# Analyze the implementation of Risk Management and Emergency Response in the Workplace: Literatur Review

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# **ABSTRACT**

Based on the analysis of the eight journals, it is concluded that the implementation of risk management and emergency response in the workplace is crucial for building a safe and efficient work environment. Every organization must have a clear and comprehensive plan to handle risks and respond to emergency situations. In addition, training and awareness regarding safety among employees are also important elements in improving preparedness and response to emergencies. This study offers valuable insights for organizations to develop more effective risk management practices and enhance workplace safety and health. This study utilizes library research or literature review. For gathering data for literacy studies, one can reference local and international books, research journals, scientific articles, and studies done by other researchers, the result is based on the analysis of the journals, it is concluded that the implementation of risk management and emergency response in the workplace is crucial for building a safe and efficient work environment. Every organization must have a clear and comprehensive plan to handle risks and respond to emergency situations.

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#### INTRODUCTION

Risk management and emergency response in the workplace are crucial elements that cannot be overlooked in the quest for a safe and efficient work environment. In an increasingly complex and changing international context, organizations face various challenges that can affect their operational continuity. Thus, the implementation of efficient risk management is essential to recognize, analyze and manage risks that may arise. This not only relates to managing financial risks, but also includes risks related to occupational safety and health, reputation, and regulatory compliance.(Rafnasya et al., 2025)

Effective implementation of risk management in the work environment can support organizations in reducing the adverse impact of various threats that may arise. For example, the danger of workplace accidents can be reduced with proper safety training and implementation of safe work procedures. In addition, organizations must also have a robust emergency response strategy to handle crisis situations, such as natural disasters or unexpected events. This plan should include actions that need to be taken to maintain the safety of employees, assets, and the organization's

reputation. In this way, risk management and emergency response serve not only as a means to protect the organization, but also as a strategy to strengthen stakeholder trust and build a proactive work culture. (Sirait & Susanty, 2021)

In this study, we will examine how the implementation of risk management and emergency response in the work environment can improve occupational safety and health, as well as the operational efficiency of the organization. The study aims to provide deeper insights into the significance of risk management in the work environment, as well as how organizations can implement efficient strategies to manage risks. Through a qualitative approach, the research will include interviews with stakeholders from various industry sectors, as well as document analysis relating to applicable policies and procedures. It is hoped that the results of this research will be able to provide useful advice for organizations in improving the implementation of risk management and emergency response in their work environment. (Salasa et al., 2024)

In general, analyzing the implementation of risk management and emergency response in the workplace is a crucial step towards creating a safe and productive work environment. By knowing and managing risks well, organizations can not only protect their employees and assets, but also improve competitiveness and operational continuity. As a result, this study is expected to make an important contribution to the development of risk management practices across diverse industry sectors, as well as raise awareness of the significance of occupational safety and health in the work environment. (Sarbiah, 2023)

#### **METHOD**

This study utilizes library research or literature review. For gathering data for literacy studies, one can reference local and international books, research journals, scientific articles, and studies done by other researchers. A literature review provides a summary of the literature associated with a topic. It offers insights into the latest developments in the domain. The literature review allows the researcher to suggest a specific method, elaborate on it, and comprehend its connection to philosophy as well as its relevance to a specific topic/outcome. The study instrument employs mobile phones, laptops, and Wi-Fi networks to gather existing research information to find journals released in the past five years, from 2019 to 2024. Examine or make use of publication sources to review the literature and employ Google Scholar along with pertinent references for conducting searches.(Cabrera & Cabrera, 2023)

#### RESULTS AND DISCUSSION

Based on the search results regarding Analyze the implementation of Risk Management and Emergency Response in the Workplace, there are several relevant journals related to this research. The results of the analysis of these journals will be described in Table 1 below.

Title	Year	Result
Analysis of Risk Management Implementation and Mitigation (Case Study of JNE Warehouse Fire).(Lysion et al., 2022)	2022	Based on the results of field research conducted at PT JNE, it was revealed that there are several risks that hinder the supply chain process. One of the existing problems is a fire in the goods storage warehouse owned by JNE Express located on Jalan Perkapuran, Depok. Therefore, researchers analyzed the implementation of risk management and its mitigation at JNE. The purpose of this study is to evaluate the implementation of risk management and its mitigation steps as well as to understand the method to determine the new logistics path after the fire disaster at PT.JNE.
Analysis of Emergency Response System in Fire Fighting Efforts in the Workplace.(Pasaribu et al., 2024)	2024	When it comes to fire, it is important to know that there are three main factors that can cause a fire: fuel, heat source and oxygen. Therefore, every building must have an appropriate fire protection system to reduce the potential for fire, meet applicable safety standards, and be equipped with adequate evacuation equipment. In addition, every building is required to have a fire protection plan that describes the steps to be taken in the event of an emergency such as a fire. A fire department is also crucial to protect the safety of employees and company assets; fire detection training should

Analysis of Fire Emergency Response Preparedness and	2024	be conducted regularly to ensure the readiness of emergency response teams. Risk management is a key strategy to ensure that the business and storage operations remain operational in the event of a fire. It is important to recognize fire risks. By going through all these steps appropriately and following safety standards, fire suppression can be more effective and risks can be reduced.  The results showed that although the majority of hospitals had basic policies and infrastructure in place for emergency management, there
Hospital Management Commitment in Indonesia.(Rifdha et al., 2024)		were differences in implementation and understanding of procedures among staff. In addition, it was revealed that disaster training and simulation had not been evenly distributed across the hospitals.
OCCUPATIONAL SAFETY AND HEALTH RISK MANAGEMENT IN THE CUTTING PROCESS AT THE WARSHIP DIVISION OF PT. PAL INDONESIA (PERSERO).(R. K. Sari & Harjono, 2024)	2024	The identification results showed the presence of hazards and risks with varying severity and frequency. Risk evaluation resulted in 1 low risk hazard, 5 medium risk hazards, and 1 high risk hazard. Implementation of existing controls is able to reduce risks. The remaining risks after control showed 4 hazards with low risk and 3 hazards with moderate risk. The biggest risk type is fire caused by leakage in the regulator hose. The risk management that has been implemented is adequate, as evidenced by the decrease in the risk category of the remaining risks which are now in the low and medium risk categories. PT PAL INDONESIA Warship Division has a strong commitment to the implementation of risk control.
Analysis of the Implementation of the Occupational Health and Safety Management System (SMK3) at PTPN VI in Pangkalan Koto Baru District West Sumatra.(Nanda & Hardianti, 2022)	2022	The results showed that all procedures in handling emergency situations have been fulfilled and implemented by the management of the Occupational Health and Safety Committee (P2K3) in accordance with the provisions specified in Government Regulation Number 50 of 2012 concerning the Implementation of Occupational Safety and Health Management Systems (SMK3). The conclusion of this study is the achievement of SMK3 implementation with a total percentage of 80.41% and is in the category with a good implementation assessment level.
Comprehensive Analysis of Emergency Readiness in Occupational Safety and Health Management System in Manufacturing Industry.(D. A. Sari et al., 2024)	2024	The research results regarding emergency preparedness in OHS management are not only about the existence of a written plan, but also include a safety culture that is integrated throughout the organization. In dealing with emergency preparedness and response, some identification needs to be done, such as the location or path of emergency hazards, as well as health posts to determine the safe distance to the evacuation site when an accident occurs in the work area.
Fire Emergency Response System Analysis at Margo Mulyo Community Health Center Balikpapan.(Masriansyah & Noeryanto, 2021)	2021	Based on the data analysis, it is concluded that the fire emergency response system at Margo Mulyo Balikpapan health center still has criteria that have not been met.
ANALYSIS OF THE IMPLEMENTATION OF OPERATIONAL RISK MANAGEMENT AT FIDO DIDO GUESTHOUSE AND RESTAURANT BUKIT LAWANG.(Wulandari & Simanjorang, 2023)	2023	The research findings indicate that the operational risks faced by Fido Dido Guesthouse and Restaurant include internal process risks such as transaction errors, human risks related to employee negligence and inaccuracy, system risks related to incorrect consumer information and time-consuming disbursements, and external risks including natural disasters, the covid-19 pandemic, and frequent power outages from PLN. With the implementation of effective operational risk management, the company can continue to survive and develop until now.

# Discussion and analysis the implementation of Risk Management and Emergency Response in the Workplace

In this study, the related journals have been analyzed to explore the implementation of risk management and emergency response in the workplace. The first journal, "Analysis of Risk Management Implementation and Mitigation (JNE Warehouse Fire Case Study)" by Lysion et al. (2022), highlighted the importance of risk management in the JNE warehouse fire incident, which disrupted the supply chain and demonstrated the need for comprehensive emergency planning. The second journal, "Analysis of Emergency Response System in Dealing with Fire in the Workplace" by Pasaribu et al. (2024), discusses the three main factors causing fires and the importance of an efficient fire protection system, emphasizing that every building should have a detailed fire protection plan as well as regular fire detection training. The third journal, "Analysis of Fire

Emergency Response Preparedness and Management Commitment of Hospitals in Indonesia" by Rifdha et al. (2024), highlighted that while many hospitals have basic policies for emergency management, there are differences in the understanding and application of procedures among staff, so more regular disaster training and simulations are needed.

The fourth journal, "Management of Occupational Health and Safety Risks in the Cutting Process at the Warship Division of PT PAL Indonesia (Persero)" written by Sari & Harjono (2024), revealed various potential hazards and risks in the cutting process, and showed that the implementation of risk controls has succeeded in reducing the level of risk. The fifth journal, "Analysis of the Implementation of the Occupational Health and Safety Management System (SMK3) at PTPN VI" by Nanda & Hardianti (2022), shows that all emergency handling procedures have been complied with and carried out in accordance with existing regulations, with an adequate level of application of SMK3. The sixth journal, "Comprehensive Analysis of Emergency Readiness in Occupational Safety and Health Management Systems in the Manufacturing Sector" by Sari et al. (2024), highlighted that emergency preparedness involves not only written documents, but also an integrated safety culture throughout the organization. The seventh journal, "Study of Fire Emergency Response System at Margo Mulyo Health Center"

#### CONCLUSION

Based on the analysis of the journals, it is concluded that the implementation of risk management and emergency response in the workplace is crucial for building a safe and efficient work environment. Every organization must have a clear and comprehensive plan to handle risks and respond to emergency situations. In addition, training and awareness regarding safety among employees are also important elements in improving preparedness and response to emergencies. This study offers valuable insights for organizations to develop more effective risk management practices and enhance workplace safety and health.

#### REFERENCES

- [1] Cabrera, D., & Cabrera, L. L. (2023). The Steps to Doing a Systems Literature Review (SLR). Journal of Systems Thinking Preprints. https://doi.org/10.54120/jost.pr000019.v1
- [2] Lysion, O., Zai, I., Angelina, A., Septriana, S., Cindy, C., Rivano, J., Wirawan, W., & Adiningtyas, R. I. (2022). Analisis Penerapan Manajemen Risiko dan Mitigasinya (Studi Kasus Kebakaran Gudang JNE). Jurnal Mirai Management, 7(3), Article 3. https://doi.org/10.37531/mirai.v7i3.2895
- [3] Masriansyah, M., & Noeryanto, N. (2021). Analisis Sistem Tanggap Darurat Kebakaran di Pusat Kesehatan Masyarakat Margo Mulyo Balikpapan. Jurnal IDE K3, 1(1), 57–63.
- [4] Nanda, M. P., & Hardianti, R. (2022). Analisa Penerapan Sistem Manajemen Kesehatan Dan Keselamatan Kerja (SMK3) Pada PTPN VI di Kecamatan Pangkalan Koto Baru Sumatera Barat. Jurnal Rekayasa Infrastruktur, 8(2), Article 2. https://doi.org/10.31943/jri.v8i2.185
- [5] Pasaribu, N. M. P., Oktavia, R., Khairunnisa, T. Z., & Hasibuan, A. (2024). Analisis Sistem Tanggap Darurat Dalam Upaya Penanggulangan Kebakaran di Tempat Kerja. JPM MOCCI: Jurnal Pengabdian Masyarakat Ekonomi, Sosial Sains Dan Sosial Humaniora, Koperasi, Dan Kewirausahaan, 2(2), Article 2. https://doi.org/10.61492/jpmmocci.v2i2.147
- [6] Rafnasya, I., Firly, A., Jane, S., & Djuanda, G. (2025). ANALISIS RISIKO OPERASIONAL PADA UMKM WARUNG NASI. Penerbit Tahta Media. https://tahtamedia.co.id/index.php/issj/article/view/1280
- [7] Rifdha, A., Oesraini, D. D., Muliyani, M., & Hasibuan, A. (2024). Analisis Kesiapsiagaan Tanggap Darurat Kebakaran dan Komitmen Manajamen Rumah Sakit di Indonesia. Indonesian Journal of Innovation Multidisipliner Research, 2(2), 97–107. https://doi.org/10.69693/ijim.v2i2.107
- [8] Salasa, M. A. H., Sumitro, E. S., Alfianto, A., Anam, K., & Pramono, A. Y. (2024). Penilaian Kinerja Keselamatan Pertambangan di PT Putra Perkasa Abadi: Dampak Implementasi Sistem Manajemen Keselamatan Pertambangan (SMKP) terhadap Kesehatan dan Keselamatan Kerja. Jurnal Sosial Teknologi, 4(11), 980=987-980=987. https://doi.org/10.59188/jurnalsostech.v4i11.27627
- [9] Sarbiah, A. (2023). Penerapan Pelaksanaan Keselamatan dan Kesehatan Kerja (K3) pada Karyawan. Health Information: Jurnal Penelitian, e1210–e1210.
- [10] Sari, D. A., Salsabila, T., & Hasibuan, A. (2024). Analisis Komprehensif Kesiapan Kedaruratan Dalam Sistem Manajemen Keselamatan dan Kesehatan Kerja di Industri Manufaktur. JPM MOCCI: Jurnal Pengabdian

- Masyarakat Ekonomi, Sosial Sains Dan Sosial Humaniora, Koperasi, Dan Kewirausahaan, 2(2), Article 2. https://doi.org/10.61492/jpmmocci.v2i2.133
- [11] Sari, R. K., & Harjono, A. E. (2024). MANAJEMEN RISIKO KESELAMATAN DAN KESEHATAN KERJA PADA PROSES CUTTING DI DIVISI KAPAL PERANG PT. PAL INDONESIA (PERSERO). Jurnal Kesehatan Lentera 'Aisyiyah, 7(2), Article 2.
- [12] Sirait, N. M., & Susanty, A. (2016). ANALISIS RISIKO OPERASIONAL BERDASARKAN PENDEKATAN ENTERPRISE RISK MANAGEMENT (ERM) PADA PERUSAHAAN PEMBUATAN KARDUS DI CV MITRA DUNIA PALLETINDO. Industrial Engineering Online Journal, 5(4), Article 4. https://ejournal3.undip.ac.id/index.php/ieoj/article/view/14043
- [13] Wulandari, D. A., & Simanjorang, F. (2023). Analisis Penerapan Manajemen Risiko Operasional Pada Fido Dido Guesthouse dan Restaurant Bukit Lawang. Jurnal Price: Ekonomi Dan Akuntansi, 2(01), 1–10.