRACT

Source: Researcher Data Processing Results (2024)

Based on the table above, the work environment and career development variables have a sig value greater than 0.05, so it can be said that the data does not experience heteroscedasticity.

**Multiple Linear Regression Analysis Table**

Coefficientsa						
Model		Unstd Coeff		Std Coeff	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.421	1.418		.297	.767
	Work Environment (X1)	.447	.055	.496	8.186	.000
	Career Development (X2)	.544	.066	.503	8,306	.000

a. Dependent Variable: Employee Performance (Y)

Source: Researcher Processed Data (2024)

From the equation above, it can be used as a reference for interpretation, namely:

1. The constant coefficient has a positive value, meaning that when raw materials are sufficient and stable, the workforce can continue to carry out the production process so that the production process does not experience delays or obstacles.
2. The raw material coefficient is positive, meaning that every increase in raw materials used will be accompanied by an increase in production volume as well. While every decrease in raw materials used will be accompanied by a decrease in production volume.
3. The positive labor coefficient means that every increase in the company's workforce increases, it will be accompanied by an increase in production volume as well. While every decrease in the company's workforce decreases, it will be accompanied by a decrease in production volume.

### T-Test Results

From the table above, the following research results can be seen:

1. The Influence of Work Environment on Employee Performance

From the table above, it can be seen that the tcount obtained in the work environment is 8.186 and ttable (df = nk-1)  $92-2-1 = 89$ ,  $\alpha = 5\%$  is 1.9869 with a significance of 0.000. With a significance value of  $0.000 < 0.05$  and a tcount value of  $8.186 > ttable 1.9869$ , it can be shown that  $H_a$  is accepted. So it can be explained that the Work Environment variable (X1) has a significant effect on Employee Performance.

2. The Influence of Career Development on Employee Performance

From the table above, it can be seen that the tcount obtained in career development is 8.306 and ttable (df = nk-1)  $92-2-1 = 89$ ,  $\alpha = 5\%$  is 1.9869 with a significance of 0.000. With a significance value of  $0.000 < 0.05$  and a tcount value of  $8.306 > ttable 1.9869$ , it can be shown that  $H_a$  is accepted. So it can be explained that the Career Development variable (X2) has a significant effect on Employee Performance.

**F Test Results Table  
ANOVA**

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	704,567	2	352,283	146,393	.000b
	Residual	214,172	89	2.406		
	Total	918,739	91			

- a. Dependent Variable: Employee Performance (Y)  
b. Predictors: (Constant), Career Development (X2), Work Environment (X1)  
Source: Researcher Processed Data (2024)

Based on the table above, it can be seen that the f count value is 146.393 with a significance level of  $0.000 < 0.05$  and the ft table value ( $df = nk-1$ )  $92-2-1 = 89$ ,  $\alpha = 5\%$  is 3.10. So it can be seen that  $f \text{ count} > f \text{ table}$  ( $146.393 > 3.10$ ) therefore it can be concluded that the work environment (X1) and career development (X2) have an effect on employee performance simultaneously.

**Table of Results of Determinant Coefficient Test (R2)  
Model Summaryb**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.876a	.767	.762	1.55127

- a. Predictors: (Constant), Career Development (X2), Work Environment (X1)  
b. Dependent Variable: Employee Performance (Y)  
Source: Researcher Processed Data (2024)

Based on the table above, it shows that R Square has a value of 0.767. Thus, the contribution of the current ratio of the work environment (X1) and career development (X2) to profitability is 76.7% and the remaining 23.3% is influenced by other independent factors or variables.

## DISCUSSION

### A. *The Influence of Work Environment on Employee Performance*

The significant value of the work environment variable is smaller than the probability value of 0.05, or the value of  $0.000 < 0.05$ . So  $H_a$  is accepted and  $H_0$  is rejected. Variable X1 has a tcount value (8.186) greater than ttable (1.9869). So it can be concluded that variable X1 has a contribution to Y. A positive t value indicates that variable X1 has a unidirectional relationship with Y. So it can be concluded that the work environment partially has an influence and is significant to employee performance.

The impact is positive where the lighting/lighting in the workplace is adequate, the workplace is always clean and comfortable, there is no unpleasant odor in the workplace, the air temperature of the workplace makes it comfortable to work and the air circulation in the work room is good. In addition, employees who work in the company are accustomed to their work environment and view that the environment where they work is a necessity and facility provided by the company. So that the work environment is very influential in improving employee performance.

### B. *The Influence of Career Development on Employee Performance*

The significant value of the career development variable is smaller than the probability value of 0.05, or the value of  $0.000 < 0.05$ , then  $H_a$  is accepted and  $H_0$  is rejected. The variable X2 has a tcount value (8.306) greater than the ttable (1.9869). So it can be concluded

that the variable X2 has a contribution to Y. So it can be concluded that career development partially has a significant effect on employee performance.

Career development is an effort made by the company to improve technical, theoretical, conceptual and moral abilities according to the needs of the job or position through education and training. Based on observations made by researchers, the career development process carried out by PT. PLN Nusantara Power UMRO UPHK Medan prioritizes in-depth experience rather than educational level. The purpose of career development is ultimately to create employees who have good performance by improving their ability to perform well. This study shows that good career development can create benefits for employees and for the company.

### C. *The Influence of Work Environment and Career Development on Employee Performance*

The results of the simultaneous regression analysis (F test) of the independent variables of the Work environment and career development on employee performance obtained  $F_{count} = 146.393 > F_{table} 3.10$  with a significance value of 0.001 less than 0.05, then the hypothesis is accepted, meaning that simultaneously the work environment and career development affect employee performance at PT. PLN Nusantara Power UMRO UPHK Medan. The magnitude of the influence of the work environment and career development on employee performance at PT. PLN Nusantara Power UMRO UPHK Medan is 76.7%. Meanwhile, the results of this study indicate that 23.3% of employee performance is influenced by other factors that were not studied on this occasion. Of the three variables used, variables X1 and X2 have an influence on employee performance at PT. PLN Nusantara Power Umro UPHK Medan.

Optimal employee performance is not only influenced by work environment and career development factors, but also by other factors that are not studied such as support for work facilities and infrastructure, work discipline, work motivation, employee skills and others. Decision making related to improving employee performance requires complete, reliable and comprehensive information. Therefore, in order to obtain such information that can be used as a consideration in decision making, further research is needed on various variables outside the work environment and career development.

## V. CONCLUSION

1. The significant value of the work environment variable (X1) is smaller than the probability value of 0.05, or the value of  $0.000 < 0.05$ , then  $H_a$  is accepted and  $H_0$  is rejected. The variable X1 has a  $t_{count}$  value (8.186) greater than  $t_{table}$  (1.9869). So it can be concluded that the work environment partially has an influence and is significant to employee performance.
2. The significant value of the career development variable (X2) is smaller than the probability value of 0.05, or the value of  $0.000 < 0.05$ , then  $H_a$  is accepted  $H_0$  is rejected. The X2 variable has a  $t_{count}$  value (8.306) greater than  $t_{table}$  (1.9869). So it can be concluded that career development partially has a significant effect on employee performance. The  $F_{count}$  value =  $146.393 > F_{table} 3.10$  with a significance value of 0.001 smaller than 0.05. So it can be concluded that simultaneously the work environment and career development have an effect on employee performance at PT. PLN Nusantara Power UMRO UPHK Medan.
3. The R Square value has a value of 0.767. Thus, the contribution of the current ratio of the work environment (X1) and career development (X2) to profitability is 76.7% and the remaining 23.3% is influenced by other factors or independent variables.

## REFERENCES

- Afandi, Pandi. 2016. *Concept & Indictora*. Yogyakarta : DeePublish.
- Asmike, Metik., & Sari Putri Oktavita. (2022). *Performance Management “Increasing Competitive Advantage”*. East Java: UNIPMA PRESS
- Bahri, Saiful. (2018). *The Influence of Leadership, Work Environment, Organizational Culture and Motivation on Job Satisfaction Which Has Implications on Lecturer Performance*. Surabaya: CV. Jakad Publishing Surabaya.
- Budiyanto, Eko., & Mochamad Mochklas (2020). *Employee Performance*. Jakarta: CV. AA Rizky.
- Chaerudin, et al. (2020). *Human Resources: The Main Pillar of Organizational Operational Activities*. Sukabumi: CV. Jejak.
- Ghozali, Imam. (2018). *Multivariate Analysis Application with IBM SPSS 25 Program*. Semarang: Diponogoro University Publishing Agency.
- Herman,Iwan. (2019). *Methodology Educational Research Quantitative, Qualitative, And Mixed Method*. Kuningan: Religious Quran Recitation, Kuningan.
- Lijan. (2016). *Human Resource Management*. Jakarta: PT. Literary Earth.
- Marayasa, Nyoman I., et al., (2021). *Human Resource Development Facing the Challenges of Change and Achieving Success Together*. West Java: PT. Dewangga International Energy.
- Nurfitriani.(2022). *Employee Performance Management*. Makassar: Cendakia Publisher.
- Nurdin, Muhammad Ali et al. (2023). *Employee Performance Management*. Makassar: Mitra Ilmu.
- Pianda, Didi. (2018). *Teacher Performance Teacher Competence Principal Leadership*. Sukabumi: CV. Jejak.
- Rahman. (2017). *Administrative Science*. Makassar: CV. Sah Media.
- Riyanto, Slamet., & Hatmawan Andita Aglis. (2020). *Research Methods for Quantitative Research in the Fields of Management, Engineering, Education and Experiments*. Yogyakarta: DEEPUBLISH.
- Sedarmayanti. (2017). *Human Resource Planning and Development*. Bandung: PT. Refika Aditama.
- Sudaryana,Bambang et al. (2022). *Quantitative Research Methodology*. Yogyakarta: DEEPUBLISH.
- Sudaryono, et al. (2018). *Human Resource Management Indirect Compensation and Physical Work Environment*. Yogyakarta: CV. Andi Offset.
- Hasibuan, Siti Maisarah., & Saiful Bahri. (2018). *The Influence of Leadership, Work Environment and Work Motivation on Performance*. *Scientific Journal of Master of Management*. 1(1), 71-80.