

DOI: 10.46340/eppd.2020.7.3.23

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THE EFFECT OF EXCESSIVE WORK LOADS AND WORK ENVIRONMENT ON PERFORMANCE OF EMPLOYEES MEDIATED BY WORK STRESS IN EMPLOYEES OF PT. PLN REGIONAL DISTRIBUTION (APD) AREA OF CENTRAL JAVA & DIY SEMARANG

JEL Codes: M540, M5, F640.

This research was conducted at PT. PLN Central Java Area (APD) & DIY Semarang Distribution Arrangement with the aim to see the effect of excessive workloads and work environment on employee performance mediated by work stress. This research applies descriptive qualitative research. The respondents used were 79 permanent employees using census techniques. Hypothesis test in this research is using multiple linear regression analysis, t test (t-test), R2 (coefficient of determination), f test (f-test), and path analysis. The results showed that excessive workload had a negative and not significant effect on employee performance, the work environment positive and significant effects on the performance of employees. While excessive workloads and work environment significantly affects employee performance mediated by work stress.

Keywords: excessive workload, work environment, work stress, performance of employee.

I. INTRODUCTION

Employee Performance includes the quality and quantity output with reliability at working. The employees can work well if they have high performance, so they can produce good work as well¹. There are three factors that can affect employee performance, which are individual to carry out work, the level of effort done, and support by organization². The employee performance will increase if the three factors are already owned by the employees, and the employee performance will be reduced or decrease if one of the factors is not owned by the employee. The performance can also be by excessive workload, work environment, and work stress.

Every employee faces excessive workload, stress while at the workplace and stress with personal problems that finally affect their performance and satisfaction³. The results research of (Mittal & Bhakar)⁴, (Tjiabrata, F.R., Lumanaw, B., & Dotulong)⁵; (Khasifah, F. & Nugraheni)⁶; (Ali & Farooqi)⁷;

¹ Nasrudin, E. (2010). *Psikologi Manajemen*. Bandung: Pustaka Setia.

² Mathis, R., Jackson, W. (2006). *Human Resources Development*. Jakarta: Prestasi Pustaka.

³ Aziz, J., Ejaz, W., Jaffari, A.R., Raza, S.N., Shah, S.S.H., Ul-Haq, I. (2011). Workload and Performance of Employees. *Interdisciplinary Journal of Contemporary Research In Business*.

⁴ Mittal, M., Bhakar, S.S. (2018). Examining the Impact of Role Overload on Job Stress, Job Satisfaction and Job Performance-A study among Married Working Women in Banking Sector. *International Journal of Management Studies*.

⁵ Tjiabrata, F.R., Lumanaw, B., Dotulong, L.O. (2017). Pengaruh Beban Kerja Dan Lingkungan Kerja Terhadap Kinerja Karyawan PT. Sabar Ganda Manado. *EMBA Jurnal*, no. 5, 1570-1580.

⁶ Khasifah, F., Nugraheni, R. (2016). Pengaruh Disiplin Kerja, Beban Kerja dan Lingkungan Kerja terhadap Kinerja Pegawai (Studi Pada Balai Besar Wilayah Sungai Pemali Juana). *Diponegoro Journal of Management*, no. 5(1).

⁷ Ali, S., Farooqi, Y.A. (2014). Effect of Work Overload on Job Satisfaction. Effect of Job Satisfaction on Employee Performance and Employee Engagement (A Case of Public Sector University of Gujranwala Division). *International journal of Multidisciplinary Sciences and Engineering*.

and (Sutoyo)¹ shows that excessive workload has negative effect on employee performance, the more excessive workload, the employee's performance will decrease.

Abbasi² is called overworked affect stress, turnover and job satisfaction. Khuong & Yen³ has identified the six factors that influence work stress and work performance including overwork, ambiguity role & conflict role, work relations, career development and work environment. The result showed all factors had a positive and significant effect on work stress. The previous study conducted by Mittal & Bhakar⁴; Yo, Putu Melati Purbaningrat & Surya⁵; Agastya & Satrya⁶; and Kusuma, A.A., Soesatyo⁷ shows that excessive workload has a significant effect on employee work stress, which means that the higher the person's workload, the higher the work stress on the employee.

Some experts put forward factors that can affect work stress, including external and internal factors. External factors are the physical environment at workplace such as poor lighting and poor ventilation, room temperature that makes employees feel uncomfortable while at workplace, while international factors are things that arise from within a person such as boredom, fatigue and boredom⁸. The results research of Bhanu, M.V.V., & Babu⁹; Ojekou & Dorothy¹⁰; Putra & Rahyuda¹¹; and Rizki, Hamid, & Mayowan¹² showed that the work environment had a significantly negative effect on employee work stress, which means that the worse or decreased the quality of the work environment, the higher employee's work stress.

PT. PLN Central Java & DIY Semarang Regional Distribution (APD) Area is a PLN unit that regulates the distribution of electricity that has complex work tasks and a large and risky workload. From the data company, there is a gap between work fields and the number of employees needed in 2016/2017 which is 156:79 or only 56,64% of employees (shortage of 49,36%). This means that 1 (one) employee will bear 2 (two) heavy and risky workload (PT. PLN APD Central Java & DIY Semarang) which causes the work to be less than optimal. From the problems can be formulated that the low employee performance in PT. PLN APD Central Java & DIY Semarang because due to excessive workload, and less conducive work environment that causes high stress.

II. LITERATURE REVIEW

A. Excessive Workload (Workload)

A normal excessive workload is workload that in accordance with person's ability, both in quantity and quality. But, often the workload is given to someone becomes excessive and more difficult and causes

¹ Sutoyo (2016). Pengaruh Beban Kerja, Lingkungan Kerja dan Motivasi Terhadap Kinerja Pegawai Pada Dinas Bina Marga Propinsi Sulawesi Tengah. *Jurnal Katalogis*, no. 4(3), 187-195.

² Abbasi, T.F. (2015). Impact of Work Overload on Stress, Job Satisfaction, and Turnover Intentions with Moderating Role of Islamic Work Ethics. *Management Studies and Economic Systems*.

³ Khuong, M.N., Yen, V.H. (2016). Investigate the Effects of Job Stress on Employee Job Performance – A Case Study at Dong Xuyen Industrial Zone, Vietnam. *International Journal of Trade, Economics and Finance*.

⁴ Mittal, M., Bhakar, S.S. (2018). Examining the Impact of Role Overload on Job Stress, Job Satisfaction and Job Performance-A study among Married Working Women in Banking Sector. *International Journal of Management Studies*.

⁵ Yo, Putu Melati Purbaningrat, Surya, I.B.K. (2015). Pengaruh beban kerja terhadap kepuasan kerja dengan stres kerja sebagai variabel mediasi. *E-Jurnal Manajemen Universitas Udayana*, no. 4(5).

⁶ Agastya, P.Y., Satrya, I.H. (2018). Pengaruh konflik interpersonal dan beban kerja terhadap stres kerja pada pegawai di dinas perhubungan provinsi Bali. *E-Jurnal Manajemen Universitas Udayana*.

⁷ Kusuma, A.A., Soesatyo, Y. (2014). Pengaruh Beban Kerja Terhadap Stres Kerja Dan Dampaknya Terhadap Kinerja Karyawan. *Jurnal Ilmu Manajemen*, no. 2, 376-386.

⁸ Maqfiranti, V., Sjahrudin, H., Anto, A. (2014). Pengaruh Stres dan Lingkungan Kerja Non Fisik terhadap Kinerja Karyawan pada PT. Bumi Jasa Utama (Kallatransport) Makassar. *E-Library STIE YPBUP Bongaya*.

⁹ Bhanu, M.V.V., Babu, D.P.C.S. (2018). Impact of Work Environment and Job Stress towards Job Satisfaction. *IOSR Journal of Business and Management (IOSR-JBM)*, 20(2), 01-07.

¹⁰ Ojekou, G.P., Dorothy, O.T. (2015). Effect of Work Environment on Level of Work Stress and Burnout among Nurses in a Teaching Hospital in Nigeria. *Open Journal of Nursing*, no. 05(10), 948-955.

<<http://www.scirp.org/journal/doi.aspx?DOI=10.4236/ojn.2015.510100>>.

¹¹ Putra, I.B.K.S D., Rahyuda, A.G. (2015). Pengaruh Lingkungan Kerja Fisik Dan Stres Kerja Terhadap Kinerja Pegawai Di Upt. Pengujian Kendaraan Bermotor Dinas Perhubungan Kota Denpasar. *E-Jurnal Manajemen Universitas Udayana*, no. 4(9).

¹² Rizki, M., Hamid, D., Mayowan, Y. (2016). Pengaruh lingkungan kerja terhadap stres kerja karyawan (Studi Pada Karyawan PT PLN (Persero) Distribusi Jawa Timur Area Pelayanan Malang). *Jurnal Administrasi Bisnis SI Universitas Brawijaya*.

work stress¹ the excessive workload (*workload*) divides in two branches, there are *quantitative overload* and *qualitative overload*.

Quantitative overload occurs when the number of task or jobs that are given does not match the work time that given for completing of an assignment. The employees become rushed in completing the task and causing work stress.

Qualitative overload occurs when the standard of work provided is higher than the person's ability. The employees have difficulty in completing their work which results in work stress.

According to Sauter, Murphy, & Hurrell², the workload is divided into three levels as below:

a. The workload is above normal which is when the workload does not match working time, employees need more time due to workload that is too much.

b. Normal workload is the compatibility between the workload and work time given to complete the task.

c. Under-normal workload is when the workload is less than work time, so there is free time that is often wasted and not productive.

B. Work Environment

Work environment is everything that is around the employee and can affect him in carrying out his duties³. Work environment is everything that is around the employee at work, both physical or nonphysical, directly or indirectly, which can affect him and his work while working⁴. Sedarmayanti⁵ states that the work environment is overall tools and materials faced, the surrounding environment in which someone works, work methods, and work arrangements both as individuals and as groups. Both physical and nonphysical work environments can affect the employee at work. Bad work environment can make it difficult for an employee to concentrate, decrease work productivity and increase workload because inhibits all activities that are being done.

C. Work Stress

According to Hasibuan⁶ stress is a condition of tension felt by someone that affect the emotions and thoughts, then causes nervous behavior, anxiety, irritability and cannot relax. According to Luthans⁷ stress is behavior that that appears from within a person due to the influence of the situation in the external environment. According to Ivancevich M. John, Konopaske, Robert, & Matteson, T.⁸, work stress appears from stressful experiences in the form of tension, anxiety and worry, and can have positive or negative effects. Thus, it can be concluded that work stress behavior that appears from within a person such as anxiety and tension either physical or psychic that caused by the problems that disturb the thoughts and have not been resolved.

D. The Performance

According to⁹, the employee performance is defined as work quality and quantity achieved by an employee in carrying out their duties in accordance with the responsibilities given to him. According to Bernardin, H.J & Russel¹⁰, performance is a good thing that has been done or not done by employees, which can affect their roles and contributions within the company. Performance is a measure of a person's success in completing and achieving the goals of his work. Luthans¹¹ argues that the performance does not only affect the amount of effort someone does, but it is also influenced by their abilities, such as knowledge, work and expertise, and how a person feels the role that he brought.

¹ Schultz, Duane P., Schultz, S.E. (2006). *Psychology Work Today*. New Jersey: Pearson Education, Inc.

² Sauter, S.L., Murphy, L.R., Hurrell, J.J. (1990). Prevention of work-related psychological disorders: A national strategy proposed by the National Institute for Occupational Safety and Health (NIOSH). *American Psychologist*.

³ Nitisemito, A. (1996). *Manajemen Personalia, Sumber Daya Manusia*. Jakarta: Gholia Indonesia.

⁴ Potu, A., Lingkungan, D., Manado, J. (2013). Kepemimpinan, Motivasi, Dan Lingkungan Kerja Pengaruhnya Terhadap Kinerja Karyawan Pada Kanwil Ditjen Kekayaan Negara Suluttenggo Dan Maluku Utara Di Manado. *Jurnal EMBA*.

⁵ Sedarmayanti (2011). *Tata Kerja dan Produktivitas Kerja: Suatu Tinjauan dari Aspek Ergonomi Atau Kaitan antara Manusia Dengan Lingkungan Kerjanya*. Bandung: Mandar Maju.

⁶ Hasibuan, M. (2006). *Manajemen Sumber Daya Manusia*. Jakarta: Bumi Aksara.

⁷ Luthans, F. (2006). *Organizational Behavior*. Boston: McGraw-Hill, Inc.

⁸ Ivancevich, M.J. Konopaske, R., Matteson, T.M. (2007). *Organizational Behavior And Management*. Jakarta: Gelora Aksara Pratama.

⁹ Mangkunegara, A. (2008). *Manajemen Sumber Daya Manusia*. Bandung: Remaja Rosdakarya.

¹⁰ Bernardin, H.J., Russel, E.A. (2006). *Manajemen Sumber Daya Manusia*. Bandung: Armico.

¹¹ Luthans, F. (2006). *Organizational Behavior*. Boston: McGraw-Hill, Inc.

E. Hypothesis

In this research, the proposed hypotheses are as follows:

- H₁: There is a positive effect between workload on PT. PLN APD Central Java & DIY.
- H₂: There is a negative influence between the work environments on the work stress of PT. PLN APD Central Java & DIY.
- H₃: There is a negative influence between workload on the employee performance of the employees of PT. PLN APD Central Java & DIY.
- H₄: There is a positive influence between the work environments on the employee performance of PT. PLN APD Central Java & DIY.
- H₅: There is a negative influence between work stress on the employee performance of PT. PLN APD Central Java & DIY.
- H₆: There is a negative influence between workload on performance through work stress on the employee of PT. PLN APD Central Java & DIY.
- H₇: There is a positive influence between the work environments on performance through work stress on the employees of PT. PLN APD Central Java & DIY.

III. RESEARCH METHOD

A. The Data Type And Collecting Data Technique

This type of research is a descriptive quantitative research that is explanatory (causality) with using survey methods. Categories in this Likert Scale assessment are “very low”, “low”, “low enough”, “high”, “very high” for workload variable, work stress, and employee performance. While the Likert Scale category for the work environment is “very not conducive”, “not conducive”, “less conducive”, “conductive”, and “very conducive”.

The research subjects are the entire permanent employee population of PT. PLN Central Java Distribution Arrangement (APD) Central Java & DIY Semarang who occupies positions as permanent staff totaling 79 people. The data collection technique used in this research was a questionnaire in the form of a Likert Scale.

B. Data Analysis

In this research, SPSS for windows is used to analyze the data. The validity test uses the *Bivariate Pearson* correlation method (*Pearson Product Moment Correlation*) and reliability using *Cronbach Alpha* technique to determine whether the research instrument is valid and reliable.

Inferential analysis using normality test, multicollinearity test, and heteroscedasticity test. Normality test uses the *Kolmogorov Smirnov Test* to find out the dependent variable and the independent variable has a normal distribution or not. Multicollinearity test uses the VIF method to determine whether all the free variables not occur the multicollinearity, it does not bias the interpretation of the results of the regression analysis. Heteroscedasticity test with Glejser test to determine whether the estimated model is free from confounding factors or *disturbance term*.

Testing the hypothesis in this research using multiple linear regression analysis, t test (t-test), R² (Determination coefficient), f test (f-test), and (path analysis).

C. Validity and Reliability

In this study, the research instrument consists of two independent variables which is workload (X1) and work environment (X2), and two dependent variables there are work stress (Y1) and employee performance (Y2). The independent variable is the excess workload (X1) consists of 6 items with an indicator of French¹, and the work environment (X2) consist of 7 items with indicator by Sedarmayanti². Dependent variable is work stress (Y1) consist of 10 items with indicators by Robbins³ and employee performance (Y2) consists of 8 items with an indicator by Mondy, Noe⁴. The results of testing the validity of all research instruments stated valid with a significance value <0.05.

¹ Kuschel, K. (2015). *Quantitative and qualitative work overload and its double effect on the work-family Interface*. Peru.

² Sedarmayanti (2011). *Tata Kerja dan Produktivitas Kerja: Suatu Tinjauan dari Aspek Ergonomi Atau Kaitan antara Manusia Dengan Lingkungan Kerjanya*. Bandung: Mandar Maju.

³ Robbins, S. (2006). *Perilaku Organisasi*. Klaten: Intan Sejati.

⁴ Mondy, Noe (1999). *Human Resources Management* (Seventh Ed.). USA: Prentice Hall Mc.Inc.

The Instrument reliability test results of all variables was obtained with the *Cronbach's Alpha* coefficient value >0.60 that all statement items in the questionnaire on the variables to Excessive Work Load variable, Work Environment, Work Stress, And Employee Performance are reliable.

Table 1

Reliability Test Result

Variable	<i>Cronbach Alpha</i>	Critical Value	Information
Excessive Work Load	0,951	$\geq 0,60$	Reliable
Work Environment	0,905	$\geq 0,60$	Reliable
Work Stress	0,914	$\geq 0,60$	Reliable
Employee Performance	0,827	$\geq 0,60$	Reliable

Resources: Primary Data Process, 2019.

D. Inferential analysis

From the normality test results with the *Kolmogorov Smirnov Test* was obtained a significant value $>0,05$, the regression model is fulfilling normality assumption. The Multicollinearity test results using the VIF method was obtained values $VIF < 10$, it means that all independent variables did not occur the multicollinearity, it did not refract the interpretation of the results of the regression analysis. Heteroscedasticity test results with using *Glejser* test was obtained significant values $>0,05$. This means that the estimated model is free from heteroscedasticity.

Table 2

Inferential Analysis Result

Normality Test Result with <i>Kolmogorov Smirnov Test</i>			
Variable	Sig.	Level of Significant	Information
Residual1	0,200	0,05	Normal
Residual2	0,098	0,05	Normal
Multicollinearity Test Result with VIF Method			
Variable	VIF	Critical Value	Information
Excessive Work Load (X_1)	2,309	10	None multicollinearity
Work Environment (X_2)	2,876	10	None multicollinearity
Work Stress (Y_1)	3,962	10	None multicollinearity
Heteroscedasticity Test Result with <i>Glejser</i>			
Variable	Sig.	Critical Value	Information
Excessive Work Load (X_1)	0,342	0,05	Homoscedasticity
Work Environment (X_2)	0,197	0,05	Homoscedasticity
Work Stress (Y_1)	0,145	0,05	Homoscedasticity

Resources: Primary Data Process, 2019

I. RESEARCH RESULT**A. Characteristic Respondent**

Tabel 3

The Respondent Characteristic Research

Respondent Gender			
No	Gender	Amount	Percentage
1	Male	66	83,5%
2	Female	13	16,5%
Total 79 100,0%			
Respondent Ages			
No	Ages	Amount	Percentage
1	24-35 years	59	74,7%
2	36-45 years	20	25,3%
Total 79 100,0%			
Respondent Education Level			
No	Pendidikan	Amount	Percentage
1	D4/S1	72	91,1%
2	S2	7	8,9%
Total 79 100,0%			

B. Analysis of Multiple Linear Regression

Tabel 4

The Result of Linear Regression Model with OLS Method Path 1

Variable	Beta Coefficient	t-count	Sig.
Excessive Work Load (X_1)	0,402	5,403	0,000
Work Environment (X_2)	-0,552	-7,417	0,000
R^2 : 0,748			
Adjusted R^2 : 0,741			
F-statistic : 3112,553, Sig. = 0,000			
N : 79			
Dependent Variabel (Y1) : Work Stress			

Resource: Primary Data Process, 2019

Based on the calculations using the *SPSS for Windows* computer statistic program, is Linear Regression equation results are obtained as follows:

$$Y_1 = 0,402X_1 - 0,552X_2 \text{ (Standardized)}$$

In the equations above shows the effect of Excessive Work Load and Work Environment on Employee Work Stress. The meanings of the regression coefficients are:

a. Regression Coefficient Excessive Workload on Employee Work Stress = 0,402.

Positive regression coefficient (unidirectional) means, if Excessive Work Load (X_1) increases, the Employee Work Stress of PT. PLN APD Central Java & DIY Semarang (Y_1) will increase and vice versa, assuming other variables are constant.

b. Regression Coefficient of Work Environment on Employee Stress = -0,552.

Negative regression coefficient (opposite) means, if Work Environment (X_2) decreases (not conducive), the Employee Work Stress of PT. PLN APD Central Java & DIY Semarang (Y_1) will increase and vice versa, with assuming other variables are constant.

Tabel 5

The Result Linear Regression Model with OLS Method Path 2

Variable	Beta Coefficient	t-count	Sig.
Excessive Work Load (X_1)	-0,022	-0,161	0,872
Work Environment (X_2)	0,028	0,180	0,047
Work Stress (Y_1)	-0,567	-3,104	0,003
R^2 : 0,368			
Adjusted R^2 : 0,343			
F-statistik : 14,573, Sig. = 0,000			
N : 79			
Dependent Variable (Y_2) : Employee Performance			

Resources: Primary Data Process, 2019

Based on the calculation result using the SPSS for Windows computer statistic program the Linear Regression equation results are obtained as below:

$$Y_2 = -0,022X_1 + 0,028X_2 - 0,567Y_1 \text{ (Standardized)}$$

The equation above shows the effect of Excessive Work Load, Work Environment, and Work Stress on Employee Performance. The meanings of the Linear Regression coefficients are:

a. Regression coefficient Excessive Workload on Performance = -0,02

Negative regression coefficient (opposite) means, if Excessive Work Load (X_1) increases, the Employee Performance of PT. PLN APD Central Java & DIY Semarang (Y_2) will decrease and vice versa.

b. Regression Coefficient of Work Environment on Performance = 0.028

Positive regression coefficient (unidirectional) means, if the Work Environments (X_2) decreases (not conducive), the Employee Performance of PT. PLN APD Central Java & DIY Semarang (Y_2) will decrease and vice versa.

c. Regression Coefficient of Work Stress on Performance = -0,567

Negative regression coefficient (opposite) means, if Work Stress (Y_1) increases, the Employee Performance of PT. PLN APD Central Java & DIY Semarang (Y_2) will decrease and vice versa.

C. Path analysis

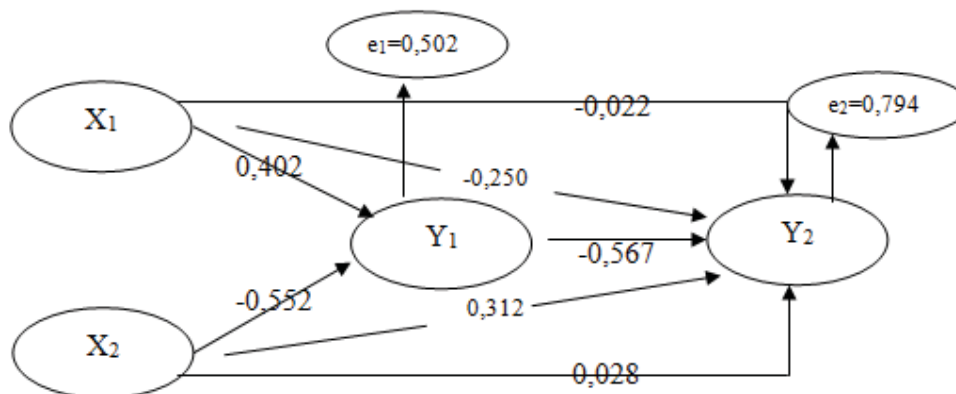


Fig. 1. Path coefficient

$$\begin{aligned} \text{Path 1: } X_1 &\longrightarrow Y_1 \longrightarrow Y_2 = (0,402) \cdot (-0,567) + (-0,022) = -0,249 \\ \text{Path 2: } X_2 &\longrightarrow Y_1 \longrightarrow Y_2 = (-0,552) \cdot (-0,567) + 0,028 = 0,340 \\ \text{Path } R^2_i &: 1 - [(1 - R_1^2) \cdot (1 - R_2^2)] \\ \text{Path } R^2_i &: 1 - [(1 - 0,748^2) \cdot (1 - 0,368^2)] \\ \text{Path } R^2_i &= 0,619. \end{aligned}$$

Based on the results of data processing is obtained the coefficient effect value of the total Work Environment (X_2) on Employee Performance (Y_2) from Work Stress (Y_1) is **bigger** than the coefficient of the total effect of Excessive Work Load (X_1) on Employee Performance (Y_2) through Work Stress (Y_1), it can be concluded that the influence of the Work Environment on Employee Performance through Work Stress is dominant.

Tabel 6

The Resume of Analysis Result

Direction of Influence	Direct Influence	Indirect Influence	Total Influence
$X_1 - Y_1$	0,402	-	-
$X_2 - Y_1$	-0,552	-	-
$X_1 - Y_2$	-0,022		
$X_2 - Y_2$	0,028		
$Y_1 - Y_2$	-0,567		
$X_1 - Y_1 - Y_2$	-	-0,227	-0,249
$X_2 - Y_1 - Y_2$	-	0,312	0,340

Resources: Primary Data Process, 2019/

D. Hypothesis Test

1. H_1 : Excessive Work Load has a positive and significant effect on Work Stress.

Based on the data processing results the **significant value from test result is obtained (0,000) < (0,05)**, H_0 is rejected, then it can be concluded that the Excessive Work Load variable (X_1) has a positive and significant effect on the Employee Work Stress of PT. PLN APD Central Java & DIY Semarang (Y_1).

2. H_2 : Work Environment has a negative and significant effect on Work Stress.

Based on the data processing results the **significant value of test results is obtained (0,000) < (0,05)**, H_0 is rejected, then it can be concluded that the Work Environment variable (X_2) has negative and significant effect on the Employee Work Stress of PT. PLN APD Central Java & DIY Semarang (Y_1).

3. H_3 : Excessive Work Load influence Employee Performance.

Based on the data processing result **significant value of test result is obtained (0,872) > (0,05)**, then H_0 is accepted, it can be concluded that the Excessive Work Load variable (X_2) does not have a significant negative effect on the Employee Performance PT. PLN APD Central Java & DIY Semarang (Y_2).

4. H_4 : Work Environment influences Employee Performance.

Based on the data processing results, the **significant value of test result is obtained (0,047) > (0,05)**, then H_0 is rejected, it can be concluded that the Work Environment variable (X_2) has a positive and significant effect on the Employee Performance of PT. PLN APD Central Java & DIY Semarang (Y_2).

5. H_5 : Work Stress affects Employee Performance.

Based on the data processing results, **significant value test result is obtained (0,03) < (0,05)**, H_0 is rejected, then it can be concluded that the Work Stress variable (Y_1) negative and significant effect on the Employee Performance of PT. PLN APD Central Java & DIY Semarang (Y_2).

6. H_6 : Excessive Workload influences Employee Performance Mediated by Work Stress.

Path analysis results are obtained with direct the Excessive Work Load Regression coefficient of -0,022, the regression coefficient of the indirect effect is $0,402 \times -0,567 = -0,227$. The indirect coefficient is smaller than the direct coefficient, then H_0 is rejected or H_a is accepted, it can be concluded that the actual effect is indirect, in other words Excessive Work Load influences on Employee Performances through Work Stress.

The Sobel test result is showing the z value of -3,748, because the value of -3,748 < -1,96 (standard limits of significance value < -1,6 > 1,96) then the sixth hypothesis is accepted. This means that the Work Stress mediates the influence of Excessive Work Load on Employee Performance.

7. H7: Work Environment influences Employee Performance Mediated by Work Stress.

Path analysis result is obtained the regression coefficient of the Work Environment of 0,028 the regression coefficient of the indirect effect that is $-0,552 \times -0,567 = 0,312$. Because the indirect coefficient is bigger than direct coefficient, H_0 is accepted or H_a rejected, so it can be concluded that the actual effect is indirect with other Work Environment is influenced on Employee Performance through Work Stress.

Sobel test result is showing that the z value is 2,867, because the value of -2,867 > 1,96 (standard limits of significance value < -1,96 – > 1,96), the seventh hypothesis is accepted. This means that Work Stress significantly mediates the effect of Excessive Work Load on Employee Performance.

The result of the sobel test shows that the z value is 2.867, because the value of -2.867 > 1.96 (the standard limit of significance value < -1.96 > 1.96), the seventh hypothesis is accepted. This means that Work Stress significantly mediates the effect of the work environment on Employee Performance.

V. DISSCUSSION AND SUGGESTION

A. Discussion

From the results above, Excessive Work Load and Work Environment have a direct influence and an indirect effect on Employee Performance through the mediation of Work Stress variables. Based on those results, it can see that Work Stress arises due to Excessive Work Load that is too heavy, bad Work Environment, which is the cause of decreased performance. The existence of effective workload companies can find out the extent to which employees can be given a maximum workload and the extent of their influence. If the workload is excessive, it will cause stress symptoms such as delaying doing work, avoiding, and even being absent from the job¹. Work that feels very difficult, lack of time to finish the work, become another source of work stress (Mangkunegara)². The amount of work that given and the lack of time to complete it are 2 factors that often cause work stress (Bradley & Cartwright)³. When the amount of work does not match to the abilities and expertise by an employee have both physical or nonphysical, and less time to complete, this condition will cause stress prolonged work stress (Haryanti & Purwaningsih)⁴.

In this study, an insignificant value appeared which is the Work Load did not have significant negative effect on the performance. The results indicate that workload must go through work stress to be able to affect the performance. This result is relevant to the result of (Khuong & Yen)⁵ where the significant influence between **Excessive Work Load**, Career Development, And Work Environment with mediating variables (Work Stress) on Employee Performance, while without going through mediating variable of work stress, excessive work stress is negative effect but not significant effect on employee performance. This result is also relevant to the research conducted by (Slišković & Maslić Seršić)⁶ on teachers employed at the University of Croatia, where the result is showing that if the excessive workload is directly affecting the performance then the result are negative but not significant, and significant if through mediation work stress variables. The pressure in organizations due to weaknesses in institutions causes the biggest amount of moral responsibility that triggers the occurrence of Work Stress⁷ emphasizes the role of work stress between influences of workload on performance. Without stress or high *pressure*, the workload can cause work stress on low to moderate scale until which will have a positive impact and improve work.

¹ Widyasari, J.K. (2010). *Hubungan antara kelelahan kerja dengan stres kerja pada perawat di rumah sakit islam yarsis Surakarta*. Universitas Negeri Sebelas Maret Surakarta.

² Mangkunegara, A. (2008). *Manajemen Sumber Daya Manusia*. Bandung: Remaja Rosdakarya.

³ Bradley, J.R., Cartwright, S. (2002). Social support, job stress, health, and job satisfaction among nurses in the United Kingdom. *International Journal of Stress Management*.

⁴ Haryanti, F.A., Purwaningsih, P. (2013). *Hubungan antara beban kerja dengan stres kerja perawat di Instalasi Gawat Darurat RSUD Kabupaten Semarang*. Mei.

⁵ Khuong, M.N., Yen, V.H. (2016). Investigate the Effects of Job Stress on Employee Job Performance – A Case Study at Dong Xuyen Industrial Zone, Vietnam. *International Journal of Trade, Economics and Finance*.

⁶ Slišković, A., Maslić Seršić, D. (2011). Work stress among university teachers: Gender and position differences. *Arhiv za Higijenu Rada i Toksikologiju*.

⁷ Schultz, Duane P., Schultz, S.E. (2006). *Psychology Work Today*. New Jersey: Pearson Education, Inc.

B. Suggestion

Need to be advised to PT. PLN Central Java APD & DIY Semarang to better understand the employee capacity to bear the work by providing the right amount of work to each employee adjusted for working time for work demands or responsibilities outside of work, thus excessive workload will be reduced then the employee will focus on the amount of right work and produces the good performance. In addition, it is recommended to PT. PLN Central Java APD & DIY Semarang increases the Work Environment indicators that are still not high, which is by improving the work room temperature that can make it comfortable and relaxed while working (air Temperature) by making air circulation spaces room, using higher quality air conditioners and reducing the work properties that emit heat or use environmentally friendly technology. Therefore, the Work Stress is decrease and the Employee Performance of PT. PLN Central Java APD & DIY Semarang will increase even more.

The suggestions to the next researchers are interested in conducting research with the same theme are suggested to add research variables, such as work motivation, compensation, organizational commitment, work discipline, and others that can affect on work stress and employee performance.

VI. CONCLUSION

This research is intended to see the effect of excessive work influence and work environment on employee performance that mediated by work stress on PT. PLN Central Java Distribution Arrangement (APD) & DIY Semarang. The results showed the significant effect between all variables, except Work Load variables influence that did not have a significant negative effect on Employee Performance and required work stress mediation variables. This research can be a valuable illustration for the company in identifying the causes of declining performance, for next can be arranged a good strategy to employee performance and then formulate a good strategy so that employee performance increases.

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