



**RESEARCH PAPER**

**Weak Occupational Health & Safety (OHS) Compliance in the Manufacturing Sector in Pakistan: Recommendations for Improvement**

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**ABSTRACT**

This study identifies many areas of concern which affect the OHS implementations. A quantitative study was conducted through a survey questionnaire and filled out by 65 respondents. Relative Importance Index was employed to obtain the results. SPSS was used for analysis. The analysis of data revealed several key findings regarding factors influencing OHS compliance in SMEs in the construction sector. Significant determinants included the integration of safety training, the effectiveness of safety inspections, and peer influence. However, there was also a prevalent lack of awareness, insufficient implementation of safety measures, and inadequate safety training. Factors such as outdated equipment, poor working conditions, and limited resources further contributed to heightened occupational hazards. This research aims to provide the recommendations for improvement of OHS compliance in Pakistan's manufacturing industry for a safer and healthier work environment. Many people have to play a significant role in increasing the compliance in manufacturing sector whether it is workers or managers. Many hazards can be prevented by sticking to OHS regulations and maintaining the ergonomics and workers' training

**KEYWORDS** Occupational Health and Safety (OHS), Safety Performance, Safety in Manufacturing Sector

**Introduction**

Occupational Health and Safety (OHS) is pivotal for fostering secure workplaces, particularly in Pakistan's manufacturing sector. This article examines the challenges and consequences associated with the current state of OHS, emphasizing the urgent need for robust regulations, improved infrastructure, and educational initiatives.

This paper is focused on addressing the reasons for weak compliance of OHS in the manufacturing sector of Pakistan. The state of HS regulations and infrastructure in Pakistan is quite deteriorating. Many reasons are contributing to the weak compliance.

All those reasons are highlighted through an extensive literature review. Limited education, skills, and training of employees can result in an increase in hazards in the workplace. Inexperienced and heedless behavior of workers, inadequate training, and lack of preventive measures are the main reasons for weak compliance.

The manufacturing industry in Pakistan, a major contributor to the country's GDP, grapples with a surge in workplace accidents. Outdated machinery, unsafe workplaces, and a lack of education among employees contribute to this alarming trend. The consequences, ranging from fatigue to severe injuries, underscore the pressing need for immediate attention (Tadesse & Admassu, 2006; Shikdar & Sawaqed, 2003).

Hazards in the manufacturing sector, from chemical exposures to accidents like falls and burns, highlight the multifaceted challenges faced by workers. Non-compliance with OHS regulations and a lack of knowledge exacerbate these risks (Kamau, 2014; Executive, 2016).

The textile manufacturing industry in Pakistan presents a particularly concerning scenario, with incidents like fires and inadequate safety measures. Similar concerns are observed in the United States, emphasizing the global nature of OHS challenges in manufacturing (Riaz, 2010; Salim, 2001).

To address these issues, initiatives such as the "Center for the Improvement of Working Conditions and Environment" in Lahore showcase collaborative efforts. However, existing safety legislation in Pakistan remains insufficient, resulting in a high casualty rate. The correlation between education and workplace injuries underscores the need for educational interventions to improve workplace safety (Sheikh, 2011; Hamalainen, Takala, & Sareela, 2005; Cogbill, Busch, & Stiers, 1985).

This article aims to draw attention to the critical need for a comprehensive national program to enhance OHS in Pakistan's manufacturing sector. By highlighting the societal and economic implications of weak compliance, we intend to catalyze concerted efforts from government bodies, employers, and educational institutions to create lasting improvements in occupational health and safety (Hassan, 2012).

## **Literature Review**

A literature review serves as a comprehensive exploration of existing knowledge on a specific topic, capturing effective and ineffective research methods and theoretical perspectives, and highlighting gaps and inconsistencies (Hart, 1998). In the context of occupational health and safety (OHS) compliance in Pakistan's manufacturing industry, this review draws insights from various scholars, offering a nuanced understanding of the multifaceted challenges and potential solutions.

Compliance in the workplace is intricately linked to both organizational attributes and the characteristics of enforcement programs. Factors such as management allegiance, employee involvement, and technological infrastructure play a pivotal role (Vinodkumar & Bhasi, 2010). Theoretical frameworks, like the one proposed by Kaynak et al. (2016), shed light on the impact of OHS practices on work alienation and organizational commitment.

Safety and production congruence positively influence safe work behavior, emphasizing the importance of integrating safety into job design (McLain & Jarrell, 2007). However, challenges persist, particularly in developing countries where workers are unfamiliar with electrical hazards (Perez Floriano & Gonzalez, 2007).

Committed employees practicing safety regulations enhance organizational commitment (Barling & Hutchinson, 2000). Investments in safety management systems demonstrate a commitment to employee well-being, leading to increased worker motivation (Watcher & Yorio, 2014). Safety performance is inversely proportional to the accident rate, emphasizing the importance of a robust safety monitoring system (Fernandez-Muniz et al., 2009).

Effective communication and collaboration between companies can reduce incidents and enhance employees' positive perception of OHS commitment (Gyekye et al., 2012). Emphasizing safety regulations can mitigate occupational hazards, reducing direct costs and fostering a safer working environment (De Koster et al., 2011).

Resolute safety leadership emerges as a primary factor in shaping the safety environment within organizations (Zohar, 1980). Management's concern for workers' well-

being, coupled with proper training and safety gear provision, contributes to heightened safety climates (Gyekye & Salminen, 2007).

The manufacturing sector's preference for productivity over worker safety poses significant challenges, leading to poor working conditions and non-ergonomic workplaces (Kahya, 2007). Ergonomically safe environments positively impact workers' well-being and quality of life (Kossek et al., 2012).

Education plays a crucial role in promoting safety awareness among workers, influencing their behavior and reducing workplace accidents (Thumbi, Kinyua & Thuita, 2019). Training opportunities empower employees to voice concerns and identify occupational health and safety hazards (Verbeek & Ivanov, 2013).

Safety management regulations, such as OHSMS models, are directly linked to safety climates, reflecting the conscious attitudes of managers and workers (Vinodkumar & Bhasi, 2010). In developing countries like Pakistan, literacy levels, employee training, and employer awareness significantly impact discernments related to safety management (Gohar, 2019).

This literature review sets the stage for a focused investigation into the weak compliance with OHS in Pakistan's manufacturing industry, aiming to identify root causes and formulate informed recommendations for improvement.

## **Material and Methods**

Research Methodology serves as the systematic approach to solving research problems, enhancing the validity of results and data (Kothari, 2004). This study adopts a quantitative method coupled with an extensive literature review to comprehensively explore OHS compliance in Lahore's manufacturing sector.

### **Location**

The study is centered in Lahore, the capital city of the Punjab Province. The primary objective is to identify factors contributing to weak OHS compliance and propose recommendations. Interviews serve as the key data collection method. A sample size of 50 participants was randomly selected from various roles in the manufacturing sector. Both Google Forms and face-to-face interviews were employed. Face-to-face interviews provided specific and detailed insights.

A structured questionnaire with 15 questions, divided into demographic and compliance-related sections, was developed. Responses were gathered using a Likert scale (Grote & Kunzler, 2000). Participants included current or former Pakistani manufacturing sector workers at any job level, excluding those from non-manufacturing industries. This methodology combines quantitative and qualitative approaches, utilizing interviews and Likert-scale responses to delve into the intricacies of weak OHS compliance in Lahore's manufacturing sector.

## **Results and Discussion**

### **Awareness of OHS Regulations**

- 70% of respondents (strongly agree & agree) indicate awareness of OHS regulations.

- Graduates in the industries primarily filled the survey, influencing the outcome.

### **Provision of Safety Measures**

- 47% agree that their companies provide safety measures.

- 23% neutral responses highlight mixed perceptions about workplace safety provisions.

#### **Training and Education**

- 32% disagree, and 13% remain neutral on formal training and education on OHS.
- Suggests deficiencies in OHS education and training in Pakistan.

#### **Compliance with Safety Regulations**

- 70% agree or strongly agree with compliance with safety regulations in the workplace.

#### **Economic Constraints**

- 64% agree or strongly agree that economic constraints impact OHS regulation implementation.

#### **Reporting Occupational Hazards**

- 44% report adversities in reporting and resolving occupational hazards.
- Mixed responses on motivating workers to use safety equipment.

#### **Health Issues**

- 30% report upper body pain, and 26% report fatigue.

#### **Reasons for Weak Compliance**

- 48% attribute weak compliance to a lack of enforcement and insufficient financial resources.
- 21% point to cultural prioritization of productivity over safety by companies.

#### **Improvements Needed**

- 32% highlight the need for standard safety policies and procedures.
- 29% suggest increasing safety culture through awareness and training.

#### **Conclusion**

The comprehensive literature review sheds light on the intricate aspects of Occupational Health and Safety (OHS), emphasizing the imperative of aligning safety measures with production requirements. Noteworthy factors influencing individual behavior, such as work burnout, physical stress, and perceptions of occupational hazards, underscore the need for a holistic approach. The significance of safety protocols, post-injury inspections, and robust training programs emerges as pivotal for cultivating a secure work environment.

In the context of Pakistan, several challenges contribute to occupational injuries, including poor workplace conditions, the prevalence of child labor, and inadequate government oversight. Economic constraints are identified as a primary obstacle to robust compliance with OHS regulations.

#### **Recommendations**

To establish comprehensive training for workers and management aimed at instilling confidence in Occupational Health and Safety (OHS) practices, companies should

prioritize investing in robust training programs. These programs should cover a wide range of topics, including safety protocols, emergency procedures, hazard identification, and proper equipment usage. Training sessions should be conducted regularly, ensuring that all employees, from frontline workers to upper management, are equipped with the necessary knowledge and skills to navigate potential workplace hazards effectively. Additionally, companies should provide ongoing support and resources to reinforce learning outcomes and address any emerging concerns or challenges.

Encouraging worker participation in safety decisions through regular meetings is essential for fostering a culture of safety and accountability within the organization. Companies should create platforms for open dialogue and collaboration, where employees feel empowered to voice their concerns, suggestions, and feedback regarding safety practices. By involving workers in decision-making processes, companies can tap into valuable frontline insights and perspectives, leading to more informed and effective safety initiatives. Regular safety meetings should be scheduled, allowing for the review of incident reports, discussion of safety trends, and brainstorming of proactive measures to enhance workplace safety.

To prevent workplace accidents, especially in tech-driven industries where risks may be heightened due to evolving technologies and processes, companies must implement regular risk assessments. These assessments should be conducted systematically, identifying potential hazards, evaluating associated risks, and implementing appropriate control measures to mitigate these risks. By proactively identifying and addressing potential hazards, companies can minimize the likelihood of workplace accidents and injuries, safeguarding the well-being of their employees and protecting the company's reputation and bottom line.

Launching initiatives for worker health is crucial for improving overall productivity and reducing accidents in the workplace. Companies should prioritize initiatives aimed at promoting physical and mental well-being among employees, such as wellness programs, health screenings, and access to healthcare resources. Additionally, companies should invest in ergonomic solutions and safety equipment to minimize the risk of musculoskeletal injuries and other occupational health issues. By prioritizing worker health, companies can create a safer, healthier, and more productive work environment, ultimately benefiting both employees and the organization as a whole.

Enforcing improved OHS regulations universally, while adapting to social and economic contexts, is essential for ensuring consistent and effective workplace safety standards. Companies should stay abreast of evolving regulatory requirements and industry best practices, proactively updating their policies and procedures to align with the latest guidelines and standards. Moreover, companies should tailor their safety initiatives to reflect the unique social and economic dynamics of their operating environment, considering factors such as cultural norms, economic resources, and workforce demographics. By integrating OHS regulations into their operations, companies can demonstrate their commitment to employee safety and regulatory compliance, fostering trust and confidence among stakeholders.

Providing comprehensive training for all staff on equipment usage, safety, and health considerations is essential for promoting a culture of safety and minimizing workplace hazards. Companies should develop tailored training programs that address the specific needs and responsibilities of different employee groups, ensuring that each individual receives the necessary knowledge and skills to perform their job safely. Training sessions should cover topics such as proper equipment operation, emergency response protocols, and hazard recognition, emphasizing practical hands-on learning experiences and interactive engagement. By investing in comprehensive training initiatives, companies can empower their employees to make informed decisions and take proactive measures to mitigate risks, ultimately creating a safer and more secure work environment for all.

Implementing interventions like ventilation, noise reduction, and ergonomic practices is critical for mitigating workplace hazards and promoting employee well-being. Companies should prioritize the implementation of engineering controls and administrative measures to address common workplace hazards, such as poor air quality, excessive noise levels, and ergonomic strain. This may involve upgrading ventilation systems, installing soundproofing equipment, and redesigning workstations to optimize ergonomic comfort and efficiency. Additionally, companies should provide training and resources to educate employees on proper ergonomic practices and encourage proactive behaviors to minimize the risk of musculoskeletal injuries and other occupational health issues. By implementing comprehensive hazard control measures, companies can create a safer and healthier work environment, enhancing employee satisfaction, productivity, and overall well-being.

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