

# THE EFFECT OF WORK LIFE BALANCE ON WORK STRESS AND EMPLOYEE PRODUCTIVITY IN PT KAI DAOP 8

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**Abstract.** This study examines the effect of work-life balance on job stress and employee productivity at PT KAI Daop 8 Surabaya. The digital transformation era demands employees to adapt, potentially increasing stress and affecting performance. A proper balance between work and personal life is believed to reduce stress and improve productivity. The research is causal in nature and uses a quantitative approach, with a population of 2,372 organic office employees. The sampling technique used was purposive sampling with a total of 39 respondents from four work units: passenger transport, freight, finance, and KnA (Non-Asset Commercialization Unit). Data were analyzed using simple linear regression with SPSS version 26. The findings reveal that work-life balance does not have a significant effect on job stress but has a significant positive effect on work productivity. This indicates that while balancing work and personal life may not substantially reduce stress levels, it can still enhance employee productivity. The study concludes that implementing a good work-life balance program can be a strategic effort to improve employee performance and efficiency.

**Keywords:** work life balance, work stress, employee productivity.

## Introduction

The rapid acceleration of digital transformation across industries has compelled companies to adapt their business models and human resource strategies. This shift demands not only technological advancement but also a significant upgrade in employee competencies. As a result, employees are increasingly exposed to high workloads, tight deadlines, and constant performance demands, which can lead to psychological pressure and work stress.

According to Satriansyah (2019), work stress is a condition in which a person feels pressured due to heavy tasks, demands, or responsibilities that do not match their abilities. It may arise when high expectations or goals are placed on someone who is uncertain about their ability to meet them. People react to stress differently depending on how they perceive the situation. Work stress can also be understood as a physiological and psychological response that occurs when employees face situations they perceive as overwhelming. Several indicators that measure the level of stress experienced by individuals including physiological symptoms, psychological symptoms, and behavioral symptoms. According to Khalil et al. (2020), stress is influenced by several factors, including the work environment, role conflict, workload, and work-life balance.

In facing the digitalization era, every employee is also required to continuously develop their skills in accuracy, time productivity, work quality, and individual capability in order to support the effective implementation of technology in the workplace. This is also essential for enhancing company productivity and serves as a benchmark for achieving organizational goals and targets (F. N. Hidayat

et al., 2017). Work productivity refers to the amount of output produced using a given amount of input without wasting time, energy, or resources. It reflects the ability to optimize the ratio between input and output, making it an important indicator for assessing economic or organizational performance. Several indicators are used to measure work productivity, including ability, work output, work spirit, self-development, work efficiency (Yahya & Laura, 2021). According to Al Balushi et al. (2022), productivity factors can be categorized into three main aspects, there are remote working, work-life balance, and organizational commitment. If employees are unable to adapt to rapid changes and organizational demands, their productivity may decline, which can negatively impact the company.

Work-life balance (WLB) has emerged as a strategic approach to mitigating such stress. WLB refers to an individual's ability to effectively manage professional responsibilities and personal life commitments. Studies have shown that a well-maintained work-life balance can reduce work stress and increase productivity (Nugraha, 2024). In addition to its effect on stress, work-life balance has also been linked to employee productivity. A balanced lifestyle allows employees to recover mentally and physically, which can enhance focus, efficiency, and job satisfaction (Obinwanne & Kpaji, 2022).

Retnowati and Darma (2024) tells that work-life balance can have a direct impact on stress. When individuals are able to manage their time and energy between work and personal life in a balanced manner, the psychological pressure they experience in the workplace tends to decrease. This reduction in stress is particularly important for women with dual roles, as studied in the Regional Secretariat of Badung Regency. These individuals face demands from both professional and domestic spheres, which, if not properly managed, can lead to role conflict and increased stress levels. A good work-life balance helps to reduce this conflict. Gunarti and Lestari (2025) also tells that work-life balance can directly influence employee productivity. Employees who have sufficient time to rest, spend time with family, or engage in personal activities tend to be more physically and mentally refreshed at work, which in turn enhances their concentration and work efficiency.

This research was conducted at PT Kereta Api Indonesia (PT KAI) Daop 8 Surabaya, a prominent state-owned transportation company in Indonesia. In this company, particularly in the Non-Asset Commercialization Unit (KnA), several employees have reported work-related stress and suboptimal productivity outcomes. Some employees experience stress due to high job demands and family separation, especially for those assigned from outside the region.

Preliminary observations and interviews indicate varying perceptions of work stress and productivity among employees. In certain divisions, such as passenger and freight transport, productivity exceeded targets, while in the non-asset commercialization unit, revenue underperformed, suggesting a potential link between WLB and employee output.

Given the inconsistencies in previous findings and the internal observations at PT KAI Daop 8 Surabaya, this study aims to investigate the influence of work-life balance on work stress and employee productivity. By examining these relationships, the study contributes to the understanding of how WLB can be a valuable management strategy to enhance organizational performance in the context of digital transformation.

## Methods

This study employed a quantitative research approach with a causal design, aimed at investigating the effect of work-life balance on job stress and employee productivity. The population consisted of 2,372 organic office employees of PT Kereta Api Indonesia (Persero) Daop 8 Surabaya. The sampling technique used was purposive sampling, targeting employees from four specific work units: passenger transportation, freight transportation, finance, and the Non-Asset Commercialization Unit (KnA). A total of 39 respondents participated in the study.

The data were processed and analyzed using SPSS version 26. The analysis steps included:

1. Validity Test using Pearson Product Moment to ensure the items accurately measure each construct.
2. Reliability Test using Cronbach's Alpha to assess internal consistency.
3. Classical Linear Regression Assumptions:
  - a. Normality Test using the Kolmogorov-Smirnov method to confirm the data distribution.
  - b. Linearity Test to ensure a linear relationship between independent and dependent variables.
  - c. Heteroscedasticity Test to detect the presence of unequal variance in the residuals.
  - d. Bootstrapping to test the significance of the relationship between variables in a research model.
4. Simple Linear Regression Analysis to test:
  - a. The effect of Work-Life Balance on Job Stress
  - b. The effect of Work-Life Balance on Work Productivity
5. T-test to examine the partial effect of the independent variable on the dependent variable.
6. Coefficient of Determination to measure the extent to which a model can explain or predict changes in the dependent variable based on the independent variable(s).

## Result and Discussion

### Result of Validity Test

The questionnaire can be considered valid if the validity test shows that the calculated r-value (r count) is greater than the r-table value (Ghozali, 2018). The r count can be observed in the Pearson Correlation column of the SPSS output, with the r table determined based on the degree of freedom (df) =  $n - 2$ , which in this case is  $df = 39 - 2 = 37$ , resulting in an r table value of 0.316.

#### 1. Variable X

Table 1

Question Item	R Table Value	R Count Value	Desc.
X.1.1	0,316	0,704	Valid
X.1.2	0,316	0,65	Valid
X.1.3	0,316	0,736	Valid
X.2.1	0,316	0,802	Valid
X.2.2	0,316	0,869	Valid
X.2.3	0,316	0,798	Valid
X.3.1	0,316	0,705	Valid
X.3.2	0,316	0,644	Valid
X.3.3	0,316	0,682	Valid

Table 1 shows that the Pearson correlation values for the questionnaire items of variable X distributed to the respondents have calculated r values greater than the r table value, indicating that all items are valid.

#### 2. Variable Y1

Table 2

Question Item	R Table	R Count	Desc.
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Y1.1.1	0,316	0,774	Valid
Y1.1.2	0,316	0,867	Valid
Y1.1.3	0,316	0,787	Valid
Y1.2.1	0,316	0,708	Valid
Y1.2.2	0,316	0,745	Valid
Y1.2.3	0,316	0,753	Valid
Y1.3.1	0,316	0,846	Valid
Y1.3.2	0,316	0,825	Valid
Y1.3.3	0,316	0,789	Valid

Table 2 shows that the Pearson correlation values for the questionnaire items of variable Y1 distributed to the respondents have calculated r values greater than the r table value, indicating that all items are valid.

### 3. Variable Y2

Table 3

Question Item	R Table	R Count	Desc.
Y2.1.1	0,316	0,705	Valid
Y2.1.2	0,316	0,719	Valid
Y2.2.1	0,316	0,861	Valid
Y2.2.2	0,316	0,826	Valid
Y2.3.1	0,316	0,451	Valid
Y2.3.2	0,316	0,857	Valid
Y2.4.1	0,316	0,485	Valid
Y2.4.2	0,316	0,374	Valid
Y2.5.1	0,316	0,779	Valid
Y2.5.2	0,316	0,86	Valid

Table 3 shows that the Pearson correlation values for the questionnaire items of variable Y2 distributed to the respondents have calculated r values greater than the r table value, indicating that all items are valid.

### Hasil Uji Reliabilitas

Table 4

Variable	Minimum Value	Cronbach's Alpha	Desc.
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X	0,7	0,89	Reliable
Y1	0,7	0,923	Reliable
Y2	0,7	0,875	Reliable

Table 4 shows that the Cronbach's alpha values for all variables are greater than 0.7, indicating that all variables are considered reliable.

## Results of Classical Assumption Tests

### 1. Normality Test

According to Ghozali (2018), the purpose of conducting a normality test is to determine whether a regression model has a normal distribution. A regression model is considered suitable for statistical testing if it follows a normal distribution.

The normality test is performed using the Shapiro-Wilk method, as it is more appropriate for samples smaller than 50. The regression model is considered to have a normal distribution if the significance value exceeds 5% or 0.05.

Table 5

Variabel	Statistic	Responden	Sig.
Y1	0,817	39	0,000
Y2	0,962	39	0,212

Table 5 shows that the significance value of Y1 in the Shapiro-Wilk test is 0.000, which is less than 0.05, indicating that the data is not normally distributed.

Since the data is not normally distributed, the researcher used the Bootstrapping method to produce a more accurate confidence interval.

The Bootstrapping method provides more accurate and valid estimates of coefficients and significance tests or statistical distributions without requiring the assumption of data normality.

Table 5 also shows that the significance value of Y2 in the Shapiro-Wilk test is 0.212, which is greater than 0.05, indicating that the data is normally distributed.

### 2. Linearity Test

#### a. Variable X to Y1

Table 6

		Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)	232,66	14	16,619	0,573	0,860
	Linearity	17,434	1	17,434	0,601	0,446
	Deviation from Linearity	215,226	13	16,556	0,571	<b>0,853</b>
Within Groups		696,417	24	29,017		
Total		929,077	38			

In Table 6, the Deviation from Linearity column shows a significance value (Sig.) of 0.853. Since the p-value is greater than 0.05, there is no significant deviation from linearity. This indicates that the relationship between variable X and Y1 can be considered linear.

#### b. Variable X to Y2

Table 7

		Sum of Squares	df	Mean Square	F	Sig.
Between Groups	(Combined)	500,344	14	35,739	6,528	0,000
	Linearity	352,758	1	352,758	64,431	0,000
	Deviation from Linearity	147,585	13	11,353	2,074	<b>0,059</b>
Within Groups		131,4	24	5,475		
Total		631,744	38			

In Table 7, the Deviation from Linearity column shows a significance value (Sig.) of 0.059. Since the p-value is greater than 0.05, there is no significant deviation from linearity. This indicates that the relationship between variable X and Y2 can be considered linear.

### 3. Heteroscedasticity Test

The heteroscedasticity test is used to determine whether the residuals have constant variance (homoscedasticity) or not (heteroscedasticity). If the points are randomly scattered without a specific pattern, the residuals have constant variance. However, if the points form a certain pattern – such as a funnel shape or a curve – this indicates the presence of heteroscedasticity.

#### a. Variable X to Y1

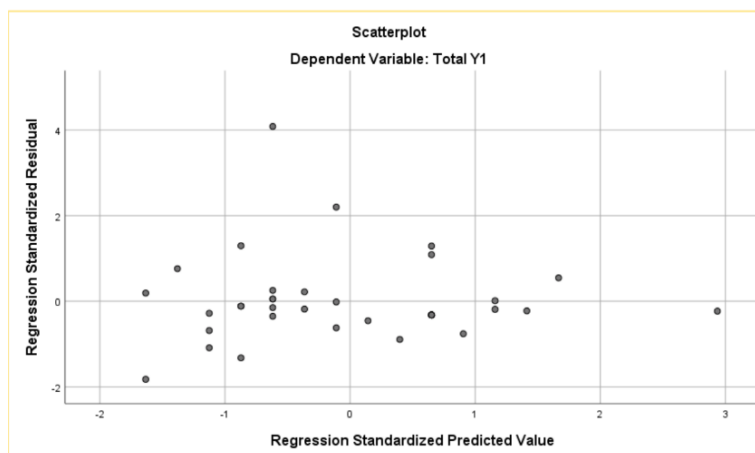


Figure 1

In Figure 1, most of the points are randomly scattered around the zero line, and there is no visible funnel pattern (no narrowing or widening) or clear curvilinear pattern. Although there

are a few outliers (e.g., one point above 4 on the Y-axis), they are not sufficient to indicate heteroscedasticity. Therefore, based on this plot, the assumption of homoscedasticity is considered to be met.

#### b. Variable X to Y2

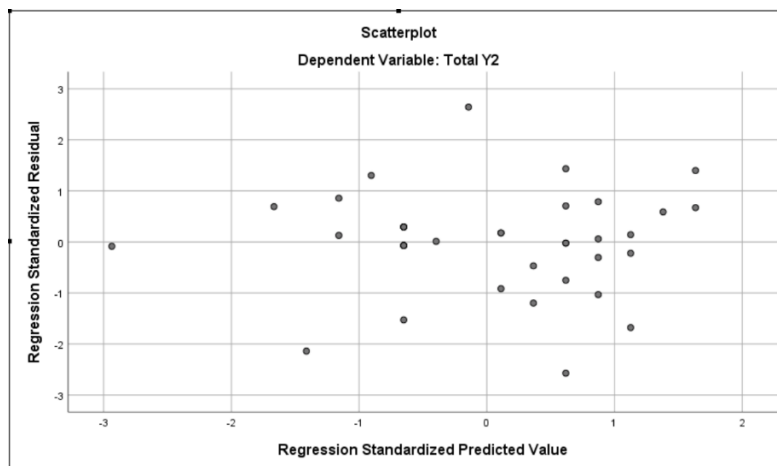


Figure 2

In Figure 2, the points appear to be randomly scattered around the horizontal line at 0 without any clear pattern, and there is no funnel or curved pattern. The residual variation also appears to be constant across the range of predicted values. Therefore, it can be concluded that there is no indication of heteroscedasticity.

### Results of Descriptive Statistical Analysis

This study applies descriptive statistics using the mean (average). The mean value of the respondents' answers obtained from the distributed questionnaires is represented by this statistic. The following are the category guidelines used for interpretation.

$$\text{Category Interval} = \frac{\text{Highest Value} - \text{Lowest Value}}{\text{Number of Category}} = \frac{5 - 1}{5} = 0,8$$

The class interval value of 0.8, which represents the range of each criterion, is structured as follows.

Table 8

Score	Category
1,00 – 1,80	Very Low
1,81 – 2,60	Low
2,61 – 3,40	Moderate
3,41 – 4,20	High
4,21 – 5,00	Very Low

### 1. Work-Life Balance

Table 9

Question Item	1	2	3	4	5	Item Mean	Indicator Mean	Variable Mean
Time Balance								4,29 (Very High)
X.1.1	0	1	3	20	15	4,26	4,26	
X.1.2	0	0	3	19	17	4,36		
X.1.3	0	0	4	25	10	4,15		
Involvement Balance								
X.2.1	0	0	2	21	16	4,36	4,38	
X.2.2	0	0	1	18	20	4,49		
X.2.3	0	0	4	19	16	4,31		
Satisfaction Balance								
X.3.1	0	0	4	26	9	4,13	4,22	
X.3.2	0	0	4	28	7	4,08		
X.3.3	0	0	1	20	18	4,44		

Based on the statistical results in Table 9, the mean value for the Work-Life Balance variable falls into the **very high** category, with a score of 4.29. This indicates that the majority of respondents have a very high level of Work-Life Balance. Among the three indicators that make up Work-Life Balance, Involvement Balance has the highest average score, while Satisfaction Balance has the lowest.

## 2. Work Stress

Table 10

Question Item	1	2	3	4	5	Item Mean	Indicator Mean	Indicator Mean
Psychological Symptoms							2,16	2,12 (Low)
Y1.1.1	2	26	10	1	0	2,26		
Y1.1.2	5	28	5	0	1	2,08		
Y1.1.3	4	28	5	1	1	2,15		
Behavioral Symptoms							2,15	
Y1.2.1	1	28	7	3	0	2,31		
Y1.2.2	4	27	5	3	0	2,18		
Y1.2.3	9	24	4	2	0	1,97		
Physiological Symptoms							2,07	
Y1.3.1	6	26	6	0	1	2,08		
Y1.3.2	8	26	4	1	0	1,95		
Y1.3.3	5	24	8	2	0	2,18		

It is shown in Table 10 above that the Work Stress variable falls into the low category, with a mean score of 2.12. This indicates that the level of work stress at PT KAI Daop 8 Surabaya is relatively low, and the majority of respondents do not experience high work-related pressure. Among the three indicators of work stress, the one with the highest average score is Psychological Symptoms, while the indicator with the lowest average score is Physiological Symptoms. ability, work output, work spirit, self-development, work efficiency

## 3. Work Productivity

Table 11

Question Item	1	2	3	4	5	Item Mean	Indicator Mean	Indicator Mean
Ability								
Y2.1.1	0	0	3	26	10	4,18	4,20	
Y2.1.2	0	0	3	25	11	4,21		
Work Output								
Y2.2.1	0	0	4	26	9	4,13	4,18	



Y2.2.2	0	0	5	20	14	4,23		4,12 (High)
Work Spirit								
Y2.3.1	1	4	13	20	1	3,41	3,78	
Y2.3.2	0	0	4	25	10	4,15		
Self-Development								
Y2.4.1	0	0	0	25	14	4,36	4,20	
Y2.4.2	0	0	3	32	4	4,03		
Work Efficiency								
Y2.5.1	0	0	3	24	12	4,23	4,25	
Y2.5.2	0	0	3	23	13	4,26		

In Table 11, the Work Productivity variable falls into the high category, with a mean score of 4.12, indicating that the majority of respondents feel productive in their work. The Quality and Efficiency indicator has the highest average score, while the Work Enthusiasm indicator has the lowest. Nevertheless, all three indicators are still classified in the high category.

## Result of Simple Linear Regression Analysis

### 1. Variable X to Y1

Table 12

		Bootstrap			BCa 95% Confidence Interval	
Model	B	Bias	Std. Error	Sig. (2-tailed)	Lower	Upper
(Constant)	25,785	-0,017	6,37	0,002	12,075	38,227
X	-0,172	0,000	0,175	0,343	-484	0,175

Table 12 presents the results of the simple linear regression analysis, with work-life balance as the independent variable and work stress as the dependent variable. The regression equation is as follows.

$$Y1 = a + bX + e$$

$$Y1 = 25,785 + (-0,172)X + e$$

Since the confidence interval does not include 0, the constant is significant. This means that when employees' Work-Life Balance is theoretically zero, the predicted level of work stress is 25.785. The coefficient (B) is -0.172, indicating a negative relationship between Work-Life Balance and Work Stress. If Work-Life Balance increases by 1 unit, Work Stress is predicted to decrease by 0.172 units. Therefore, it can be concluded that there is indeed a negative relationship between Work-Life Balance and Work Stress, but the relationship is not statistically significant.

### 2. Variable X to Y2

Table 13

	Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval	
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	11,35	4,383		2,589	0,014	2,469	20,231
X	0,774	0,113	0,747	6,84	0,000	0,544	1,003

Table 13 presents the results of the simple linear regression test, with work-life balance as the independent variable and productivity as the dependent variable. The regression equation is as follows.

$$Y_2 = a + bX + e$$

$$Y_2 = 11,350 + 0,774X + e$$

Since the confidence interval does not include 0, the constant is significant. This means that when employees' Work-Life Balance is theoretically zero, the predicted level of productivity is 11.350. The coefficient (B) is 0.774, indicating a positive relationship between Work-Life Balance and Work Productivity. If Work-Life Balance increases by 1 unit, Work Productivity is predicted to increase by 0.774 units, assuming other factors remain constant. In conclusion, Work-Life Balance has a positive and significant relationship with Work Productivity.

## Hypothesis Test Results

### 1. T-test

The t-test is used to assess whether variable X has a significant effect on variable Y. The decision is made by referring to the *Coefficients* table, specifically the *Sig.* (p-value) column. If the p-value is less than 0.05, then  $H_0$  is rejected, indicating that X has a significant effect on Y. However, if the p-value is equal to or greater than 0.05, then  $H_0$  is accepted, meaning that X does not have a significant effect on Y).

#### a. Variable X to Y1

Table 14

	Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval	
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	25,785	7,923		3,254	0,002	9,731	41,84
X	-0,172	0,204	-0,137	-0,841	0,406	-0,586	0,242

In Table 14, the p-value in the Total X row is 0.406, which is greater than 0.05. This indicates that Total X does not have a significant effect on Total Y1. Since the p-value is greater than 0.05, H0 is accepted and H1 is rejected.

#### **b. Variable X to Y2**

Table 15

Model	Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	11,35	4,383		2,589	0,014	2,469	20,231
X	0,774	0,113	0,747	6,84	0,000	0,544	1,003

In Table 15, the p-value in the Total X row is 0.000, which is less than 0.05. This indicates that Total X has a significant effect on Total Y2. Since the p-value is less than 0.05, H0 is rejected and H1 is accepted.

## **2. Coefficient of Determination**

The coefficient of determination aims to assess how well the independent variable X explains the variation in the dependent variable Y. The R<sup>2</sup> value ranges from 0 to 1 – the closer it is to 1, the better the model explains the data.

#### **a. Variable X to Y1**

Table 16

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,137	0,019	-0,008	4,964

Based on Table 16, the R<sup>2</sup> value is 0.019 or 1.9%, indicating that the relationship between variable X and the model explains only 1.9% of the variation in Y1. The remaining 98.1% is explained by other factors outside this model, which are likely to have a greater influence on the Y1 variable.

#### **b. Variable X to Y2**

Table 17

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,747	0,558	0,546	2,746

In Table 17, the  $R^2$  value is 0.558 or 55.8%, indicating that the relationship between variable X and the model explains 55.8% of the variation in Y2. The remaining 44.2% is explained by other factors that are not included in the model.

## Discussion

### 1. The Influence of Work-Life Balance on Work Stress among Employees of PT. KAI DAOP 8 Surabaya

Based on the results of the hypothesis testing, it was found that work-life balance has a negative but not significant effect on work stress. This is indicated by a p-value of 0.406, which is greater than 0.05, leading to the acceptance of H0 and the rejection of H1. The  $R^2$  value is also 0.019 or 1.9%, indicating that the relationship between variable X and the model explains only 1.9% of the variation in Y1. The remaining 98.1% is influenced by other factors not included in the model.

This finding is in line with the study by Hiariey et al. (2022), which stated that Work-Life Balance does not have a significant effect on work stress. Although Work-Life Balance has the potential to reduce work stress, its effect is not strong enough to be considered a primary factor in determining the level of work stress among employees at PT. JNE Express Ambon Branch. Other factors such as workload, pressure from superiors, and working environment conditions play a more dominant role in causing work stress, indicating that Work-Life Balance is not the sole determining factor.

Based on the results of the descriptive analysis, the Work-Life Balance variable has a mean score of 4.29, which falls into the very high category, indicating that the respondents have a good level of Work-Life Balance. Meanwhile, the Work Stress variable has a mean score of 2.12, which falls into the low category, suggesting that the respondents tend to experience a low level of stress in the workplace.

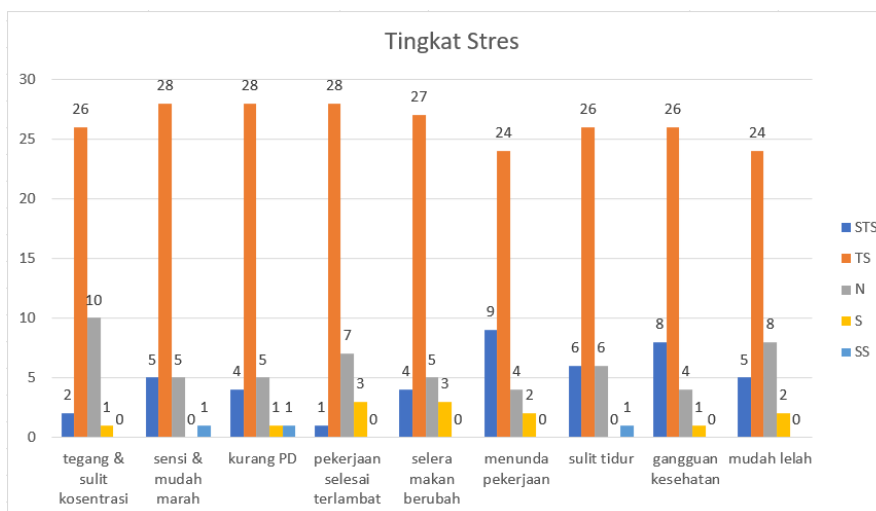


Figure 3

Based on the results of the descriptive analysis or respondents' answers shown in Figure 4.4, out of 39 participants, only 6 individuals reported experiencing symptoms of work stress. These 6 individuals consist of 2 women and 4 men, all of whom are married except for one unmarried man. Some of them are in the 25–35 age range, while the others are over 35 years old. The most frequently reported symptoms are changes in appetite and delays in completing work.

Although the descriptive analysis shows that respondents generally have a good level of Work-Life Balance, there are other factors that contribute to some employees still experiencing work stress. Based on interviews conducted with several employees, many mentioned that workload is the main factor causing stress in the workplace. There are times when the workload becomes overwhelming, targets must be met within tight deadlines, and dealing with difficult external parties forces employees to work beyond their usual capacity, which leads to increased pressure.

However, this situation is often mitigated by the presence of strong coworker relationships and employees' ability to adapt. When one employee experiences an overload of work, others are willing to step in and help, which serves as the most effective form of stress relief for them—aside from spending time and healing with their families.

From the explanation above, it can be concluded that the implementation of the work-life balance program in the company, as perceived by the employees, does not have a significant impact on reducing work stress levels. Instead, the increase in work stress is more dominantly caused by workload factors rather than an imbalance in work-life balance.

A similar finding was also observed in a study conducted on employees of PT KAI Regional Division IV Tanjungkarang, which found that a reduction in workload and a conducive work environment significantly decreased employee stress levels. In other words, the greater the workload employees have to bear, the higher the level of stress they experience (Ananda et al., 2021).

Although improving work-life balance—such as spending time with family or engaging in hobbies—can help reduce stress, the most influential factors are teamwork, strong relationships among employees, and social support in the workplace. In addition, employees' adaptive abilities in coping with challenges—especially in a company that constantly demands increased profits year after year—play a crucial role in managing stress levels.

This statement is supported by a study conducted by Setiawan & Darminto (2013), which found that social support in the workplace can “alleviate” various forms of work-related stress. With harmonious working relationships, employees are able to support one another and share the workload, so that job pressure is not felt excessively by any individual.

In addition, another study conducted at PT Sari Madu concluded that younger employees with strong adaptive abilities tend to experience lower levels of work stress and enjoy better occupational health. The findings indicate that adaptability functions as a personal resource that helps employees manage workload and cope with rapid changes in the work environment (Honkley, 2024).

## **2. The Influence of Work-Life Balance on Employee Productivity Among Employees of PT. KAI DAOP 8 Surabaya**

The test results show that work-life balance has a positive and significant effect on work productivity. This is indicated by a p-value of 0.000, which is less than 0.05, leading to the acceptance of H1 and the rejection of H0. The coefficient of determination (R Square) is 0.558 or 55.8%, indicating that the relationship between variable X and the model explains 55.8% of the variation in Y2. The remaining 44.2% is influenced by other factors outside the model.

These results are supported by studies conducted by Obinwanne & Kpaji (2022) and Gunarti & Lestari (2025), which state that there is a positive and significant relationship between Work-Life Balance and Productivity. Employees who have sufficient time to rest, spend with their families, or engage in personal activities tend to be physically and mentally refreshed when working, which enhances their concentration and work efficiency. Work-life balance promotes employee performance by creating a healthier and more motivating work environment, leading to greater job

satisfaction and enthusiasm. This, in turn, has a direct impact on organizational productivity, as employees become more focused, efficient, and motivated to achieve work goals.

This is also supported by the descriptive analysis results from the responses of employees at PT KAI DAOP 8 Surabaya. The Work-Life Balance variable falls into the **very high** category, with a mean score of 4.29, indicating that respondents have a good level of Work-Life Balance. Furthermore, the Work Productivity variable has a mean score of 4.12, which falls into the **high** category, suggesting that the respondents' productivity is also good. These findings indicate that an increase in Work-Life Balance among employees at PT KAI DAOP 8 Surabaya is positively correlated with an increase in their work productivity.

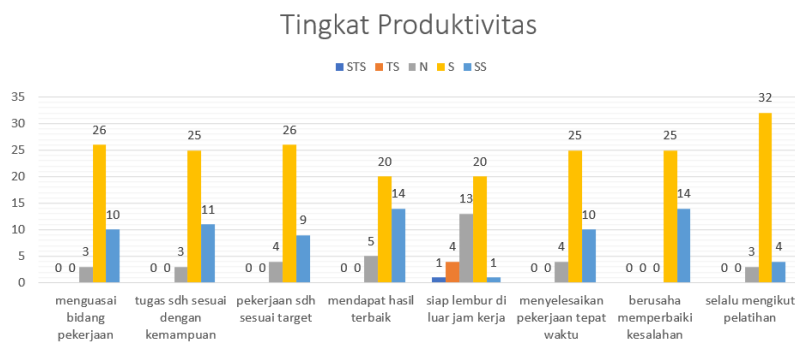


Figure 4

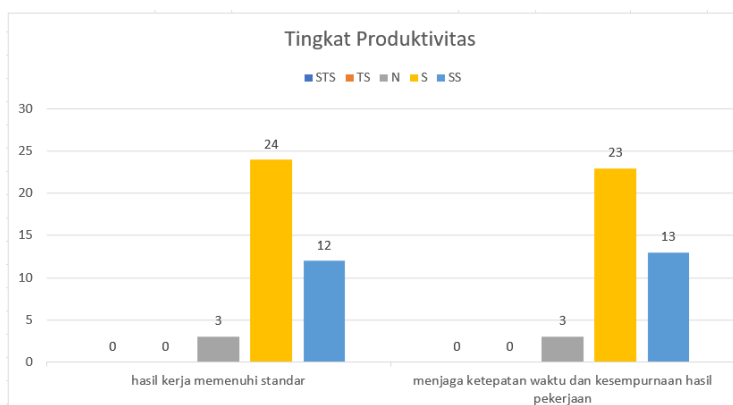


Figure 5

Based on Figures 4 and 5, the overall productivity level of employees is considered high, with an average score of 4.12. The indicators with the highest scores are Quality and Efficiency (4.25) and Self-Development (4.20), indicating that employees demonstrate strong work quality and a commitment to continuous development. However, the Work Enthusiasm indicator has the lowest score (3.78), particularly on item Y2.3.1, which requires greater attention from management.

There are four employees who disagreed and one who strongly disagreed with the statement “willing to work overtime beyond regular hours,” which may reflect certain limits in commitment outside formal working hours. Nevertheless, in general, employees display a positive commitment to task completion, self-development, and work quality.

Based on interviews conducted with several employees, they stated that when their work-life balance is well maintained, their productivity naturally increases. If relationships at home are good and the work environment is also supportive, employees no longer work at just 100% – they can reach 110% to 120% of their capacity.

## Conclusion

1. Work-life balance does not have a significant effect on work stress. This indicates that the quality of work-life balance among employees at PT KAI DAOP 8 Surabaya does not have a noticeable impact on increasing or decreasing their stress levels. Instead, work stress is more strongly influenced by workload and is managed through social support in the workplace as well as the employees' adaptive abilities.
2. Work-life balance has a positive and significant effect on work productivity. This indicates that when employees at PT KAI DAOP 8 Surabaya have a good work-life balance, their level of productivity increases accordingly.
3. This study has a limitation in that, due to the use of purposive sampling, the results cannot be fully generalized to the entire population of PT KAI Daop 8 Surabaya.

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