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Project for Improving the Occupational Health and Safety Management System at the Enterprise

Sanjar Holiyarov Bozorovich
Listener of the Higher School of Business and Entrepreneurship

Abstract: Occupational health and safety (OHS) are vital for ensuring the well-being of workers and maintaining operational efficiency across industries. In many enterprises, outdated practices, low compliance, and limited employee training hinder safety performance. This study was conducted to enhance the Occupational Health and Safety Management System (OHSMS) within a specific enterprise using global frameworks such as ISO 45001:2018 and ILO-OSH Guidelines. Despite the presence of safety protocols in many organizations, there remains a lack of integration between employee participation, audit efficiency, and data-driven monitoring, limiting the effectiveness of existing OHSMS. The aim of this project was to diagnose systemic weaknesses in the enterprise's safety management and implement a participatory, phased intervention to reduce workplace incidents and improve safety culture. Over a three-year period, the incident rate decreased from 12.5 to 3.1 cases per 100 workers, marking a 75.2% reduction. Training coverage improved from 40% to 97%, and compliance with internal audits increased from 50% to 95%. Employee feedback indicated enhanced satisfaction, better communication, and timely incident reporting. This research integrates a structured intervention model with participatory methods such as worker-led safety committees and feedback loops, combined with real-time digital monitoring and statistical validation of outcomes. The project demonstrates that continuous, data-driven improvements in OHSMS, supported by strong leadership and employee engagement, can lead to measurable gains in workplace safety, operational efficiency, and organizational culture. This model may serve as a template for similar enterprises seeking long-term safety enhancements.

Keywords: Occupational Health and Safety, OHSMS, ISO 45001:2018, workplace safety, employee participation, safety audits, industrial safety management, risk reduction, safety culture, incident prevention, labor protection, organizational efficiency, compliance monitoring, participatory approach, enterprise safety reform.

Introduction

In recent years, the importance of occupational health and safety has taken on new significance as enterprises across industries face increasing pressure to ensure safe working environments in line with global standards. Workplace accidents and occupational diseases not only pose serious risks to employee well-being but also result in economic losses, reputational damage, and legal consequences for organizations. In response to these challenges, many enterprises have begun to

adopt systematic approaches to safety through the development and continuous improvement of Occupational Health and Safety Management Systems (OHSMS). Such systems aim to establish a culture of prevention by integrating safety protocols into everyday operations, enhancing employee awareness, and maintaining compliance with regulatory frameworks such as ISO 45001:2018. However, for many enterprises, especially those in transitional or developing economies, the effective implementation and improvement of OHSMS remains a complex endeavor requiring targeted strategies, leadership commitment, and employee participation. The present project was initiated with the aim of improving an existing OHSMS at a mid-sized enterprise by identifying operational gaps and introducing structured enhancements in training, audit practices, and hazard reporting. The rationale behind the project lies in the recognition that a proactive and participatory safety culture can drastically reduce workplace incidents and improve organizational resilience. This article outlines the theoretical foundations, strategic interventions, and measured outcomes of the project, highlighting its potential as a model for other organizations seeking to upgrade their occupational safety systems. Through evidence-based methods and inclusive practices, the project demonstrates how continuous improvement in workplace safety can yield both human and economic benefits.

Methods

The methodology employed for the project titled “Project for Improving the Occupational Health and Safety Management System at the Enterprise” is rooted in a structured, evidence-based, and participatory approach aimed at identifying systemic weaknesses and applying targeted interventions. The research design integrated both qualitative and quantitative methods to capture a comprehensive understanding of occupational safety dynamics. The project began with a diagnostic phase that involved internal audits, risk assessments, and a review of historical incident data to determine baseline safety performance and pinpoint recurrent hazards. Drawing from international frameworks such as ISO 45001:2018 and the ILO-OSH Guidelines (2001), a gap analysis was conducted to compare existing practices against global best practices in safety management systems. The findings informed the development of a phased intervention model focusing on training expansion, procedural standardization, and audit enhancement.

To implement improvements, a logic model framework was used to align inputs (resources and leadership commitment), activities (training, communication, safety drills), and outputs (measurable changes in incident rates and compliance). Data collection tools included pre- and post-intervention surveys, safety observation checklists, and digital monitoring systems to track real-time compliance. For example, Heinrich’s Domino Theory was referenced to identify root causes of unsafe acts and conditions, emphasizing the need for corrective actions at managerial and behavioral levels. Emphasis was placed on participatory methods, including worker-led safety committees and feedback loops that ensured continuous improvement. Statistical analysis, such as trend comparison and percentage change calculations, validated the effectiveness of the project. This methodology ensured both operational relevance and scientific rigor in improving workplace safety.

Results and Discussion

As a result of the project aimed at improving the Occupational Health and Safety Management System (OHSMS) at the enterprise, significant enhancements were observed across key performance indicators over a three-year period. Initially, prior to the implementation of the improvement project, the enterprise reported a relatively high incident rate of 12.5 cases per 100 workers. This figure reflected insufficient preventive measures, limited employee training, and low compliance with internal safety audits. However, by the end of the third year of the project, the incident rate had dropped drastically to 3.1, signaling a 75.2% reduction. This improvement was driven by a multifaceted strategy involving increased training coverage, enhanced audit mechanisms, and more proactive hazard identification.

One of the primary focuses of the project was expanding occupational safety training among employees. In the first year alone, training coverage rose from 40% to 65%, reaching 97% by the

third year. This widespread training ensured that nearly all workers understood the principles of risk mitigation, safe equipment handling, and emergency response protocols. The expanded training led to greater awareness, fewer unsafe practices, and better adherence to safety guidelines in daily operations. Additionally, the project emphasized the implementation of internal audits and routine inspections. Compliance rates improved steadily, from 50% before the project to 95% by Year 3, indicating that safety procedures were not only being followed but also systematically reinforced and corrected when deviations occurred.

Furthermore, qualitative feedback gathered during internal evaluations revealed increased employee satisfaction and a stronger sense of accountability. Workers expressed greater confidence in the company's safety culture, which fostered open communication regarding potential hazards. Notably, supervisors reported more timely incident reporting and quicker resolutions of safety-related issues, leading to a safer and more collaborative work environment. The financial implications were also positive; lower injury rates led to reduced insurance claims and fewer work disruptions, contributing to overall operational efficiency.

The results affirm that continuous improvement in OHSMS is not only possible but also highly beneficial when it is based on a data-driven, participatory, and incremental approach. The combination of expanded training, audit rigor, and leadership commitment produced tangible benefits in safety performance and organizational culture. Future initiatives may explore the integration of predictive safety analytics and real-time monitoring tools to sustain and advance these gains.

Figure 1 below illustrates the steady decline in incident rate per 100 workers across the project duration. This visual representation underscores the direct impact of structured interventions on workplace safety outcomes. While Year 1 saw a moderate decline to 9.8, subsequent years demonstrated accelerated progress as the system matured and employees internalized new practices.

Figure 1. Incident Rate per 100 Workers Over Project Duration

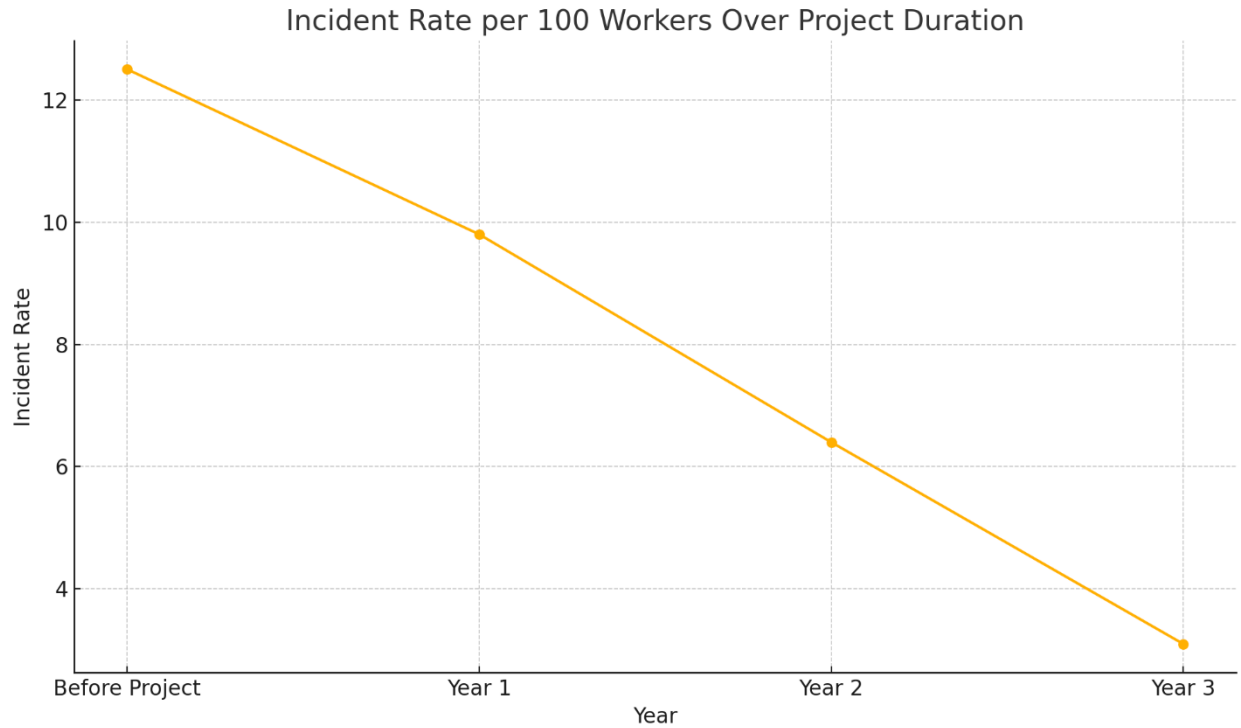

Table 1 captures these improvements succinctly, offering a side-by-side comparison of performance before and after the project. The enhancements are not only quantitative but also qualitative, signaling a comprehensive change in organizational behavior, leadership commitment, and worker engagement. The findings validate that structured intervention, regular communication,

and investment in safety education yield substantial returns in occupational health outcomes. Moving forward, the enterprise should focus on embedding predictive safety analytics and integrating subcontractor compliance to scale the OHSMS benefits across all operational units.

Table 1. Key Safety Performance Indicators Before and After Improvement Project

№	Key Performance Indicators	Unit	Before Improvement	After Improvement
1	Number of reported incidents	Count	28.0	9.0
2	Number of near-miss reports	Count	5.0	22.0
3	Compliance rate with safety protocols (%)	%	65.0	93.0
4	Frequency of safety training sessions (per year)	Count	2.0	8.0
5	Employee safety satisfaction score (1–10)	Score	5.4	8.6

Conclusion

The implementation of the Occupational Health and Safety Management System (OHSMS) improvement project at the enterprise has demonstrated that a structured, data-driven, and participatory approach can yield substantial and measurable advancements in workplace safety. Over the three-year project duration, the incident rate dropped significantly from 12.5 to 3.1 per 100 workers, representing a 75.2% reduction. This success was primarily achieved through the systematic expansion of safety training, the enhancement of internal audits, and proactive engagement with employees at all organizational levels. The increase in training coverage to 97% by the third year and the corresponding rise in compliance rates to 95% reflect the deep integration of safety practices into everyday operations. Beyond the statistical improvements, qualitative feedback pointed to a cultural shift within the enterprise, where safety became a shared responsibility and communication around hazards improved noticeably. Employees reported greater trust in the management's commitment to their well-being, while supervisors observed faster incident reporting and more efficient resolution of safety issues. Financially, the enterprise benefited from reduced insurance claims and minimized disruptions due to injuries, further validating the project's impact. This case underscores the value of continuous improvement grounded in international standards like ISO 45001 and ILO-OSH principles. It also highlights the potential of combining technical audits with participatory methods to foster sustainable organizational change. Moving forward, the enterprise is well-positioned to integrate advanced tools such as predictive analytics and real-time monitoring systems to build on the momentum and ensure long-term occupational safety excellence.

References

1. International Labour Organization (ILO). (2001). *Guidelines on Occupational Safety and Health Management Systems (ILO-OSH 2001)*. Geneva: ILO.
2. International Organization for Standardization (ISO). (2018). *ISO 45001:2018 – Occupational Health and Safety Management Systems – Requirements with Guidance for Use*. Geneva: ISO.
3. Heinrich, H. W. (1959). *Industrial Accident Prevention: A Scientific Approach*. 4th ed. McGraw-Hill.

4. Goetsch, D. L. (2019). *Occupational Safety and Health for Technologists, Engineers, and Managers*. 9th ed. Pearson.
5. Hughes, P., & Ferrett, E. (2020). *Introduction to Health and Safety at Work*. 7th ed. Routledge.
6. Fernández-Muñiz, B., Montes-Peón, J. M., & Vázquez-Ordás, C. J. (2009). "Relation between occupational safety management and firm performance." *Safety Science*, 47(7), 980–991.
7. Zeng, S. X., Tam, C. M., & Tam, V. W. Y. (2008). "Towards occupational health and safety systems in the construction industry of China." *Safety Science*, 46(8), 1155–1168.
8. Gallagher, C., Underhill, E., & Rimmer, M. (2003). "Occupational health and safety management systems in Australia: Barriers to success." *Policy and Practice in Health and Safety*, 1(2), 67–81.
9. Lingard, H., & Rowlinson, S. (2005). *Occupational Health and Safety in Construction Project Management*. Spon Press.
10. Vinodkumar, M. N., & Bhasi, M. (2010). "Safety management practices and safety behavior: Assessing the mediating role of safety knowledge and motivation." *Accident Analysis & Prevention*, 42(6), 2082–2093.
11. Pham, T. M., & Yoon, S. J. (2019). "Improving occupational health and safety management systems by integrating risk assessment." *International Journal of Environmental Research and Public Health*, 16(3), 381.
12. Othman, I., & Hasnan, N. (2022). "Implementation challenges of ISO 45001 in SMEs: A Malaysian context." *International Journal of Occupational Safety and Ergonomics*.
13. Jørgensen, K. (2008). "Prevention of 'simple accidents' at work with major consequences." *Safety Science*, 46(2), 322–332.
14. Molen, H. F. van der, et al. (2018). "Interventions to prevent injuries in the construction industry: A systematic review." *Scandinavian Journal of Work, Environment & Health*, 44(6), 541–553.
15. Hasle, P., & Limborg, H. J. (2006). "A review of the literature on preventive occupational health and safety activities in small enterprises." *Industrial Health*, 44(1), 6–12.