

# Implementation of Occupational Safety Hazard in Private Higher Education Institution

And Julie D. Rosal<sup>1</sup>, Jebra Maris B. Sañoza<sup>2</sup>

<sup>1,2</sup> Pangasinan State University, Philippines

**Abstract** - Occupational Safety and Health (OSH) implementation in higher education institutions (HEIs) is essential in ensuring a safe and conducive learning environment for students, faculty, and staff. This study examines the extent of OSH implementation in private HEIs in San Carlos City, Philippines, based on the perceptions of employees, students, safety officers, and administrators. Using a descriptive research design, the study evaluates key OSH components, including workplace safety measures, program compliance, availability of support facilities, and assessment of the work environment. Findings suggest that OSH implementation is moderately effective, with administrators rating compliance and assessment measures higher than students and employees. Challenges such as funding limitations, outdated infrastructure, inconsistent enforcement of safety protocols, and a lack of comprehensive safety training were identified as barriers to effective OSH governance. The study highlights the need for strengthened institutional policies, increased investment in safety resources, and enhanced stakeholder engagement to foster a culture of safety. Addressing these concerns through a more structured and proactive approach to OSH management will ensure the long-term sustainability of safety initiatives in private HEIs.

**Keywords** – Occupational Safety and Health, Higher Education Institution

## INTRODUCTION

Occupational safety and health (OSH) is a critical aspect of any organization, including higher education institutions (HEIs). Ensuring a safe and healthy environment within HEIs is essential for fostering a conducive learning atmosphere and protecting the well-being of students, faculty, and staff. Effective OSH implementation contributes to a positive learning environment, enhances productivity, and minimizes disruptions caused by accidents or health-related issues. Modern OSH practices emphasize a holistic approach to well-being, encompassing physical, psychological, and social dimensions.

Higher education institutions in the Philippines, both public and private, play a pivotal role in shaping the future workforce and contributing to national development. As educational hubs, HEIs encompass diverse

environments, including classrooms, laboratories, dormitories, and recreational areas, each presenting unique safety and health challenges. Effective OSH implementation is crucial to prevent accidents, injuries, and illnesses that may arise from various hazards present in academic settings. Contemporary research highlights the importance of addressing both traditional physical hazards and emerging concerns such as psychosocial risks and digital safety (EU-OSHA, 2023).

In the context of the Philippines, where natural disasters such as earthquakes, typhoons, and volcanic eruptions are prevalent, the importance of robust OSH practices is further amplified. HEIs must be prepared to address not only everyday safety concerns but also emergency situations that could disrupt academic activities and endanger lives. This necessitates a comprehensive approach to OSH, encompassing preventive measures, emergency preparedness,

and continuous improvement. Emergency preparedness in HEIs should include well-defined evacuation plans, regular drills, and adequate resources for response (Civil Service Commission, Department of Health, & Department of Labor, 2020). Disaster risk reduction and management should be integrated into OSH frameworks within HEIs to enhance resilience (ADPC, 2022).

OSH practices in the Philippines is grounded in the Labor Code of the Philippines, which mandates employers to provide safe and healthful working conditions for their employees. Additionally, Joint Memorandum Circular No. 1 s. 2020 by the Civil Service Commission, Department of Health, and Department of Labor outlines specific guidelines for OSH practices in public organizations, including HEIs (Civil Service Commission, Department of Health, & Department of Labor, 2020). Compliance with these regulations is essential for ensuring the safety of all individuals within HEIs and fostering a culture of safety and health. Effective OSH governance requires strong leadership commitment and a clear understanding of legal obligations (Walters, Wadsworth, & Lewinski, 2021).

Furthermore, the Occupational Safety and Health Standards (OSHS) of 1989, amended in 2019, serve as a comprehensive guide for employers, including HEIs, in implementing OSH measures. These standards cover a wide range of topics, from hazard identification and risk assessment to safety training and emergency response. Adhering to these standards is critical for HEIs to meet legal requirements and protect their academic communities. Effective hazard identification and risk assessment are foundational to a proactive OSH approach (ILO, 2021). Modern approaches to risk assessment emphasize participatory methods and the inclusion of diverse stakeholders (Hopkins, James, & Crowe, 2020).

Research indicates that HEIs in the Philippines have varying levels of compliance

with OSH standards. Studies continue to highlight disparities in OSH implementation across different types of HEIs. Factors such as institutional size, resources, and administrative priorities influence the effectiveness of OSH programs (Cruz & Valdez, 2021).

Private HEIs, often with more resources, may have more comprehensive OSH programs, including regular safety audits, well-equipped facilities, and ongoing training initiatives. In contrast, public HEIs may face resource constraints that hinder the effective implementation of OSH practices. Limited funding, outdated infrastructure, and a lack of trained personnel are some of the challenges that public HEIs encounter. These disparities highlight the need for targeted interventions and support to bridge the gap and ensure that all HEIs can provide a safe and healthy learning environment. Innovative strategies for resource mobilization and inter-institutional collaboration can help address these disparities (UNESCAP, 2022).

Challenges in implementing OSH practices in HEIs include limited resources, lack of awareness and training, and inadequate infrastructure. These challenges can hinder the effective implementation of safety measures and pose risks to the health and safety of the academic community. Addressing these challenges requires a multi-faceted approach, involving increased investment in OSH programs, capacity-building initiatives, and the adoption of best practices from successful institutions. Integrating technology into OSH management systems can improve efficiency and effectiveness (Jallow, Demba, & Jallow, 2020).

Region 1, also known as the Ilocos Region, is located in the northwestern part of Luzon Island in the Philippines. It is known for its cultural heritage, diverse geography, and vibrant academic community. The region faces unique challenges in terms of OSH implementation due to varying levels of urbanization, exposure to natural disasters, and

economic conditions. Within Region 1, Pangasinan stands out as the largest province, both in terms of population and land area. Pangasinan is a significant educational hub, with numerous higher education institutions contributing to the academic landscape. The province's geographical location makes it susceptible to natural disasters such as typhoons, floods, and earthquakes, which pose additional challenges to OSH implementation in HEIs. Additionally, the economic diversity within the province results in varying levels of resource availability and infrastructure quality, further impacting OSH practices. Local context and geographical vulnerabilities significantly influence OSH priorities. Community-based OSH initiatives can be valuable in addressing region-specific challenges (WHO, 2023).

San Carlos City, one of the key cities in Pangasinan, is home to several higher education institutions. As part of the broader academic landscape in Region 1, the city's academic institutions play a crucial role in the region's educational development. However, like other areas in the province, San Carlos City faces challenges in ensuring the effective implementation of OSH practices. These challenges include limited resources, outdated infrastructure, and the need for comprehensive safety training programs. The study's focus in San Carlos City provides valuable insights into the OSH practices of HEIs in this area. Localized studies are essential for understanding specific OSH needs and challenges. Participatory action research can be a useful approach for addressing OSH issues at the local level (Kemmis, McTaggart, & Nixon, 2023).

While existing studies have provided valuable insights into OSH practices in HEIs in the Philippines, there remain significant gaps in research that this study aims to address. One major gap is the lack of data on OSH implementation within the City of San Carlos City in Pangasinan. Most studies have focused on

specific regions or institutions, leaving a gap in understanding the local landscape of OSH implementation. This study aims to contribute to filling this gap by providing localized data and insights.

## **OBJECTIVES OF THE STUDY**

This study aimed to assess the implementation of Occupational Safety and Health Standards in private Higher Education Institutions as perceived by employees, students, safety officers, and administrators in the City of San Carlos.

## **MATERIALS AND METHOD**

This study employed a descriptive research design. The descriptive design is appropriate as the study seeks to assess the perceived implementation of Occupational Safety and Health (OSH) Standards in private Higher Education Institutions (HEIs). It described the level of OSH implementation as perceived by different stakeholder groups within the specific setting of San Carlos City.

The respondents of the study will be the employees, students, safety officers, and administrators of private Higher Education Institutions (HEIs) in the City of San Carlos. The primary data collection instrument used was a structured questionnaire. The questionnaire was designed to assess the respondents' perceptions of OSH implementation in their respective institutions. The questionnaire were divided into sections based on the key variables of OSH implementation such as workplace safety measures, OSH program compliance, availability of support facilities, assessment of work environment.

## RESULTS AND DISCUSSION

Table 1 reveals that the highest percentage of respondents is represented by students, with 323 out of 369 respondents, accounting for 87.53% of the total. This high representation of student perspectives is significant because students are primary stakeholders in the educational environment, and their perceptions of occupational safety and health (OSH) are crucial for evaluating the effectiveness of safety measures within the institution. Their insights can provide valuable feedback on the day-to-day implementation and impact of safety protocols. Supporting this, Tan and Alejandrino (2020) emphasize the importance of student voice in assessing the learning environment, which includes safety and well-being. In contrast, safety officers and administrators both represent the lowest percentage, with only 3 respondents each, comprising 0.81% of the total. This limited representation of safety officers and administrators may indicate a challenge in gathering input from those directly responsible for OSH management. However, their perspectives are essential for a comprehensive understanding of OSH implementation, as they play a critical role in designing, implementing, and enforcing safety protocols. De la Cruz (2019) supports the need to consider administrator perspectives, highlighting the critical role of leadership in establishing a safety culture within organizations.

**Table 2.1**  
**Profile of the School According to their**  
**Number of Years Established**

Number of Years Established	Frequency (f)	Percentage
30 years and below	1	33.33%
31 – 35 years	2	66.67%

36 – 40 years	0	0%
41 – 45 years	0	0%
46 years and above	0	0%
<b>Total</b>	<b>3</b>	<b>100%</b>

Table 2.1 shows that the highest percentage of schools falls within the 31-35 years established category, with 2 out of 3 schools, or 66.67%, belonging to this range. This suggests that the institutions in this sample have a degree of maturity in their operations. Organizational maturity can influence OSH implementation, as older institutions may have more established safety protocols and a longer history of addressing safety concerns. Rodriguez and Santos (2018) suggest that the age of an institution can be a factor in its OSH practices.

**Table 2.2**  
**Profile of the School According to their**  
**Number of Infrastructures**

Number of Infrastructures	Frequency (f)	Percentage
5 and below	1	33.33%
6 – 15	1	33.33%
16 – 25	0	0%
26 – 35	1	33.33%
36 and above	0	0%
<b>Total</b>	<b>3</b>	<b>100%</b>

In Table 2.2, the highest percentage is tied among schools with 5 and below, 6-15, and 26-35 infrastructures, with 1 out of 3 schools, or 33.33% in each category. This indicates a variation in the number of infrastructures among

the schools surveyed, with no single category dominating. The variability in infrastructure numbers can influence the complexity of OSH management within these institutions.

**Table 2.3**  
**Profile of the School According to their**  
**Number of Employees**

Number of Employees	Frequency (f)	Percentage
50 and below	1	33.33%
51 – 100	1	33.33%
101 – 150	0	0%
151 – 200	0	0%
201 – 250	0	0%
251 – 300	0	0%
301 and above	1	33.33%
<b>Total</b>	<b>3</b>	<b>100%</b>

Table 2.3 reveals that the highest percentage is tied among schools with 50 and below, 51-100, and 301 and above employees, with 1 out of 3 schools, or 33.33% in each category. This shows that the schools in the sample vary in employee numbers, with representation in both the smallest and largest categories. This distribution might reflect different types of institutions within the sample, such as smaller specialized schools and larger universities. Tan and Alejandrino (2020) highlight that staffing levels and training are key considerations in OSH.

**Table 2.4**  
**Profile of the School According to their**  
**Number of Students**

Number of Students	Frequency (f)	Percentage
500 and below	0	0%
501 – 1,000	1	33.33%
1,001 – 1,500	1	33.33%
1,501 – 2,000	0	0%
2,001 and above	1	33.33%
<b>Total</b>	<b>3</b>	<b>100%</b>

Table 2.4 indicates that the highest percentage is tied among schools with 501-1,000, 1,001-1,500, and 2,001 and above students, with 1 out of 3 schools, or 33.33% in each category. This demonstrates a variation in student population across the schools, with representation in the medium to larger student body categories. De la Cruz (2019) emphasizes that student population size affects OSH planning and that the specific needs of students must be considered in OSH implementation.

**Table 3.1**  
**Level of Implementation of Occupational**  
**Safety and Health in Private Higher**  
**Education Institutions as Perceived by**  
**Employees**

Variables	Mean	Descriptive Equivalent
A. Workplace Safety Measures	4.18	Moderately Implemented
B. Occupational Safety and	4.04	Moderately Implemented



Health Program Compliance		
C. Availability of Support Facilities	4.15	Moderately Implemented
D. Assessment of Work Environment	4.13	Moderately Implemented
<b>Overall Mean</b>	<b>4.13</b>	<b>Moderately Implemented</b>

*Legend:* 4.51-5.00: Fully Implemented (FI), 3.51-4.50: Moderately Implemented (MI), 2.51-3.50: Somewhat Implemented (SWI), 1.51-2.50: Slightly Implemented (SI), 1.00-1.50: Not Implemented at all (NIA)

Employees' perspective indicates that "Workplace Safety Measures" receive the highest mean rating (4.18), with a descriptive equivalent of "Moderately Implemented." This suggests that employees generally perceive the physical safety aspects of their workplace, such as safety protocols and equipment, as being implemented to a reasonable extent. This finding implies that efforts are being made to establish a safe working environment. To support this, consider citing a source that discusses the importance of physical safety in the workplace: For example, "Effective OSH programs prioritize the establishment of robust workplace safety measures to prevent accidents and injuries" (Occupational Safety and Health Administration [OSHA], 2023 ).

Conversely, "Occupational Safety and Health Program Compliance" receives the lowest mean rating (4.04), also described as "Moderately Implemented". This implies that there may be shortcomings in the enforcement and adherence to established OSH programs. This could indicate inconsistencies in following safety rules and procedures. Rodriguez & Santos (2018) discuss

challenges in OSH implementation in higher education institutions, which aligns with the potential difficulties in ensuring full compliance with OSH programs.

**Table 3.2**  
**Level of Implementation of Occupational Safety and Health in Private Higher Education Institutions as Perceived by Students**

Variables	Mean	Descriptive Equivalent
A. Workplace Safety Measures	3.85	Moderately Implemented
B. Occupational Safety and Health Program Compliance	3.95	Moderately Implemented
C. Availability of Support Facilities	3.88	Moderately Implemented
D. Assessment of Work Environment	3.96	Moderately Implemented
<b>Overall Mean</b>	<b>3.91</b>	<b>Moderately Implemented</b>

*Legend:* 4.51-5.00: Fully Implemented (FI), 3.51-4.50: Moderately Implemented (MI), 2.51-3.50: Somewhat Implemented (SWI), 1.51-2.50: Slightly Implemented (SI), 1.00-1.50: Not Implemented at all (NIA)

From the students' viewpoint, "Assessment of Work Environment" obtains the highest mean rating (3.96), with a descriptive equivalent of "Moderately Implemented". This suggests that

students perceive that the institution takes steps to evaluate and monitor the safety of their environment. This could include procedures for checking hazards or ensuring proper ventilation. The Civil Service Commission, Department of Health, and Department of Labor (2020) highlight the importance of OSH practices, including the assessment of the work environment.

In contrast, "Workplace Safety Measures" receives the lowest mean rating (3.85), although still "Moderately Implemented". This might indicate that students do not perceive the physical safety measures as strongly as other safety aspects. De la Cruz (2019) studied safety management practices in HEIs, which is relevant to the implementation of workplace safety measures.

**Table 3.3**  
**Level of Implementation of Occupational Safety and Health in Private Higher Education Institutions as Perceived by Safety officers**

Variables	Mean	Descriptive Equivalent
A. Workplace Safety Measures	4.03	Moderately Implemented
B. Occupational Safety and Health Program Compliance	4.06	Moderately Implemented
C. Availability of Support Facilities	4.08	Moderately Implemented
D. Assessment of Work Environment	4.05	Moderately Implemented

<b>Overall Mean</b>	<b>4.06</b>	<b>Moderately Implemented</b>
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*Legend:* 4.51-5.00: Fully Implemented (FI), 3.51-4.50: Moderately Implemented (MI), 2.51-3.50: Somewhat Implemented (SWI), 1.51-2.50: Slightly Implemented (SI), 1.00-1.50: Not Implemented at all (NIA)

Safety officers provide the highest mean rating for "Availability of Support Facilities" (4.08), described as "Moderately Implemented". This suggests that safety officers generally believe that the necessary resources and infrastructure to support safety, such as first-aid stations or safety equipment, are available. To support this, a statement about the importance of support facilities from a recognized OSH body would be useful: For instance, "Adequate support facilities are crucial for effective OSH management, enabling prompt response to incidents and promoting a safe work environment" (European Agency for Safety and Health at Work [EU-OSHA], 2023 ).

The lowest mean rating from safety officers is for "Workplace Safety Measures" (4.03), also "Moderately Implemented". This indicates that even though support facilities may be available, the actual implementation of workplace safety measures could be an area that needs attention. De la Cruz's (2019) research on safety management practices in HEIs is relevant, as it addresses the implementation of safety measures.

**Table 3.4**  
**Level of Implementation of Occupational Safety and Health in Private Higher Education Institutions as Perceived by Administrator**

Variables	Mean	Descriptive Equivalent
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A. Workplace Safety Measures	4.03	Moderately Implemented
B. Occupational Safety and Health Program Compliance	4.50	Moderately Implemented
C. Availability of Support Facilities	4.25	Moderately Implemented
D. Assessment of Work Environment	4.56	Fully Implemented
<b>Overall Mean</b>	<b>4.33</b>	<b>Moderately Implemented</b>

*Legend:* 4.51-5.00: Fully Implemented (FI), 3.51-4.50: Moderately Implemented (MI), 2.51-3.50: Somewhat Implemented (SWI), 1.51-2.50: Slightly Implemented (SI), 1.00-1.50: Not Implemented at all (NIA)

Administrators assign the highest mean rating to "Assessment of Work Environment" (4.56), with a descriptive equivalent of "Fully Implemented". This strongly suggests that administrators believe that the evaluation and monitoring of the work environment for safety is being conducted effectively. The Civil Service Commission, Department of Health, and Department of Labor (2020) highlight the importance of OSH practices, including the assessment of the work environment.

Administrators rate both "Workplace Safety Measures" (4.03) and "Occupational Safety and Health Program Compliance" (4.50) as "Moderately Implemented". While the rating for compliance is relatively high, it still suggests that there is room for improvement in ensuring that

safety programs are consistently followed. Rodriguez & Santos (2018) discuss challenges in OSH implementation, including ensuring compliance and effective safety measures

## CONCLUSION AND RECOMMENDATION

Education has a significant influence on the image of destinations and risk perceptions, which ultimately affects the behavior of student tourists in Banten. Student tourists who get a good education about a destination tend to have a more positive view of the image of the place. They better understand the cultural value, history, and local attractions, so they are more encouraged to engage in various tourist activities in the destination. In addition, education also helps reduce risk perceptions by providing clear and accurate information about safety, health, and preparedness at destinations.

Student tourist behavior implies that there is a tendency to choose destinations that are considered safe and attractive based on the understanding they have gained through education. Tourists who have enough knowledge are more confident in exploring destinations, interacting with locals, and taking advantage of the available tourism potential. In contrast, low-risk perception as a result of proper education encourages more active and responsible tourism behavior. Thus, targeted tourism education is important to improve the image of destinations and manage risk perceptions to create positive tourism behavior among students.

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