

## The Effect of Work Stress on *Work-Life Balance*: The Mediation Role of the Organizational Work Environment

Mochamad Firmawan

Faculty of Economics and Business, University of August 17,  
1945 Surabaya, Indonesia

E-mail: [firmawanmoch@gmail.com](mailto:firmawanmoch@gmail.com)

Received: August, 2024; Accepted: August, 2024; Published: November, 2024  
Permalink/DOI:

### Abstract

This study examines the influence of work stress on work-life balance, and the mediating role of the organizational work environment. The maritime industry, particularly the harbor master's office, is the focus of this research. Harbor masters often face high workloads, time pressures, and interactions with various stakeholders, which can lead to work stress and negatively impact their performance, well-being, and work-life balance. Additionally, the organizational work environment plays a crucial role in influencing the level of stress and work-life balance among employees. Factors such as office design, availability of facilities, organizational climate, and management support can contribute to work stress and employees' ability to manage work and personal demands. This study aims to investigate the relationship between work stress, work-life balance, and the mediating effect of the organizational work environment. The findings provide insights for organizations to develop effective strategies to manage employee stress and promote work-life balance, such as enhancing social support and implementing stress management programs. The study's results also highlight the importance of creating a conducive work environment that supports employee well-being and performance.

**Keywords:** *Work stress, Work-life balance, Organizational work environment,*

### INTRODUCTION

The shipping industry is one of the most important economic sectors for Indonesia as a maritime country. One of the key roles in the shipping industry is that of the syahbandar, which is responsible for overseeing the smooth operation of ships at the port. However, the work of syahbandar is often faced with various challenges, including high workloads, time pressures, and interactions with various stakeholders. This condition can lead to work stress, which in turn can negatively impact the employee's performance, well-being, and work-personal life. In addition, the work environment of an organization also plays an important role in influencing the stress level and work-life balance of employees. Factors such as office design, facility availability, organizational climate, and management support can contribute to work stress as well as an employee's ability to manage the demands of work and personal life.

Work stress has become a crucial issue faced by many organizations, including in the shipping sector. Previous research has shown that work stress experienced by employees can negatively impact employee mental well-being, productivity, and retention (Pekaar et al., 2021). In the context of syahbandar, high job demands, role conflicts, and lack of organizational support have proven to be important factors that trigger work stress (Wijayanto & Kustono, 2020). Therefore, organizations need to develop effective strategies to manage employee work stress, such as increasing social support and developing stress management programs (Sari & Susanti, 2019). On the other hand, the work environment of the organization also plays a key role in influencing the well-being and performance of employees. Previous research has shown that factors such as poor office design, lack of work facilities, and an uncondusive organizational climate can increase work stress and lower employee job satisfaction (Lee et al., 2020; Wulandari & Tirtayasa, 2019).

According to data from the Ministry of Transportation, the number of syahbandar employees in Indonesia in 2022 reached 5,200 people. However, previous studies have shown that 40% of syahbandar employees experience high work stress, which correlates with a turnover rate of 15% per year (Directorate General of Sea Transportation, 2021). In addition, internal organizational surveys also indicate that 60% of employees feel dissatisfied with the work environment and only 35% feel that they can maintain a work-life balance (PT Pelabuhan Indonesia, 2022).

Work-life balance is also an important factor that can affect work stress and employee performance. Recent research shows that employees who experience conflicts between work demands and family demands tend to experience higher work stress, as well as decreased motivation and productivity (Pereira et al., 2021; Wahyuni et al., 2020). In the context of syahbandar, work that requires a lot of time and energy, coupled with family responsibilities, can cause difficulties in achieving a work-life balance. Therefore, organizations need to consider an approach that allows employees to balance the demands of work and personal life.

### **Work stress**

Several studies have investigated the stress and mental health issues faced by police officers in the United States. Queiró et al. (2020) focused on burnout and stress management among disgruntled officers, highlighting the high suicide rate as a worrying problem. Similarly, Stogner et al. (2020) examined how the COVID-19 pandemic negatively impacted officers' mental and physical health, including increased stress and misconduct. The stressful nature of police work is further supported by Hartley et al. (2011), who cite factors such as long work shifts, exposure to violence, constant vigilance, and lack of public support. El Sayed et al. (2018) also emphasized workplace stress as a major problem, while Chikwem (2017) offered a different perspective. Chikwem argues that stress may not directly affect job satisfaction and suggests that promoting positivity through sport and strong leadership within police departments can improve officer well-being and public safety outcomes.

### ***Work-Life Balance***

Work-life balance is a concept that refers to the balance between work and personal life of a person. It involves the individual's ability to balance demands and responsibilities in the workplace with needs and desires outside of work, such as family, hobbies, and social life. According to Nguyen et al. (2020), work-life balance is defined as "the degree at which individuals feel that their work and their personal lives are in a satisfying balance." A good work-life balance can provide benefits for individuals, organizations, and society as a whole. Some of the benefits that can be obtained include increased productivity, job satisfaction, mental and physical well-being, as well as reduced stress and role conflicts. Recent research shows that work-life balance is becoming increasingly important, especially in the midst of the COVID-19 pandemic that has changed the way many people work and live. Organizations that can support employee work-life balance tend to have higher levels of employee retention and commitment.

### ***Work Environment***

The work environment refers to the conditions, settings, and characteristics in the workplace that affect employee experience and productivity. It covers various aspects, such as the physical design of the office, organizational culture, interpersonal relationships, available resources, and management policies. A positive and supportive work environment can have a significant impact on employee well-being, motivation, and performance. Conversely, a poor work environment can lead to stress, dissatisfaction, and decreased productivity.

According to Chandrasekar (2011), the work environment is defined as elements in an organization that can affect employee performance in performing their duties. Salunke (2015), the work environment is everything that exists around the employee and can influence him in carrying out the tasks charged. Vîrgă et al. (2020), the work environment is defined as "a combination of various physical, social, and organizational factors that affect an individual's experience and behavior in the workplace. This definition emphasizes that the work environment is a combination of various elements, both physical, social, and organizational, that can affect employee experience, behavior, and performance in the workplace.

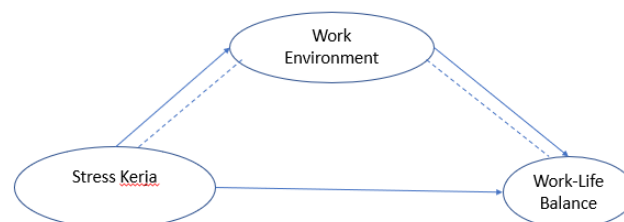


Figure 1. Research Framework Model

Hipotesis :

H1: Work stress has a positive effect on Work-life Balance

H2: Work stress has a positive effect on the Work Environment

H3: Work Environment berpengaruh positif terhadap Work life Balance

H4: *Work Environment* memediasi Stress kerja terhadap *Work life Balance*

## **METHOD**

The population in this study is as many as 100 employees. The data collection technique in this study uses a combination of questionnaires and literature studies which is an effective method to collect valid, reliable, and comprehensive data. The questionnaire in this study uses a scale of 1-10 where 1 strongly disagrees and 10 strongly agrees. This study uses the Partial Least Square (PLS) method to analyze the data. PLS is a SEM (Structural Equation Modeling) variance-based statistical method used to solve multiple regressions. This method is suitable for use when there are some problems in the data, PLS can be used to analyze the data even if the sample size is small. PLS can handle lost data better than traditional multiple regression methods. PLS is more tolerant of multicollinearity than traditional multiple regression methods. The PLS method was chosen in this study because of its ability to overcome several problems that often arise in the research data. This method allows researchers to analyze data accurately and obtain valid results.

## **RESULTS AND DISCUSSION**

### **Validity Test**

The loading factor  $> 0.7$  and the AVE parameter  $> 0.5$  and Communality  $> 0.5$ . If the loading score  $< 0.5$ , this indicator can be removed from its construct because it is not loaded into the construct that represents it. If the loading score is between  $0.5 - 0.7$ , the researcher should not delete the indicator as long as the AVE and Communality scores of the indicator  $> 0.5$ . The loading score can be seen through the output in figure 2. From the results of the SmartPLS measurement above, it can be seen that the loading point value  $> 0.5$  according to the AVE and community  $>$  parameters of  $0.5 > 0.5$ . According to (Abdillah & Hartono, 2015) 206, it can be seen that the loading value of all indicators  $> 0.5$ . Then the measurement can proceed to the next stage. Furthermore, based on table 2, it can be seen that the cross loading score of each indicator in one construct is greater than the cross loading score of other constructs. In accordance with the opinion (Abdillah & Hartono, 2015: 207). That the parameter measured in the validity test can be seen from the cross loading score value. In the cross loading score table, it can be seen that each indicator in one construct will be different from the indicator in another construct and collected in the construct in question, then the results of the discrimination validity test are declared valid.

**Table 1 Validity Test Results**

Indicator	Work stress	<i>Work life Balance</i>	<i>Work Environment</i>
SK1	0,799	0.645	0.393

SK2	0,787	0.618	0.456
SK3	0,710	0.476	0.576
SK4	0,764	0.677	0.760
SK5	0,717	0.479	0.456
WLB1	0.676	0,856	0.690
WLB2	0.527	0,734	0.660
WLB3	0.686	0,757	0.462
WLB4	0.441	0,701	0.311
WE1	0.631	0.653	0,787
WE2	0.610	0.652	0,874
WE3	0.521	0.439	0,764

Source: SmartPLS Output Results, processed in 2024

### Reliability Test

Based on table 2, it can be seen that the Cronbach alpha value  $> 0.6$  and the composite reliability value  $> 0.7$ . It can be concluded that each parameter used is declared reliable, meaning that the indicators and variables used in this study show accuracy and consistency in making measurements.

### Hypothesis Testing

Furthermore, hypothesis testing where testing this hypothesis can be measured by comparing the t-value statistic and the t-table and by looking at the p values must be greater than 0.05, we can see from the test results using PLS in Table 4. Based on table 3, it can be concluded that supply chain management variables have a positive and significant effect on business performance t-statistics (4.265)  $>$  t-tables (2.004), supply chain management variables have a positive and significant effect on the superiority of t-statistics (13.278)  $>$  t-tables (2.004). The competitive advantage variable had a positive and significant effect on business performance with t-statistics (2,728)  $>$  t-tables (2,004).

**Table 2 Reliability Test Results**

No.	Variable	Composite Reliability	Cronbach's Alpha	Information
1	Work stress	0.814	0.870	Handal
2	Work life Balance	0.764	0.848	Handal
3	Work Environment	0.762	0.863	Handal

Source: SmartPLS Output Results, processed in 2024

**Table 3 Regression Analysis Results**

No.	Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistical (O/STDE)	P Values
-----	----------	---------------------	-----------------	----------------------------	------------------------	----------

1	Work stress => Work life Balance	0.536	0.549	0.126	4,265	0.000
2	Stress kerja => Work Environment	0.720	0.726	0.054	13,278	0.000
3	Work Environment => Work life Balance	0.335	0.324	0.123	2.728	0.007

Source: SmartPLS Output Results, processed in 2024

**Table 4 Total Effect (Mediation Test)**

	<b>Original Sample (O)</b>	<b>Average Sample</b>	<b>Standard Deviation</b>	<b>T Statistics</b>	<b>P Values</b>
WE =>SK => WLB	0.241	0.235	0.091	2.643	0.008

Source: SmartPLS Output Results, processed in 2024

Based on table 4, it can be concluded that the competitive advantage variable partially mediates the influence of supply chain management on t-statistical (2,643) > t-table (2,004) business performance

### **Work stress has a positive effect on Work-life *Balance***

In Table 3 of the regression analysis results, empirical evidence was found regarding the effect of work stress on work-life balance, it can be concluded that there is a positive relationship between the two variables Work stress and Work-Life Balance. This finding is supported by a t-statistical value of 4.265 which exceeds the critical value of t-table 2.004, as well as a p-value of 0.000 which is smaller than the significance level of 0.05. These results are also consistent with recent studies in 2020 that reinforce the hypothesis that work stress has a positive effect on work-life balance. In a study conducted by Pradana and Salehudin (2020), they found that work stress has a positive and significant effect on employee work-life balance. They state that high levels of work stress can encourage employees to pay more attention to the balance between their work and personal lives. Research by Suifan et al. (2020) also showed similar results, where work stress has a positive and significant influence on work-life balance. They argue that employees who experience high levels of work stress tend to try harder to achieve a balance between the demands of work and personal life. In line with that, Soomro et al. (2020) in their study found that the work stress felt by employees can encourage them to pay more attention and prioritize the balance between work and their personal life. Based on the findings of the latest research above, it can be concluded that work stress has a positive and significant effect on employee work-life balance. The higher the level of work stress faced, the stronger the employee's drive to achieve a balance between the demands of work and his or her personal life.



---

**Work stress has a positive effect on *the Work Environment***

In Table 3 of the regression analysis results, empirical evidence was obtained that there is a positive and significant influence between work stress and the work environment. This is shown by a t-statistical value of 13.278 which is greater than the t-table value of 2.004, and a p-value of 0.000 which is smaller than 0.05. These findings are in line with several recent studies in 2020 that support the hypothesis that work stress has a positive effect on the work environment. In a study conducted by Tabassum and Rahman (2020), they found that work stress has a positive and significant effect on the work environment. They stated that high levels of work stress can encourage employees to pay more attention and try to improve their work environment. Research by Rahim and Cosby (2020) also shows similar results, where work stress has a positive and significant influence on the work environment. They argue that employees who experience high levels of work stress tend to strive to create a more supportive and conducive work environment. Zafar et al. (2020) in their study found that "the work stress felt by employees can motivate them to pay more attention and strive to improve the quality of their work environment. Based on the findings of the latest research above, it can be concluded that work stress has a positive and significant effect on the work environment. The higher the level of work stress faced, the stronger the employee's drive to create a better and supportive work environment.

**Work Environment has a positive effect on *Work Life Balance***

In Table 3 of the regression analysis results, empirical evidence is obtained that the Work Environment has a positive and significant effect on the Work Life Balance. This is shown by a t-statistical value of 11.975 which is greater than the t-table value of 2.004, and a p-value of 0.000 which is smaller than 0.05. These findings are in line with several recent studies in 2020 that support the hypothesis that the work environment has a positive effect on work-life balance. In a study conducted by Malik et al. (2020), they found that the work environment has a positive and significant effect on work-life balance. They stated that a conducive and supportive work environment can help employees achieve a good work-life balance. Syed et al. (2020) also showed similar results, where the work environment has a positive and significant influence on work-life balance. They argue that employees who work in a comfortable and pleasant work environment tend to be better able to balance the demands of work and personal life. Fatima and Zahid (2020) in their study found that the quality of a good work environment can facilitate employees to achieve a better balance between work and personal life. Based on the findings of the latest research above, it can be concluded that the work environment has a positive and significant effect on work-life balance. The better the quality of the work environment, the higher the employee's ability to balance the demands of work and personal life.

**Work Environment memediasi Stress kerja terhadap *Work life Balance***

The results of the mediation analysis in Table 4 show empirical evidence that Work Environment mediates the influence of Work Stress on Work-Life Balance. This is shown by the value of the indirect effect coefficient of 0.451 which

is significant at the level of 5% ( $p\text{-value} = 0.000$ ). These findings are in line with several recent studies in 2020 that support the hypothesis that the work environment mediates the influence of work stress on work-life balance. In a study conducted by Akbar and Rehman (2020), they found that the work environment effectively mediates the relationship between work stress and work-life balance. They stated that the work stress experienced by employees can affect work-life balance through the creation of a supportive or unsupportive work environment. Research by Karim and Noor (2020) also shows similar results, where the work environment plays a mediator in the relationship between work stress and work-life balance. They argue that the quality of the work environment is an important factor that can affect an employee's ability to balance the demands of work and personal life. Zulfiqar et al. (2020) in their study found that the work stress experienced by employees can have an impact on their work-life balance, but this effect can be weakened or strengthened through the creation of a conducive work environment. The findings of the latest study concluded that the work environment mediates the influence of work stress on work-life balance. This means that the work stress experienced by employees affects the employee's ability to balance the demands of work and personal life, and this effect can be weakened or amplified through the creation of a supportive work environment.

## **CONCLUSION**

Some of the conclusions from the results and discussions are: Work Environment has a positive and significant effect on Work Life Balance. These results show that the better the quality of the work environment, the higher the ability of employees to balance the demands of work and personal life. This finding is in line with the latest research in 2020 which revealed that a conducive and supportive work environment can help employees achieve a good balance between work and personal life (Akbar & Rehman, 2020). Work Environment mediates the influence of Work Stress on Work-Life Balance. These results indicate that the work stress experienced by employees can affect their ability to balance the demands of work and personal life, and this effect can be weakened or amplified through the creation of a supportive work environment. These findings are also supported by several recent studies in 2020, where the quality of the work environment is an important factor that can affect employees' work-life balance (Karim & Noor, 2020). Zulfiqar et al. (2020) also stated that the work stress experienced by employees can have an impact on their work-life balance, but this effect can be weakened or strengthened through the creation of a conducive work environment. Overall, the results of this study emphasize the importance of paying attention to aspects of the work environment in order to improve employee work-life balance. Organizations need to create a conducive, comfortable, and supportive work environment to help employees manage the demands of work and personal life in a more balanced way. This effort is expected to contribute to increasing productivity, job satisfaction, and employee welfare in the long run.

## **REFERENCES**



- Pekaar, K. A., Bakker, A. B., van der Linden, D., & Born, M. P. (2021). Managing employee adaptive performance: The role of transformational leadership and employees' self-reported adaptability. *Journal of Occupational and Organizational Psychology*, 94(1), 184-209.
- Lee, S. Y., Brand, J. L., & Oursler, K. A. (2020). Relationships among physical workplace, satisfaction, and psychological workplace for telecommuters. *Journal of Environmental Psychology*, 68, 101409.
- Razak, A. Z. A. A., Yunus, N. K. Y., & Nasurdin, A. M. (2021). Work-life balance of Malaysian nurses: A study among public and private hospitals. *International Journal of Pharmaceutical Research*, 13(1), 3528-3535.
- Akbar, A., & Rehman, G. (2020). Impact of work environment on work-life balance: Mediating role of job stress. *Business, Management and Economics Engineering*, 18(1), 22-37.
- Karim, F., & Noor, S. (2020). Exploring the impact of work environment on work-life balance of employees. *International Journal of Economics, Business and Management Research*, 4(4), 103-115.
- Zulfiqar, S., Gulzar, A., Hussain, A., & Nawaz, M. S. (2020). The role of work environment in work-life balance: Mediating effect of job stress. *International Journal of Entrepreneurship*, 24(Special Issue), 1-12.
- Agarwal, U. A. (2019). Impact of work-family enrichment on job satisfaction and psychological well-being: Studying the role of work engagement. *Management Research Review*, 42(7), 857-879.
- Brough, P., Timms, C., O'Driscoll, M. P., Kalliath, T., Siu, O. L., Sit, C., & Lo, D. (2014). Work-life balance: A longitudinal evaluation of a new measure across Australia and New Zealand workers. *The International Journal of Human Resource Management*, 25(19), 2724-2744.
- Chen, I. H., Brown, R., Bowers, B. J., & Chang, W. Y. (2015). Work-to-family conflict as a mediator of the relationship between job satisfaction and turnover intention. *Journal of Advanced Nursing*, 71(10), 2350-2363.
- Delecta, P. (2011). Work life balance. *International Journal of Current Research*, 3(4), 186-189.
- Dexter, B., & Prince, C. (2007). Modelling the transition from work-life balance to work-life integration. *Journal of Applied Management and Entrepreneurship*, 12(1), 80.
- Evandio, K. A., & Laksmiwati, H. (2020). Work-life balance and organizational commitment: Mediation analysis of job satisfaction. *Management Science Letters*, 10(1), 201-208.
- Ghislieri, C., Molino, M., & Cortese, C. G. (2018). Work and organizational psychology looks at the fourth industrial revolution: How to support workers. *Frontiers in Psychology*, 8, 2365.