

## Research Article

# The Influence of Job Safety and Occupational Health on Work Productivity with Job Satisfaction as an Intervening at PT Semanggimas Sejahtera Tulungagung

Syaiful Arifin\*

Faculty of Economics and Business, University of Merdeka Malang, Malang, Indonesia

**ORCID**Syaiful Arifin: <https://orcid.org/0000-0003-0111-8230>**Abstract.**

This study aims to analyze the effect of occupational safety and health on job satisfaction, analyze the effect of job satisfaction on work productivity, and analyze the effect of occupational safety and health on work productivity through job satisfaction of production employees at PT Semanggimas Sejahtera Tulungagung. The sample size used was 50 employees using the saturation sampling technique. Data collection technique used a questionnaire through Google Forms, while data analysis technique used structural equation modeling analysis. The results of the analysis indicate that job safety and health influence job satisfaction. Job Safety and health influence work productivity. Job satisfaction influences work productivity. Job satisfaction acts as a mediator in influencing job safety and health factors on work productivity. The company always implements a good occupational safety and occupational health program by conducting regular occupational safety inspections.

**Keywords:** job safety, occupational health, work productivity, job satisfaction

Corresponding Author: Syaiful  
Arifin; email:  
[syaiful.arifin@unmer.ac.id](mailto:syaiful.arifin@unmer.ac.id)

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## 1. Introduction

Human resources as a workforce cannot be separated from problems related to safety at work which are directly related to equipment and machines to support the production process. The use of various tools and machines means that employees will not be free from risks related to Job Safety and health. This risk can affect workers at any time and anywhere, so it requires special attention from various related parties such as entrepreneurs, workers and companies. Several cases of accidents at work are no longer a public secret. This can arise due to limited work security facilities, as well as a weakness in understanding the principle factors that need to be implemented by the company. The Job Safety philosophy of viewing every employee as having the right to



the protection of a comfortable work life is not yet fully understood by management and employees. Job Safety is related to efforts to prevent injuries and accidents in the workplace, while occupational health is related to ensuring the physical and mental condition of employees remains good. According to Job Safety, it is the protection of employees from injury caused by work-related accidents [1]. Poor Job Safety and occupational health problems can reduce employee job satisfaction. Employees who feel unsafe at work or are constantly stressed due to unhealthy working conditions may be dissatisfied with their jobs. On the other hand, companies that prioritize Job Safety and health can create an environment that supports job satisfaction. The research results of Aria et al. [2], Maulana et al. [3] and Jacob et al. [4] found that Job Safety influences job satisfaction.

Job satisfaction is an important factor that contributes to work productivity. Job contentment is an affective stance characterized by contentment and affection towards one's occupation [5]. Employees who are satisfied with their jobs tend to be more motivated, committed, and perform better [6]. Therefore, understanding how Job Safety and occupational health influence job satisfaction can provide valuable insights into how to increase work productivity. Work productivity is the ability to produce a certain amount of goods or services in a certain time. High work productivity can increase company profits and employee welfare. Job Safety and employee health are closely related to increasing employee work productivity, as stated by Suma'mur that Job Safety and work health are closely related to employee work productivity [7]. The results of this research support Muayyad and Gawi [8] and Mafra and Turipan [9] who found that job satisfaction influences work productivity. The research results of Busyairi et al. [10] and Wahyuni et al. [11] found that occupational health influences work productivity. In contrast to the research results of Budiharjo et al. who found that occupational health had no effect on work productivity [12]. Therefore, this research will focus on filling this knowledge gap by analyzing in more depth how job security, job health, and job satisfaction contribute to employee work productivity at PT Semanggimas Sejahtera Tulungagung.

## 2. Research Methods

The study focused on employees from the production division of PT. Semanggimas Sejahtera Tulungagung, totaling 103 individuals. A census sampling approach was adopted, encompassing all members of the population as participants, resulting in 103 respondents for the research.

Job Safety in this research uses indicators from Moenir which consist of machine layout, use of work equipment protection and danger warning signs [13]. Occupational health was adopted from Manullang which consists of the medical environment, workforce health environment and workforce health maintenance [14]. The job satisfaction indicators adopted by Robbins consist of a supportive work situation, fair salary or wages and supportive colleagues [15]. Work productivity adopts Robbins which includes quantity, quality and timeliness [15]. All variables were measured using a Likert scale with 5 points ranging from strongly disagree to strongly agree. The data collection technique is by distributing questionnaires. Data gathering involved the distribution of questionnaires among PT. Semanggimas Sejahtera Tulungagung employees. The questionnaires contains statements about job security, work health, job satisfaction and work productivity. Distribution of questionnaires was carried out online and offline. The online questionnaire was distributed via Google Form. Offline questionnaires are distributed directly to employee at work. The data analysis technique uses structural equation model (SEM) analysis.

### 3. Result and Discussion

#### 3.1. Result

Based on the literature review and research objectives, the comprehensive structural model was formulated as in Figure 1:

Table 1 displays the goodness-of-fit indices computed using AMOS 18 for the SEM model. These index values are then juxtaposed with the respective cutoff values. A well-fitting model is anticipated to exhibit goodness-of-fit indices equal to or surpassing the critical values.

TABLE 1: Test result of goodness of fit modified structural model.

Goodness of Fit Index	Model Results	Cut-off Value	Information
Chi-Square (df = 48)	64,741	65,171	Good
Probability Chi-Square	0,073	> 0,05	Good
CMIN/DF	1,349	≤ 2,00	Good
RMSEA	0,069	≤ 0,08	Good
GFI	0,917	≥ 0,90	Good
TLI	0,958	≥ 0,95	Good

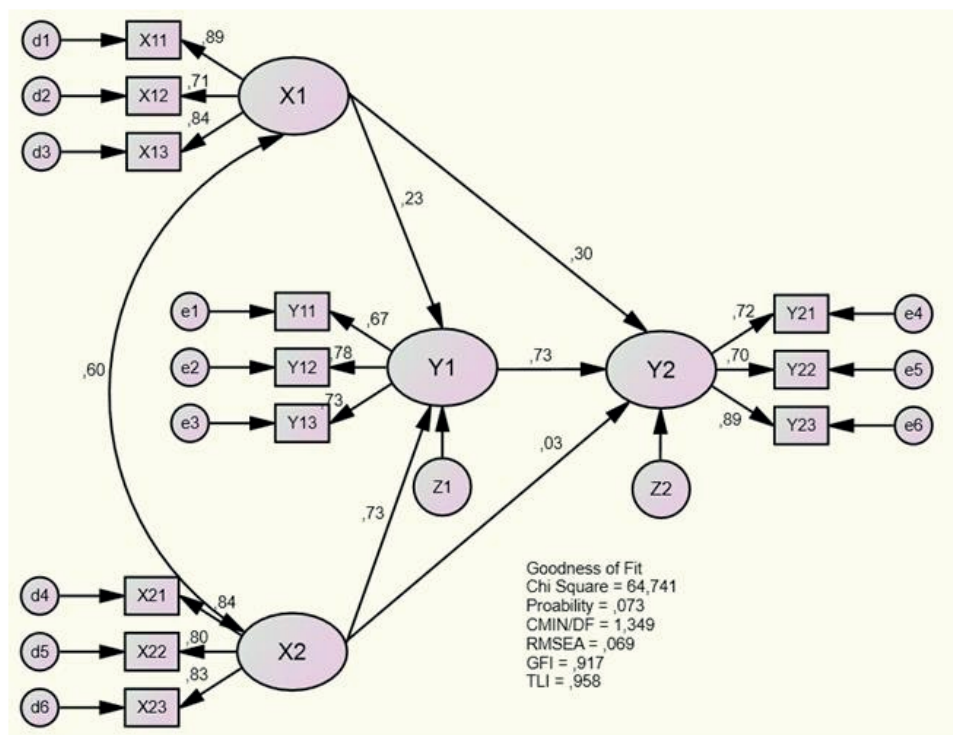


Figure 1: Results of SEM analysis.

The assessment of the Goodness of Fit Indices criteria in Table 1 indicates that the overall model evaluation meets the criteria for acceptability.

TABLE 2: Hypothesis testing.

Hip	Variable			Regression Coefficients			Information	
	Exogenous	Intervening	Endogenous	Direct Effect		Indirect Effect		Total Effect
				Coef.	Prob.			
H <sub>1</sub>	Job Safety	Job Satisfaction	-	0.23	0.041*	-	-	Accepted
	Occupational Health	Job Satisfaction	-	0.73	0,000*	-	-	
H <sub>2</sub>	Job Safety	-	Work Productivity	0.30	0.006*	-	-	Accepted
	Occupational Health	-	Work Productivity	0.03	0,042	-	-	
H <sub>3</sub>	-	Job Satisfaction	Work Productivity	0.73	0.009*	-	-	Accepted
H <sub>4</sub>	Job Safety	Job Satisfaction	Work Productivity	0.30	-	0.02	0.32	Accepted
	Occupational Health	Job Satisfaction	Work Productivity	0.03	-	0.53	0.56	

\*Significant at  $\alpha$  5%.

Based on the data presented in Table 2, it can be elucidated that job safety significantly influences job satisfaction, as evidenced by a p-value of 0.041, which is less than 0.05. Similarly, occupational health significantly affects job satisfaction, with a p-value of 0.000, also smaller than 0.05. Moreover, job safety has a notable impact on work productivity, indicated by a p-value of 0.006, which is less than 0.05. Likewise, occupational health significantly influences work productivity, with a p-value of 0.042, again smaller than 0.05. Furthermore, job satisfaction has a substantial effect on work productivity, supported by a p-value of 0.009, which is less than 0.05. Interestingly, job safety and occupational health influence work productivity indirectly through job satisfaction, as evidenced by the total effect being greater than the direct effect. Specifically, for job safety, the total effect (0.32) outweighs the direct effect (0.30). Similarly, for occupational health, the total effect (0.56) is more substantial than the direct effect (0.03).

## 3.2. Discussion

### 3.2.1. The influence of job safety and occupational health on job satisfaction

Job Safety influences job satisfaction. Job Safety is an important factor that can influence employee job satisfaction. Employees who feel safe and protected from danger at work will be more satisfied with their jobs. Employees who feel safe at work will be more motivated to work. This is because they don't have to worry about their safety while working. Employees who feel safe at work will be more productive. This is because they don't have to worry about their safety while working and can focus on their work. Employees who feel safe at work will be physically and mentally healthier. This is because they don't have to worry about injury or illness while working. The results of this study support Aria et al. [2], Maulana et al. [3] and Jacob et al. [4] who found that Job Safety influences job satisfaction.

Occupational health influences job satisfaction. Occupational health is an important factor that can influence employee job satisfaction. Employees who are physically and mentally healthy will be more satisfied with their work. Employees who are physically and mentally healthy will be more enthusiastic about working. This is because employees do not need to worry about their health while working. Employees who are physically and mentally healthy will be more productive. This is because employees can work better and more efficiently. Employees who are physically and mentally healthy

will be happier. This is because you don't need to worry about your health and you can enjoy life. The results of this study support Aria et al. [2], Maulana et al. [3] Jacob et al. [4] and Yusuf et al. [16] who found that occupational health influences job satisfaction.

### **3.2.2. The influence of job safety and occupational health on work productivity**

Job Safety influences work productivity. Employees who feel safe and protected from danger in the workplace will be more productive. Employees who work in a safe and orderly environment will be more productive than employees who work in a messy and dangerous environment. When employees feel safe, employees can focus completely on their duties without being distracted by concerns about potential danger or risk of injury. Employees can work more efficiently and effectively. A safe work environment can also reduce absenteeism due to work-related injury or illness. Employees who are consistently present at work can maintain a stable level of productivity. Employees who feel safe and protected tend to do their work more carefully and with quality. Good workplace safety not only benefits employee well-being but can also have a positive impact on overall productivity and quality of work. The results of this research support Busyairi et al who found that Job Safety influences work productivity [10]. The results of this research also support Budiharjo et al. [12], Wahyuni et al. [11] who found that Job Safety influences work productivity.

Occupational health influences work productivity. Employees who are physically and mentally healthy tend to be more productive at work. Employees who maintain their physical health, such as by exercising regularly and living a healthy lifestyle, have higher levels of energy and endurance. Employees tend to be better able to deal with tasks that require physical strength and endurance, which can increase work productivity. Good mental health, including emotional and psychological health, allows employees to maintain higher levels of concentration. Employees are better able to complete tasks with greater focus and efficiency. Therefore, companies that prioritize employee physical and mental health tend to have more productive and high-performing employees. It can also help reduce costs associated with high absenteeism or employees who are unproductive due to health problems. The results of this study support Busyairi et al. [10] and Wahyuni et al. [11] who found that occupational health influences work productivity. Nevertheless, the findings of this study contradict those of Budiharjo et al., who reported that occupational health had no discernible effect on work productivity [12].

### 3.2.3. The effect of job satisfaction on work productivity

Job satisfaction influences work productivity. Employees who are satisfied with their jobs will be more productive than employees who are dissatisfied with their jobs. Employees who are satisfied with their work will focus more on work, so they can improve the quality of work, be more motivated to work, so they can increase the quantity of work, and have fewer absences from work, so they can increase employee attendance. Workers who experience satisfaction with their job are inclined to exhibit greater enthusiasm and commitment towards performing at their best. Additionally, satisfied employees tend to concentrate more effectively on their tasks and responsibilities. This is because employees have no complaints or problems with their work. The results of this research support Muayyad and Gawi [8] and Mafra and Turipan [9], Morgan et al. [17] and Hoboubi et al [18] who found that job satisfaction influences work productivity.

### 3.2.4. The influence of job safety and occupational health on work productivity through job satisfaction

Job satisfaction serves as a mediator for the influence of job safety on work productivity. Employees who feel safe at work will be more satisfied with their work, thereby increasing work productivity. Good Job Safety influences job satisfaction, and job satisfaction then influences work productivity. This is how feeling safe at work can indirectly increase productivity through job satisfaction as mediation. Good workplace safety creates an environment where employees feel safe and protected from danger. This can reduce employee stress and anxiety related to work. Employees who feel safe tend to be more satisfied with their jobs because employees don't have to worry about injuries or other risks. This is part of the factors that increase job satisfaction. Employees who are satisfied with their work tend to be more committed to doing their best. Employees may be more inclined to work harder, be more creative, and focus more on their tasks which has an impact on increasing work productivity. According to Sinungan, productivity entails an interdisciplinary approach involving the establishment of effective goals, formulation of plans, implementation of productive methods to utilize resources efficiently, all while upholding high quality standards [19].

Occupational health's impact on work productivity is mediated by job satisfaction. Employees who are physically and mentally healthy will be more satisfied with their work, thereby increasing work productivity. Good occupational health includes both

the physical and mental health of employees. Employees who feel physically and mentally healthy tend to have more energy, and the ability to cope with work tasks. Good occupational health can increase job satisfaction because employees feel better and are more able to cope with their tasks effectively. Satisfied employees typically demonstrate higher levels of commitment and engagement in their job tasks. Employees feel appreciated and satisfied with the employee's work environment. This can lead to increased work productivity, as satisfied employees tend to do their jobs better.

## 4. Conclusions and Recommendations

### 4.1. Conclusions

Job safety and occupational health are crucial factors that impact both job satisfaction and work productivity among employees. When employees feel secure and protected in their work environment, their satisfaction levels tend to rise. Similarly, a focus on occupational health, such as promoting well-being and preventing workplace hazards, contributes to enhanced job satisfaction. Moreover, job safety and occupational health directly influence work productivity, as employees are more likely to perform optimally when they feel safe and healthy at work. Furthermore, job satisfaction acts as a mediator between job safety, occupational health, and work productivity. This suggests that employees who are satisfied with their jobs are more likely to translate this satisfaction into increased productivity, influenced by both job safety and occupational health measures. Thus, creating a safe and healthy work environment not only fosters job satisfaction but also boosts overall productivity through the mediating role of job satisfaction.

### 4.2. Recommendations

The company always implements a good Job Safety and occupational health program by conducting regular Job Safety inspections. provide adequate Job Safety equipment, provide Job Safety training to employees, implement a Job Safety management system. To improve occupational health, companies can do the following: Provide adequate occupational health facilities. Providing occupational health programs to employees. Promote occupational health to employees. To increase job satisfaction, companies can do the following: Conduct regular job satisfaction surveys, implement a feedback



system from employees, create a positive and supportive work environment and provide opportunities for development for employees.

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