



**THE EFFECT OF WORK ENVIRONMENT AND PERCEIVED
ORGANIZATIONAL SUPPORT (POS) ON EMPLOYEE PERFORMANCE AT
THE FIRE AND RESCUE DEPARTMENT RAYON III SURABAYA**

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Abstract

This study aims to examine the effect of work environment and Perceived Organizational Support (POS) on employee performance at the Fire and Rescue Department Rayon III Surabaya. The study employed a quantitative approach with primary data collected through a questionnaire using a five-point Likerts scale. The population consisted of 121 operational employees, and the entire population was selected through non-probability sampling with a saturated sampling technique. Data were analyzed using Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with SmartPLS. The results indicate that all indicators meet the requirements of convergent validity, discriminant validity, and reliability. The structural model produces an R-Square value of 0.728, indicating that work environment and Perceived Organizational Support jointly explain 72.8% of the variance in employee performance. Hypothesis testing shows that work environment has a positive and significant effect on employee performance (original sample = 0.340; t-statistic = 3.657; p-value = 0.000), while Perceived Organizational Support also has a positive and significant effect (original sample = 0.553; t-statistic = 5.951; p-value = 0.000). These findings indicate that a safe and supportive work environment, together with organizational appreciation, development opportunities, clear supervisory guidance, and attention to employee welfare, can strengthen employee performance in a high-risk public emergency service environment.

Keywords: Work Environment, Perceived Organizational Support, Employee Performance



INTRODUCTION

Public sector organizations are increasingly required to provide services that are fast, responsive, professional, and aligned with growing public expectations. This condition places human resources in a strategic position because employees are directly involved in implementing services, making decisions in the field, and maintaining public trust. Employee performance therefore becomes an important determinant of organizational effectiveness and service quality. (Kasmir, 2017) defines performance as the work results and work behavior achieved in completing tasks and responsibilities within a certain period, while Hasibuan (2019) in Khaeruman et al. (2021) emphasizes work results achieved through ability, experience, seriousness, and time. In public organizations, optimal employee performance is consequently essential because inadequate performance may hinder the achievement of organizational objectives.

One public institution with a particularly demanding service function is the Fire and Rescue Department of Surabaya City. The institution is responsible not only for firefighting but also for rescue operations, emergency response, and public safety education. Surabaya City is divided into operational rayons to support fast and equitable services. Rayon III serves the eastern part of Surabaya and covers Rungkut, Kali Rungkut, Sukolilo, Keputih, and Gunung Anyar. Operational personnel work in a 24-hour shift system to maintain emergency service availability. This work setting requires employees to respond quickly and accurately under high-risk, unpredictable, and high-pressure conditions.

The operational demand is reflected in service data for 2023–2025. Fire incidents handled by the department totaled 793 in 2023, 268 in 2024, and 271 in 2025. At the same time, evacuation and rescue services increased from 1,504 cases in 2023 to 1,739 in 2024 and 2,589 in 2025. The 2025 performance indicators also showed 100% achievement for response time and minimum service standards and 100% for complaint services, while the analysis of Fire Management Areas (Wilayah Manajemen Kebakaran/WMK) reached 94% and was categorized as less optimal. These figures suggest that overall service performance was relatively positive, while still leaving room for improvement in particular operational dimensions.

Public comments cited in the research also revealed perceptions of slow responses and concerns about field training. Although such comments cannot by themselves establish the level of employee performance, they illustrate why employee performance in emergency services remains an important issue. The



study therefore considers organizational conditions that may support performance, particularly the work environment and organizational support.

Work environment is important because firefighters perform duties in situations involving physical risk, sudden emergencies, high work pressure, and continuous readiness. The availability and condition of facilities, safety equipment, workspaces, and interpersonal coordination can affect employees' ability to perform their duties effectively. Sedarmayanti, (2021) describes work environment as the tools and materials encountered by employees, the surrounding environment, work methods, and work arrangements for individuals and groups. In this study, the work environment was operationalized through work safety, work facilities, and the relationship between employees and leaders.

Empirical conditions at Rayon III indicate that work environment issues remain relevant. The department has extensive operational facilities, including fire stations, supporting posts, water reservoirs, hydrants, fire engines, motorcycles, and personal protective equipment. However, the research documents several limitations, including lightly damaged protective equipment, limited building space for physical training and simulations, aging operational vehicles, insufficient cleaning and office equipment, limited rest areas, non-optimal air conditioning, and constrained parking areas. These conditions provide a substantive basis for examining whether work environment contributes to employee performance.

Another factor is Perceived Organizational Support (POS). (Eisenberger et al., 2020) define POS as employees' perception of the extent to which the organization values their contributions, supports them, cares about their welfare, and is willing to help them complete their work and fulfill socio-emotional needs. In a high-risk emergency organization, support may be manifested through appreciation, training opportunities, clear supervisory direction, and attention to employee welfare. The research found that employees generally perceived organizational support, but also identified expectations for stronger recognition, improved welfare, and more opportunities for capacity development.

The empirical literature also shows inconsistent findings. Fadlly (2025) and (Apriliana et al., 2025) found that work environment positively and significantly affects employee performance, whereas Nabawi (2019) reported that work environment did not significantly affect performance. Similarly, Diana (2021), Rubaca & Khan (2020) and Elsouk et al. (2021) reported positive relationships between organizational support and performance, while Rahmanda & Yasri (2025) reported a non-significant influence in fire service officers. These



differences create an empirical gap, particularly because previous studies have not consistently focused on high-risk emergency-service settings such as the Fire and Rescue Department Rayon III Surabaya City.

Based on these conditions, this study examines whether work environment and Perceived Organizational Support affect employee performance among operational employees at the Fire and Rescue Department Rayon III Surabaya City. The study is expected to contribute empirical evidence for human resource management in public emergency services and provide practical considerations for improving working conditions and organizational support.

LITERATURE REVIEW

Work Environment

Work environment refers to the physical and non-physical conditions surrounding employees that influence comfort, safety, interaction, and the execution of work. Sedarmayanti (2021) explains that the work environment encompasses equipment and materials, the surrounding workplace, work methods, and work arrangements. Farida & Hartono (2016) similarly emphasize that a good workplace should create a pleasant, safe, peaceful, and comfortable atmosphere. In this study, work environment was measured through three indicators adapted to the operational context: work safety, work facilities, and the relationship between employees and leaders.

Perceived Organizational Support (POS)

Perceived Organizational Support represents employees' beliefs that the organization values their contribution and cares about their welfare Eisenberger et al. (2020) POS can generate reciprocal feelings and encourage employees to contribute greater effort to the organization. The study uses four indicators adapted from Eisenberger et al. (2020) : appreciation, development, supervisor support, and employee welfare. These indicators were tailored to the context of operational firefighters and rescue personnel.

Employee Performance

Employee performance concerns the results achieved in carrying out assigned responsibilities. In this study, performance was measured using four indicators adapted from (Edison et al., 2016): target achievement, quality, completion time, and compliance with rules. These indicators were adjusted to the emergency-service context, including the ability to handle public calls quickly, accurately, effectively, and according to established procedures.



Hypothesis Development

A supportive work environment can provide employees with the safety, facilities, and interpersonal coordination needed to complete demanding tasks. Prior studies cited in the thesis, including Fadlly (2025), Apriliana et al. (2025), and Nurjanah & Riyanto, (2023), report positive effects of work environment on performance. Therefore:

H1: Work environment has a positive effect on employee performance at the Fire and Rescue Department Rayon III Surabaya City.

Organizational support can strengthen employees' sense of being valued and supported, which may encourage motivation, responsibility, and stronger performance. Rubaca & Khan (2020), Elsouk et al. (2021), (Dwi et al., 2025), and Nurjanah & Riyanto (2023) provide supporting empirical evidence. Therefore:

H2: Perceived Organizational Support has a positive effect on employee performance at the Fire and Rescue Department Rayon III Surabaya City.

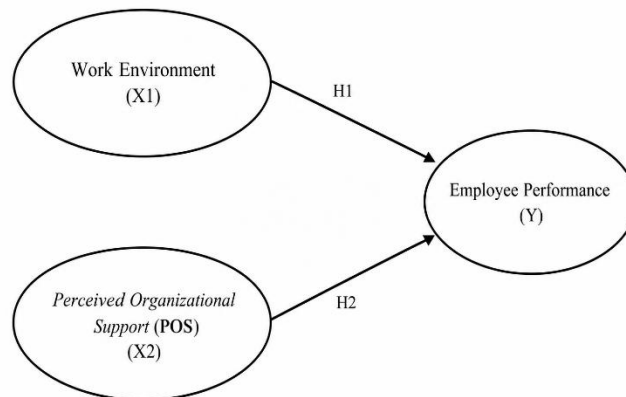


Figure 1.
Research Model

Source: Researcher's model based on the literature review, 2026

RESEARCH METHOD

This study employed a quantitative research approach. The data were primarily obtained from questionnaire responses of operational employees at the Fire and Rescue Department Rayon III Surabaya City. The population consisted of all 121 operational employees in Rayon III. Because the population was manageable and the research intended to include the entire operational population, non-probability sampling with a saturated sampling technique was used; consequently, all 121 employees became respondents (Sugiyono, 2023)



Data collection used literature study, interviews, and questionnaires distributed through online and printed media. The questionnaire used positive statements and a five-point Likert scale: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree. The measurement items were adapted to the operational characteristics of the research object.

The independent variables were Work Environment (X1) and Perceived Organizational Support (X2), while Employee Performance (Y) was the dependent variable. Work Environment consisted of work safety (X1.1), work facilities (X1.2), and the relationship between employees and leaders (X1.3). POS consisted of appreciation (X2.1), development (X2.2), supervisor support (X2.3), and employee welfare (X2.4). Employee Performance consisted of target achievement (Y1.1), quality (Y1.2), completion time (Y1.3), and compliance with rules (Y1.4).

Data analysis was conducted using Structural Equation Modeling with the Partial Least Squares approach (SEM-PLS) using SmartPLS. The analysis evaluated the outer model through convergent validity, discriminant validity, and reliability, and evaluated the inner model through R-Square and bootstrapping-based hypothesis testing. Indicators were considered adequate when loading values exceeded 0.70, AVE exceeded 0.50, and reliability values exceeded 0.70. Hypotheses were accepted when the t-statistic exceeded 1.96 and the p-value was below 0.05 (Suriana et al., 2022).

RESULTS AND DISCUSSION

Respondent Characteristics

Table 1.
Respondent Characteristics

Characteristic	Category	n	Percentage
Gender	Male	121	100%
Gender	Female	0	0%
Age	<25 years	7	5.79%
Age	26–45 years	75	61.98%
Age	>46 years	39	32.23%
Tenure	1–5 years	7	5.79%
Tenure	6–10 years	32	26.44%
Tenure	>10 years	82	67.77%
Work location	Rungkut	40	33.06%



Work location	Kali Rungkut	20	16.52%
Work location	Gunung Anyar	22	18.18%
Work location	Sukolilo	19	15.70%
Work location	Keputih	20	16.52%

Source: Primary Data Processed, (2026)

The respondents were entirely operational employees and therefore were all male. Most respondents were aged 26–45 years (61.98%), while 67.77% had more than 10 years of service. The distribution covered all operational locations in Rayon III, with Rungkut contributing the largest number of respondents (33.06%). This composition indicates that the analysis represents a population with substantial operational experience and exposure to emergency-service demands.

Descriptive Result

Table 2.

Descriptive Result of Research Indicators

Variable	Indicator	Mean	Highest response
Work Environment	Work safety (X1.1)	3.661	Agree: 48 (40%)
Work Environment	Work facilities (X1.2)	3.661	Agree: 47 (39%)
Work Environment	Employee–leader relationship (X1.3)	3.736	Agree: 42 (34%)
POS	Appreciation (X2.1)	3.777	Agree: 62 (51%)
POS	Development (X2.2)	3.901	Agree: 43 (36%); Strongly agree: 44 (36%)
POS	Supervisor support (X2.3)	3.785	Agree: 52 (43%)
POS	Employee welfare (X2.4)	3.686	Agree: 49 (40%)
Performance	Target (Y1.1)	3.876	Agree: 57 (47%)
Performance	Quality (Y1.2)	3.851	Agree: 47 (39%)
Performance	Completion time (Y1.3)	3.901	Strongly agree: 44 (36%)
Performance	Compliance (Y1.4)	3.992	Agree: 50 (41%)

Source: Questionnaire result, 2026



The descriptive results show generally favorable perceptions across all variables. For Work Environment, the employee–leader relationship had the highest mean (3.736), while for POS the development indicator recorded the highest mean (3.901). Employee Performance had its highest mean on compliance with rules (3.992), followed by completion time (3.901). These descriptive results provide contextual support for the subsequent structural analysis, while not replacing the inferential tests.

Outer Model Evaluation

Table 3.
Outer Loading

Indicator	Work Environment (X1)	POS (X2)	Performance (Y)
X1.1	0.879		
X1.2	0.898		
X1.3	0.891		
X2.1		0.861	
X2.2		0.872	
X2.3		0.900	
X2.4		0.877	
Y1.1			0.903
Y1.2			0.862
Y1.3			0.891
Y1.4			0.848

Source: SmartPLS output, 2026

All loading values are above 0.70, ranging from 0.848 to 0.903. This indicates that each indicator strongly represents its respective latent construct and that convergent validity is satisfied.

Table 4.
Average Variance Extracted (AVE)

Variable	AVE
Work Environment (X1)	0.791
Perceived Organizational Support (X2)	0.770
Employee Performance (Y)	0.768

Source: SmartPLS output, 2026

All AVE values exceed 0.50, indicating that each construct explains more than half of the variance of its indicators. The measurement model therefore meets the convergent validity criterion.



Table 5.
Cross Loading

Indicator	Work Environment	POS	Performance
X1.1	0.879	0.706	0.698
X1.2	0.898	0.722	0.707
X1.3	0.891	0.739	0.702
X2.1	0.740	0.861	0.700
X2.2	0.687	0.872	0.698
X2.3	0.755	0.900	0.757
X2.4	0.670	0.877	0.754
Y1.1	0.752	0.794	0.903
Y1.2	0.713	0.684	0.862
Y1.3	0.691	0.711	0.891
Y1.4	0.604	0.713	0.848

Source: SmartPLS output, 2026

Every indicator has its highest loading on the construct it is intended to measure. For example, X2.3 loads 0.900 on POS compared with 0.755 on Work Environment and 0.757 on Performance, while Y1.1 loads 0.903 on Performance compared with 0.752 and 0.794 on the other constructs. Thus, discriminant validity is supported.

Table 6.
Fornell-Larcker Criterion

	Performance (Y)	Work Environment (X1)	POS (X2)
Performance (Y)	0.876		
Work Environment (X1)	0.790	0.889	
POS (X2)	0.830	0.812	0.878

Source: SmartPLS output, 2026

The diagonal square-root AVE values (0.876, 0.889, and 0.878) are higher than the corresponding inter-construct correlations, supporting discriminant validity.

Table 7.
Reliability Test

Variable	Cronbach's Alpha	Composite Reliability
Work Environment (X1)	0.868	0.919
Perceived Organizational Support (X2)	0.901	0.931
Employee Performance (Y)	0.899	0.930

Source: SmartPLS output, 2026



Cronbach's Alpha and Composite Reliability for all constructs exceed 0.70. The values demonstrate good internal consistency and indicate that the instruments are reliable for further structural analysis.

Inner Model Evaluation and Hypothesis Testing

Table 8.
R-Square

Dependent construct	R-Square	Adjusted R-Square
Employee Performance (Y)	0.728	0.723

Source: SmartPLS output, 2026

The R-Square value of 0.728 indicates that Work Environment and Perceived Organizational Support jointly explain 72.8% of the variance in Employee Performance, while 27.2% is explained by other variables outside the model. This indicates substantial explanatory capacity within the research context.

Table 9.
Path Coefficients and Hypothesis Testing

Relationship	Original Sample (O)	Sample Mean	STDEV	t-statistic	p-value	Conclusion
Work Environment → Employee Performance	0.340	0.343	0.093	3.657	0.000	Positive & significant
POS → Employee Performance	0.553	0.552	0.093	5.951	0.000	Positive & significant

Source: SmartPLS output, 2026

The Effect of Work Environment on Employee Performance

The results show that Work Environment has a positive and significant effect on Employee Performance, with an original sample of 0.340, a t-statistic of 3.657, and a p-value of 0.000. Therefore, H1 is accepted. The positive coefficient indicates that better work environment conditions are associated with higher employee performance. This finding is consistent with the theoretical view that safe conditions, adequate facilities, and effective work relationships help employees perform their duties more effectively.

The finding is particularly relevant to Rayon III because operational employees face high-risk and unpredictable emergency conditions. The descriptive results show that respondents generally agreed that safety procedures are supported by usable personal protective equipment, facilities support tasks, and coordination between leaders and employees is good. Nevertheless, the



research background identifies maintenance issues in protective equipment, limitations in training space, aging vehicles, and inadequate supporting facilities. These conditions suggest that improvements in work environment should focus not merely on the existence of facilities, but on their adequacy, maintenance, and suitability for operational demands.

The finding is in line with Fadlly (2025), Apriliana et al. (2025), and Nurjanah and Riyanto (2023), which report positive relationships between work environment and employee performance. It also provides an empirical response to the inconsistency noted in Nabawi (2019), who found no significant effect. In the present emergency-service context, the positive and significant result suggests that environmental conditions are especially consequential because employees must act quickly, accurately, and safely under pressure.

The Effect of Perceived Organizational Support on Employee Performance

Perceived Organizational Support has a positive and significant effect on Employee Performance, with an original sample of 0.553, a t-statistic of 5.951, and a p-value of 0.000. H2 is therefore accepted. Compared with Work Environment, the path coefficient for POS is larger, indicating a stronger estimated direct relationship with performance within this model. The result supports Eisenberger et al. (2020), who explain that employees who perceive their organization as valuing their contributions and caring about their welfare are more likely to develop positive work responses.

The descriptive findings show that employees generally perceived organizational appreciation, training opportunities, clear supervisor direction, and attention to welfare. The highest POS mean was found for development opportunities (3.901), while supervisor support also received a relatively high mean (3.785). In the operational context, clear guidance is particularly important because employees must understand priorities, procedures, and appropriate actions during emergencies. At the same time, the qualitative background of the study indicates that employees still expect stronger recognition, better welfare support, and more training opportunities. Thus, POS should be understood as an ongoing organizational practice rather than a one-time intervention.

The result is consistent with Rubaca and Khan (2020), who found that POS positively and significantly affected contextual performance among firefighters, and with Elsouk et al. (2021) and Dwi et al. (2025), who reported positive effects of organizational support on employee performance. It also supports Nurjanah and Riyanto (2023). The finding contrasts with Rahmanda and Yasri (2025), whose study of fire service officers reported a non-significant influence, indicating that



organizational context and the forms of support perceived by employees may shape the relationship.

CONCLUSION

Based on the results of research conducted by the author regarding the Influence of Work Environment and Perceived Organizational Support on Employee Performance among operational employees at the Fire and Rescue Department Rayon III Surabaya, the following conclusions can be drawn:

1. This study concludes that Work Environment and Perceived Organizational Support both have positive and significant effects on Employee Performance among operational employees at the Fire and Rescue Department Rayon III Surabaya City. Work Environment has a path coefficient of 0.340 with a t-statistic of 3.657 and p-value of 0.000, while POS has a path coefficient of 0.553 with a t-statistic of 5.951 and p-value of 0.000. The model explains 72.8% of the variance in Employee Performance through the two independent variables.
2. From a practical perspective, the institution should continue improving the work environment by maintaining and upgrading personal protective equipment, strengthening operational facilities, and ensuring that training and work spaces are adequate for emergency-service activities. Organizational support should also be strengthened through clearer supervisory direction, recognition of employee achievements, broader training opportunities, and attention to employee welfare. Coordination and communication between leaders and employees should be maintained because both environmental and support dimensions are closely connected to the execution of operational tasks.
3. Future research may extend the model by including other factors that may influence employee performance, such as work motivation, job satisfaction, work discipline, leadership, workload, or work stress, and may test the model in other public emergency-service organizations to broaden the empirical comparison.

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