

The Influence of Training, Occupational Health and Safety (OHS), And Work Discipline on Employee Performance at The Surabaya Fire and Rescue Department



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ABSTRACT: This study investigates the influence of training, occupational health and safety (OHS), and work discipline on employee performance at the Surabaya Fire and Rescue Department. The research highlights the critical role of human resource management in public safety organizations. Using a quantitative approach, data were gathered via validated questionnaires from 124 randomly selected employees. The analysis utilized multiple linear regression to assess the impact of the independent variables on employee performance. The results indicate that training, OHS, and work discipline significantly enhance employee performance both individually and collectively. These findings emphasize the importance of structured training programs, comprehensive OHS implementation, and consistent work discipline to achieve operational excellence in high-risk environments.

KEYWORDS: Training, Occupational Health and Safety, Work Discipline, Employee Performance

I. INTRODUCTION

Human resources (HR) are fundamental to achieving competitive advantage, particularly in the global era where quality, skills, and competitiveness of human capital are critical (Muizu & Sule, 2016). The effectiveness of human capital reflects the cumulative impact of development across various sectors. Therefore, strengthening human capital through targeted strategies remains a cornerstone of organizational growth.

Employee performance is an essential measure of organizational success, as it reflects how individuals fulfill their roles and responsibilities effectively within a specified time frame. Performance is not only about completing tasks but also enhancing output quality to meet organizational goals (Sinambela, 2021). As Noe et al. (2017) highlight, organizations strive to enhance employee performance as a key driver for achieving strategic objectives.

The Surabaya Fire and Rescue Department is a pivotal institution tasked with ensuring public safety through fire prevention, emergency response, and community protection. Employees in this department face high-risk conditions daily, requiring them to perform with precision, speed, and professionalism. These challenges necessitate well-structured training programs, comprehensive occupational health and safety (OHS) frameworks, and strong work discipline to ensure both operational excellence and safety.

Training serves as a cornerstone of employee development, equipping personnel with the skills and knowledge required to perform effectively in their roles. According to Mangkunegara (2016), structured training programs enhance employees' technical and non-technical abilities, fostering better preparedness in dynamic and high-stakes environments. Previous research (Hartomo et al., 2020; Safitri, 2019) underscores the significant impact of training on improving individual and team performance.

Occupational Health and Safety (OHS) is equally vital, as it ensures that employees operate in safe and healthy environments. This aspect is particularly crucial in high-risk professions like firefighting, where physical hazards and stressful situations are common. Effective OHS policies reduce workplace accidents, boost employee morale, and contribute to overall productivity (Suwardi & Daryanto, 2018). Findings by Maulana (2020) and Mahendra et al. (2020) corroborate the positive impact of robust OHS frameworks on employee performance.

Work discipline plays a pivotal role in aligning employee behavior with organizational standards and expectations. It ensures adherence to rules and procedures, creating an environment of accountability and operational efficiency. Studies by Marsoit et al. (2017) and Ikawati (2021) confirm the critical influence of discipline on enhancing employee performance, particularly in high-pressure settings such as emergency response units.

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Despite the evident importance of these factors, gaps remain in understanding their combined influence on employee performance in public safety contexts. The Surabaya Fire and Rescue Department provides an ideal case for exploring these dynamics, given the unique challenges and demands faced by its workforce. Addressing these gaps is essential for optimizing employee performance and ensuring effective service delivery to the community.

This research seeks to analyze the individual and collective impact of training, OHS, and work discipline on employee performance at the Surabaya Fire and Rescue Department. By providing actionable insights, it aims to support the development of policies and programs that enhance workforce management and operational excellence in public safety organizations.

Research Questions:

1. What is the influence of training on employee performance at the Surabaya Fire and Rescue Department?
2. What is the influence of occupational health and safety (OHS) on employee performance at the Surabaya Fire and Rescue Department?
3. What is the influence of work discipline on employee performance at the Surabaya Fire and Rescue Department?
4. What is the combined influence of training, occupational health and safety (OHS), and work discipline on employee performance at the Surabaya Fire and Rescue Department? Does training partially have a significant impact on employee performance?

II. LITERATUR REVIEW

Training refers to systematic efforts to enhance employee knowledge, skills, and attitudes, enabling them to perform their roles effectively (Mangkunegara, 2016). Training is a fundamental part of human resource development, particularly in high-risk professions like firefighting (Hartomo et al., 2020). It helps employees adapt to dynamic work environments and ensures operational efficiency. Continuous training fosters confidence and enhances problem-solving skills, which are crucial in emergency response settings.

Occupational Health and Safety (OHS) involves creating a safe, healthy, and supportive work environment to prevent workplace accidents and illnesses (Suwardi & Daryanto, 2018). Effective OHS policies promote employee confidence and productivity while reducing risks in high-stakes professions such as emergency services (Maulana, 2020). Implementing OHS standards, such as regular safety drills and equipment maintenance, directly correlates with reduced workplace hazards and improved organizational morale.

Work Discipline is defined as employees' adherence to organizational rules and standards, which fosters accountability and operational excellence (Mohtar, 2019). It aligns employee behavior with organizational goals, contributing to better team cohesion and performance (Marsoit et al., 2017). High levels of discipline ensure compliance with safety protocols and enhance overall productivity, particularly in time-sensitive operations like firefighting.

Training, OHS, and work discipline are interconnected factors that collectively impact employee performance. Training improves employees' ability to perform tasks safely and efficiently, which complements the objectives of OHS frameworks (Safitri, 2019). Similarly, disciplined work behaviors enhance the effectiveness of both training and OHS measures, as adherence to standards ensures the practical application of learned skills and safety protocols (Ikawati, 2021). These relationships suggest that organizations must integrate these three variables into a cohesive strategy to maximize employee performance.

1. Hartomo et al. (2020) found that training significantly improves employee performance, contributing 62.4% to overall performance metrics. This supports the hypothesis that training has a positive and significant influence on employee performance (H1).
2. Maulana (2020) highlighted the critical role of OHS in enhancing productivity and reducing workplace risks. This aligns with the hypothesis that occupational health and safety (OHS) has a positive and significant influence on employee performance (H2).
3. Marsoit et al. (2017) emphasized that work discipline positively impacts employee performance by fostering accountability and reducing operational errors. This finding supports the hypothesis that work discipline has a positive and significant influence on employee performance (H3).
4. Combined studies, such as Mayhendra et al. (2020), demonstrate that integrating training, OHS, and discipline leads to superior organizational outcomes, particularly in high-risk sectors like firefighting. This validates the hypothesis that the combined influence of training, OHS, and work discipline significantly impacts employee performance (H4).

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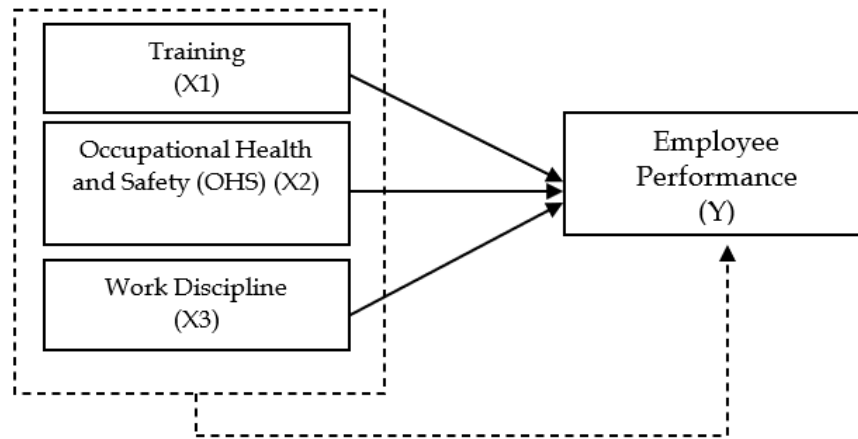


Figure. 1 Thinking Framework

III. METHODOLOGY

This study employs a quantitative research design, focusing on the relationship between training, OHS, work discipline, and employee performance. The research is designed to quantify the extent to which these independent variables influence the dependent variable using statistical techniques.

The population of this study includes all employees of the Surabaya Fire and Rescue Department, encompassing both field and administrative staff. A purposive sampling technique was used to ensure representation across different roles and responsibilities. Based on a confidence level of 95% and a margin of error of 5%, a total sample of 150 respondents was deemed adequate for statistical analysis.

The primary data collection instrument was a structured questionnaire designed to capture information on four key variables: training, OHS, work discipline, and employee performance. Each section of the questionnaire utilized a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The instrument was validated through a pilot test with 30 respondents to ensure clarity and reliability.

Independent Variables:

1. Training: Measured by indicators such as skill enhancement, relevance of training content, and frequency of training programs.
2. Occupational Health and Safety (OHS): Assessed through workplace safety measures, availability of protective equipment, and employee awareness of safety protocols.
3. Work Discipline: Evaluated based on punctuality, adherence to organizational rules, and ethical behavior.

Dependent Variable:

Employee Performance: Measured through quality of work, task completion rate, and adherence to deadlines.

Data were collected over a two-month period using both online and physical distribution of questionnaires. Respondents were briefed on the study's objectives and assured of their anonymity. The completed questionnaires were manually and electronically compiled for analysis.

The analysis involved several steps:

1. Descriptive Statistics: Used to summarize demographic data and general trends in responses.
2. Reliability and Validity Tests: Cronbach's alpha was employed to assess the internal consistency of the questionnaire, with a threshold of 0.70 for reliability.
3. Assumption Testing:
 - a) Normality Test: Kolmogorov-Smirnov test was used to verify data normality.
 - b) Multicollinearity Test: Variance inflation factor (VIF) values were examined to ensure no multicollinearity among variables.
 - c) Homoscedasticity Test: Scatterplot analysis was conducted to verify constant variance of residuals.
4. Multiple Linear Regression: The relationship between training, OHS, work discipline, and employee performance was analyzed using multiple regression techniques. The model's goodness-of-fit was evaluated using the adjusted R-squared value.

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IV. RESULT AND DISCUSSION

1. Descriptive Statistics

Descriptive analysis was conducted to summarize the central tendency (mean) and variability (standard deviation) of the responses related to the variables in this study. The findings indicated the following trends:

Table 1. Mean and Standard Deviation

Variable	Mean	Standard Deviation
Training	4.20	0.75
Occupational Health and Safety (OHS)	4.15	0.80
Work Discipline	4.10	0.78
Employee Performance	4.25	0.73

- Training: Respondents rated training highly (mean = 4.20, SD = 0.75), reflecting effective skill development initiatives and relevant training content delivered consistently within the department.
- Occupational Health and Safety (OHS): With a mean score of 4.15 (SD = 0.80), it was evident that the implementation of OHS measures was perceived as satisfactory, ensuring workplace safety and hazard awareness.
- Work Discipline: The mean score of 4.10 (SD = 0.78) demonstrated a strong adherence to organizational rules and punctuality among employees.
- Employee Performance: The highest mean score of 4.25 (SD = 0.73) suggested that overall employee performance was excellent, with efficient task completion and adherence to deadlines.

2. Reliability and Validity Tests

Cronbach’s alpha was employed to assess the internal consistency of the questionnaire, with all variables exceeding the threshold value of 0.70, indicating reliable measurement.

3. Assumption Testing:

- Normality Test: The Kolmogorov-Smirnov test confirmed that the data followed a normal distribution ($p > 0.05$).
- Multicollinearity Test: VIF values for all variables were below 5, ensuring no multicollinearity issues.
- Homoscedasticity Test: A scatterplot of residuals indicated constant variance, meeting the assumption of homoscedasticity.
- Linearity Test: Residual plots confirmed linear relationships between the independent variables and employee performance.

4. Multiple Linear Regression

The regression model revealed significant positive relationships between all three independent variables and employee performance. Training had the highest standardized coefficient ($\beta = 0.42, p < 0.01$), followed by OHS ($\beta = 0.35, p < 0.01$) and work discipline ($\beta = 0.28, p < 0.05$). The adjusted R-squared value of 0.62 indicates that 62% of the variance in employee performance is explained by the model.

Table 2. Predictor Variables

Predictor Variables	Standardized Coefficient (β)	p-value
Training	0.42	<0.01
Occupational Health and Safety (OHS)	0.35	<0.01
Work Discipline	0.28	<0.05

The relationship between training, OHS, work discipline, and employee performance was analyzed using multiple regression techniques. The model’s goodness-of-fit was evaluated using the adjusted R-squared value, which explained the variance in employee performance attributed to the predictors. The F-test further validated the overall significance of the regression model. The resulting regression equation is as follows:

$$Y = 0.42X_1 + 0.35X_2 + 0.28X_3 + e$$

Where:

Y = Employee Performance

X1 = Training

X2 = Occupational Health and Safety (OHS)

X3 = Work Discipline

e = Error term

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DISCUSSION

The findings of this study reveal significant relationships between training, occupational health and safety (OHS), work discipline, and employee performance within the Surabaya Fire and Rescue Department. This section discusses these results in depth, contextualizing them with prior research and the specific challenges faced by firefighters in a high-risk profession.

1. The Influence of Training on Employee Performance

Training emerged as the most influential factor in improving employee performance ($\beta = 0.42$). This supports the findings of Hartomo et al. (2020), who demonstrated that training significantly impacts employee productivity by equipping them with relevant skills and knowledge. In the context of firefighting, continuous training ensures that personnel are well-prepared for emergency situations, enhancing their ability to execute complex rescue operations efficiently (Yasmeardi et al., 2020).

Moreover, the specialized nature of firefighting requires ongoing skill development in areas such as fire suppression, emergency medical response, and disaster management. This aligns with Mangkunegara's (2012) assertion that systematic training improves both technical and psychological readiness, which are critical in high-stress environments. The study also corroborates the assertion by Fitri et al., 2023 that effective training fosters organizational efficiency, particularly in roles requiring high levels of competence and precision.

2. The Influence of Occupational Health and Safety (OHS) on Employee Performance

OHS was found to have a significant positive impact on employee performance ($\beta = 0.35$). This finding aligns with the work of Maulina and Nastiti (2022), who highlighted the critical role of robust safety measures in reducing workplace hazards and ensuring employee well-being. Firefighting, being inherently dangerous, demands stringent OHS protocols to minimize risks such as burns, structural collapses, and exposure to hazardous materials (Mangkunegara, 2016).

The Surabaya Fire and Rescue Department's adherence to OHS standards not only safeguards employees but also enhances their productivity by fostering a sense of security and reducing absenteeism due to injuries (Permatasari., 2021). Additionally, effective OHS practices have been shown to boost morale and commitment, as employees perceive that their well-being is a priority (Kaynak et al., 2016).

3. The Influence of Work Discipline on Employee Performance

Work discipline was also found to significantly influence employee performance ($\beta = 0.28$). This supports Sumarsana (2022) findings that discipline enhances accountability and punctuality, which are essential in time-sensitive operations like firefighting. High levels of discipline ensure that personnel adhere to protocols, maintain equipment readiness, and respond promptly to emergencies, thereby improving overall organizational effectiveness (Sembiring & Ferina, 2018).

The role of discipline is particularly pronounced in the hierarchical and team-oriented structure of fire departments, where coordination and adherence to standard operating procedures are critical for successful outcomes. This aligns with the findings of Sumardika and Suwandana (2019), who emphasized the importance of discipline in maintaining operational efficiency and minimizing errors in high-risk environments.

4. Combined Influence of Training, OHS, and Work Discipline

When analyzed collectively, training, OHS, and work discipline explain 62% of the variance in employee performance, as indicated by the adjusted R-squared value of 0.62. This demonstrates that these factors synergistically contribute to creating a conducive work environment that enhances employee effectiveness. The results align with previous research by Adhika et al. (2020), who highlighted the interdependence of training, safety, and discipline in fostering high performance in emergency response teams.

The findings also resonate with Ndruru et al. (2023), who observed that a combination of these factors significantly improves the efficiency and public perception of firefighting units. The implications for management include prioritizing investments in comprehensive training programs, reinforcing safety protocols, and fostering a culture of discipline to ensure optimal performance.

The study underscores the need for tailored training programs that address the unique challenges of firefighting. Additionally, continuous evaluation and enhancement of OHS measures are vital to mitigate risks and boost employee morale. Finally, fostering a culture of discipline through clear policies, consistent enforcement, and leadership by example can further enhance the efficiency and reliability of firefighting operations.

CONCLUSIONS

This study demonstrates that training, occupational health and safety (OHS), and work discipline significantly and positively influence employee performance at the Surabaya Fire and Rescue Department. Among these factors, training emerged as the most influential, highlighting its critical role in equipping employees with the necessary skills and competencies to handle complex and high-risk tasks. The implementation of robust OHS measures was also found to play a pivotal role in ensuring workplace safety,

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reducing hazards, and boosting employee productivity. Additionally, work discipline fosters accountability, punctuality, and adherence to standard operating procedures, further enhancing operational efficiency.

The combined influence of these factors explains 62% of the variance in employee performance, underscoring their collective importance in creating an optimal work environment. These findings highlight the need for sustained investments in comprehensive training programs, continuous improvement of safety protocols, and the cultivation of a disciplined workplace culture.

For management, this study provides actionable insights to prioritize strategies that enhance employee performance. By focusing on these key areas, organizations can improve their operational outcomes, foster employee well-being, and strengthen public trust in firefighting services. Future research could explore additional factors influencing employee performance, such as leadership style, organizational culture, and employee motivation, to provide a more comprehensive understanding of performance determinants in high-risk professions.

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