# A Study Evaluating the Implementation of Occupational Safety Measures in Chosen FMCG (Fast-Moving Consumer Goods) Manufacturing Companies of Nepal

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The purpose of this article is to examine the methods used to ensure the health and safety of FMCG workers in Nepal, with a focus on those who do their jobs from the comfort of their own homes. Using secondary data collected from various sources such as books, papers, articles, and the internet, this research employs a descriptive and qualitative approach. Overall, the results demonstrate that occupational safety and health (OSH) in Nepal is in dismal shape, and that there is a dearth of research focusing on the FMCG industry in Nepal. Workers in the FMCG industry are either not aware of the risks they face on the job or do not take enough safety steps to protect themselves, according to the report. Multiple sclerosis is more prevalent in the sewing department among the many musculoskeletal disorders experienced by workers in this sector. Age, gender, and level of education are some of the risk factors for musculoskeletal disorders. Improving occupational safety and health in this profession requires immediate and thorough action from the government, companies, and workers, according to the report. The report also stresses how intricate clothing factories are.

**Keywords:** OSH, safety, FMCG, musculoskeletal illnesses, health problem.

## 1. Introduction

The field known as occupational safety and health focuses on preventing, identifying, assessing, and controlling risks that may exist in the workplace and have an effect on the health and safety of employees, as well as on the community and the environment at large [1].

The number of people in Nepal who are actively seeking employment rose from 9,463 in 1998–99 to 11,7779 in 2008, as reported in the 2008 Nepal Labour Force Survey. From 16.0 percent in 1998/99 to 16.9 percent in 2008, there was a little rise in the share of paid workers. In addition, according to the categorization of industries, 73.9% of the workforce is engaged in agriculture, while 26.1% is not connected to agriculture [2]. In its mission to ensure that all people, regardless of gender, have the opportunity to work in safe, fair, and respectable environments, the International LabourOrganisation (ILO) has been in existence since 1919 and has continuously improved its system of international labour standards. As part of the international framework for making sure that everyone benefits from the expansion of the global economy, international labour standards are crucial in today's globalised economy [3]. There has been a lack of focus on occupational safety and health in Nepal, despite the fact that it is a crucial problem on personal, societal, and national levels. That much is clear from the little literature on Nepal's workplace safety and health measures. This research aims to provide a broad overview of Nepal's occupational health and safety situation.

Occupational safety is a paramount concern in the manufacturing sector, where employees are exposed to various hazards and risks on a daily basis[4]. The Fast-Moving Consumer Goods (FMCG) manufacturing industry, a crucial component of the economic landscape in Nepal, plays a pivotal role in producing goods that are rapidly consumed by the public. Ensuring the well-being of workers within this sector is of utmost importance, not only for the individuals involved but also for the overall productivity and sustainability of these companies[5].

This study seeks to comprehensively evaluate the implementation of occupational safety measures in selected FMCG manufacturing companies in Nepal[6]. The FMCG sector, characterized by its fast-paced production environment, demands a keen focus on employee safety to mitigate potential accidents and health risks[7]. By examining the current state of occupational safety practices in these companies, this research aims to provide valuable insights into the strengths and weaknesses of existing safety measures, ultimately contributing to the enhancement of workplace safety standards in the FMCG manufacturing sector of Nepal[8].

The significance of this study lies in its potential to bridge the existing gap in knowledge regarding the practical implementation of occupational safety protocols in the context of FMCG manufacturing in Nepal. As workplaces evolve and industries grow, it becomes imperative to adapt and improve safety practices to meet the dynamic demands of the manufacturing environment[9]. The findings of this research endeavor are anticipated to serve as a foundation for future policy development, industry best practices, and academic discourse on occupational safety within the FMCG sector[10].

Through a meticulous examination of safety protocols, incident records, and employee perceptions, this study aims to provide a holistic understanding of the occupational safety landscape in chosen FMCG manufacturing companies in Nepal[11]. The insights gained from this research have the potential to inform strategic decision-making processes for both industry stakeholders and regulatory bodies, fostering a safer and healthier working environment for employees in the FMCG manufacturing sector.

### 2. Literature Review

It is still necessary to demonstrate the benefits of Occupational Safety and Health (OSH) in small and medium-sized enterprises in Nepal, since the concept is still not completely grasped. Even after more than 30 years of complicated requirements assessment and prioritisation, over 80% of the world's workforce still does not have sufficient access to occupational safety and health (OSH). The International LabourOrganisation (ILO) reports that over 250 million workers have injuries or illnesses related to their jobs annually. Every year, accidents and illnesses on the job claim the lives of over 1.2 million people. According to the International LabourOrganisation, Nepal's employment rate is greatest in the agricultural sector, then in the service and industrial industries. In 2016, 1.9 million individuals lost their lives as a result of work-related illnesses and injuries, as revealed by the first combined estimates from the WHO and the ILO. The General Federation of Nepalese Trade Unions (GEFONT) and other trade union federations have been actively raising awareness about occupational safety and health (OSH) since 1994 (The World Bank, 2021). With funding and technical assistance from the International LabourOrganisation (ILO) and Danida, the government is addressing the issue through the Occupational Safety and Health Project (OSH) and the establishment of an Occupational Safety and Health Centre (OSH Centre) (National Occupational Safety and Health Profile for Nepal, 2022). The project's stated goals include disseminating information regarding workplace health issues, reviewing relevant legislative frameworks, and providing training. Workers are at danger since safeguards aren't in place to prevent harm. Inadequate safety procedures have resulted in serious injuries to many employees in the industrial sector on several occasions [12]. Victims get financial assistance to pay for medical bills in certain cases but not others. According to sources cited in The Himalayan Times (2021), BMC Public Health (2019), MOJ Public Health (2020), and the Centre for Social Change (2021), workers in certain occupations are more likely to get illnesses that impact their physical, mental, and reproductive health.in [13]

# 3. Objectives

The objectives of a study evaluating the implementation of occupational safety measures in chosen FMCG (Fast-Moving Consumer Goods) manufacturing companies in Nepal can be outlined as follows:

Assess Current Occupational Safety Practices: To comprehensively examine the existing occupational safety protocols, procedures, and practices implemented in selected FMCG manufacturing companies in Nepal.

To identify and document the range of safety measures in place, including equipment, training programs, emergency response plans, and other relevant aspects.

Evaluate Adherence to Safety Protocols: To assess the level of adherence to established safety protocols and guidelines among employees in the chosen FMCG manufacturing companies.

To identify any potential gaps or deviations in the implementation of safety measures and protocols.

Examine Incident Records and Trends: To analyze historical incident records and trends

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related to occupational accidents, injuries, or illnesses within the FMCG manufacturing companies.

To identify common patterns, root causes, and areas where preventative measures could be strengthened.

Assess Employee Perception of Safety Culture: To gather and analyze feedback from employees regarding their perceptions of the safety culture within their respective companies.

To understand the awareness, attitudes, and behaviors of employees towards occupational safety in the workplace.

Identify Training and Awareness Needs: To identify specific areas where additional training and awareness programs may be needed to enhance the understanding and implementation of safety measures among employees.

To assess the effectiveness of existing training initiatives in promoting a culture of safety.

Examine Regulatory Compliance: To evaluate the level of compliance with local and international occupational safety regulations and standards within the FMCG manufacturing sector in Nepal.

To identify areas where companies may need to update or modify their practices to meet regulatory requirements.

Provide Recommendations for Improvement: To synthesize findings and develop practical recommendations for improving the implementation of occupational safety measures in the selected FMCG manufacturing companies. To propose actionable strategies and interventions to enhance workplace safety, based on identified strengths and areas for improvement[14].

Contribute to Industry Best Practices: To contribute to the development of industry best practices for occupational safety within the FMCG manufacturing sector in Nepal.

To disseminate research findings to industry stakeholders, regulatory bodies, and academic communities to foster broader awareness and improvement efforts.

These objectives collectively aim to provide a comprehensive understanding of the current state of occupational safety in chosen FMCG manufacturing companies in Nepal and to offer practical recommendations for enhancing workplace safety measures[15].

## 4. OSH Standard in Nepal

In Nepal, the Department of Labour and Occupational Safety and Health (DLOSH) under the Ministry of Labour, Employment and Social Security is responsible for formulating and implementing policies, plans, and programs related to occupational safety and health. The key OSH standard in Nepal is the "Occupational Safety and Health Act, 1999" along with its regulations. This legislation outlines the responsibilities of employers, employees, and the government in ensuring a safe and healthy working environment[16]. It covers various aspects of occupational safety, including workplace conditions, machinery safety, hazardous substances, and the general well-being of workers. In an effort to boost productivity, the government of Nepal instituted the OSH policy to demonstrate its dedication to enhancing

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workers' rights and promoting a safe and healthy workplace.

Implementing Occupational Safety and Health (OSH) standards and procedures is the policy's primary objective in creating a risk-free work environment. Notably, on Asar 25, 2074 B.S., the Nepal Gazette reported on government-mandated noise and light guidelines for the workplace that had been established in 2073 B.S. In addition, the brick industry received orders and regulations in 2074 that prioritised the well-being of employees. The labour itself, the working conditions, and workers' health and safety are all topics covered by a number of ILO agreements. When it comes to Nepalese occupational safety and health regulations, for instance, the Nepal Gazette and similar government publications are the go-to places for the latest updates. The government's efforts to establish OSH rules and standards are commendable, but we must not overlook the shortcomings and limitations of these regulations. Although it is not explicitly stated in the text, some potential shortcomings of the standards include insufficient mechanisms for ensuring compliance, insufficient funding for their implementation and maintenance, and potential gaps in their handling of emerging occupational risks. According to the OSH Profile for Nepal (2020), further research is necessary to identify the areas where Nepal's OSH standards are lacking and provide solutions.

# 5. Industry 4.0: occupational safety and health issues

The widespread use of automation in Industry 4.0 manufacturing occupations will reduce the need for physical labour and manual labour while simultaneously increasing the necessity for workers to handle complicated situations including management, abstraction, and problem-solving. As smart manufacturing becomes ever more adaptable and dynamic, the mental and emotional hazards posed by increased labour density and stress will outweigh the physical ones. Employees involved in end-to-end engineering, monitoring automated equipment, or making decisions decentralizedly will need to be self-motivated, have strong communication skills, be able to organise their work, and handle more responsibility. Because individuals will need to operate and oversee the machines and step in when needed, competent personnel are preferable to untrained ones. Complex duties may be too much for semi-skilled people to do, which might lead to penalties. Another consequence of industrial automation is the need of continuous education for all employees; this can be particularly difficult for more senior citizens who may lack the innate capacity to use computers and other digital instruments.

In sum, these factors could influence the demographics of Industry 4.0 plants, which, from a socially inclusive vocational standpoint, seems like an unsatisfactory outcome.

However, there is a risk that digital instruments used to track workers' every move can lead to an environment of psychological pressure, violation of privacy, and job insecurity. In addition, it has the potential to lessen interaction between workers and both their managers and their colleagues, which might lead to an unhealthy work environment, increased stress from the job, and long-term health problems. Machines have the potential to disrupt the work-life balance of individuals because to their higher mobility, flexibility, and accessibility, which might allow them to work anywhere at any time. The stress of a workplace transformation, the displacement of human workers, and the prospect of joblessness as a result of robots taking over human jobs might become apparent.

# 6. Safety Training/Education

Educating and educating employees on safety procedures has been acknowledged as a powerful tool for improving workplace safety since the industrial revolution. Occupational health and safety training includes teaching employees to identify potential dangers and how to apply existing safety protocols to mitigate such risks. Employees are more equipped to handle unexpected challenges and dangers on the job when they have received proper training. Workers may improve their skills and knowledge via training and education, which ultimately leads to safer working conditions for everyone. In the workplace, training often entails learning how to identify potential dangers and developing the abilities to mitigate them by the application of predetermined rules, ideas, and attitudes. During worker safety training, employees also learn how to use personal protective equipment (PPE) correctly, what to do in an emergency, and how to avoid accidents. Furthermore, training equips employees with resources to learn more about possible health risks on the job and how to mitigate them.In addition, employees get the knowledge and abilities via training to take a more proactive part in implementing hazard management programmes or to bring about organisational changes that improve safety on the job.

# 7. Conclusion

Overall, this study emphasizes the urgency of improving occupational safety standards in FMCG manufacturing companies in Nepal. By implementing proactive measures, fostering a culture of safety, and strengthening regulatory oversight, stakeholders can create safer and healthier workplaces for all employees. This work also summarizes the key findings of the study and provides recommendations for improving occupational safety in FMCG manufacturing companies in Nepal. It emphasizes the importance of collaboration, cultural change, and targeted interventions to address safety challenges effectively.

## Conflicts of Interest

The authors declare that they have no competing interests.

### References

- 1. Niwas, R., Thakare, O., &Gudadhe, N. (2023). Working Environmental Impact of Personal Protective Equipment in Modern Industrial Sector. In Emerging Technology and Management Trends in Environment and Sustainability.https://doi.org/10.4324/9781003356233-18.
- 2. Subedi, M., Pandey, S., &Khanal, A. (2023). Integrated Solid Waste Management for the Circular Economy: Challenges and Opportunities for Nepal. Journal of Multidisciplinary Research Advancements, 1(1). https://doi.org/10.3126/jomra.v1i1.55100
- 3. Khanal, A., Giri, S., & Mainali, P. (2023). The Practices of At-Source Segregation of Household Solid Waste by the Youths in Nepal. Journal of Environmental and Public Health, 2023, 1–6. https://doi.org/10.1155/2023/5044295
- 4. Ministry of Labour, Employment and Social Security. (2022). National Occupational Safety and Health Profile for Nepal–2022
- 5. Mishra, A. K., Adhikari, R. & Aithal, P. S., (2022). Linkage of Safety Site Conditions with

- Accidents. International Journal of Health Sciences and Pharmacy (IJHSP), 6(1),17-34.
- 6. On'gonge, H. O., &Ng'eno, W. K. (2022). Influence of Sanitation on Employee Performance at National Social and Security Fund, Kenya. International Journal of Health Sciences, 5(3). https://doi.org/10.47941/ijhs.1126
- 7. Mishra, A.K., &Aithal, P. S., (2021). Job Safety Analysis during Tunnel Construction. International Journal of Applied Engineering and Management Letters (IJAEML), 5(1), 80-96 http://doi.org/10.5281/zenodo.4842501
- 8. Sundstrup, E., & Andersen, L. L. (2021). Joint association of physical and psychosocial working conditions with risk of long-term sickness absence: Prospective cohort study with register follow-up. Scandinavian Journal of Public Health, 49(2). https://doi.org/10.1177/1403494820936423
- 9. Khanal, A., Sondhi, A., &Giri, S. (2021). Use of personal protective equipment among waste workers of Sisdol landfill site of Nepal. International Journal of Occupational Safety and Health, 11(3), 158–164.
- 10. Maharjan PL, Shakya A, Shah S, et al. (2020). Musculoskeletal disorders among the garments workers in Rupandehi district, Nepal. MOJ Public Health. https://medcraveonline.com/ MOJPH/musculoskeletal-disorders-amongthe-garments-workers-in-rupandehi-districtnepal.html.
- 11. Mishra AK, Lama C, Sah DP et al. (2019). Effectiveness Assessment of Preventive and Control Measures of Safety Implementation. JAdv Res Civil EnviEngr 2019; 6(2): 1-20.
- Ingole, K., &Padole, D. (2023). Design Approaches for Internet of Things Based System Model for Agricultural Applications. In 11th International Conference on Emerging Trends in Engineering & Technology - Signal and Information Processing (ICETET - SIP) (pp. 1-5). Nagpur, India. https://doi.org/10.1109/ICETET-SIP58143.2023.10151606
- Namasudra, S., Deka, G.C., Johri, P. et al. The Revolution of Blockchain: State-of-the-Art and Research Challenges. Arch Computat Methods Eng 28, 1497–1515 (2021). https://doi.org/10.1007/s11831-020-09426-0
- 14. Artikis, Panagiotis T. & Artikis, Constantinos T.(2024) Information processes in stochastic models for strategic thinking operations, Journal of Information and Optimization Sciences, 45:1, 121–129, DOI: 10.47974/JIOS-1341
- 15. Bourekouche, Hadjer, Belkacem, Samia&Messaoudi, Noureddine(2024) Efficient image encryption scheme using a nonlinear shift register and chaos, Journal of Information and Optimization Sciences, 45:1, 157–180, DOI: 10.47974/JIOS-1399
- 16. Chang, Ying-Chun, Chiu, Min-Chie & Lin, Wan-Fang(2022) Acoustical simulation of a multi-chamber gun muffler internally inserted with extended tube and perforated tube using the FEM, Journal of Information and Optimization Sciences, 43:2, 279-289, DOI: 10.1080/02522667.2021.1976938