

Occupational health and safety implementation and employee job satisfaction: A systematic review

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Abstract: This study aims to examine the effect of Occupational Health and Safety (OHS) implementation on employee job satisfaction through a systematic literature review approach. Information was collected by searching for scientific articles from the ScienceDirect and PubMed databases, which were filtered based on relevance to the research topic. This study employed a literature review research methodology. The results indicated that OHS implementation has a positive and significant effect on employee job satisfaction. A safe work environment increases comfort, reduces stress, and encourages employee loyalty to the company. Additionally, other factors such as compensation, relationships among coworkers, and organizational culture also play important roles in strengthening the effect of OHS on job satisfaction. The conclusion of this study confirms that optimal OHS implementation is a vital strategy for creating sustainable job satisfaction and supporting the achievement of overall organizational goals. Effective implementation of Occupational Safety and Health (OHS) policies can enhance employee safety and comfort, which in turn promotes increased work productivity. Employees who perceive their work environment as safe and feel that their welfare is cared for tend to be more loyal and exhibit lower absenteeism rates. This directly impacts the company's operational efficiency.

Keywords: Employee, Job Satisfaction, Occupational Health, Safety.

1. Introduction

Occupational Health and Safety (OHS) is a very important aspect in the industrial and organizational setting. The effectiveness of OHS practices not only reduces the rate of work accidents and work-related illnesses but also improves employee absenteeism [1]. Organizations that prioritize OHS fulfill an ethical duty and, as a result, often see notable improvements in productivity and performance. A safe and healthy work environment fosters more efficient and focused employees. The scope of OHS extends beyond the prevention of work accidents and occupational diseases to include the establishment of a safe, comfortable, and supportive work setting that fosters employee productivity. Over the past few decades, there has been a growing focus on OHS, driven by a greater understanding of the need to protect the workforce and its link to organizational success.

Several studies have shown that the implementation of effective OHS programs can contribute to increasing job satisfaction. For example, research by Gifari, et al. [2] found that good implementation of K3 can improve quality, which ultimately increases job satisfaction [2]. One more study by Suryawan, et al. [3]. The findings also highlighted that employees experience a positive and considerable impact on their workplace satisfaction due to occupational health and safety measures.

Furthermore, the study shows that employees who feel safe in the workplace are more likely to be satisfied with their jobs. Various studies also show that job satisfaction is influenced by many factors, encompassing the workplace, interpersonal interactions among coworkers, and management procedures and rules.

According to Jex [4], the degree of positive affection an employee has for their work and work environment is known as job satisfaction. The employee's attitude toward their work is the only factor that affects job happiness [5]. On the other hand, there are factors that influence employee motivation, productivity, and retention. Employees who find satisfaction in their work are generally more productive, more dedicated, and more driven to make positive contributions to the company.

In this context, OHS can play a significant role in increasing job satisfaction. By ensuring a safe and healthy workplace, organizations can alleviate employee tension and apprehension, build their self-reliance, and create a more upbeat work atmosphere. On the other hand, a lack of attention to OHS can lead to dissatisfaction, decreased productivity, and even increased absenteeism. Although many studies have been conducted to explore the relationship between OHS and various aspects of employee performance, there are still limitations in understanding.

2. Literature Review

2.1. Occupational Health and Safety

According to the International Occupational Hygiene Association, the goal of occupational health and safety is to scientifically identify, evaluate, and control workplace hazards to safeguard employee health and well-being, while also being mindful of potential community and environmental impacts. Consequently, OHS aims to foster and maintain the highest possible standard of employees' physical, mental, and social well-being throughout their working lives [6]. The ILO defines workplace OHS as a broad field focused on promoting and maintaining optimal worker well-being (physical, mental, and social), preventing work-related health issues, protecting against job hazards, ensuring suitable work environments, and tailoring work to the individual [7].

If we look at the definition of OHS, it can be interpreted that OHS is a scientific discipline that must be applied in a company because it is the promotion, maintenance, and prevention of occupational diseases and accidents caused by work. To implement OHS in a company, it must start with establishing an OHS culture within the organization. Safety culture is an attitude and behavior that shows concern for safety and health in the workplace. This culture must start from top management to workers in the field. Implementing a good work safety culture requires commitment from all parties in the organization, as well as strict supervision.

2.2. Job Satisfaction

Spector [8] describes job satisfaction as the feelings or attitude a person holds in relation to their work, which includes various aspects such as rewards, working conditions, and social relationships in the job. According to Robbins, et al. [9] Job satisfaction encompasses an individual's sentiments or outlook on their work, which includes an evaluation of aspects such as remuneration, work environment, peer relationships, and the job's characteristics. Factors outside of the job itself, such as company policies and the way leaders manage, can also impact job satisfaction. According to Suryawan, et al. [3] there are three aspects to job satisfaction:

1. Job satisfaction represents an affective reaction to the work setting, which makes it discernible and foreseeable.
2. Expectations play a significant role in determining job satisfaction, specifically how well achieved results measure up against them.
3. Generally, job satisfaction manifests as several related attitudes.

There are several indicators of employee job satisfaction according to Robbins, et al. [9] which are as follows:

1. The job itself. A job that is enjoyable and provides opportunities to utilize existing skills.

2. Current salary. A payroll system and fairness that align with employee expectations.
3. Promotion opportunities. Employees have chances for career advancement.
4. Leadership. A leadership style that can motivate employees.
5. Colleagues. Supportive social interactions among employees.

3. Methods

A literature study is the research methodology used here, based on an analysis of written sources relating to the application of occupational health and safety to job satisfaction. According to Perry and Hammond [10], a systematic literature review is a secondary study that can produce various benefits and is carried out as a review of various outputs or results from related research, so that the facts presented to policymakers are more comprehensive and fair [11].

To dig deeper, this research uses a literature study by analyzing and synthesizing relevant topics from existing research. The concept of the influence of the implementation of OHS on job satisfaction will be covered previous research from various industries related to job satisfaction. As previously explained, a reference search was conducted using web databases to find prior studies. In searching for references, researchers use ScienceDirect and PubMed so that the reference search is deeper and easier to do. But not every earlier study can serve as a reference for this one. The following requirements must be fulfilled:

1. Previous studies consists of scientific articles.
2. Previous studies are sourced from scientific journals.
3. Previous studies use the keywords occupational health and safety (OHS) and job satisfaction.

4. Result

Table 1.
Article review results.

No	Author	Title	Year	Method	Result
1	Ayim Gyekye [12]	"Workers' Perceptions Of Workplace Safety And Job Satisfaction"	2005	This research method is an exploratory study that examines perception of safety among workers, Data collection was conducted by interview and the distribution of WSS questionnaires for safety climate, job satisfaction questionnaires developed by Porter and Lawler, 4 questions related to safety behavior, and participant responses to several accidents in the last 12 months. Data analysis using SAS v. 8-2001 with ANOVA analysis.	The research revealed that job satisfaction and safety climate were positively related. This study found that workers who stated that they were satisfied with their jobs had a favorable opinion of the safety climate.
2	Chong Kim, et al. [13]	"Job Satisfaction as Related to Safety Performance: A Case for a Manufacturing Firm"	2015	This research makes use of a cross-sectional method, with data collection using the Job Descriptive Index (JDI) questionnaire. The t-test and Pearson's r were used for data analysis.	The findings of this research suggest that worker satisfaction causes an increase in safety performance. Job satisfaction is influenced by job factors, and differences in satisfaction values differ from each department.
3	Huang, et al. [14]	"Beyond safety outcomes: An	2016	The method of data collection for this cross-	The study's findings reveal a relationship between safety

No	Author	Title	Year	Method	Result
		investigation of the Impact of safety climate on job satisfaction, employee engagement and turnover using Social exchange theory is the theoretical framework”		validation study was a survey. Then, CFI, TLI, and RMSEA were used for data analysis.	climate, job satisfaction, and human resources.
4	Kularathna and Perera [15]	“The Impact of Safety and Health on the Job Satisfaction in Selected Branches of Utility Service Supply Organization In Western Province, North in Sri Lanka”	2016	The study combines analytical and quantitative techniques within a cross-sectional framework. Data collection uses a questionnaire with a universal sampling technique. Then, Univariate analysis, correlation, and regression were the statistical techniques used to analyze the data with SPSS 16.	This research shows an influence of occupational health and safety in the workplace on how satisfied employees are with their jobs. OHS has a beneficial influence on how satisfied people are with their jobs.
5	Gamal, et al. [16]	“Job Satisfaction as a Mediation Variable In The Relationship Between Work Safety and Health (OHS) and Work Environment to Employee Performance”	2018	This study is quantitative research using primary data. Data collection using questionnaires. Analysis with validity test, reliability test, normality, multicollinearity, heteroscedasticity, and autocorrelation.	According to this research, Occupational Health and Safety in the workplace does not have a direct positive influence on how well employees perform.
6	Ekowati and Amin [17]	“The Effects of Occupational Health and Safety of Employees Performance Through Work Satisfaction”	2019	This research is explanatory research by looks for relationships. The number of samples is 50 people. Path analysis is used in this study.	This research revealed that although workplace occupational health and safety did not directly affect employee performance, job satisfaction could explain how the two are related.
7	Ahmad and Umrani [18]	“The impact of ethical leadership style on job satisfaction, Mediating role of perception of Green HRM and psychological safety”	2019	Utilizing questionnaires, this study employed a quantitative research approach. Data analysis for reliability and validity testing using AMOS 18 software, and hypotheses are tested through Preacher and Hayes' macro mediation.	This study's research demonstrates that job satisfaction is not significantly directly impacted by ethical leadership style.
8	Akbari, et al. [19]	“The Relationship between Job Satisfaction and The Incidence of Unsafe Acts in Metal Smelting Industry Workers in 2017”	2019	Data for this cross-sectional research was collected from 112 workers across four metal smelting industries in Kashan. Data collection was through observation and the use of the Tarrant checklist. The Minnesota questionnaire was used to assess job satisfaction, while data analysis involved	This study found that unsafe work was significantly related to the number of units, OHS education, and working hours. It also found that job satisfaction was significantly related to work shifts, work units, work interest, and work accidents. The study also found a significant inverse relationship between job

No	Author	Title	Year	Method	Result
				Student's t-test, one-way analysis of variance, Chi-square test, and linear regression.	satisfaction and the number of unsafe acts reported.
9	Prihadini, et al. [20]	"The Importance of Job Satisfaction to Improve Employee Performance"	2021	A comparative descriptive method with a quantitative approach was utilized in this study. Ten people were interviewed using either semi-structured or in-depth interview techniques for data collection. Data analysis in this study by processing the results of the interview or describing.	The findings of this research show that employee performance is determined by job satisfaction. According to this study, the key factors that determine job satisfaction are the work environment, salary, promotion, coworkers, and creativity that gives birth to innovation.
10	Syardiansah, et al. [21]	"The Effect of Work Discipline, Compensation, Occupational Health And Safety On Employee Job Satisfaction"	2022	This research is quantitative research. Data collection by observation, interview, and questionnaire. Random sampling was used as the sampling technique, and data analysis involved multiple linear regression, validity testing, and reliability testing using SPSS.	The study found that work discipline positively affects performance, compensation significantly boosts performance, and workplace OHS significantly enhances satisfaction.
11	Syardiansah, et al. [22]	"The Effect of Salary, Health, and Safety on Employee Job Satisfaction Moderated by the Quality of Human Resources"	2022	Data collection with questionnaires, with 46 samples. SPSS 23 was used to conduct validity and reliability tests, normality tests, multicollinearity tests, autocorrelation tests, heteroscedasticity tests, multiple regression analysis, ANOVA, partial tests, and simultaneous tests on the data.	The initial partial tests indicated a significant positive impact of salary and OHS on job satisfaction. However, with moderation, the salary's impact became significantly negative. OHS, when moderated by HR quality, showed a significant positive effect. Notably, HR quality, salary, and OHS together had a significant positive influence on job satisfaction both with and without moderation.
12	Li and Griffin [23]	"Safety behaviors and job satisfaction during the pandemic: The mediating roles of uncertainty and managerial commitment"	2022	Structural Equation Modeling (SEM) was the chosen method for this research, with data obtained from 515 respondents through an online survey. The measurement model was a confirmatory factor analysis (CFA), and the analysis was performed using Mplus (v7.4).	This study's research indicates that job satisfaction and OHS culture were not related during the COVID-19 crisis.
13	Fachri [24]	"The influence of occupational health and safety on the job satisfaction of permanent employees PT. Star Rubber, Kubu Raya Regency"	2023	This study is associative research. The study gathered data through interviews and questionnaires, employing random sampling. Data analysis involved simple	The research findings demonstrated a strong and positive influence of occupational health and safety on worker satisfaction.

No	Author	Title	Year	Method	Result
				linear regression, the correlation coefficient (R), the coefficient of determination (R ²), and the F test for model feasibility, all conducted with SPSS 23.	
14	Septyarini, et al. [25]	"The Influence Of Occupational Health And Safety, Physical Work Environment And Work Motivation On Job Satisfaction (Study At PT. Enseval Megatrading Yogyakarta)"	2023	Utilizing a saturated sampling technique, this quantitative descriptive research included all 70 individuals. Data was gathered via questionnaires and analyzed using multiple linear regression with SPSS 22.	According to the study's findings, OHS and Motivation positively and significantly impact Employee Satisfaction, unlike Physical Work Environment. Nevertheless, when considered together, OHS, Physical Work Environment, and Motivation significantly influence Employee Satisfaction.
15	Amaliyah, et al. [26]	"Analysis of The Effect of Health and Safety (OHS) On Performance with Job Satisfaction as An Employee Intervening Variable"	2024	Using a quantitative method, data for this study were gathered via questionnaires administered to 100 participants, and non-probability sampling techniques. Data analysis with the SPSS program, regression	The study's results show that safety, health, and job satisfaction are significant factors impacting employee performance. Job satisfaction here is a mediator between work safety and performance, and work health and performance.

5. Discussion

Businesses that adopt strong Occupational Health and Safety measures will certainly see a large effect on how productive their workers are. This situation also has an impact on the level of job satisfaction felt by employees. In addition, the implementation of OHS is not only the responsibility of the company, but also requires active participation from employees. An understanding of OHS is very important so that workers can recognize and anticipate potential hazards and risks that may occur in the workplace. This will affect feelings of safety and comfort at work, which in turn has an impact on job satisfaction. Various previous studies have been conducted across a number of industry sectors, with varying results.

In a company setting, Helman Fachri's research found that job satisfaction is positively and importantly influenced by occupational health and safety. Fachri [24] However, another study conducted at the State Electricity Company in Kediri obtained the opposite result, where job satisfaction cannot mediate work safety, but it can be interpreted that to achieve good performance, safety must be enhanced so that employees feel satisfied while working [17].

The importance of job satisfaction as a psychological factor influences workers' views and attitudes towards safety in the work environment. If a worker is satisfied with his or her job, he or she tends to see the company as caring and responsible for safety. This can motivate workers to be more careful, follow OHS procedures properly, and avoid risky actions. Conversely, if workers are dissatisfied, they may ignore the importance of safety, feel unsupported, and be more prone to workplace accidents. Therefore, perceptions of safety depend not only on formal policies but also on the extent to which workers feel listened to and protected by the organization [12].

There is a positive and significant correlation between occupational health and safety at work and employee satisfaction. Companies with better OHS implementation experience higher employee satisfaction [25]. When occupational health and safety conditions are upheld in the work environment, workers will feel secure and can concentrate on their work, which will naturally lead to increased achievement of company goals. A good working environment, salary, promotion, and co-workers are the

dominant factors that influence job satisfaction. The job satisfaction obtained by employees greatly determines job performance and will also show quality work performance [20].

Research conducted by Kularathna and Perera [15] Concluded a positive and significant correlation between OHS and job satisfaction. Employees in secure working environments reported greater satisfaction with their work conditions compared to those in arduous settings. Therefore, working conditions are a more crucial element in determining employee job satisfaction. Additionally, research conducted by Syardiansah, et al. [21] Revealed that employee performance is significantly and positively influenced by workplace safety. Workers who are concerned about occupational health and safety will greatly influence their job satisfaction, as they feel secure while performing their tasks.

Syardiansah, et al. [22] Similar research in other places also revealed a significant positive relationship between workplace OHS and employee satisfaction. When employees recognize the significance of personal protective equipment at work, it fosters a feeling of safety. Apart from that, companies that implement OHS tend to have employees working safely and comfortably, so that job satisfaction is good. Performance is significantly affected by occupational health and safety, with job satisfaction playing an intervening role [26]. This indicates that OHS is one of the things that creates job satisfaction in employees and improves performance. Improved performance can be due to employee satisfaction with their work [13].

According to Gamal, et al. [16] Occupational Health and Safety (OHS) programs do not directly have a significant impact on employee performance. Although OHS is important in creating a safe working environment, its effect on improving performance is not direct. This means that simply providing OHS facilities and procedures does not necessarily make employee performance improve automatically. However, OHS acts as an important foundation that provides a sense of security and comfort, which can indirectly create psychological conditions that support productivity. If workers feel protected from the risk of harm and stress, they are more focused, calm, and ready to work optimally. Companies implement OHS expecting it to lead to better employee performance. An OHS culture aims to reduce uncertainty and create a healthier, safer workplace for the future [23].

A significant number of studies have addressed the influence of occupational health and safety on how satisfied people are with their jobs. This is also influenced by several factors, including salary, co-workers, promotions, leadership style, and others. Because OHS implementation in a company provides a tangible sense of security and comfort for workers, it can enhance their job satisfaction. When employees are satisfied with their jobs, it will have an impact on how well they perform their work.

6. Conclusion

Based on the results of various literature reviews, it can be concluded that the implementation of Occupational Safety and Health (OHS) programs has a positive and meaningful impact on the level of employee job satisfaction in various industrial sectors. OHS not only serves to prevent accidents or occupational diseases, but also has psychological and emotional benefits for employees. When workers feel that the work environment is safe and the company cares about their well-being, it creates a sense of comfort and trust. This feeling of security reduces pressure or anxiety during work, increases motivation to perform tasks better, and strengthens attachment or loyalty to the company. All these factors together contribute to achieving more optimal performance. Although several studies have shown that the influence of OHS on performance is not always direct, job satisfaction has been proven to be a mediating variable that links the implementation of OHS to improving employee performance. Other factors such as salary, promotion, relationships between colleagues, and leadership style also affect job satisfaction levels. Therefore, companies need to comprehensively integrate OHS policies in order to be able to create a conducive work environment and improve employee welfare in a sustainable manner.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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