



Implementation of Occupational Safety and Health (K3) Program to Maintain Work Productivity at PT. SCG Barito Logistic

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Article Info	ABSTRACT
<p>Article history: Received Jun 03th, 2025 Revised Jun 06th, 2025 Accepted Jun 09th, 2025</p> <hr/> <p>Keyword: Occupational safety; safety and health; work productivity; Occupational safety and health; K3.</p>	<p>Occupational Safety and Health is a maintenance and supervision program in the work environment. Implementation of the Occupational Safety and Health program is very important to create a safe and comfortable work system, this aims to increase work productivity and protect employees from the threat of danger in the work environment. The purpose of this study was to evaluate the implementation of K3 in the implementation of work by implementing the Safety Observation Card program at PT. SCG Barito Logistics. With the implementation of good K3 and meeting the standards in a company will minimize accidents at work, negligence at work, and increase employee work productivity. The method used in this study is a qualitative method using a validity data instrument test and a quantitative method of correlation analysis. The Validity and Reliability Tests confirm that the Safety Observation Card is both a valid and reliable instrument for observing and recording violations in the workplace. It can be confidently used as a tool for continuous improvement of occupational safety and health (K3) performance. The results of this study indicate that the implementation of one of the K3 programs, namely the safety observation card, has the potential to influence work productivity in the work environment of PT. SCG Barito Logistics.</p>
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INTRODUCTION

The Occupational Safety and Health Program in the workplace is a joint effort between the government, employers and workers to create a safe, comfortable and conducive working environment. The basic background regarding the importance of implementing this K3 is related to employee welfare and productivity, which is directly related to the overall performance of the company (Nurdin et al., 2023; Sarbiah, 2023). According to data from (BPJS Employment, the last five years, 2019-2023) cases of work accidents in Indonesia are still relatively high. Throughout January-November 2023, the number of work accident cases that submitted JKK claims had reached 360,635 cases. Most of the JKK claim cases occurred in companies and on plantations. The high number of work accidents in Indonesia shows that there are still many workers who ignore occupational safety and health (K3) issues and their implementation procedures because they prefer to work based on experience (Saraswati et al., 2020).

The Government of Indonesia has made continuous efforts to improve Occupational Safety and Health (OSH) programs. One such initiative was the development of the OSH program in 2016. However, despite these efforts, the number of workplace accidents in Indonesia remains high, indicating the need for stronger implementation, monitoring, and worker participation in OSH practices (Karim & Hariyono 2018; Nurdin et al., 2023).

From the high number of work accidents, the implementation of the K3 system in the workplace continues to be voiced and tightened by each company as an effort to realize zero accidents (Aska, 2020). The National Safety Council states that incidents that occur every day in the workplace can result

in serious injury or damage. These incidents can occur due to unsafe actions, unsafe conditions, or a combination of both that are around workers. One effort to reduce work accidents is to instill a culture (Reader, et al., 2015) of hazard reporting that involves all workers from the leadership level to staff. Employees can report if there are unsafe conditions and unsafe behavior (unsafe actions). Each company has its own K3 program that can be made according to company considerations, work conditions, potential hazards, and other factors in the work environment (Nurdin et al., 2023). In its implementation, this program generally must refer to the HIRADC (Hazard Identification, Risk Assessment, and Determining Control) system (Asnada & Sulistyono, 2020), SOP (Standard Operational Procedure), lifesaving rules. Then the implementation of this system can be stated in the BBS (Behavior Based Safety) campaign and socialization of the implementation of good and correct K3 in the workplace.

One of the K3 programs created by PT. SCG Barito Logistics is the safety observation card. The safety observation card is a program created by the K3 division of PT. SCG Barito Logistics with an observation method in the work environment to identify potential hazards caused by non-compliance with the K3 system, namely procedure violations, use of PPE and unsafe conditions, then employees are asked to fill out a finding form and follow-up for these findings. Identification of hazards in activities or work processes is carried out by all employees at the staff level routinely with a target of 4 safety observation cards each month. K3 supervision is not only the responsibility of one division, but all divisions are involved to be more effective in maintaining safety & comfort in the work environment. The implementation of K3 is a shared responsibility between management and employees, and success or failure depends on the commitment, understanding, and active participation of all parties (Saraswati et al., 2020).

According to the ILCI concept, supervision is one of the management controls. Lack of control in the ILCI concept is an aspect that triggers accidents, so that K3 supervision must be improved in the hope that there will be no work accidents that can harm the company (Santoso et al., 2025), both materially and non-materially (Novita & Santoso, 2025; Sari et al., 2015). Supervision activities can be said to be successful if the manager or supervisor has conducted inspections, checks, control inspections and regulated and prevented the risk of accidents that may occur. One of the key issues that can impact performance and professionalism in the workplace is a lack of discipline (Nurdin et al., 2023).

The role of supervisors in a company is crucial to ensuring that all workplace activities proceed according to plan, allowing organizational goals to be achieved effectively and efficiently (Polack et al., 2020). Supervisors are entrusted with the authority and responsibility to address unsafe worker behaviors and to communicate potential hazards within the work environment (Adhyaru & Jacobson, 2018). A firm and consistent approach by supervisors is essential in fostering employee awareness and encouraging adherence to safety protocols.

In this discussion, the Occupational Safety and Health (K3) system will focus on three key aspects: procedure violations, the use of personal protective equipment (PPE), and unsafe conditions. These elements form the foundation for developing safety observation cards. Addressing these aspects plays a significant role in enhancing employee productivity by fostering a healthy, safe, and comfortable work environment. The theoretical foundation used in developing the K3 journal includes the following: The theoretical and legal foundation for the development of the K3 journal is based on: (1) Law No. 1 of 1970 concerning Occupational Safety, which regulates safety in the workplace to prevent accidents and occupational diseases. (2) Law No. 13 of 2003 concerning Employment, which outlines workers' rights and responsibilities, including provisions related to occupational safety and health.

Government Regulation No. 50 of 2012 concerning Occupational Safety and Health Management Systems (SMK3), which sets out the requirements and procedures for implementing SMK3 in the workplace. This regulation emphasizes the importance of establishing and enforcing K3 policies, conducting hazard identification and risk assessments, implementing risk controls, and performing regular monitoring and evaluation of K3 programs.

Minister of Manpower Regulation No. 01 of 1988 concerning Personal Protective Equipment (PPE), which regulates the types and usage of PPE to protect workers from injury or hazardous exposure. It also sets standards for the design, testing, use, maintenance, and storage of PPE.

Minister of Manpower Decree No. 186 of 1999 concerning Guidelines for Implementing K3 Development and Supervision in Companies, which provides procedures and methods for supervising the implementation of K3 programs in the workplace. This includes oversight of occupational safety and health activities, and the actions required to improve K3 conditions within companies.

The purpose of the study at PT. SCG Barito Logistics is to evaluate the implementation of K3 in the implementation of work by implementing the safety observation card program. This research method uses a qualitative method using a data validity instrument test and a quantitative method of correlation analysis. The results of this study indicate that the implementation of one of the K3 programs, namely the safety observation card, has an effect on increasing work productivity in the work environment (Bisbey et al., 2021). The safety observation card is a program created by the K3 division of companies.

RESEARCH METHODS

This study uses a qualitative observational research type using a quantitative correlation analysis method design (Santoso & Kasih, 2024). The independent variables in this study are K3 knowledge and K3 supervision. The dependent variable of this study is unsafe actions and the confounding variables in this study are work accidents. The population of this study was warehouse department workers with a total of 30 safety observation card participants, a sample of 40 was taken that met the criteria. Primary data was obtained from observational data. While secondary data was obtained from KPI reports, scientific articles related to the research theme (Utama et al., 2024). Heinrich stated that the causes of accidents are unsafe actions and unsafe conditions. According to Heinrich, 80-85% of accidents that occur are caused by negligence or errors from workers, while the remaining 15-20% occur due to unsafe conditions.

The quantitative correlation research method is used to research certain populations and samples, sampling techniques are generally carried out randomly using research instruments, quantitative or statistical data analysis with the aim of testing predetermined hypotheses (Santoso et al., 2023; Santoso & Kasih, 2024). The approach used is qualitative observational, the main characteristic found in qualitative research is conducting research in natural conditions, directly to the data source, and the researcher becomes the key instrument, namely by presenting data in the form of words or pictures, and not in the form of numbers (Sa'adah et al., 2022; Santoso et al., 2024).

The location of the study was conducted at the PE warehouse of PT. SCG Barito Logistics, located in Ciwandan, Cilegon, Banten. The time of the study was in December 2024. The population in this study was 30 employees in the warehouse department with a sample of 40 safety observation card data. Observations are conducted by examining workplace conditions, identifying potential hazards, and analyzing worker behavior patterns related to the implementation of the K3 system after the safety observation card program has been introduced.

RESULTS AND DISCUSSION

Purpose of the Validity Test

The validity test is conducted to determine whether the instrument used in collecting safety data (i.e., the Safety Observation Card) accurately measures the types of violations it is intended to capture Personal Protective Equipment (PPE) violations, Procedure Violations, and Unsafe Conditions. Valid instruments help ensure that the data collected reflects actual conditions in the workplace and supports reliable decision-making.

Table 1. Validity Test Results for Safety Observation Card Indicators

Indicator	r-count	r-table (df=38)	Validity
Personal Protective Equipment (PPE)	0.625	0.312	Valid
Procedure Violation	0.710	0.312	Valid
Unsafe Condition	0.688	0.312	Valid

The validity test was conducted using Pearson's product-moment correlation coefficient, applied to data collected from Safety Observation Cards. A total of 40 observation entries were analyzed. Each indicator was assessed based on its correlation with the total score. A significance level of $\alpha = 0.05$ was used, and the critical value of r-table for $n = 40$ is 0.312. Any item with r-count $>$ r-table is considered valid. All three indicators show r-count values greater than r-table, indicating that

they are statistically valid and can be reliably used to measure safety violations in the workplace through the Safety Observation Card system.

Purpose of the Reliability Test

The reliability test aims to assess the consistency and stability of the measurement instrument in this case, the Safety Observation Card in recording safety violations (PPE violations, procedure violations, and unsafe conditions). A reliable instrument ensures that similar observations under consistent conditions produce similar results over time.

The reliability of the instrument was tested using Cronbach's Alpha method, which measures internal consistency among the items (indicators) within the observation card. A Cronbach's Alpha value ≥ 0.60 is considered acceptable for exploratory research, while a value ≥ 0.70 is generally regarded as good and reliable for applied research or policy purposes.

Table 2. Validity Test Results for Safety Observation Card Indicators

Instrument	Cronbach's Alpha	Interpretation
Safety Observation Card	0.783	Reliable (Good)

The result shows that the instrument has a Cronbach's Alpha value of 0.783, which is above the standard threshold of 0.70. This indicates that the instrument has high internal consistency, meaning the items on the Safety Observation Card reliably measure safety violations.

This correlation analysis includes three key indicators: Personal Protective Equipment (PPE) usage, procedure violations, and unsafe conditions. The analysis is based on data from the Safety Observation Cards collected in December 2024. An analysis of the Safety Observation Cards for December 2024 identified a total of 40 safety violations across three key indicators: Personal Protective Equipment (PPE) violations, Procedure Violations, and Unsafe Conditions. These observations were categorized by location: Loading Dock, Block Line, and Office.

Table 3. Safety Violations by Type and Location – December 2024

Type of Violation	Loading Dock	Block Line	Office	Total
Personal Protective Equipment (PPE)	5	0	0	5
Procedure Violation	6	6	0	12
Unsafe Condition	10	13	0	23
Total per Location	21	19	0	40

The data reveals that Unsafe Conditions were the most frequently observed violation, accounting for 57.5% of the total (23 out of 40 cases). These were particularly prevalent in the Block Line (13) and Loading Dock (10). This highlights a critical need for improved hazard identification and environmental controls in these operational areas.

Procedure Violations accounted for 30% of total observations, evenly distributed between the Loading Dock and Block Line, indicating a widespread issue with compliance to standard operating procedures. These findings suggest a potential gap in worker training, procedural clarity, or supervisory enforcement. PPE Violations made up the remaining 12.5% and were found only in the Loading Dock, indicating area-specific challenges such as PPE availability, usage enforcement, or worker awareness. Interestingly, the Office area reported no violations, likely due to its administrative nature and relatively lower exposure to physical hazards. This contrast further supports the need for location-specific interventions.

CONCLUSION

The Safety Observation Card program has proven to be a valuable tool in identifying workplace safety issues. The data for December 2024 highlights the need for continued focus on unsafe conditions, procedural compliance, and PPE usage, especially in high-risk areas. With proper interventions based on data-driven insights, organizations can enhance safety performance, reduce risks, and foster a culture of proactive safety awareness.

The Validity and Reliability Tests confirm that the Safety Observation Card is both a valid and reliable instrument for observing and recording violations in the workplace. It can be confidently used as a tool for continuous improvement of occupational safety and health (K3) performance.

Based on the findings, the following recommendations are proposed to improve the implementation of the K3 (Occupational Safety and Health) system: (1) Targeted Safety Training. Conduct regular and area-specific safety briefings, particularly focused on the Loading Dock and Block Line operations. Reinforce training on proper PPE usage and adherence to SOPs. (2) Improved Supervision and Enforcement. Strengthen the role of supervisors in enforcing compliance and modeling safe behavior. Use corrective action protocols consistently when violations are observed. (3) PPE Accessibility and Comfort. Ensure that PPE is readily available, appropriately sized, and comfortable for extended use to encourage consistent usage. (4) Hazard Control and Engineering Improvements. Identify and eliminate physical hazards contributing to unsafe conditions, particularly in the Block Line. Conduct regular hazard assessments and update control measures accordingly. (5) Periodic Evaluation and Feedback Loop. Establish routine monitoring and evaluation of K3 performance using Safety Observation Cards. Create a feedback system where workers can report safety concerns anonymously and suggest improvements.

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