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The Influence of Physical Work Environment on Employee Performance of PT United Tractors Tbk Makassar Branch

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ABSTRACT

Without a good physical work environment, employees will not be able to carry out their duties properly according to the demands of the company. Not only does it have an impact on employee performance directly but it can also contribute to the overall success of the company. Investing in improving the physical work environment can yield significant results in terms of productivity, employee satisfaction, and company success. The type of research used is quantitative descriptive research. The indicators of the physical work environment include lighting, air temperature, noise, use of color and movement space. The employee performance indicators include quality, quantity, and punctuality. The sample in this study was 50 people. The data collection techniques used are observation, questionnaire and documentation. The data obtained was processed using the SPSS 26 application which consisted of validity tests, reliability tests, data analysis techniques used were descriptive statistical tests, data normality tests, product moment correlation analysis, and simple linear regression analysis. Based on the results of a simple linear regression analysis, it can be concluded that the physical work environment variable has a positive and significant effect on the performance variable of employees of PT United Tractors Tbk Makassar Branch even though the contribution has not reached a very high level. This is reviewed from the significant value between the two variables, namely variable X (physical work environment) and variable Y (employee performance).

Keywords: Physical Work Environment, Employee Performance, work

INTRODUCTION

Employee performance is a key aspect of an organization's success. Employee performance refers to the goals and targets that have been planned by management. Not only does it include productivity, but also the quality of work, initiative, adaptability, teamwork, and a host of other factors that contribute to the success of an organization. For companies, human resources are the main milestone in supporting company dynamics. Although the company has been equipped with considerable capital, cutting-edge technology, and adequate work facilities, the existence of qualified employees remains a very important element. Without their presence, achieving the planned goals will be a great challenge. Therefore, it is very necessary to have employees who can play an active role in using these resources so that the company can develop. (Nabawi, 2019), said "Employee performance refers to the achievements produced by individuals when carrying out tasks that have been given to achieve set work goals". A common problem that often arises in institutions involving employees is their declining performance, which can hinder the achievement of good work results (Akib et al., 2024; Niswaty et al., 2021; Suprianto et al., 2024; Taliang et al., 2023).

Individual achievements in an organization are aspects that are highly emphasized by management. High performance contributes to the well-being of the organization, while low performance has the potential to be detrimental. While some employees may have substandard performance, companies usually have strategies in place to address them. An individual's performance is influenced by a variety of factors, including skills, knowledge, motivation, personality, attitudes, behaviors, and abilities. An important role in improving employee performance in every organization or company is external factors, such as

leadership style, interaction between employees, and work area conditions. Therefore, in order to maximize employee performance, it is important for companies to support the creation of a positive work atmosphere.

There are two different types of work environments: physical and non-physical, according to Sedarmayanti (2011). Where everything that can directly affect employees is considered a part of the physical environment. The non-physical environment is viewed in the opposite way. In many types of businesses, a physically and functionally comfortable work environment contributes to increased employee productivity. Along with the rapid development of industry and business, it is hoped that modern companies will be able to create a work atmosphere that motivates, supports and maximizes the performance of employees so that employee productivity can be achievedi (Mustafa et al., 2023; Nasrullah et al., 2024; Niswaty et al., 2022; Rahman et al., 2022). Optimal working environment conditions can make it easier to carry out tasks and reduce boredom and fatigue for employees. This can increase the focus of work on employees.

At the office of PT United Tractors Tbk Makassar Branch has problems with its physical work environment. The first problem arises from the noise of heavy equipment coming from the workshop heard into the office which of course will interfere with the concentration of employees at work. The second problem is the use of color on the walls in some rooms. Where, the colors used are bright colors which of course are very disturbing to the comfort of the eyes. The third problem is the temperature difference between one room and another. This happened due to some air conditioners that were damaged. Taking into account the challenges of the physical work environment experienced at the Makassar Branch office of PT United Tractors Tbk, this can interfere with employee performance. Thus, it is important to deal with these problems so that they are not sustainable.

METHODS

Quantitative research based on a descriptive approach is used in this study. This aims to investigate how the performance of employees of PT. United Tractors Tbk Makassar Branch is affected by their physical work environment. Descriptive techniques facilitate a more thorough analysis of the data and help researchers communicate study problems in a more systematic way.

This study observed two variables, including the free variable (X), namely the Physical Work Environment, and the bound variable (Y), namely Employee Performance. There are five indicators observed in the variable (X) including lighting, noise, color, air temperature and movement space. On the other hand, there are three indicators observed in variable (Y) including timeliness, quantity and quality. To measure these two variables, the researcher used a questionnaire with a Likert scale, where the variables are divided into indicators which are then formulated into items, in the form of questions or statements, with various answer options that reflect the variation in values between answers.

The sample was studied by employees of PT United Tractors Tbk Makassar branch, with a total of around 50 people. Questionnaires, documentation, and observation methods are used in the data collection process. SPSS 26 software is used to check data after it has been collected. This procedure requires a number of processes, including reliability and validity testing, descriptive statistical analysis, data normality assessment, product moment correlation analysis, and basic linear regression analysis.

RESULT AND DISCUSSION

Data analysis was carried out to find out the overall picture of the physical work environment and employee performance. This was also done to find out how much the physical work environment affects the performance of employees of PT United Tractors Tbk Makassar Branch. SPSS v.26.00 is used to analyze data using statistical formulas.

Physical Work Environment

After data processing, statistical analysis is carried out to assess employee performance, which is then expressed as a percentage, and physical work environment. The classification of variables is into five levels of Very Good, Good, Enough, Poor Good, and Not Good which allows the measurement of each variable.

After the data collection is complete, SPSS version 26 is used to analyze the data. A number of procedures are included in the analysis stage, such as validating and assessing reliability, and conducting descriptive statistical analysis:

Table 1: Descriptive Analysis per Physical Work Environment Indicator (X)

Indicator	n	N	Percentage (%)	Category
Lighting	620	750	82,66	Very Good
Temperatures	592	750	78,93	Good
Noise	579	750	77,20	Good
Use of Colors	571	750	76,13	Good
Motion Space	592	750	78,93	Good
Sum	2954	3750	78,77	Good

Source: SPSS 26 Data Processing Results, 2023

On the lighting indicator, 82.66% of respondents think that their current work environment is categorized as Good (B). This shows that most employees are satisfied with the level of lighting in their offices. However, there are still a number of respondents who feel doubtful or disagree, perhaps due to differences in lighting quality in various areas of the work environment. During observations in various workspaces at PT United Tractors Tbk Makassar Branch, it was found that the room lighting had been well arranged. The lights are strategically placed to ensure the light is evenly distributed and bright enough to support work activities. In large rooms, ceiling lights provide sufficient general light, while table lamps and spotlights are used for focus lighting in individual work areas. In addition, curtains and light dampers are used to regulate the level of incoming natural light, thus creating comfortable conditions for employees. Features of good description menurut Robbins (Lestary & Harmon, 2017) namely: "adequate lighting, not too bright or dazzling, without striking contrast, even distribution of light, as well as the right colors".

The results of the study show that lighting is in accordance with the lighting needs in the room, lighting using natural lighting or from sunlight and lighting in the room makes employees' focus in work improve so that the level of accuracy can be achieved. Good lighting can help employees carry out their duties more efficiently and minimize eye strain. Strategic placement of lights, such as desk lamps and spotlights, shows attention to employees' need for sufficient light when they are working in a particular area. Indoors, curtains and light dampers are used to regulate natural light levels.

A good working atmosphere in terms of the physical environment can be seen from the air temperature which reaches a comfort level of 78.93%, indicating that the majority of employees feel comfortable with the air conditions in their work area. Based on the frequency distribution of the respondents' answers on the air temperature indicator on the statement, the air conditioner functions well as a room conditioner. In the room there are windows as air

ventilation that can affect the temperature of the room. In addition, the temperature in the workspace can be adjusted according to the needs of the room. At the time of observation, it was seen that the workspace was equipped with open windows that allowed good air circulation. Adequate ventilation can help keep the air temperature in the rua ngan cool and fresh, and avoid stuffiness. In addition, the air temperature regulation in the work environment can be adjusted to the preferences (needs) of employees in the area.

The use of air conditioners is the best alternative that can provide ideal air temperature for employees, and its good functioning is a positive aspect in creating comfort for employees. Comfortable air temperature conditions not only have an impact on the comfort of employees but also on their performance. Temperatures that are too hot or too cold can also have a negative impact on comfort, so it can be detrimental to productivity. The use of a thermostat that allows employees to regulate the temperature in their workspace can provide the desired flexibility

Noise is an indicator in the physical work environment that shows the "good" category with a percentage of 77.2%. Based on the respondents' responses, the majority stated that there was a sound muffler in the room. In the workspace there is a good sound cancellation so that respondents feel not disturbed by noise from outside the office. Although the researchers' observations show that noise from outside the office is still heard in some rooms, the results show that most employees are not bothered by the noises. This shows that the existing sound suppression has been quite effective in isolating interference from the outside. Understanding the importance of noise control in the work area is essential. A quiet atmosphere can essentially help provide comfort and well-being for workers, so it can have a positive impact on productivity and work focus. Although there is still noise from outside the office that can be heard in some rooms, the results of research and good responses from the office show that efforts have been made to overcome this problem and create a comfortable working environment. The results of the study show that noise management efforts have been carried out well, the workspace has been equipped with sound suppressors that function well to reduce noise from outside the office. This makes the work environment more conducive. Success in making the work environment comfortable will have a good impact on employee well-being, which in turn increases productivity and work focus. Laksmi, (2016) reveals that "Noise-producing spaces are isolated from other spaces by using separate units or sound-damping materials, such as perforated cardboard panels or foam rubber coatings placed under equipment such as typewriters".

The use of color is in the category that is considered "good" with a percentage rate of 76.13%. The use of color in the work environment has a positive impact on employee comfort. Based on the distribution of respondents' answers, it can be seen that the use of color makes employees feel at home in the room. Respondents considered that the colors applied in the workspace created a pleasant atmosphere and did not interfere with vision. The wise use of color can be continuously improved to create a comfortable environment for employees. This is in line with the results of a researcher's research at the Makassar Branch office of PT United Tractors Tbk. The colors used in the workspace do not create disturbing brightness, but rather choose colors that give a sense of spaciousness.

The color chosen will not only provide a pleasant visual effect but will also give a spacious and comfortable impression for anyone. The colors applied in the workspace create a pleasant atmosphere and do not interfere with vision. The use of dark and too bright colors makes employee comfort disturbed, thereby reducing work productivity.

The findings of this study show that companies are aware of the value of color selection in creating a friendly and comfortable work environment. Employee comfort can have a beneficial effect on their well-being and productivity. The right choice of color for the workspace may affect employee comfort.

The movement space was assessed as "good" with a percentage rate of 78.93%. Based on the frequency distribution of respondents' answers on the movement space indicator on the wide movement space statement, it provides convenience for employees in completing work. This reflects the importance of efficient workspace design and can provide comfort for employees by bringing frequently used equipment closer to affordable places as well as ergonomic tables, chairs, etc.

The large movement space makes it easy for employees to be able to complete tasks according to the target. The availability of adequate facilities, such as desks, chairs, and office equipment that are neatly arranged in the workspace, provides conditions that support productivity. Employee performance can be positively affected by having enough space in the workplace.

Employees who have enough space to move around can work more efficiently and comfortably. "It is important to maintain adequate air circulation within the workspace. This is especially necessary when the workspace is smaller than the number of employees working in it, so as to avoid cramped and stuffy rooms" Sedarmayanti (2013). The design of a workspace that allows employees to work comfortably and efficiently is a very relevant factor. In an office setting, the appliances and furniture in the workspace are well organized, facilitating accessibility and a neat layout.

Employee Performance

This variable is measured using three main factors: the number of deliverables, the quality of work, and adherence to schedules. To gain an understanding of how respondents rate each of these factors, the analysis conducted is:

Table 2: Descriptive Analysis Per Indicator Y (Employee Performance)

Indicator	n	N	Percentage (%)	Kategori
Quality	944	1250	75,52	Good
Quantity	893	1250	71,44	Good
Timeliness	919	1250	73,52	Good
Sum	2756	3750	73,49	Good

Based on the analysis of respondents' responses, the majority of them stated that they agreed or strongly agreed with the statement. However, some respondents also expressed doubts or disapproval. The possible cause of this situation is the difficulty of some employees in complying with the guidelines and operational standards set within the company. In addition, not all respondents can always meet the expectations of the leadership, and their work sometimes does not reach the quality standards desired by the company.

A good level of work quality indicates that employees have adequate ability to complete tasks according to existing guidelines, reflecting a strong level of competence and understanding of their work. The quality of work can also be measured by their ability to achieve goals effectively and efficiently, as well as their expertise in carrying out the assigned tasks (Arhas et al., 2021; Chaeruddin et al., 2024; Suprianto & Arhas, 2022). Thus, this study provides a positive picture of the quality of employee work at PT United Tractors Tbk Makassar Branch. This reflects the commitment and skills of the employees, as well as the company's culture that supports high quality and performance. Maximum work performance has a positive effect on the company's success

Quantity is the number of jobs that then becomes a parameter in assessing their performance, which is included in the "good" category with a compliance rate of 71.44%. Based on the evaluation of the responses collected, it was concluded that the respondents succeeded in meeting the company's targets in carrying out their duties. Work targets are always met in accordance with the company's demands, able to complete a large amount of work, but the

results are still appropriate, employee work results can also continue to improve. However, some respondents who chose the statement were hesitant and disagreed. The reason is that not all respondents are able to meet work targets in accordance with the company's demands and work results do not always increase, but also often decrease. Employees are able to achieve their work targets that have been pre-set by the company, meet their work targets, and complete a significant number of tasks without sacrificing the quality of the results. How far an activity approaches the expected goal or achieves perfection in its implementation can be measured from the level of suitability between the process and its results (Bernardin and Russel in Sutrisno, 2010). Work results continue to increase and are able to increase their work targets according to the company's demands.

The variable indicator of employee performance with the "good" category with a percentage rate of 73.52% is punctuality. Based on the frequency distribution of respondents' answers on the punctuality indicator, it shows that the respondents carried out their work and responsibilities well in accordance with the specified time. They are consistent in completing tasks quickly and accurately, often even completing them before the set deadline. Based on the results of the responses, the majority showed approval or support for the statement. However, there are also those who show hesitation and disapproval. This variation may be due to the level of ability of respondents to complete the assigned tasks differently from each other. Consistent in completing tasks on time and efficiently, even able to complete tasks faster than scheduled. This illustrates their capacity for effective time management and high-caliber work output.

The Influence of the Physical Work Environment on Employee Performance

This study was conducted to check whether there is a normal distribution in the existing variable data. Furthermore, the Kolmogorov-Smirnov (K-S) non-parametric statistical method was used to conduct the normality test of the study. The following are the test results:

Table 3: Results of the One-Sample Kolmogorov Smirnov Test

One-Sample Kolmogorov Smirnov Test		
		Unstandardized Residual
N		50
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	6.17118592
Most Extreme Differences	Absolute	.089
	Positive	.089
	Negative	-.063
Test Statistic		.089
Asymp. Sig. (2-tailed)		.200[c,d]

Sumber: Analisis Statistic Melalui Program SPSS 26

It is clear from the previous table that the variable data has a normal distribution. Proven by a significance value of 0.200 (Sig > 0.05), it can be concluded that the normal distribution is appropriate if the value obtained is more than 0.05. If both variables are normally distributed, the results can help determine the extent to which these physical work environment factors can have a significant influence on employee performance. In addition, the results of the analysis are reliable and can be more trusted if generalized to a larger population of employees at PT United Tractors Tbk Makassar Branch.

Correlation tests are used in statistical analysis to assess whether there are significant results at the level of association or relationship between variables. The results obtained are as follows:

Table 4: Product Moment Correlation Test Results

Correlations

		Physical Work Environment	Employee Performance
Physical Work Environment	Pearson Correlation	1	.376**
	Sig. (2-tailed)		.007
	N	50	50
Kinerja Karyawan	Pearson Correlation	.376**	1
	Sig. (2-tailed)	.007	
	N	50	50

Sumber: Hasil Olah Data SPSS 26, 2023

There is a correlation between variables based on the data in the table above, which shows a correlation between two variables with a significance value of 0.007, where this value is less than 0.05. The traditional interpretation classifies the Pearson correlation value of the table data, which is 0.376 and belongs to the low group with an interval of 0.20-0.399. This suggests that there is little relationship between the variables.

Table 5: Simple Linear Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	20.975	12.179		1.722	.091
	Physical Work Environment	.578	.206	.376	2.811	.007

a. *Dependent Variable*: Employee Performance

Source: Statistical Analysis Through the SPSS 26 Program

By changing the value of an independent variable, regression analysis is used to predict the value of a dependent variable in the future and evaluate the effect of such changes on the dependent variable. Given that there is only one dependent variable of employee performance and one independent variable of the physical work environment, this study uses a direct linear regression analysis model.

The physical work environment variable has a coefficient of 0.578 and a constant value of 20.975, derived from the findings of the basic linear repression analysis. Therefore, a basic linear regression equation is made:

$\hat{Y} = 20.975 + 0.578 X.$

Employee performance also remains at that level assuming fixed on an independent variable (physical work environment), as indicated by a constant value of 20,975. Since there are positive (+) signs, it can be concluded that when the physical work environment improves and moves in the right direction, the employee's performance will follow suit. The physical work environment variable has a regression coefficient of 0.578, meaning that an increase of one unit in the physical work environment will translate into an increase in employee performance of 0.578.

The partial influence on the X and Y variables is shown by a significance value of 0.007 in a simple linear regression analysis, which is less than the threshold of 0.05. Furthermore, a t_{count} of 2.811 on the regression finding exceeded the Ttable value of 1.67591 (included in the appendix), indicating the rejection of H_0 and the acceptance of H_1. The statement "there is an influence of the physical work environment on the performance of employees of PT United Tractors Tbk Makassar Branch" is thus supported by these evidences. In short, employee performance is positively and significantly affected by the physical work environment.

Furthermore, a correlation test analysis was carried out to measure the magnitude of the influence between variables. The test results obtained are as follows:

Table 6: Determining Coefficients

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.376[a]	.141	.123	6.235

a. Predictors: (Constant), Physical Work Environment

b. Dependent Variable: Employee Performance

Source: Source of Statistical Analysis Through the SPSS 26 Program

The study of the determination coefficient yielded an R Square value of 0.141, which means that the physical environment (variable X) affected employee performance (variable Y) by 14.1%. Meanwhile, other variables that accounted for 85.9% of the observed variability were not included in this analysis.

The results of this study show a substantial correlation between worker performance and a number of physical aspects of the workplace, including lighting, temperature, noise levels, color schemes, and spatial organization. In this case, the worker's capacity to meet deadlines is directly affected by the circumstances of their workplace. For example, adequate lighting in the workplace can make it easier for workers to perform their tasks and guarantee that they will complete them within the allotted amount of time. A comfortable air temperature can also support employee productivity and help them maintain punctuality in completing their tasks. On the other hand, minimal noise in the work environment can allow for better concentration and avoid distractions that can lead to delays. The use of appropriate colors and adequate movement space can also contribute to employee comfort levels. When employees feel comfortable and at home in a physical work environment, they tend to be more focused on their work and are more likely to adhere to predetermined deadlines. When most of the employees in the study at PT United Tractors Tbk Makassar Branch rated their punctuality as good, it may be a sign that the physical workspace there offers enough assistance for workers in adhering to punctuality in completing their tasks. Thus, the importance of establishing and preserving an atmosphere that promotes productivity and time efficiency is demonstrated by the strong correlation between an ideal physical work environment and employee performance in terms of punctuality.

CONCLUSION

Based on five indicators of physical work environment, lighting, air temperature, noise, color use, and movement space. Research conducted at PT United Tractors Tbk Makassar Branch revealed that the physical work environment of the office was in the good category with a percentage rate of 78.77%. The lighting indicators received excellent ratings, the air temperature was considered comfortable by the majority of respondents, the noise level was considered within acceptable limits, the use of colors in the workspace was considered adequate, and the movement space in the work environment was considered quite large. In addition, the performance of employees of PT United Tractors Tbk Makassar Branch has a good category, with a percentage rate of 73.49%. The quality of employees' work is considered

good, they are able to complete work in accordance with work instructions and guidelines, and are able to improve the quality of their work. The quantity of employee work is also considered good, they are able to meet the company's work targets and complete the appropriate amount of work. Moreover, with respect to the completion of their work, employees are considered to be fast. The results of this study show that the x variable, which is the physical work environment, has a considerable impact on the y variable, namely employee performance. The x-variable, which refers to the physical work environment, was found to have a 14.1% contribution to the y-variable, which is employee performance, according to the findings of the statistical analysis. There is a significant correlation between the presence of a supportive physical work environment and the performance of these employees. On the other hand, the remaining 85.9% are under the influence of external factors.

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