

Optimization of Occupational Safety and Health Management at PT Aplikanusa Lintasarta Makassar

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ABSTRACT

Implementing safety and health management in the work environment is always necessary and should be a priority in every company. Occupational safety and health management ensures the well-being and protection of every worker in the workplace. In supporting productivity and achieving common goals, optimal K3 management optimization is needed. This study aims to examine the optimization of occupational safety and health management in the work environment of PT Aplikanusa Lintasarta Makassar. This research is qualitative. Data collection methods such as observation, interviews, and documentation are used to achieve the research objectives. The research participants consisted of five employees of PT Aplikanusa Lintasarta Makassar. The study results show that the management of occupational safety and health in the work environment of PT Aplikanusa Lintasarta Makassar is optimal, as evidenced by "optimal" occupational safety indicators. It can be seen from the completeness of work tools, work safety, employee compliance with the rules, safety, welfare standards, and company rules. Occupational health has been well implemented by the company and directly impacts employee performance; employees become more productive with health and employment insurance. An office environment improves occupational health by providing employees with a comfortable and healthy workspace. The company designs the room according to employees' work needs by creating an open office space for the comfort of employees while working. Office ergonomics is also good, as seen from the availability of room facilities that meet employees' productivity needs. As well as the arrangement of minimalist office furniture following open workspaces.

Keywords: Optimization, Occupational Safety and Health, Work Environment

INTRODUCTION

Human resource employment is related to problems related to occupational safety and health in the workplace. It protects employees against hazards and diseases from their work and the work environment. Awareness of workplace safety and health factors is essential, especially in physical applications. Therefore, companies usually form special departments or divisions to address occupational safety issues. Having the correct number of human resources is essential to achieving business goals, and productivity plays a crucial role during times of economic crisis. Productivity is a key metric to measure an organization's progress (Eritrina et al., 2023; Hancang et al., 2021; Niswaty et al., 2024; Taliang et al., 2023).

A company is an organizational unit that employs people commonly called employees to carry out their tasks in the company's production activities. When comparing work outputs, targets, objectives, or criteria, it is essential to consider the various possible standards predefined and agreed upon by all parties involved (Amir, 2019; Feizi & Elgar, 2023; Santhose & Anisha, 2023). Consistently prioritizing occupational safety and health in a company is essential to achieving this goal, as it is widely recognized to improve employee performance (Aichouni et al., 2023; Darwis et al., 2020; Jozan et al., 2023). Occupational safety and health management systems are integral to the broader management system. This term includes organizational structuring, plan formulation, division of tasks, execution of functions, establishment of procedures, management of processes, and allocation of resources essential for adequate progress, implementation, achievement, evaluation, and preservation of occupational safety and health.

Implementing an occupational safety and health management system is one way to ensure uniformity and efficiency of the company in handling potential hazards. The system can efficiently mitigate risks and prevent and reduce occupational accidents and illnesses (Adaku et al., 2021; Amirah et al., 2013; Darwis & Arhas, 2024; Horváthová et al., 2023). Applying K3 is essential for individuals who do work or activities that can potentially result in work accidents. Companies in Indonesia have also implemented the K3 method to protect their employees and reduce the likelihood of work accidents. K3 is also helpful in improving occupational safety and health, as well as mitigating budget expenditure due to work accidents.

An occupational safety and health management system aims to provide a complete system in the workplace that covers various aspects of management, employment, working conditions, and the environment. This system aims to mitigate and reduce occupational accidents and illnesses while improving a safe, effective, and productive work environment. According to Setyoko (2017), occupational safety and health management includes three main components: 1. Creating a work environment that prioritizes safety, provides comfort, and prioritizes health; 2. Implementing efforts to prevent and minimize work accidents and illnesses; and 3. Improving employee performance and productivity.

Many companies and government agencies often require their workers or employees to handle high-risk situations directly, so there is a high likelihood of accidents during work. Engaging in high-risk jobs requires expertise, training, and a strong work ethic. Unfortunately, many institutions or companies ignore these requirements, resulting in substandard job performance regarding these essential qualities. If we discuss company agencies in which it is required to implement occupational safety and health, one of them is PT Aplikanusa Lintasarta Makassar.

PT Aplikanusa Lintasarta Makassar is a telecommunications company and data service provider prioritizing occupational safety and health programs while maintaining a safe and pleasant work environment. PT Aplikanusa Lintasarta Makassar is highly dedicated to ensuring the safety and welfare of its employees. Creating a safe and enjoyable work environment that nurtures employee morale and improves the company's overall effectiveness is a tough challenge for organizations.

Ensuring safety and security in the workplace significantly affects employee productivity. Employees who feel safe and comfortable because of the company's suitable measures will be more likely to work calmly and achieve ideal performance. One practical approach to ensuring employee safety and well-being is implementing occupational safety and health programs.

Based on the findings of preliminary observations, it can be seen that PT Aplikanusa Lintasarta Makassar, a telecommunications company and service provider center in Indonesia, engaged in the service industry, needs reliable and highly skilled employees the customer service department. The technician sector is responsible for network improvement and troubleshooting related to the internet and telephone networks. The company has provided Personal Protective Equipment (PPE) to field employees, especially technicians, based on data collected at the research site regarding occupational safety and health. This includes gloves, goggles, suitcases, safety shoes, safety helmets, and other necessary equipment. However, certain people still neglect the use of complete personal protective equipment and comply with the Standard Operating Procedures (SOP). For example, safety helmets, gloves, and safety shoes should not be worn while working. However, workers reported that gloves and safety shoes were less effective when working in the field. Enforcement of occupational safety and health protocols is essential to ensure a safe, comfortable, and healthy work environment to optimize employee satisfaction and company productivity.

METHODS

The title of this research is "Optimizing Occupational Safety and Health Management in the Corporate Work Environment of PT Aplikanusa Lintasarta Makassar." This study uses a qualitative research methodology. According to Suprianto (2024), "Qualitative research refers to data conveyed through words, sentences, narrative expressions, and visuals." This research was conducted at PT Aplikanusa Lintasarta Makassar.

The research was descriptive, utilizing qualitative data in words and images, not quantitative data. This report will contain extracts of data obtained from interview transcripts, field notes, photographic evidence, and other official materials. In situations when the researcher plays a vital role in collecting and analyzing data, the results of his investigation are presented in the form of written words based on empirical facts. This qualitative research aims to collect empirical data utilizing observation and interviews, analyze relevant documents in the field, and observe behaviors related to the research. Thus, qualitative research has a distinctive role in approaching social phenomena in a way that quantitative research cannot do.

This study aims to improve the efficiency of occupational safety and health management in the work environment of PT Aplikanusa Lintasarta Makassar. This is related to various indicators outlined in the Regulation of the Minister of Health of the Republic of Indonesia 48/2016, which describes occupational safety and health standards. This research aims to improve the efficiency of occupational safety and health management in the work environment of PT Aplikanusa Lintasarta Makassar. This can be achieved by considering the following indicators: 1) Occupational safety, 2) Occupational health, 3) Occupational health in the office environment, and 4) Office ergonomics. This research involved five informants interviewed at PT Aplikanusa Lintasarta Makassar. The data collection methodology used includes observation, interview, and documentation methods. While this study uses an interactive approach in data processing, Miles & Huberman (1994) state that "qualitative data analysis includes data reduction, data presentation, and conclusion drawing."

RESULT AND DISCUSSION

The researcher collected reliable and relevant data to fully understand the process of optimizing occupational safety and health management in the organization of PT Aplikanusa Lintasarta Makassar. Data was collected by observation, interview, and documentation methods, then presented descriptively using the appropriate theoretical framework. The requirements of related laws and regulations are regulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 48 of 2016, which governs explicitly Occupational Safety and Health Standards. Specifically, his focus areas include occupational safety, employee health, environmental conditions in the office, and the science of designing workspaces for optimal human performance and well-being.

Occupational Safety

Occupational safety is a regulation to protect workers from accidents when performing workplace tasks involving hazardous instruments, machinery, and materials. PT Aplikanusa implements various requirements to ensure the safety of its employees and maintain a safe working environment.

Interview data show that Lintasarta has taken consistent steps to promote occupational safety through structured training programs and safety briefings. This is in line with Darwis & Arhas (2024), who argue that regular safety socialization is the primary determinant of effective implementation of K3 in service-oriented sectors. However, despite safety protocols

and equipment audits, some informants expressed concerns regarding the comfort and practicality of some PPE in the field. This suggests a potential gap between policy and actual implementation in the field, a common problem in K3 practice noted by Mkungunugwa et al. (2022), where equipment compliance decreases if user comfort is not adequately considered. Therefore, although the procedural aspects of safety already exist, their functional implementation still relies heavily on user input and adaptation to the realities of the field.

Occupational safety encompasses a variety of factors that contribute to creating a safe work environment, including tangible and intangible features. These safety components include certain materials such as workwear, helmets, glasses, gloves, and shoes. Non-material safety support is provided through tool usage instructions, hazard signs and signals, appeals, and security personnel.

Based on this theory, it can be concluded that occupational safety is a priority. Occupational safety is a crucial factor in the work environment, involving equipment and guidelines, as well as material and non-material instructions. Employees first need to pay attention and understand the aspects of work safety by minimizing conditions that often occur due to work accidents.

Research conducted at PT Aplikanusa Lintasarta Makassar shows worker policies and the business world have effectively optimized work safety. This restriction ensures employees comply with work discipline according to approved work safety protocols. Ensuring work safety is very important and requires concentration and comprehensive understanding from every employee to minimize the occurrence of work accidents during activities in the field.

Occupational Health

Occupational health refers to intentional actions aimed at maintaining and improving the highest possible levels of physical, mental, and social well-being for individuals in all types of work. This includes preventing health problems arising from working conditions, protecting workers from risks that may endanger their health, and ensuring proper placement and maintenance of workers in their work environment.

The interviews show that organizations can achieve legal tasks and improve employee well-being and productivity by implementing comprehensive assurance and preventive measures, such as health checks, in the workplace. Based on the results of the company's observations, Lintasarta periodically conducts medical checkups for employees, which are reviewed directly by Human Capital Management (HCM) as an early detection step to identify serious diseases that may affect employee performance.

Occupational health programs are a crucial aspect that requires careful consideration from the company. An effective wellness program will provide tangible benefits to employees, reducing absenteeism rates, creating a more enjoyable work environment, and prioritizing employee well-being. Occupational health is essential for all employees, especially those in high-risk jobs.

Ensuring the preservation of workers' safety rights during the implementation of work. Occupational health is a component of occupational safety that seeks to provide workers' welfare, productivity, and competitiveness. The goal is to enable smooth and sustainable production by preventing accidents and diseases that can interfere with workers' health. "Occupational health can be assessed by considering three main aspects: the welfare of workers, the conditions of the work environment, and the level of protection provided to workers" (Niehaus et al., 2022; Schulte et al., 2022; Wingate et al., 2023).

From the above reasons, it can be concluded that worker protection during work means harmonization of occupational safety and health. This method's main objective is to guarantee workers' safety, welfare, productivity, prosperity, and high competitiveness.

From the research results conducted at PT Aplikanusa Lintasarta Makassar, the company has a good health program for employee welfare. Employee health is directly related to operational efficiency. Because healthy employees tend to be more productive, reduce absenteeism, and help maintain a smooth work process. A supportive work environment has a positive impact on employee morale and performance, as well as on safety, lighting, and environmental cleanliness factors.

Occupational Health Office Environment

Occupational health in the office environment encompasses various aspects that prioritize employee well-being through creating a conducive work environment, resulting in increased productivity and overall job satisfaction.

Based on the results of the interview, it can be concluded that by doing so, Lintasarta not only focuses on the physical health of employees but also pays attention to mental and work stress aspects, a clean work environment, and provides flexibility to achieve a good life balance for each employee. Based on the observations, the company also prioritizes employees' holistic health, including physical, mental, and work environment aspects. The company's commitment to creating a strong and efficient work environment can be seen from various programs prioritizing occupational health in the office.

The health of the office environment is an essential aspect that influences the well-being and productivity of employees. Several factors that need to be considered for office environmental health standards and requirements refer to the Minister of Health Regulation No. 70 of 2016, which includes building facilities such as the provision of water, toilets, and buildings, and work unit leaders in determining office K3 policies and programs. The work environment of an organization has an essential meaning for the people who work in it, because it has a direct or indirect influence on them (Felknor et al., 2023; Marhavidas et al., 2022; Sousa et al., 2014).

Three main factors contribute to this. First, there is empirical evidence that tasks are performed more effectively in a well-structured work environment in a reputable organization. Second, research shows that managers can shape the work environment within their respective organizations or work units. Finally, alignment between individuals and organizations plays an essential role in this context. Creating a harmonious balance between individual satisfaction and the long-term sustainability of an organization.

From the above understanding, it can be concluded that organizations can improve the well-being and efficiency of their employees by understanding and complying with the health regulations of the office environment and fostering a conducive work environment. This creates conditions that support the achievement of the company's goals and the satisfaction of the employees who work there.

Based on research conducted at PT Aplikanusa Lintasarta Makassar, the health of the company's office environment emphasizes the importance of cleanliness in the office environment. The company pays serious attention to the health and well-being of employees. Several employees are provided with office facilities such as air conditioning and air ventilation that are sufficient for work comfort. In addition, the company also provides flexibility to employees to set their work schedules according to the rules of working hours. Thus, Lintasarta is committed to creating a healthy, comfortable, supportive office environment, employee welfare, and productivity.

Office Ergonomics

Office ergonomics is a significant environmental component that affects office work productivity. Ergonomics recommends the management of light, air, sound, and color to

increase productivity in workplace tasks. Office ergonomics is a scientific field examining methods for forming an ergonomically designed work environment.

Based on the results of interviews with several informants, it can be explained that the company provides comprehensive ergonomics by paying attention to organizational structure, spatial planning, employee needs, employee welfare, and freedom. This creates a work environment that is efficient and supports the health and comfort of employees. Based on the observations, the company provides employee welfare by integrating ergonomic principles in the organizational structure and office layout, and some employees need a larger desk that contains many items.

Office ergonomics can be interpreted as rules or guidelines related to the interaction or relationship between workers and the work equipment used in office work. The basic concept of office ergonomics includes three main elements, namely people, tasks, and the work environment. Understanding the principles of office ergonomics, such as lighting, temperature, noise, and monitor coating, allows you to assess the suitability of the job for a worker or operator who knows the tools used. This knowledge helps minimize work-related complaints and increase productivity in the workplace." (Esposito et al., 2014; L'Her & Annie, 2011; Tirupachuri et al., 2021).

A worker's work capacity is determined by his or her capacity, including age, gender, experience, and social status. Based on the above understanding, it can be concluded that office ergonomics involves principles that intersect the interaction between workers and work equipment in the office environment. A good understanding of ergonomics allows for the determination of the work of the worker, by paying attention to the construction of equipment used to reduce worker complaints and increase productivity.

Based on the research results at PT Aplikanusa Lintasarta Makassar, office ergonomics is regulated based on the level of position and employee needs. The junior manager has well arranged the office layout according to the needs of the divisions in the company. The researcher assesses the conformity between spatial planning rules and employees' work needs. The work equipment provided has met office ergonomics standards, including adjustable chairs, tables with standard heights, and room arrangements that pay attention to the comfort and posture of employees while working. Overall, Lintasarta's management has paid attention to ergonomic principles when arranging spaces and work facilities.

CONCLUSION

After conducting research and discussion, it can be concluded that the improvement of occupational safety and health management in the workplace of PT Aplikanusa Lintasarta Makassar depends on various dimensions or indicators of occupational safety and health, with special emphasis on the provision of adequate personal protective equipment. Personal Protective Equipment (PPE). An annual evaluation is carried out regarding the feasibility of use and monitoring. This can be seen from employee compliance with the requirements for using Personal Protective Equipment (PPE). Implementing this measure can improve organizational efficiency and ensure the safety of employees while carrying out their duties. Occupational health refers to the provision of health insurance to employees. Health insurance is provided through two programs: BPJS Kesehatan and BPJS Employment. Both programs provide essential safety and protection for employees, assisting them in dealing with health and employment risks they may face while on the job. The health of the office environment is crucial to creating a clean and comfortable working atmosphere. The company provides facilities or programs that support stress management, such as aerobic gymnastics programs and periodic health checkups, by prioritizing other factors and building a conducive and pleasant work atmosphere. Organizations can improve employee well-being and overall

efficiency. Office ergonomics refers to office equipment, such as chairs and desks, that support the physical health of employees. The company regulates an open workspace to help employees reduce work stress and use ergonomic equipment such as computer equipment, keyboards, mice, chairs, and desks that support healthy posture.

REFERENCES

- Adaku, E., Ankrah, N. A., & Ndekugri, I. E. (2021). Design for occupational safety and health: A theoretical framework for organisational capability. *Safety Science*, 133. <https://doi.org/10.1016/j.ssci.2020.105005>
- Aichouni, M., Touahmia, M., Alshammari, S., Said, M. A., Aichouni, A. B. E., Almudayries, M., & Aljohani, H. (2023). An Empirical Study of the Contribution of Total Quality Management to Occupational Safety and Health Performance in Saudi Organizations. *International Journal of Environmental Research and Public Health*, 20(2). <https://doi.org/10.3390/ijerph20021495>
- Amir, A. S. (2019). Application of the Service Reply System to Increase Work Productivity of Statistics Office Officers in Bantaeng Regency. *Jurnal Office*, 5(1), 33–42.
- Amirah, N. A., Asma, W. I., Muda, M. S., & Mohd Amin, W. A. A. W. (2013). Safety culture in combating occupational safety and health problems in the Malaysian manufacturing sectors. *Asian Social Science*, 9(3). <https://doi.org/10.5539/ass.v9n3p182>
- Darwis, M., Muchlisa, D., & Siagian, A. O. (2020). The Effectiveness of the Occupational Health and Safety Management System at PT. PLN (Persero). *GNOSI: An Interdisciplinary Journal of Human Theory and Praxis*, 3(3), 120–129.
- Darwis, Muh., & Arhas, H. (2024). Manajemen K3LH. In *ASHA Publishing*. ASHA Publishing. <https://doi.org/10.63164/590718>
- Eritrina, E., Nur, A. C., Aslinda, A., & Herman H, H. H. (2023). Implementation of E-Kinerja in Increasing Work Productivity. *Jurnal Administrare: Jurnal Pemikiran Ilmiah Dan Pendidikan Administrasi Perkantoran*, 10(2), 303–310.
- Esposito, C., Najmaldin, A., Schier, F., Yamataka, A., Ferro, M., Riccipetioni, G., Czauderna, P., Ponsky, T., Till, H., Escolino, M., Iaquinto, M., Marte, A., Saxena, A., Settimi, A., & Rothenberg, S. (2014). Work-related upper limb musculoskeletal disorders in pediatric minimally invasive surgery: A multicentric survey comparing laparoscopic and sils ergonomics. *Pediatric Surgery International*, 30(4). <https://doi.org/10.1007/s00383-013-3437-y>
- Feizi, S., & Elgar, F. (2023). Satisfaction, research productivity, and socialization in doctoral students: Do teaching assistantship, research assistantship and the advisory relationship play a role? *Heliyon*, 9(9), e19332. <https://doi.org/10.1016/j.heliyon.2023.e19332>
- Felknor, S. A., Streit, J. M. K., Edwards, N. T., & Howard, J. (2023). Four Futures for Occupational Safety and Health. In *International Journal of Environmental Research and Public Health* (Vol. 20, Issue 5). <https://doi.org/10.3390/ijerph20054333>
- Harcang, H., Guntur, M., Herman, H., & Niswaty, R. (2021). The Effect of Work Discipline and Career Development on the Work Productivity of Employees at the Education Office and the Culture of Wajo District. *Jurnal Ad'ministrare*, 8(1), 255–262.
- Horváthová, P., Mokrý, K., & Konečný, F. (2023). The level of occupational safety and health promotion in Czech family manufacturing enterprises. *Safety Science*, 157. <https://doi.org/10.1016/j.ssci.2022.105946>
- Jozan, B. M. M., Ghorbani, B. D., Khalid, M. S., Lotfata, A., & Tabesh, H. (2023). Impact assessment of e-trainings in occupational safety and health: a literature review. *BMC Public Health*, 23(1). <https://doi.org/10.1186/s12889-023-16114-8>

- L'Her, E., & Annie, R. R. (2011). Bench tests of simple, handy ventilators for pandemics: Performance, autonomy, and ergonomics. *Respiratory Care*, 56(6). <https://doi.org/10.4187/respcare.00841>
- Marhaviyas, P. K., Pliaki, F., & Koulouriotis, D. (2022). International Management System Standards Related to Occupational Safety and Health: An Updated Literature Survey. In *Sustainability (Switzerland)* (Vol. 14, Issue 20). <https://doi.org/10.3390/su142013282>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.
- Mkungunugwa, T., Owili, P. O., Muula, A. S., & Kuo, H. W. (2022). Implementation Determinants of Zimbabwe National Occupational Safety and Health Policy in Willowvale Industrial Area, Zimbabwe. *International Journal of Environmental Research and Public Health*, 19(3). <https://doi.org/10.3390/ijerph19031424>
- Niehaus, S., Hartwig, M., Rosen, P. H., & Wischniewski, S. (2022). An Occupational Safety and Health Perspective on Human in Control and AI. *Frontiers in Artificial Intelligence*, 5. <https://doi.org/10.3389/frai.2022.868382>
- Niswaty, R., Vebriani, N., & Arhas, S. H. (2024). The Influence of Open Plan Office on the Work Productivity of KMP LAN Puslatbang Employees. *Pinisi Journal of Officers Review*, 1(1), 1-10.
- Santhose, S. S., & Anisha, B. (2023). Psychological improvement in Employee Productivity by Maintaining Attendance System using Machine Learning Behavior. *Journal of Community Psychology*, 51(1). <https://doi.org/10.1002/jcop.22902>
- Schulte, P. A., Delclos, G. L., Felknor, S. A., Streit, J. M. K., McDaniel, M., Chosewood, L. C., Newman, L. S., Bhojani, F. A., Pana-Cryan, R., & Swanson, N. G. (2022). Expanding the Focus of Occupational Safety and Health: Lessons from a Series of Linked Scientific Meetings. In *International Journal of Environmental Research and Public Health* (Vol. 19, Issue 22). <https://doi.org/10.3390/ijerph192215381>
- Setyoko, S. (2017). Sistem Manajemen Keselamatan dan Kesehatan Kerja (SMK3) pada Perusahaan. *Orbith: Majalah Ilmiah Pengembangan Rekayasa Dan Sosial*, 13(3).
- Sousa, V., Almeida, N. M., & Dias, L. A. (2014). Risk-based management of occupational safety and health in the construction industry - Part 1: Background knowledge. In *Safety Science* (Vol. 66). <https://doi.org/10.1016/j.ssci.2014.02.008>
- Suprianto. (2024). Memahami Esensi Penelitian Kualitatif : Pendekatan, Proses, dan Praktik Terbaik. *ASHA Publishing*. <http://ashapublishing.co.id/>.
- Taliang, A., Rijal, S., Niswaty, R., Herman, & Arhas, S. H. (2023). Employee Performance: the Role of Operational Work Tools Toward Productivity. *Journal of Governance and Regulation*, 12(3 Special Issue). <https://doi.org/10.22495/jgrv12i3siart1>
- Tirupachuri, Y., Ramadoss, P., Rapetti, L., Latella, C., Darvish, K., Traversaro, S., & Pucci, D. (2021). Online Non-Collocated Estimation of Payload and Articular Stress for Real-Time Human Ergonomics Assessment. *IEEE Access*, 9. <https://doi.org/10.1109/ACCESS.2021.3109238>
- Wingate, K., Dalsey, E., & Scott, D. P. (2023). A review of occupational safety and health research for American Indians and Alaska Natives. *Journal of Safety Research*, 84. <https://doi.org/10.1016/j.jsr.2022.10.020>