# The Influence of Workplace Layout and Non-Physical Work Environment on BLU UPTD Trans Semarang Employees' Performance

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#### ABSTRACT

Nowadays in a competitive business environment, companies should prioritize the ability of their workforce. BLU UPTD Trans Semarang is a unit of Semarang Transportation Agency that is committed in fulfilling the need for proper public transportation facilities. This company focus on employees' performance, everything which might affect it, and how to improve it. However, the employees' performance had continued to fluctuate in the period from January to March 2020. Therefore, BLU UPTD Trans Semarang has to give more attention to increase the employees' performance. The factors that might affect employees' performance are workplace layout and non-physical work environment. The objective of this research is to analyze how is the influence of workplace layout and non-physical work environment on employees' performance at BLU UPTD Trans Semarang. The research model is using multiple linear regression and SPSS 25. The sampling method of this research is purposive sampling by using work period criteria. The number of samples is 51 employees. The results of the partial significance test show that workplace layout and non-physical work environment have a positive and significant effect partially on the employees' performance. Meanwhile, the results of the simultaneous significance test show that workplace layout and non-physical work environment have a significant effect simultaneously on employees' performance. Based on the results of the coefficient of determination, workplace layout and non-physical work environment have a contribution effect of 67.6% which means they have a big influence on employees' performance. BLU UPTD Trans Semarang should improve their arrangement of workplace layout and create a conducive non-physical work environment to increase the employees' performance.

Keywords: Workplace Layout, Non-Physical Work Environment, Employees' Performance.

#### Pengaruh Tata Letak Tempat Kerja dan Lingkungan Kerja Non Fisik Terhadap Kinerja Pegawai BLU UPTD Trans Semarang

#### Abstrak

Saat ini dalam lingkungan bisnis yang kompetitif, perusahaan harus mengutamakan kemampuan tenaga kerjanya. UPTD BLU Trans Semarang merupakan salah satu unit Dinas Perhubungan Kota Semarang yang berkomitmen dalam memenuhi kebutuhan sarana transportasi umum yang layak. Perusahaan ini fokus pada kinerja karyawan, segala sesuatu yang mungkin mempengaruhinya, dan bagaimana meningkatkannya. Namun demikian, kinerja pegawai terus mengalami fluktuasi pada periode Januari hingga Maret 2020. Oleh karena itu, BLU UPTD Trans Semarang harus memberikan perhatian lebih untuk meningkatkan kinerja pegawai. Faktor-faktor yang dapat mempengaruhi kinerja karyawan adalah tata letak tempat kerja dan lingkungan kerja non fisik. Penelitian ini bertujuan untuk menganalisis bagaimana pengaruh tata letak tempat kerja dan lingkungan kerja non fisik terhadap kinerja pegawai di BLU UPTD Trans Semarang. Model penelitian menggunakan regresi linier berganda dan SPSS 25. Metode pengambilan sampel penelitian ini adalah purposive sampling dengan menggunakan kriteria masa kerja. Jumlah sampel adalah 51 karyawan. Hasil uji signifikansi parsial menunjukkan bahwa tata letak tempat kerja dan lingkungan kerja non fisik berpengaruh positif dan signifikan secara parsial terhadap kinerja karyawan. Sedangkan hasil uji signifikansi simultan menunjukkan bahwa tata letak tempat kerja dan lingkungan kerja non fisik berpengaruh positif delerminasi, tata letak tempat kerja dan lingkungan kerja non fisik memiliki kontribusi pengaruh sebesar 67,6% yang artinya berpengaruh besar terhadap kinerja karyawan. UPTD BLU Trans Semarang harus memperbaiki penataan tata ruang kerja dan menciptakan lingkungan kerja non fisik yang kondusif untuk meningkatkan kinerja pegawai.

Kata Kunci: Tata Letak Tempat Kerja, Lingkungan Kerja Non Fisik, Kinerja Karyawan.

# **INTRODUCTION**

Nowadays in a competitive business environment, companies should prioritize the ability of their workforce. They are competing in a marathon to reach their goals. The performance of their employees becomes necessary. The facilities that the company provides is a supporting tool for employees' workforce. They need a place to work that is safe and pleasant for the success of the company.

BLU UPTD Trans Semarang is a unit of Semarang Transportation Agency that is committed to fulfilling the need for proper public transportation facilities. This company focus on employees' performance, everything which might affect it, and how to improve it.

Aspects that might be caused the performance to drop are distracting noise and visual distraction. They had an open plan office. Every division has its own room, separated from the other but in one place. They all had the same layout for every division. However, the level of noise and visual distraction still increases and might give distraction to the employees. Also, the lack of privacy, temperature, amount of light could affect their productiveness.

Asriel et al (2016: 179) stated that open plan office layout has disadvantages, namely prone to disturbing noise and stacks of working papers or other equipment which cost inconvenient workplace layout. Based on observation, this room is considered narrow for 22 people. According to Regulation of The Minister of Health of The Republic of Indonesia Number 48 Of 2016 about Occupational Health and Safety Standards, the working space standards of working space is 2.2 m<sup>2</sup> per person. Moreover, the noise from the photocopy machine and printer might disturb employees' concentration. On top of that. miscommunication between co-workers might increase. Furthermore, the employees will sense their lack of privacy. They will also have the tendency to postpone their jobs due to the constant distractions. If the workplace layout is not efficient, it will affect the employees' behavior psychologically. They will create an unpleasant work atmosphere.

According to the observation, the workplace layout in as seen in Figure 1 and 2, the workplace layout in the HRD room is against the principles of workplace layout. It was mentioned in Asriel et al. (2016: 181) that the effective workplace layout should have spacious aisle and hallway. Therefore, the author decided workplace layout as factor that might affect the employees' performance.

According to previous research of The American Society of Interior Designers (ASID) in Mendis (2016: 150) the physical design of the workplace is one of the top three aspects, affecting performance and job satisfaction. The study results show that 31 percent of people are satisfied with their work and have a pleasant work environment. 50 percent of people are looking for work and say they would choose a job in a company with a nice physical environment.

Boles et al. in Guntoro et al. (2016: 24) explained that when employees physically and emotionally have the desire to work, their performance results will increase. Therefore, careful attention to workplace layout is required to increase employees' performance. Moreover, the work environment also plays important role in improving employees' performance. The level of performance can be expanded by creating a conducive work environment within the organization.

Afandi (2016: 74) stated that employees' performance plays an important role as a measurement of success in a company. The higher employees' performance, the higher company's profit. Sundstorm in Gitahi, (2014: 77) defined that one of the factors which will affect work performance is the work environment and most people spend 50 percent of their life with an internal environment that encompasses a positive impact on mental, behavior, habits, and achievements. What is meant by the internal environment here is the place where they work.

The work environment can be divided into two, namely the non-physical and physical work environment. Sedarmayanti in Izzah et al. (2019: 24) explained that the nonphysical work environment as all conditions that have impacts on work relationships, relationships with superiors, relationships with co-workers, and also relationships with subordinates. The physical work environment according to Sedarmayanti in Izzah et al. (2019: 23) is all physical conditions in the workplace that can influence employees directly and indirectly. For work environment problems, the researcher only focuses on the non-physical work environment in the company as factor that might influence the employees' performance.

Every corporate has its own indicators for its employee performance such as loyalty, employees' performance, leadership, and many more. It is also dependent on the physical environment and its impact on health and employees' performance.

BLU UPTD Trans Semarang quantifies their performance through 12 indicators. They are work performance, loyalty, initiative, knowledge, work quality, responsibility, innovation. teamwork. communication, discipline, obedience, and leadership. The graphic of employees' performance in period January to March 2020 is still fluctuating. If the company expects the workflow runs smoothly, it must be supported with a good workplace layout and work environment.

Based on the background above, the researcher is interested in doing a research entitled "The Influence of Workplace Layout and Non-Physical Work Environment on BLU UPTD Trans Semarang Employees' Performance."

# **Research Objectives**

The objectives of this research are as follows:

a. To find out the influence of workplace layout on employees' performance at BLU UPTD

Trans Semarang.

- b. To find out the influence of nonphysical work environment on employees' performance at BLU UPTD Trans Semarang.
- c. To find out the influence of workplace layout and non-physical work environment at employees' performance in BLU UPTD Trans Semarang.

#### Literature Review

#### **Employees' Performance**

According to Sianipar in Sedarmayanti (2014) performance is the result of employee's workability or a group of people overwork at a certain time. The form of performance can be in a final results or products of goods and services. Performance also includes behavior, skills compensation or specific skills relating to overall organizational goals.

Sinha in Bushiri (2014) added that employees' performance is depending on the willingness and also the openness of the employees itself on doing their job. He also stated that by having this willingness and openness of the employees in doing their job, it could increase the employees' productivity which also leads to the performance. Because in the end, every job is done by compulsion does not turn out well. The best output will achieve when employees do their works passionately.

#### Workplace Layout

Sedarmayanti in Asnar (2017: 13) defined that office layout is the regulation and arrangement of all office machines, office equipment and office furniture in the right place, in order to gain employees' work performance, comfortably and freely to move, then work efficiency will be achieved. And it can be concluded that the workplace layout is a layout used to organize and arrange all of the office equipment and supplies in the right place so that employees can work well and have a sense of high comfort so that work effectiveness and efficiency can be achieved.

#### Work Environment

Sedarmayanti in Izzah et al (2019: 25) explained that the work environment is all the equipment and materials that work in the area where someone is working. Awan & Tahir (2015: 329) argued that work environment is an environment where a group of people is working to achieve the goals of a company. In conclusion, work environment is all things that have positive or negative impact on the environment where employees work. Izzah et al (2019: 24) divided work environment into two, namely the non-physical work environment and physical work environment.

#### **Non-Physical Work Environment**

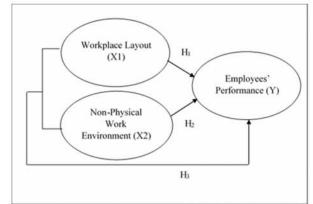
Wursanto in Izzah et al. (2019: 24) argued that non-physical work environment is a psychological work environment which defined as "something that concerns the psychological aspects of the work environment". Based on this understanding, it can be said that the non-physical work environment is also called the psychological work environment.

#### **Physical Work Environment**

According to Sedarmayanti in Izzah et al (2019: 24) physical work environment is any physical condition at the office that can affect employees directly and indirectly.

#### **Theoretical Framework**





Source: Nadarajah, 2016; J. Tang et al., 2013)

#### **METHOD**

This research used quantitative research to know the influence between variables. This research aims to know the influence of Workplace Layout (X1) and Non-Physical Work Environment (X2) on Employees' Performance (Y) at BLU UPTD Trans Semarang.

#### **Population and Sample**

The population in this research were all employees of BLU UPTD Trans Semarang, while the sampling technique used was purposive sampling with work period as criteria for the respondents' characteristics. The sample was 51 respondents based on the calculation of the Slovin formula according to Sugiyono (2019: 116).

#### **Operational Definition Variable Employees' Performance**

FINDING AND DISCUSSION

Mangkunegara in Izzah et al (2019: 23) stated performance is the result of work in quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to the employees.

#### **Workplace Layout**

According to The Liang Gie in Isnaeni (2018: 52), workplace layout is the determination of space requirements and the use of space in detail to prepare a practical arrangement of the physical factors necessary for the implementation of office work.

#### **Non-Physical Work Environment**

According to Wursanto in Izzah et al. (2019: 24) explained that the non-physical work environment is the situation around the workplace which is non-physical. This kind of work environment cannot be captured directly with the five human senses, but can be felt by its existence.

RESEARCH RESULTS					
Test	Variable	Note	Value		
Validity Test (Questionnaire)	Workplace Layout	r count > r value			
	Non-Physical Work Environment	r count > r value	-		
	Employees' Performance	r count > r value			
Reliability Test	Workplace Layout	Cronbach's Alpha	0.787		
	Non-Physical Work Environment	Cronbach's Alpha	0.860		
	Employees' Performance	Cronbach's Alpha	0.801		
Autocorrelation Test	Workplace Layout				
	Non-Physical Work Environment	Asymp. Sig	0.481		
	Employees' Performance				
	Workplace Layout				
Normality Test (Kolmogorov-	Non-Physical Work Environment	Asymp. Sig.	0.200		
Smirnov)	Employees'	]			

# TABLE 2RESEARCH RESULTS

	Performance		
Multicollinearity Test	Workplace Layout	Tolerance	0.509
		VIF	1.966
	Non-Physical Work	Tolerance	0.509
	Environment	VIF	1.966
Heteroscedasticity Test	Workplace Layout		
	Non-Physical Work Environment	Scatterplot	South ( So Department for the second street for second
	Employees' Performance		
	Workplace Layout	Linearity	0.000
		Deviation from Linearity	0.096
Linearity Test	Non-Physical Work	Linearity	0.000
	Environment	Deviation from Linearity	0.655
Multiple Linear Regression Analysis	Constant		5.796
	Workplace Layout	Coefficient Regression	0.390
	Non-Physical Work Environment	Coefficient Regression	0.475
Partial Significancy Test (T-Test)	Workplace Layout	Significant Value	0.000
	Non-Physical Work Environment	Significant Value	0.000
Simultant Significancy Test (F-Test)	Workplace Layout		
	Non-Physical Work Environment	Significant Value	0.000
Determination Coefficient (R2)	Workplace Layout		
	Non-Physical Work Environment	Adjusted R Square	0.676

Source : Primary Data Processed by SPSS, 2020

#### **Instrument Test**

Based on the Table 2, the validity test results showed that the r-count > r-table (0.361) and the reliability test results showed that the workplace layout was 0.787, nonphysical wor environment was 0.860 and employees' performance was 0.801 which is greater than the Cronbach's Alpha (0.70). It can be concluded that each item statement in the questionnaire was valid and each variable was reliable.

#### **Classic Assumption Test**

Based on Table 2, it can be known that the Asymp. Sig in Run Test results is 0.481 which is greater than 0.05, then the Asymp. Sig of One – Sample Kolmogorov Smirnov test result is 0.200, then the tolerance value of each independent variables > 0.1 and the VIF < 10, the figure of scatterplot showed the dots was spreaded above and below number 0 on the Y-axis, the linearity value < 0.05, and the deviation from linearity < 0.05. It can be concluded that, in this research the data normally distributed, there is no multicollinearity and heteroscedasticity, the each independent variables (X1, X2) and the dependent variable (Y) have a linear relationship.

#### **Multiple Linear Regression Analysis**

Based on the Table 2, the explanation of multiple linear regression equation as follows:

- Constant = 5.796
   It means, Workplace Layout (X1) and Non-Physical Work Environment (X2) on Employees' Performance (Y) did not change or constant.
- Workplace Layout = 0.390
   It means that, if the Workplace Layout (X1) is increase, then the Employees' Performance

(Y) will also increase. The coefficient value of the workplace layout variable was positive, which means that the relationship between X1 and Y was positive.

3) Non-Physical Work Environment = 0.475

It means that, if the Non-Physical Work Environment (X2) is increase, then the Employee Performance (Y) will also increase. The coefficient value of the non-physical work environment variable was positive, which means that the relationship between X2 and Y was positive.

# Significancy Test Partial Significancy Test (T-Test)

Based on the Table 2, the following results as follows:

#### Hypothesis 1

Based on the workplace layout regression analysis (X1) in Table 2, it was found that the significant value is 0.000 < 0.025. It means there is a positive and significant influence between workplace layout on employees' performance. Hypothesis 1 stated that "There is significant positive influence partially between workplace layout on employees' performance" which means H1 was accepted.

#### Hypothesis 2

Based on the non-physical work environment regression analysis (X2) in Table 2, it was found that the significant value was 0.000 < 0.025. It means there is a positive and significant influence between non-physical work environment on employees' performance. Hypothesis 2 stated that "There is significant positive influence partially between nonphysical work environment on employees' performance" which means H2 was accepted.

#### Simultant Significancy Test (F-Test)

Based on the Table 2 the significant value was 0.000 < 0.025. It can be concluded that H<sub>03</sub> was rejected and H<sub>a3</sub> was accepted, it means that simultaneously there was a significant influence between workplace layout and non-physical work environment on employees' performance.

#### **Determination Coefficient (R2)**

Based on Table 2, the value of Adjusted R Square was 0.676 or 67.7%. It shows that the variables of workplace layout and non-physical work environment are capable of contributing influence on the employee performance 67.6%, while 32.4% was influenced by the other variables outside the model or variables which were not examined in this research.

#### CONCLUSION AND RECOMMENDATION

Based on the research about the influence of workplace layout and non-physical work environment on employees' performance at BLU UPTD Trans Semarang, there are several points that can be concluded as follows:

a. The result of this research is workplace layout and non-physical work environment had a significant influence on employees' performance at BLU UPTD Trans Semarang. It can be seen on the T-Test that workplace layout and non-physical work environment has a positive and significant effect partially on employees' performance. Based on the F-Test result, the workplace layout and non-physical work environment have a significant effect simultaneously on employees' performance at BLU UPTD Trans Semarang. Based on the Determination Coefficient test result, showed that variables of workplace lavout and non-physical work environment have contribution of 67.6% on employees' performance, while the remaining 32.4% is influenced by other factors excluded in this research.

- b. Based on the research results, suggestions that can be applied by the company as follows:
  - a) BLU UPTD Trans Semarang must create a harmonious non-physical work environment among coworkers and subordinates by improving the work procedures and intensifying the reward system to motivate the employees.
  - b) Improve better lighting in office and also evaluate the choice of workplace layout types based on work culture and employee needs.
  - c) Improve employees' discipline to increase the awareness in applying the principle of punctuality.

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