The Effect of the Work Environment on Employee Performance with Motivation as a Mediation Variables

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Abstract

A good work environment will make employees feel comfortable working. Convenience will certainly increase employee performance improvement. The independent variable in this study is the work environment (X). The mediation variable in this study is motivation (M). The dependent variable in this study is employee performance (Y). In this study the population is all employees or staff who work in the Bandar Lampung City DPRD, totaling 267 employees. The measurement scale in this study is to use a Likert scale. The instrument test was done by using the validity test, reliability test, and normality test using the AMOS program. Data analysis in this study was carried out using the Structural Equation Modeling (SEM) method. The software used for structural analysis in this study is AMOS (Analysis of Moment Structure). This study aims to analyze the direct effect of work environment variables on employee performance, analyze the direct influence of work environment variables on employee motivation, analyze the direct influence of motivation variables on employee performance and analyze the indirect effect of work environment variables on employee performance is mediated by motivation. The test results in this study found that the work environment has a positive and significant influence on employee performance, the work environment has a positive and significant influence on employee motivation, there is a positive and significant influence between motivation and employee performance, and work motivation does not mediate the direct influence of the work environment on employee performance.

Keywords: Work Environment, Motivation, Performance

I. INTRODUCTION

One of the factors that can influence employee performance is the work environment. Putri, et al (2019) state that in broad terms the types of work environment are divided into 2, namely physical and non-physical work environments. Explanation of the physical work environment, namely all physical conditions that exist around the workplace that can affect employee performance either directly or indirectly. Meanwhile, non-physical work environment all conditions that occur are related to work relationships, both with supervisors and with coworkers or with subordinates.

A good work environment will make employees feel comfortable working. Convenience will certainly increase employee performance improvement. In fact, the discomfort of the work environment that helps employees has fatal consequences, namely the decline in employee performance (Putri, et al, 2019). According to research by Rahmawanti, et al (2014), the creation of a good work environment can affect employee performance. Physical work environment and non-physical work environment also affect the motivation and morale of employees because if the work environment in the company is comfortable and pleasant, of course, employees can improve their performance so that company goals can be achieved properly.
Research by Prakoso et al (2014) shows that the work environment has a significant effect on work motivation. The work environment is a force that encourages the spirit that is within and outside of him either in the form of reward or punishment. In a study conducted by Prabasari and Netra (2013) which states that motivation is the most dominant influence on employee performance. This is because with motivation the existing human resources are able to be motivated to work well so that good performance can be achieved.

The DPRD of Bandar Lampung City is a regional people's representative institution that serves as an element of regional government administration in the city of Bandar Lampung. The facilities and infrastructure at the DPRD Bandar Lampung are in a less supportive condition. Narrow workspace conditions accompanied by documents piled up around the table, there are no barriers between employees, room arrangement and tools are not neatly arranged, this makes employees feel disturbed in their activities. The non-physical work environment in the Bandar Lampung City DPRD has been running well, is harmonious enough so that it is expected to support the performance of each employee. Seeing the fluctuating absence of employees, this indicates that work motivation is not fully owned by employees, the lack of motivation for employee work has an impact on the level of discipline and affects the work results that are less than optimal. Achievement of the organizational performance of each strategic target, it is known that there are several activities that are less than the target. The main reasons for this include, among others, the many other activities at the DPRD's Apparatus, as well as the implementation of DPRD programs and activities following the schedule set every month by the Deliberative Council.

Samuel (2015) research results state that work environment variables have an effect on employee performance. However, Logahan's research (2012) shows that the work environment has no significant effect on employee performance. Furthermore, according to research by Jaweera (2015), work motivation has an effect on performance, whereas according to research by Widyawati et al. (2018) work motivation has no effect on employee performance. Based on conflicting research results, this study will reconfirm whether the work environment can affect employee performance with motivation as a mediating variable. Therefore, researchers are interested in conducting research with the title "The Effect of Work Environment on Employee Performance with Motivation as a Mediation Variable". Based on the results of the formulation of the problem, the objectives of this study include:

1. Analyze the direct effect of work environment variables on the performance of the Bandar Lampung City DPRD employees.
2. Analyze the direct influence of work environment variables on the motivation of the employees of the Bandar Lampung City DPRD.
3. Analyze the direct influence of motivation variables on the performance of the Bandar Lampung City DPRD employees.
4. Analyze the indirect effect of work environment variables on the performance of the Bandar Lampung City Council employees is mediated by motivation.

2. LITERATURE REVIEW

According to Sedarmayanti (2009), physical work environments are all physical conditions around the workplace that can affect employees either directly or indirectly. Meanwhile, a non-physical work environment is all situations that occur in relation to work relationships, both relationships with superiors and colleagues, or relationships with subordinates.

Based on research (Hafeez, et al, 2019) several indicators of the physical work environment are as follows:
a. Cleanliness conditions  
b. Lighting conditions  
c. Noise conditions  
d. Room arrangement.

Based on the research of Awan and Tahir (2015) several indicators of the non-physical work environment are as follows:

a. Superior support  
b. Relationships between co-workers

Physical work environment indicators for this study refer to research by Hafeez, et al. (2019), namely cleanliness conditions, lighting conditions, noise conditions, room settings. Meanwhile, non-physical work environment indicators for this study refer to research by Awan and Tahir (2015), namely superiors' support and relationships between colleagues.

Motivation is a mental impulse that motivates a person to take productive actions, whether work-oriented make money or not. Another opinion says that motivation is the desire in an individual that stimulate action (Winardi, 2000). Based on research (Musinguzi, et al, 2017), the indicators of work motivation are as follows:

a. General Motivation  
b. Burnout  
c. Job satisfaction  
d. Intrinsic Job Satisfaction  
e. Organizational Commitment  
f. Work Awareness  
g. Punctuality and attendance

Motivation indicators for this study refer to research (Musinguzi, et al, 2017), namely general motivation, burnout, job satisfaction, intrinsic job satisfaction, organizational commitment, awareness, punctuality and attendance.

According to Wibowo (2016) Performance comes from the notion of performance. There is also a definition of performance as a result of work or work performance. However, performance actually has a broader meaning, not only the result of work, but including how the work process takes place. According to Koopmans, et al (2014), factors that need to be considered in performance appraisal include:

a) Task performance  
b) Contextual performance  
c) Counterproductive work behavior

The theories above are used by researchers as the basis for the theory of employee performance. The theory used by researchers in this study refers to the theory of Koopmans, et al. (2014) which divides work motivation into three indicators, namely, task performance, contextual performance and counterproductive work behavior.

Hypothesis

Research by Rahmawanti, et al (2014) shows that the creation of a good work environment can affect employee performance. Physical work environment and non-physical work environment also affect employee motivation and morale because if the work environment in the company is comfortable and pleasant, of course, employees can improve their performance so that company goals can be achieved properly. According to Dhermawan's research (2012), the better the work
environment, the better the performance of these employees. So the first hypothesis in this study can be formulated as follows:

**H1: The work environment has a direct effect on employee performance.**

Research by Prakoso et al (2014) shows that the work environment has a significant effect on work motivation. This is in line with the research of Setyadi et al. (2015) which concluded that the work environment, both physically and non-physically, is one of the factors that has a significant influence on work motivation. The second hypothesis can be formulated:

**H2: The work environment has a direct effect on motivation employees.**

Darmanto’s (2015) research shows that motivation is related to employee performance. This is because with motivation, employees will try to improve their performance, so that the objectives of the task will be achieved. Work motivation is a condition that has an effect on generating, directing and maintaining behavior related to the work environment. In a study conducted by Prabasari and Netra (2013) which states that motivation is the most dominant influence on employee performance. This is because with motivation the existing human resources are able to be motivated to work well so that good performance can be achieved. The third hypothesis can be formulated:

**H3: Work motivation has a direct effect on employee performance.**

Jayaweera’s research (2015) finds that work motivation is a variable that is able to mediate the influence of the work environment on employee performance. Work motivation is able to strengthen the influence of the work environment on employee performance, meaning that when employees have high work motivation, the impact of the work environment will be greater on the achievement of employee performance. The fourth hypothesis can be formulated:

**H4: Work motivation has a role in mediating the indirect influence of the work environment on employee performance.**

Based on this hypothesis, the framework in this study is as follows:

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**Fig. 1 Framework of Environmental Influence on Performance with Motivation as a Mediation Variable**

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III. RESEARCH METHOD

This research uses quantitative research methods with a descriptive approach. The data used in this study are primary and secondary data. The data collection methods used in the study were questionnaires, interviews, observations, and documents. The independent variable in this study is the work environment (X). The mediation variable in this study is motivation (M). The dependent variable in this study is employee performance (Y). In this study the population is all employees or staff who work in the Bandar Lampung City DPRD, totaling 267 employees. The measurement scale in this study is to use a Likert scale. The instrument test was done by using the validity test, reliability test, and normality test using the AMOS program.

A. Validity Test

Measuring the validity can be done with the measurement model in the CFA, CFA is a measurement model for indicators that represent a factor. The measurement model describes how latent factors are measured. The relationship between the latent factor and the indicator is shown by the direction of the arrow starting from the latent factor towards the indicators that represent it (Hair et al, 1998 in Haryono, 2012).

The work environment is a latent variable measured by 6 indicators consisting of 17 statement items. The test results are presented in Figure 2 below:

![Fig. 2 Results of Testing Work Environment Variables](image)

The results of data processing analysis in Figure 3.1 show the Chi-Square value of 170.422 with a probability of 0.001. The CMIN / DF value is 119 and the RMSEA value is 0.047 indicating that the model is not yet fit. However, because Chi-Square is sensitive to the number of samples, it can be seen from the other fit criteria, namely GFI of 0.908, TLI of 0.975, and CFI of 0.978. All of them show a fit value, which is in accordance with the recommended value greater than or equal to 0.90. Ghozali (2013) explains that the indicator of a variable is called valid if the value of Loading Factor or Standardized Loading Estimate > 0.05. The results of the validity test are presented items X4, X7,
X8, X9, X12, X14, and X16 are invalid because the loading factor value is smaller than 0.50 so that the item is excluded from the calculation.

Motivation is a latent variable measured by 7 indicators consisting of 23 statement items. The test results are presented in Figure 3 below:

![Figure 3 Results of Testing Motivation Variables](image)

The results of data processing analysis in Figure 3.2 show the Chi-Square value of 436.140 with a probability of 0.000. The RMSEA value of 0.067 is smaller than 0.08, indicating that the model is fit. But because Chi-Square is sensitive to the number of samples, it can be seen from the other fit criteria, namely GFI of 0.833 and AGFI value of 0.800, smaller than 0.90, the model is not yet fit. Meanwhile, the TLI value is 0.938, and the CFI is 0.943, indicating the fit value, which is what is recommended, is greater or equal to 0.90. In addition, to test the validity it is known that the value of the standard loading estimate must be 0.50. The results of the validity test are presented items M3, M6, M7, M8, M10, M14, M15, M19, and M20 are invalid because the loading factor value is smaller than 0.5 so that the item is excluded from the calculation.

Performance is a latent variable measured by 3 indicators consisting of 27 statement items. The test results are presented in Figure 4 below:
The results of data processing analysis in Figure 3.3 show the Chi-Square value of 514,382 with a probability of 0.000. The RMSEA value of 0.055 is smaller than 0.08 indicating that the model is fit. However, because Chi-Square is sensitive to the number of samples, it can be seen from the other fit criteria, namely GFI of 0.843 and AGFI value of 0.816, smaller than 0.90, so the model is not yet fit. Meanwhile, the TLI value is 0.955, and the CFI is 0.959 indicating the fit value, which is what is recommended, is greater or equal to 0.90. In addition, for testing the validity it is known that the value of the standard loading estimate must be 0.50. It can be seen in Table 3.7, items Y2, Y3, Y6, Y7, Y11, Y15, Y18, Y23, and Y24 are invalid because the loading factor value is smaller than 0.5 so that the item is excluded from the calculation.

### B. Reliability Test

Furthermore, to test the data reliability, indicators are used based on the Variance Extracted (AVE) and Construct Reliability (CR) formulas. Ghozali (2013) explains that the indicator of a variable is called reliable if the AVE value is ≥ 0.05 and CR ≥ 0.07. Reliability test results show the value of AVE ≥ 0.05 and CR ≥ 0.07 so it can be concluded that all variables are reliable.

### C. Normality Test

The data normality test was carried out with univariate and multivariate normality. Univariate saw the expected CR value in the Skerness to be around ± 2.58. In data processing with IBM Amos 20, the z value is seen from the Critical Ratio. In the output results above, the critical ratio (CR) of skewness and kurtosis shows that there is no variable (indicator) with a CR value of less (-) 2.58 and more (+) 2.58. The CR value of the smallest skewness on the M5 indicator is -2.532 and the highest is at X5 of -1.009. Likewise, the CR value of the highest kurtosis on the M21 indicator is -1.334 and
the lowest is M4 -2.546. Because the CR value lies between -2.58 and 2.58, it proves that the variable is normally univariate. Based on these results it can be stated that the normality assumption is fulfilled. Meanwhile, the multivariate kurtosis value obtained was -18.361 with a CR value of -2.125. So it can be concluded that the data is multivariate normally distributed.

Data analysis in this study was carried out using the Structural Equation Modeling (SEM) method. The software used for structural analysis in this study is AMOS (Analysis of Moment Structure). According to Ferdinand in Rahmi (2013), SEM is a data analysis tool or technique consisting of two basic stages, namely the measurement model stage through Confirmatory Factor Analysis and the structural equation model stage.

IV. RESULTS AND DISCUSSION

A. Structural Model Analysis

The results of the model analysis were carried out the goodness of fit suitability test and statistical tests. The results of the structural model analysis are shown in Figure 5 below:

![Fig. 5 Structural Model](image)

The statistical value of model suitability can be seen in Table 1 below:

<table>
<thead>
<tr>
<th>Goodness of Fit Index</th>
<th>Cut of Value</th>
<th>Hasil Pengujian</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square</td>
<td>≤ 883,566</td>
<td>1261,457</td>
<td>Marginal Fit</td>
</tr>
<tr>
<td>P Value</td>
<td>≥ 0,05</td>
<td>0,000</td>
<td>Marginal Fit</td>
</tr>
<tr>
<td>df</td>
<td></td>
<td>816</td>
<td></td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>≤ 2,00</td>
<td>1,546</td>
<td>Good Fit</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0,08</td>
<td>0,053</td>
<td>Good Fit</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0,90</td>
<td>0,776</td>
<td>Poor Fit</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥ 0,90</td>
<td>0,752</td>
<td>Poor Fit</td>
</tr>
<tr>
<td>TLI</td>
<td>≥ 0,95</td>
<td>0,956</td>
<td>Good Fit</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0,95</td>
<td>0,958</td>
<td>Good Fit</td>
</tr>
<tr>
<td>IFI</td>
<td>≥ 0,90</td>
<td>0,958</td>
<td>Good Fit</td>
</tr>
</tbody>
</table>
These results indicate that the model used is acceptable. From the results of the model output in Table 1 for the model suitability test criteria, some criteria are at marginal values. Marginal value is the condition of the measurement model's suitability under the criteria for absolute fit and incremental fit, but it can still be continued in further analysis because it is close to the good fit criteria (Seguro, 2008 in Fitriyana, 2013).

**B. Hypothesis Test Analysis**
This hypothesis testing is based on processing research data using SEM analysis. Testing this hypothesis is by analyzing the value of the Critical Ratio (CR) and the Probability (P) value of the data processing, compared to the statistical limits required, namely above the critical value of ±1.96 for the CR value and below 0.05 for the P value. If the results of data processing show a value that meets these requirements, the proposed research hypothesis can be accepted.

Based on the results of the study, it is known that the influence between work environment and performance has a CR value of 2.762 (p = 0.006 ≤ 0.05) which means that there is a positive influence between work environment and performance. **Hypothesis H1, there is an influence of the work environment on acceptable performance.**

Through statistical calculations using SEM Amos 26, it is known that the influence of the work environment on employee motivation obtains a CR value of 8.948 (p ≤ 0.05), meaning that there is a positive influence between work environment and motivation. **Hypothesis H2, there is an effect of work environment on accepted motivation.**

Through statistical calculations using SEM Amos 26, it is known that the influence of motivation on employee performance has a CR value of 3.347 (p ≤ 0.05), meaning that there is a positive influence between motivation and employee performance. **Hypothesis H3, there is an effect of motivation on employee performance is accepted.**

Testing the mediation hypothesis can be done using a procedure developed by Sobel (1982) and is known as the Sobel Test. The following are the results of the Sobel test:

![Sobel Test Diagram]

Based on the calculation results, the effect of the work environment on performance through motivation as a mediating variable has a statistical sobel test value of 2.628 which is smaller than the value of the direct effect between the work environment on performance, namely the CR value of
2.762. **Hypothesis H4**, work motivation does not mediate the direct influence of the work environment on employee performance.

**V. CONCLUSION**

The conclusions of this study are:
1. The work environment has a positive and significant influence on the performance of the Bandar Lampung City DPRD employees. The work environment increases, the performance will also increase or vice versa, if the work environment decreases, the performance will also decrease.
2. The work environment has a positive and significant influence on employee motivation in the Bandar Lampung City Council, which means that a pleasant work environment can motivate employees to work.
3. There is a positive and significant influence between motivation and the performance of the Bandar Lampung City DPRD employees. Increasing motivation in employees can improve employee performance, especially employees of the Bandar Lampung City DPRD.
4. Work motivation does not mediate the direct influence of the work environment on employee performance. This shows that the existence of motivation as mediation does not play a role.

**REFERENCES**


