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The influence of work stress and compensation on employee productivity in navigation district type a class II Tanjung Emas Port Semarang

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Article Info

Abstract

Companies must manage human resources influenceively so that employee productivity is optimal. Navigation District Type A Class II Tanjung Emas Port Semarang has a fairly high demand for navigation services so it is required to work by paying attention to time influenceiveness. Employee compensation is given in accordance with the applicable head office policy. The purpose of this research is to determine the influence of partial or simultaneous work stress and compensation on employee productivity of Navigation District Type A Class II Tanjung Emas Port Semarang. The study was conducted using a quantitative method on the population of all employees of the Navigation District Type A Class II Tanjung Emas Port Semarang with a selected sample of 100 people. The instrument used was a questionnaire for IBM SPSS 25 data collection to analyze the data. The results showed that work stress had a positive and significant influence on employee productivity ($\beta_1 = 0.314$; sig. = 0.006), while compensation had a negative and insignificant influence on employee productivity ($\beta_2 = -0.111$; sig. = 0.167). Simultaneously, work stress and compensation have a significant simultaneous influence on employee productivity (sig. = 0.019) with a large contribution7,8 ($R^2 = 0,078$).

Keywords: Work Stress, Compensation, Employee Productivity

Introduction

In the face of fierce competition in the business sector, companies are competent to increase the outputs produced, both in quality and quantity. The company's output is the result of the process of the company's system which is none other than the work of the company's employees. Employees as human resources in the company function as the driving force of the company's system to produce or produce goods/services. The success of a company can be seen from how an employee is able to increase employee productivity in a company which will support its competitiveness (Djalupi, Makkasau and Bachri, 2023) [4].

Produktivitas merujuk pada kemampuan mencapai hasil by utilizing available resources and infrastructure quickly (Siagian, 2014) [12]. In other words, productivity is a person's ability to work influenceively with the aim of increasing output (Puspitaningrum and Sudarsi, 2024) [10]. The company must be able to manage its assets influenceively including human resources or employees who are the most valuable assets to the organization rather than its physical assets alone (Masniadi and Rizqi, 2022) [8]. Productivity refers to expertise, increased mobility, enthusiasm for work, personal growth, excellence and employee productivity (Sutrisno, 2020) [13].

Work stress can have a negative influence on a person's psychology and biology (Heruwanto *et al.*, 2020) [6]. Emotional instability, feelings of discomfort, loneliness, drowsiness, excessive smoking, difficulty relaxing, anxiety, tension, nervousness, blood pressure, elevation, and indigestion are some of the symptoms that can be found in people who are stressed by their work

(Masniadi and Rizqi, 2022) [8]. This can hinder a person from working, which allows his productivity to decrease. Work stress is the sensation of being under pressure by one's workplace in relation to one's work (Davidson, 2011) [3]. Work-related stress can lead to dissatisfaction at work (Heruwanto *et al.*, 2020) [6]. Employees who have a burden of problems and interfere with the company's performance, the boss can take action so as not to affect the company's goals (Aturrizki, Martini and Puspitadewi, 2022) [1]. Ongoing work stress can cause employees to experience excessive frustration, and can trigger resignation (Darmaputra, 2016) [2]. Work stress consists of pressure and influence from colleagues, superiors and customers; mismatch between the needs and resources available in the job; synchronized in work; work that involves risk, boredom, boredom or routine; the load level exceeds normal; and internal factors (Igor, 2016) [7]. Job demands can cause stress for employees, especially if compensation is not considered comparable.

Compensation refers to any type of remuneration provided by the company to workers in exchange for the performance of responsibilities or contributions given to the company (Djalupi, Makkasau and Bachri, 2023) [4]. This can be interpreted as a form of appreciation for employees' contributions to the company they work for. If employees feel appreciated, it will increase employee work productivity. In addition, through compensation, employees are able to meet their basic needs, which is the main reason employees work (Mundakir and Zainuri, 2018) [9]. This will create a mutually beneficial relationship between the company and its employees which is certainly a good thing for both. Employees and companies recognize reciprocal relationships in the workplace and use compensation to boost morale so that productivity can increase (Masniadi and Rizqi, 2022) [8]. Compensation includes salary, wages, incentives, office facilities and allowances (Hasibuan, 2016) [5].

The Navigation Department is a Government Institution under the auspices of the Ministry of Transportation of the Republic of Indonesia which is engaged in shipping navigation. It has the task of carrying out management functions for shipping navigation aids, shipping telecommunications, as well as marine observation activities, hydrographic surveys, channel and crossing monitoring using installation facilities for the sake of shipping safety. The Navigation District Type A Class II Tanjung Emas Port Semarang oversees 1 main port (Tanjung Emas Port Semarang), 4 collection ports, and 6 regional collection ports. It is known that this navigation district office receives requests for navigation services with an average of up to 25 ship visits per day. This level of demand is high enough that employees are required to be able to work optimally, especially in utilizing time. Time influenceiveness is very important in the field of shipping work so that all entities in it are required to have high productivity, including the Navigation District Type A Class II Tanjung Emas Port Semarang. The demands of work are risky to cause stress for employees, but employees are certainly given the right to compensation for their contributions to related agencies. Therefore, in this study, the relationship between work stress and compensation will be examined employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang.

Methods
The research was conducted in the Type A Class II Navigation District of Tanjung Mas Port Semarang, Central Java, Indonesia in February – May 2024. This research is a causal associative research with a quantitative approach. The population of this study is all employees of Navigation District Type A Class II Tanjung Emas Port Semarang as many as 132 people and a sample of 100 people was taken using a simple random sampling technique. The instruments used were questionnaires and IBM SPSS applications. The independent variables of this study are work stress and compensation while the dependent variable is employee productivity. The data analysis techniques used are descriptive analysis and multiple linear regression analysis.

Results
Respondent Charateristic
This analysis was carried out on 100 employees of Navigation District Type A Class II Tanjung Emas Port Semarang to find out the characteristics of the research respondents including: gender, age, last education, and length of work. The results of the analysis (table 1) showed the dominant characteristics of the research respondents according to their respective categories, including: male gender (74%), age group 26-30 years (40%), last education Diploma (47%), and length of work 1-2 years (47%).

Table 1: Descriptive Analysis Result of Respondent Characteristics

Characteristics	Frequency	Percentage
Gender		
Male	74	74
Female	26	26
Total	100	100%
Age		
26-30 years old	40	40
31-35 years old	25	25
35-40 years old	23	23
>40 years old	12	12
Total	100	100%
Last Education		
SMA	35	35
Diploma	47	47
S1	18	18
Total	100	100%
Length of Work		
< 1 years	8	8

1-2 years	47	47
> 2 years	45	45
Total	100	100%

Variable Category Description

The variable category describes the respondents' responses to the research variables which are categorized into high, medium, and low. The results of the categorization (table 4) show that mostly: the work stress of the respondents is moderate (64%); Respondents' compensation was moderate (66%) and employee productivity was moderate (57%).

Table 2: Descriptive Analysis Results of Variable Data Distribution

Variable	Min	Max	Mean	SD
Work Stress	3,17	4,33	3,7833	0,26004
Compensation	3,00	4,50	3,7350	0,36380
Employee Productivity	3,00	4,40	3,7060	0,28491

Table 3: Variable Categorization

Category	Interval Score	Frequent	Percentage
Work Stress			
High	X > 4,04334	15	15%
Medium	4,04334 > X > 3,52326	64	64%
Low	X < 3,52326	21	21%
Total		100	100%
Compensation			
High	X > 4.0988	17	17%
Medium	4.0988 > X > 3,3712	66	66%
Low	X < 3,3712	17	17%
Total		100	100%
Employee Productivity			
High	X > 3,99091	22	22%
Medium	3,99091 > X > 3,42109	57	57%
Low	X < 3,42109	21	21%
Total		100	100%

Analysis Prerequisite Test

1. Normality Test

Normality test used the Kolmogorov-Smirnov test. The results of the data normality test (table 5) show that the significance value is 0.085 which is greater than 0.05 so that the data is normally distributed.

Table 4: Normality Test Result

Variable	Asymp. Sig (2-tailed)	Keterangan
Residual variable produktivitas kerja, work stress, compensation	0,085	Normal

2. Linearity Test

Linearity test was carried out on a variable independent of the dependent variable. The results of the statistical test (table 6) show that the significance of each independent variable is greater than 0.05. So it can be concluded that all variables are linear independent with dependent variables.

Table 5: Linearity Test Result

Variable	Significant	Keterangan
Work Stress	0,150	Linier
Compensation	0,163	Linier

3. Multicollinearity Test

Multicollinearity test was carried out between independent variables in the study. The results of the static test (table 7) showed a tolerance value of > 0.1 and a VIF value of < 10. Therefore, it can be concluded that there is no multicollinearity between dependent variables.

Table 6: Multicollinearity Test

Variable	Tolerance	VIF
Work Stress	0,913	1,095
Compensation	0,913	1,095

4. Heteroscedastisity Test

The heteroscedasticity test was carried out using the Gleiser test. The results of the statistical test (table 8) show that the significance level is > 0.05 so it can be concluded that there is no variance difference from the residual of one observation to another observation in the regression model.

Table 7: Heteroscedastisity Test Result

Variable	Significant
Work Stress	,767
Compensation	,329

Hypothesis Test

The hypothesis proposed in this study is:

Hypothesis I: Work stress has positive and significant influence on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang

Hypothesis II: Compensation has positive and significant influence on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang

Hypothesis III: Work stress and compensation has a significant influence on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang

The results of the regression analysis test (table 8) showed the value of the regression coefficient (β) of each variable independent of the dependent variable so that a regression equation was obtained:

$$Y = 2{,}933 + 0{,}314\ X1 - 0{,}111\ X2$$

The work stress regression coefficient (X1) shows a positive number (β = 0.0.314) with a significance value of $0.006 < 0.05$ which means that H1 is accepted. The compensation regression coefficient (X2) shows a negative number (β = -0.111) with a significance value of $0.167 < 0.05$ which means that H2 is rejected. In the results of the regression analysis (table 8), the results of the F test were also obtained which showed a significance value of $0.019 < 0.05$ so that H3 was accepted with a determinant coefficient (R^2) of 0.078.

Table 8: Multiple Linear Regression Analysis Result

Variable	β	t	Sig.
Constant	2.933		
Work Stress	,314	2,812	,006
Compensation	-,111	-1,393	,167
F	4,128		,019
R²	,078		

Discussions

A. *Work stress influence on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang*

Based on the results of the study, it is known that hypothesis I is acceptable so that it can be concluded that work stress has a positive and significant influence on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang. This means that if work stress increases, employee productivity will also increase. An increased level of work stress will increase focus and a conducive atmosphere at work so that employees naturally work more influenceively and efficiently. In addition, in terms of salary and benefits, employees already feel sufficient and proportional to the demands of the job so that there is no significant dissatisfaction. This is supported by the research of Mahaputra and Ardana (2020) and Aturrizki, *et al* (2022) [1] that work stress has a positive and significant influence on employee productivity.

B. *Compensation influence on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang*

Based on the results of the study, it is known that hypothesis II can be rejected so that it can be concluded that compensation has no negative and insignificant influence on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang. Negative influence means that the relationship is inversely proportional but not significant. This shows the integrity and credibility of the Navigation District Type A Class II Tanjung Emas Port Semarang as an honest and transparent government agency. Compensation is provided in the form of routine allowances given every month along with basic salary in accordance with applicable regulations. This is similar to the results of the study (Rianda and Winarno, 2022) [11] dan (Mundakir and Zainuri, 2018) [9] that compensation does not have a significant influence on employee productivity.

C. *Work stress and Compensation influence on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang*

Based on the results of the study, it is known that hypothesis III is acceptable, so it is concluded that work stress and compensation simultaneously have a significant influence on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang. This simultaneous influence contributed by 7.8% ($R^2 = 0.078$). This is similar to research (Yolanda, 2019) [14] that work stress and compensation have a simultaneous influence on employee productivity.

Conclusion

Work stress and job training with productivity Navigation District Type A Class II Tanjung Emas Port Semarang can be concluded:

1. Work stress has a positive (β = 0.314) and significant (sig. $0.006 < 0.05$) influence on employee productivity so that H1 is accepted. So, work stress has a positive and significant influence on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang.

2. Compensation has a negative (β = -0.111) and insignificant (sig. $0.167 > 0.05$) influence on employee productivity so H2 is rejected. Therefore, work stress has no positive and insignificant influence on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang.

3. 3. Work stress and compensation simultaneously have a significant $0.019 < 0.05$ so that H3 is accepted. So, work stress and job training have a significant influence simultaneously on employee productivity in Navigation District Type A Class II Tanjung Emas Port Semarang. The magnitude of the influence of the two simultaneously is 7,8% ($R^2 = 0{,}078$).

4. From the results of the research, the Navigation District Type A Class II Tanjung Emas Port Semarang has good productivity, including factors that affect it, namely work stress. The compensation factor has no influence on describing integrity and credibility as a government agency. Navigation District Type A Class II Tanjung Emas Port Semarang can maintain values and principles it adheres to.

5. The limitations of this study are the factors that affect work productivity which are limited to work stress and compensation. Researchers can then use this study as a reference and continue the research to analyze other factors that contribute to employee productivity such as workload, work environment and work motivation.

References
1. Aturrizki L, Martini NNP, Puspitadewi I. Pengaruh Work Stress Dan Beban Kerja Terhadap Employee Productivity Counter Handphone Oppo Di Kabupaten Situbundo, Intelektiva. 2022;3(5):73-86.
2. Darmaputra HA. Analisis Pengaruh Lingkungan Kerja dan Work stress terhadap Employee productivity (Studi Pada BPJS Kesehatan KC Malang)', Jurnal Ilmiah Mahasiswa FEB. 2016;5(2):1-17.
3. Davidson B. Bagaimana Mengukur Manajemen Sumber Daya Manusia? Jakarta: Kencana Prenada Media Group; c2011.
4. Djalupi FN, Makkasau S, Bachri S. Pengaruh Gaya Kepemimpinan, Compensation dan Work stress terhadap Employee productivity PT. PLN UP3 Palopo', Management Studies and Entrepreneurship Journal. 2023;4(3):2886-2891.
5. Hasibuan MSP. Manajemen Sumber Daya Manusia. Jakarta: Bumi Aksara; c2016.
6. Heruwanto J. *et al.* Pengaruh Lingkungan Kerja dan Work stress terhadap Employee productivity pada PT. Nusamulti Centralestari Tangerang, Jurnal Manajemen Kewirausahaan. 2020;17(01):69-78.
7. Igor S. Manajemen Tenaga Kerja Indonesia Pendekatan Administratif dan Operasional. Jakarta: Bumi Aksara; c2016.
8. Masniadi R, Rizqi RM. Pengaruh Work stress, Biaya Kerja, Compensation dan Disiplin Kerja pada Employee productivity', Jurnal EK&BI. 2022;5(2):410-418.
9. Mundakir, Zainuri. Pengaruh Compensation dan Motivasi terhadap Kinerja Pegawai Negeri Sipil dengan Kepuasan Kerja sebagai Variabel Intervening', Business Management Analysis Journal (BMAJ). 2018;1(1):37-48.
10. Puspitaningrum Y, Sudarsi S. Pengaruh Pelatihan Kerja, Lingkungan Kerja Dan Work stress Terhadap Produktivitas Kerja Karyawan: Studi Kasus Pada CV Airin Graha Persada', Management Studies and Entrepreneurship Journal. 2024;5(2):3221-3230.
11. Rianda S, Winarno A. Pengaruh Compensation dan Lingkungan Kerja Fisik terhadap kinerja Pegawai pada PT. Rajasaland Bandung', Jurnal Manajemen Sumber Daya Manusia, Administrasi dan Pelayanan Publik. 2022;9(2):192-103.
12. Siagian SP. Manajemen Sumber Daya Manusia. Jakarta: Bumi Aksara; c2014.
13. Sutrisno E. Manajemen Sumber Daya Manusia. Jakarta: Pranada Media; c2020.
14. Yolanda H. Pengaruh Work stress dan Compensation terhadap Employee productivity PT. Pinago Utama Palembang. UIN Raden Fatah; c2019.