

Safety First: Sustaining Workplace Practices in Small and Medium Enterprises in Albay, Philippines

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ABSTRACT

This study focused on assessing the level of Occupational Safety and Health compliance among Small and Medium Enterprises in Albay, Philippines, with particular attention to perceived compliance, local practices, challenges, and the development of policy recommendations. An explanatory sequential mixed-methods design was employed, beginning with a Likert-scale survey to measure OSH compliance across the six indicators among SMEs in the study area, followed by key informant interviews with OSH officers, medical officers, and the CEOs to provide qualitative insights that explained and enriched the survey findings. Findings revealed that Urban districts like Legazpi City and Daraga lead in compliance because of strong governance, training, and inspections, while Tabaco City and Ligao City show moderate compliance but struggle with cultural resistance, slowing adoption of safety practices, and rural districts such as Polangui, Oas, Guinobatan, and Camalig lag behind due to weak incentives, limited resources, and poor training access. The SME-Integrated OSH Compliance Model ties these insights together, showing that governance, culture, inspections, incentives, and training must work together to build a sustainable safety culture across Albay. The assessment of SME-Integrated OSH compliance in Albay highlights a clear tiered performance across districts, with urban centers leading through strong governance and structured training, mid-tier districts struggling with cultural adoption, and rural areas lagging due to resource and training gaps. Urban best practices such as leadership commitment, inspections, and incentives, offer replicable models, but persistent challenges like weak incentives, resistance to change, and limited resources confirm SMEs' structural disadvantages compared to larger firms. Addressing these gaps through targeted interventions and support mechanisms is essential to ensure equitable compliance outcomes. The SME-Integrated OSH Compliance Model provides a comprehensive framework that integrates governance, culture, inspections, incentives, and skills development, converging on the goal of building a sustainable workplace safety culture across Albay. The practical implication of this study is that policymakers must apply a tiered approach, replicating urban best practices, strengthening communication in mid-tier districts, and expanding incentives and training access in rural SMEs to build a sustainable workplace safety culture in Albay.

Keywords: *OSH, SME, OSH-Compliance, Compliance Incentive, Risk Management, Organizational Commitment, Urban, Rural*

INTRODUCTION

Occupational safety and health (OSH) standards play a pivotal role in ensuring the well-being of employees and maintaining a secure work environment (WHO, 2023). With about 60% of the global population is employed, and every worker is entitled to a work environment that is secure and promotes well-being (WHO, 2023). Decent work provides not only income

but also fosters confidence, purpose, and a sense of achievement. It provides opportunities for positive

relationships and community inclusion, offering a foundation for structured routines and numerous other benefits. It fosters positive relationships, community inclusion, and structured routines that benefit individuals and society. For those facing mental health challenges, decent work becomes even more important, supporting recovery and improving

social functioning (Mabona, et al., 2022). According to Mabona et al. (2022), workplaces that prioritize OSH reduce stress and conflict, improve staff retention, and increase productivity. Conversely, they stressed that when safety systems are weak, especially for vulnerable workers, job satisfaction and performance decline, attendance suffers, and employment opportunities may be lost. As industries evolve and the workplace grows more complex, assessing OSH-compliance becomes increasingly necessary (Tamers et al., 2020; Mabona et al., 2022).

Globally, the OSH has been recognized as a critical aspect of workforce management, e.g., the International Labor Organization (ILO) and the World Health Organization (WHO). The ILO's OSH Convention No. 155 and its 2002 Protocol emphasize the responsibility of government and employees to uphold workers' right to safe and healthy workplace (Wadsworth & Walters, 2019). In the United States of America, the Occupational Safety and Health Administration was created following the passage of the OSH Act of 1970 to ensure workers have a safe and healthy workplace. This was achieved by setting rules and offering training in the workplace (Centers for Disease Control and Prevention, 2022; Fairfax, 2020). A strong organizational commitment to safety helped reduce accidents and hazards (Naji et al., 2021; Centers for Disease Control and Prevention, 2022; Mabona et al., 2022). Proper safety training equips employees with the skills they need to handle risks, while OSH-compliance ensures that industries follow legal and ethical practices (Dyrborg et al., 2022; Tamers et al., 2020).

In the Philippines, the legislative framework for OSH is anchored on Republic Act No. 11058. Enacted in 2018, this mandate requires employees to maintain safe working conditions and provide necessary safety equipment and training. The Department of Labor and Employment (DOLE) of the Philippines enforces OSH regulations and issues compliance directives such as Department Order No. 198 to implement the OSH Standards Act of 2018. Small and medium Enterprises (SMEs) in the Philippines are presently challenged in meeting OSH-compliance standards. At the local level, industries in Albay, including agriculture, construction, and manufacturing, are required to comply with OSH regulations. Yet, compliance remains uneven, and employers struggle to afford standard safety equipment and/or send their workers to training.

This study seeks to identify areas for improvement and ensure employees are properly equipped with knowledge and skills.

MATERIALS AND METHODS

This study used an explanatory sequential mixed methods design, starting with a survey to measure or describe the OSH compliance level among SMEs in Albay, Philippines, and then followed up with the OSH officers, medical officers, and CEOs, to explain the results of the survey. A likert scale was used to combine survey data and administrative insights to describe the level of compliance and get a clear understanding of OSH compliance of selected SMEs in the study area.

The approach structured the questionnaire to assess OSH compliance across six key indicators: regulatory standards, incentives, inspections, enforcement, information dissemination, and training. Respondents rated their organizations using a Likert scale, allowing for a systematic evaluation of perceived compliance levels. The approach provides a consistent framework for comparing practices across SMEs and identifying areas for deeper inquiry.

To complement the survey data, the study conducted targeted interviews with key informants from selected SMEs in three congressional districts of Albay Province. Participants were chosen based on strategic criteria to ensure representation of samples facing compliance challenges. The interviews explored behavioral, operational, and administrative factors affecting OSH implementation. Thematic coding was applied to extract patterns and insights that could not be captured through quantitative methods alone.

By combining survey data with interview findings, the study adopted a mixed-method approach to develop a comprehensive policy framework. This integration allowed for the construction of the SME-integrated OSH Compliance Model, as shown in Figure 1, which aligns technical standards with organizational strategies. The model was designed to reflect both the formal structure and lived experiences of SMEs, ensuring that proposed interventions are grounded, practical, and responsive to real-world conditions.

RESULTS AND DISCUSSION

Table 1 presents the summary of OSH compliance among selected SMEs in Albay, Philippines. It highlights the sample SME names (coded by district), the compliance indicators assessed, their mean scores, and interpretations.

By linking each compliance theme, such as training, organizational commitment, inspections, incentives, enforcement, and risk management to specific SMEs, the table discloses both strengths and gaps in workplace safety practices. This structured view shows that SMEs demonstrate a strong commitment to training and policy formulation, but they face challenges in sustaining compliance incentives and proactive risk management.

Table 1. Matrix of OSH Compliance, Practices, and Challenges in Albay SMEs

Indicators	Rating	Sample SMEs by District	Compliance Level	Best Practices	Challenges	Findings
Training initiatives (mandatory training, drills, refresher courses)	4.60-4.67	District 1 (Legazpi) / District 2 (Daraga)	Very High	Structured training programs, regular drills	Resource gaps in rural areas	SMEs prioritize training as their strongest compliance tool Training is the highest-performing area, ensuring workers are well-prepared SMEs embed OSH into decision-making despite resource challenges
Formulation of regulatory standards (policies, OSH committees, integration)	4.40-4.60	District 2 (Daraga) / District 3 (Tabaco)	High	Embedding OSH into policies and committees	Limited resources for smaller SMEs	Strong structural commitment shows maturity in compliance culture
Inspection by regulatory agencies (regular inspections, documentation, audits)	3.93-4.27	District 1 (Legazpi) / District 3 (Tabaco)	Moderate to High	Cooperation with external audits	Weak transparency to employees	SMEs cooperate with external oversight but transparency to employees is weaker
Financial incentives, government contract priority, employee rewards	3.20-3.93	District 2 (Daraga) / District 3 (Tabaco)	Low to Moderate	Employee recognition, contract prioritization	Lack of subsidies and external motivation	Compliance is high in inspections, but internal communication needs improvement SMEs lack external financial motivation, treating safety as a cost
Enforcement by regulatory agencies (sanctions, accountability, legal awareness)	3.80-4.33	District 1 (Legazpi) / District 2 (Daraga)	Moderate to High	Legal awareness, accountability systems	Compliance driven by fear of sanctions	Incentives are the weakest area, creating sustainability challenges SMEs comply mainly to avoid penalties, showing reactive rather than proactive behavior
Dedicated OSH committees, integration into company policies	4.40-4.60	District 3 (Tabaco) / District 2 (Daraga)	High	Strong internal OSH committees	Maintaining consistency in smaller firms	Fear of sanctions drives compliance, but proactive safety culture is limited SMEs demonstrate strong internal commitment to safety structures OSH is integrated into organizational culture, ensuring long-term adherence

The SME-Integrated OSH Compliance Model, as shown in Figure 1, is a policy framework developed to strengthen workplace safety among small and medium enterprises (SMEs) in Albay. It was designed by combining quantitative survey results with qualitative interview insights, ensuring that both statistical evidence and real-world experiences shaped its structure. The model organizes the determinants of OSH compliance, such as regulatory mechanisms, industry context, challenges, and best practices, into a layered framework that explains how compliance can be achieved and sustained.

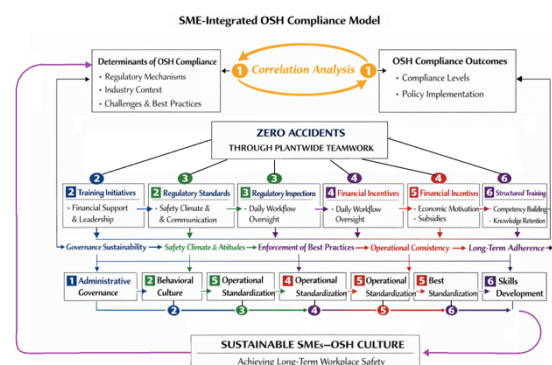


Figure 1. SME-Integrated OSH Compliance Model (Livica, 2026)

The Benchmarking Matrix serves as a practical tool for policymakers and industry leaders to evaluate how compliance drivers (arrows) connect to strategic domains and how these domains perform across districts in Albay. By mapping arrows to governance, culture, standardization, best practices, and skills development, the matrix provides a clear picture of strengths, weaknesses, and intervention priorities. This policy brief highlights the tiered performance across districts:

- Urban centers (Legazpi, Daraga) demonstrate strong governance and compliance, setting benchmarks for replication.
- Mid-tier districts (Tabaco, Ligao) show moderate adoption of safety culture, requiring communication-focused interventions.
- Rural districts (Polangui, Oas, Guinobatan, Camalig) face resource shortages, weak incentives, and limited training access, underscoring the need for targeted support.

Table 2 shows the convergence on the capstone goal: building a Sustainable SMEs-OSH Culture, consistent with ILO (2020) and Micheli et al. (2018), who confirm that integrated approaches—combining governance, culture, inspections, incentives, and

training—are the most effective pathway to resilient compliance.

Each arrow explains how the compliance model, as shown in Figure 1, works in real life, and the benchmarking matrix shows which districts are strong and which are weak in those areas. Urban districts lead, mid-tier districts struggle with culture, and rural districts face shortages in resources and training.

Table 2. OSH-SME Benchmarking in Albay, Philippines

Arrow	Role/Function	Strong Districts (Benchmark)	Weak Districts (Gap)
Arrow 1	Links rules, context, and challenges with compliance results	Legazpi, Daraga – strong feedback loop between policy and outcomes	Rural districts – weak correlation due to limited resources
Arrow 2	Training sustains leadership and financial support	Legazpi, Daraga – governance strengthened by structured training	Rural areas – governance gaps from limited training access
Arrow 3	Standards foster communication and reduce resistance	Urban centers – clearer adoption of safety culture	Tabaco, Ligao – moderate compliance; cultural barriers persist
Arrow 4	Inspections embed safety into daily workflows	Urban districts – regular audits sustain standardization	Polangui, Guinobatan – weak enforcement, poor workflow integration
Arrow 5	Incentives motivate SMEs to sustain compliance	Urban districts – stronger incentive structures	Rural districts – weakest incentives, lack subsidies and recognition
Arrow 6	Structured training ensures competency retention	Urban districts – accessible training programs	Oas, Camalig – severe training gaps, weak leadership support

CONCLUSION

The compliance assessment across Albay's SMEs reveals a stratified performance landscape, with urban districts such as Legazpi and Daraga leading due to strong oversight and inspections, mid-tier districts like Tabaco and Ligao showing moderate compliance shaped by cultural resistance, and rural districts consistently lagging because of resource shortages and weak incentives. This stratification confirms the need for a tiered policy approach that aligns interventions with district-specific realities, ensuring that governance structures and compliance mechanisms are tailored to local contexts.

Urban districts demonstrate that strong governance, structured training, and consistent inspections are the most effective drivers of compliance. Their integration of safety into daily operations, backed by leadership commitment and financial support, highlights replicable models that can be extended to other districts. Incentive structures in these areas further motivate SMEs to adopt best practices, reinforcing the importance of combining regulatory enforcement with positive reinforcement to sustain workplace safety culture.

Despite these successes, persistent barriers undermine progress. Weak incentives in rural areas, cultural resistance in mid-tier districts, leadership gaps in micro-enterprises, and resource constraints across disadvantaged regions confirm the structural disadvantages SMEs face compared to larger firms. These challenges emphasize the urgency of targeted

interventions—financial subsidies, communication campaigns, leadership development, and expanded training access—to close compliance gaps and ensure equitable safety outcomes across all districts.

SME-Integrated OSH Compliance Model provides a comprehensive framework that organizes compliance drivers into four domains: Administrative Governance, Behavioral Culture, Operational Standardization, and Skills Development. By linking training, standards, inspections, incentives, and structured training to these domains, the model converges on the capstone goal of a Sustainable SMEs-OSH Culture. This integrated approach, consistent with global insights from ILO (2020) and Micheli et al. (2018), confirms that combining governance, culture, inspections, incentives, and training is the most effective pathway to resilient compliance and long-term workplace safety in Albay.

REFERENCES

- Centers for Disease Control and Prevention. (2022). *Occupational safety and health*.
- Dyreborg, M., et al. (2022). *OSH-compliance ensures that industries follow legal and ethical practices*. *Safety and Health Review*, 9(3), 201-215.
- Fairfax, L. (2020). *The importance of workplace safety regulations and training*. *Journal of Workplace Safety*, 12(4), 245-267.
- International Labour Organization (ILO). (2022). *OSH Convention No. 155: Protocol on the responsibility of government and employees to uphold workers' right to a safe and healthy workplace*.
- Mabona, P., et al. (2022). *Proper safety training equips employees with the skills needed to handle workplace risks*. *Journal of Safety Training and Development*, 18(1), 50-64.
- Naji, M., et al. (2021). *The role of organizational commitment in reducing workplace accidents and hazards*. *Journal of Occupational Health and Safety*, 30(2), 134-145.
- Republic Act No. 11058. (2018). *An act strengthening compliance with occupational safety and health standards, providing penalties for violations thereof, and for other purposes*.
- Santiago, E. F., III. (2018). Corruption prevention in state colleges and universities. *KnE Social Sciences*, 3(8), 156–167. <https://doi.org/10.18502/kss.v3i8.2508>
- Santiago, E. F., III. (2024). Data protection, data privacy, research ethics, and AI in the policy process towards effective urban governance. *Royal Institution Singapore Journal (RI Journal)*. [Conference

presentation publication]. Retrieved
from <https://www.academia.edu/126692989>

Santiago, E. F., III. (2025a). Modernizing land use governance: Integrating smart technologies, sustainability, and ethics in urban planning. *Modern Environmental Science and Engineering*. Academic Star Publishing. Retrieved
from <https://www.academia.edu/129146583>

Santiago, E. F., III. (2025b). Empowering urban communities through participatory planning: Innovative extension practices for sustainable development. *Journal of Civil Engineering Research & Technology*. [https://doi.org/10.47363/JCERT/2025\(7\)188](https://doi.org/10.47363/JCERT/2025(7)188)

Tamers, M., et al. (2020). *The impact of safety training on accident reduction and workplace hazards*. *Journal of Risk Management and Safety*, 15(5), 323-337.

U.S. Occupational Safety and Health Administration (OSHA). (1970). *OSH Act of 1970: Workers' safe and healthy workplace* [Setting rules and offering training in the workplace].