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# The Role of Physical Work Environment and Work Stress in Affecting Employee Performance

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#### Abstract

This study aimed to analyze the effect of the physical work environment and work stress on the performance of civil servants in Makassar City. In this study, the study took a sample of 60 civil servants in Makassar City, using random sampling. The data analysis method used in this study was a multiple regression analysis with SPSS version 22.0 software. The data collected were analyzed using the t-test and F test. From the research carried out, the conclusions of the research results are stated: The physical work environment has a significant positive effect on employee performance. That is, when the physical work environment gets better, this will have a real impact on improving employee performance. Furthermore, the work stress variable has a significant negative effect on employee performance. That is, the higher the employee's stress level, the lower the employee's performance.

Keywords: Physical Work Environment; Work Stress; Employee Performance

### 1. Introduction

Human Resources play an active and dominant role in every organizational activity because humans are the planners, actors, and determinants of realizing organizational goals. Managing humans in an office environment requires adequate abilities and skills because humans have different thoughts, feelings, status, desires, and backgrounds so that humans cannot be completely controlled and controlled and machines, capital, buildings, and so on. other. (Wulandari, 2017).

The improvement of services to the community is very important in carrying out the duties of the government apparatus because the main element that can be used as a measure of the success of the implementation of the duties of the government apparatus is the extent to which this service function is lived up to and carried out by all apparatus so that the community feels the benefits. (Yusuf, et al., 2014). Therefore, it is necessary to evaluate the performance of civil servants to achieve better performance.

Wibowo (2007) revealed that his theory is related to performance, namely, as an implementation of the plans that have been compiled. Human resources carry out performance implementation with the ability, competence, motivation, and interests. How an organization values and treats its human resources

will affect its attitude and behavior in carrying outperformance. Meanwhile, according to Mangkunegara (2010) that "employee performance (work performance) is the result of work in quality and quantity achieved by an employee in carrying out his duties by the responsibilities assigned to him.

Improving civil servants' performance in Makassar City requires several factors that influence it, namely the conditions of the physical work environment and conditions of employee work stress. Physical work environment factors according to Sowmya and Panchanatham (2011) that if you want to create a comfortable work environment, you should pay more attention to the arrangement of workspaces such as placement of work equipment, lighting, noise, and comfort, which can increase employee work discipline so that they feel at home working. In his room. Irianti in Putra and Rahyuda (2015) also stated that employees could do a good job if they are supported by an adequate work environment in an organization.

Besides the physical work environment conditions, employee stress conditions can also affect employee performance. According to Hager (1999) in Deguci (2013), stress is very individual and damaging if there is no balance between the individual's mental endurance and the burden he feels. According to Gitosudarmo and Suditta (1997) cited by Deguci (2013) that stress has positive and negative impacts; the positive impact of stress at low to high levels is functional in the sense that it acts as a driving force for employee work improvement. Meanwhile, the negative impact of stress at a high level is a drastic decrease in employee performance.

In line with the description above, the decline in employee performance, as has been stated, can be caused by the physical work environment and the stress of the employee's work. Therefore, the researcher conducted a study to analyze the effect of the physical work environment and work stress on the performance of civil servants in Makassar City.

#### 2. Literature Review

In this study, the researcher will examine the situation/condition of the physical work environment perceived by employees in the office. Sedarmayanti (2011: 26) states that the physical work environment is all physical conditions around the workplace, which can affect employees either directly or indirectly. Moekijat (2005: 135) said that the physical work environment is a work environment consisting of equipment, office machines used, and office layout, which affects the physical work environment of the office and physical work conditions under conditions where work must be done. In an organization, employees can do a good job if supported by an adequate work environment (Irianti, 2013). Sowmya and Panchanatham (2011) argue that if a company wants to create a comfortable work environment, it should pay more attention to the arrangement of workspaces such as the placement of work equipment, lighting, noise, and comfort, which can increase employee work discipline so that they feel at home working in their room.

Research carried out in several places such as that researched by Wulandari (2017), found that Physical Work Environment Variables have a Significant Effect on Employee Performance Variables in the Secretariat Sector at the Office of Industry, Trade, Cooperatives and Micro, Small and Medium Enterprises, East Kalimantan Province. Then, Putra and Rahyuda (2015) concluded that the physical work environment could affect employee performance. The better the conditions of the physical work environment, the better the performance of the employees themselves.

H1 = Physical work environment has a positive and significant effect on employee performance

Hawari in Yusuf (2004) argues that the term stress cannot be separated from distress and depression, because each other is related. Stress is a physical reaction to life's problems, and when the function of the body's organs is disturbed, it is called distress. Meanwhile, depression is a psychological reaction to the stressors it experiences. In many cases, humans will be quick enough to recover from the effects of stressful experiences. Humans have a good supply and adaptive energy to use and replenish when necessary. Stress is a stimulus or situation that creates distress and creates physical and psychological demands on a person. Stress requires coping and adaptation. Common adaptation syndrome, or Selye's Theory, describes stress as damage done to the body regardless of whether the cause of stress is positive or negative. The body's response can be predicted without paying attention to certain stressors or causes (Issac, 2004). In line with the view above, that the impact of stress is not only on functional disorders to organ disorders but also has an impact on psychiatric areas (psychology/psychiatry) such as anxiety or depression. In everyday life, humans cannot escape stress, but the problem is how to live to adapt to stress without experiencing distress.

Research conducted by Julvia (2016), who conducted research on the effect of work stress on performance, found that the result was a significant negative effect, which means that if the stress level is reduced, performance will increase. Then, Putra and Rahyuda (2015) concluded that job stress could affect performance. The lower the work stress felt by employees, the higher the employee's performance will be.

H2 = Job stress has a negative and significant effect on employee performance

#### 3. Methodological Review

This study uses a quantitative approach, a study used to examine specific populations and samples and uses data collection with research instruments that aim to test predetermined hypotheses. The research design includes explanatory research, namely, research to analyze the relationships between one variable and another or how one influences other variables. As in this study, the population is all Civil Servants at Government Offices in Makassar City. The sample is 60 employees, based on the calculation of the number of indicators (parameters) multiplied by ten so that the total sample is 60 employees. The technique of determining the respondents who will be used as samples is random sampling.

The author's data collection in this study is through a survey method. This primary data collection method uses written questions with an instrument in the form of a research questionnaire. The scale used in this research questionnaire uses a Likert scale with a scale of 1 - 5, starting from Strongly Disagree with a score of 1 to Strongly Agree with 5. Furthermore, before the questionnaire instrument is distributed to all respondents, first, the validity is tested and instrument reliability. The validity test is used to measure whether a questionnaire is valid or not. A questionnaire is said to be valid if the questionnaire's statement can reveal something that is measured by the questionnaire. The tool used to test the sample's reliability used Cronbach Alpha reliability testing, where a research instrument is said to be reliable if the test shows an Alpha coefficient (Cronbach Alpha)> 0.6.

The analysis technique used is multiple regression analysis with the help of SPSS version 22.0 software. This is because the research conducted consists of two independent variables and one dependent variable. Furthermore, to test the hypothesis is done by using the t-test technique. According to Ghozali (2009), the t-test basically shows how far the influence of one independent variable individually is in explaining the variation of the dependent variable. In this study, a test with a significance level of 0.05 was used. If the alpha value <0.05, it can be stated that the hypothesis is accepted, so that there is a significant influence between the independent variables on the dependent variable. Conversely, the alpha value> 0.05, then the hypothesis is rejected, meaning that there is no significant effect between the two variables tested.

#### 4. Results and Analysis

#### 4.1. Validity and Reliability Test

From the results of the validity test that has been done, it shows that the indicators of the physical work environment (X1), work stress (X2), and employee performance (Y) have a value above r-table 0.252. Thus, it appears that all statement items are valid because they have r-count values that are higher than r-table. Furthermore, reliability testing is used to test a measuring device's reliability to be used again for the same research.

Table 1. Reliability Test

Variable	Cronbach's Alpha	Conclusion
physical work environment	0,918	Reliable
work stress	0,965	Reliable
employee's performance	0,914	Reliable

From the results of the reliability test as stated in table 4.5, the resulting Cronbach's Alpha value shows that this measuring instrument meets the consistency (reliability) requirements because the Cronbach's Alpha value exceeds 0.60 so that it can be used as a measuring tool in research.

#### 4.2. Hypotesis Testing

Analysis of the correlation and coefficient of determination was carried out using the SPSS for Windows program by looking at the Model Summary table, as shown in the following table 2. Based on table 2, it is found that the relationship between the independent variable and the dependent variable is R = 0.904 where the R-value is 0.81 - 1 means that the relationship between the independent variables (physical work environment and work stress) on the dependent variable (employee performance) is partially very strong.

Table 2. Results of Correlation and Determination Coefficient Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.899ª	.809	.799	1.433

a. Predictors: (Constant), Stres Kerja, Manajemen Konflik, Lingkungan Kerja Fisik

Also, from the results of data processing, the R Square value is also generated which has a value of 0.818, which means that the variation of changes that occur in the physical work environment and work stress variables can explain 0.818 or 81.8% of variations in employee performance changes, while variables explain the rest. Others that are outside the model. The conclusion from this analysis shows that the variables of the physical work environment and work stress affect employee performance.

To test whether there is a significant effect of physical work environment variables and work stress on employee performance, a hypothesis test is carried out using the t test. The results of the t test for physical work environment variables and work stress on performance are as in the following table:

Standardized Unstandardized Coefficients Coefficients Model В Std. Error Beta t Sig. (Constant) 3.780 1.249 3.027 .004 Lingkungan Kerja Fisik 000. .646 .041 .933 15.897 Stres Kerja -.072 .027-.155 -2.633.011

Table 3. T test results

Coefficients<sup>a</sup>

a. Dependent Variable: Kinerja Pegawai

Based on the tests carried out, it can be concluded that the physical work environment variable obtained the value of t count> t table at  $\alpha=5\%$  or the t value of 15.897> t table 2.003 means that the physical work environment partially has a significant effect on employee performance variables. Also, the correlation coefficient value of the physical work environment variable is 0.646, which is positive, meaning that the physical work environment has a positive and significant effect on employee performance. The results of research conducted on civil servants in Makassar City were also strengthened by obtaining similar studies from other researchers. As researched by Wulandari (2017), who found that Physical Work Environment Variables have a Significant Effect on Employee Performance Variables in the Secretariat Sector at the Office of Industry, Trade, Cooperatives, and Micro, Small and Medium Enterprises, East Kalimantan Province. Then, Putra and Rahyuda (2015) concluded that the physical work environment could affect employee performance. The better the conditions of the physical work environment, the better the performance of the employees themselves.

From the results of previous research conducted by Wulandari (2017) and Putra and Rahyuda (2015) then linked to the results of research conducted by researchers regarding the effect of the physical work environment on the performance of civil servants in Makassar City, it can be concluded that the physical work environment has a significant influence. Positive on employee performance. This means that the physical work environment variable is a factor that determines employee performance, namely, the better the physical work environment variable, the employee's performance will increase; on the other hand, the less good the physical work environment variable is, the employee's performance will decrease.

Based on the tests carried out, it can be concluded that the work stress variable obtained the value of t count> t table at  $\alpha = 5\%$  or the t value of 2,633> t table 2,003, means that partially work stress has a significant effect on employee performance variables. Also, the correlation coefficient of the work stress variable is -0.072, which is negative, meaning that work stress has a negative and significant effect on employee performance. In Julvia's (2016) research, which examines the effect of work stress on performance, it is known that the result is a significant negative effect, which means that if the stress level is reduced, performance will increase. Then, Putra and Rahyuda (2015) concluded that job stress could affect performance. The lower the work stress felt by employees, the higher the employee's performance will be.

From the results of previous research that has been conducted by Julvia (2016) and Putra and Rahyuda (2015) then linked to the results of research conducted by researchers regarding the effect of work stress on the employees' performance, it can be concluded that work stress has a significant negative effect on performance. Employees. This means that the work stress variable is a factor that determines employee performance, namely the higher the work stress variable, the employee performance will decrease; on the contrary, the lower the work stress variable, the employee performance will increase. Baum (in Yusuf, 2004) defines stress as a negative emotional experience accompanied by biochemical,

physical, cognitive, and behavioral changes directed to change the stressful event or accommodate its effects. In line with the view above, that the impact of stress is not only on functional disorders to organ disorders but also has an impact on psychiatric areas (psychology/psychiatry) such as anxiety or depression. In everyday life, humans cannot escape stress, but the problem is how to live to adapt to stress without experiencing distress.

#### **Conclusion**

Performance is a strategic concept in order to establish a cooperative relationship between management and employees to achieve good performance, the most dominant element is human resources, even though the planning is well and neat, but if the person or personnel implementing it is not qualified by not having high morale, the planning that has been prepared will be in vain. The physical work environment has a significant positive effect on employee performance. This means that the physical work environment variable is a factor that determines the performance of employees, namely the better the physical work environment variables, the employee performance will increase; conversely, the less good the physical work environment variables, the employee performance will decrease. On the other hand, that job stress is a factor that determines employee performance; that is, the higher the work stress variable will decrease the employee's performance, on the other hand, the lower the work stress variable, the employee's performance will increase.

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