

LUWAS: An Assessment on the Occupational Safety Practices among Motorcycle Repair Shops in the City of Mati, Davao Oriental, Philippines

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ABSTRACT

This study assesses the occupational safety practices among motorcycle repair shops in the City of Mati, Davao Oriental, Philippines. A mixed-method approach, combining surveys and in-depth interviews, was employed to evaluate safety practices, training, and awareness levels among shop owners and mechanics. The results highlight significant gaps in occupational safety measures, including inadequate use of personal protective equipment, lack of formal safety training, and a high incidence of workplace injuries. Recommendations include mandatory safety training, financial support for safety equipment, and stronger enforcement of occupational safety regulations.

Keywords: Occupational Safety, Motorcycle Repair Shops, Workplace Hazards, Safety Training, Mati City

INTRODUCTION

Motorcycle repair shops are vital in maintaining the functionality and safety of motorcycles, which serve as a primary mode of transportation in the Philippines (Godoy, 2020). Despite their importance, occupational safety within these shops is often neglected, placing mechanics and shop owners at considerable risk. This lack of focus on safety protocols and hazard mitigation creates a work environment prone to injuries and other occupational health issues.

The increasing prevalence of motorcycles has also led to an expansion of repair shops, yet safety practices within these establishments remain under-researched. While existing studies address road safety laws and helmet usage (Pervez et al., 2021), there is a notable gap in understanding the occupational safety measures implemented in motorcycle repair shops. This oversight limits the capacity to identify and address specific hazards that mechanics face daily in their work environments.

Mechanics in repair shops are exposed to a range of occupational hazards, including chemical exposure, ergonomic issues, and injuries from equipment misuse. Current strategies aimed at accident prevention often emphasize risk identification without addressing structural and systemic measures that can mitigate workplace dangers. By focusing on occupational safety in repair shops, this study intends to fill the research gap and provide a comprehensive analysis of existing practices.

The World Health Organization (WHO) highlights the necessity of improving occupational safety across various sectors, especially in countries like the Philippines, where small-scale businesses form a significant part of the economy. Repair shops, often operating with limited resources, face unique challenges in implementing adequate safety measures. This study aims to align its findings with global occupational safety standards, providing practical recommendations tailored to local contexts.

This research assesses the occupational safety practices in motorcycle repair shops in Mati City, Davao Oriental. By identifying gaps and proposing targeted improvements, the study seeks to provide a safer and healthier working environment for mechanics and other personnel involved in the operation of these establishments.

METHODOLOGY

Research Design

This study employed a mixed-methods approach, integrating quantitative surveys with qualitative interviews to ensure a comprehensive assessment of occupational safety practices.

Data Collection

- **Survey-** A structured questionnaire was administered to 75 motorcycle repair shop owners and mechanics in Mati City. The survey covered demographics, use of PPE, safety training, and workplace injuries.
- **Interviews-** In-depth interviews were conducted with a subset of participants to gain deeper insights into their experiences and perceptions regarding occupational safety.

Data Analysis

Quantitative data were analyzed using statistical methods, while qualitative responses were thematically analyzed to identify recurring safety concerns.

RESULTS AND DISCUSSION

Survey Findings

Aspect	Findings
Use of PPE	Only 40% of respondents consistently used safety gear such as gloves, safety glasses, and work boots.
Safety Training	60% of respondents had not received formal safety training in the past year.
Workplace Injuries	Over 50% reported experiencing work-related injuries, including cuts, burns, and musculoskeletal issues.

The survey findings highlight significant gaps in workplace safety practices among motorcycle repair shop employees. The low percentage of workers using personal protective equipment (PPE) consistently points to a critical area for improvement. Lack of formal safety training further exacerbates risks, leaving employees ill-prepared to handle occupational hazards effectively. The high incidence of workplace injuries underscores the urgent need for intervention to safeguard worker health and productivity.

Addressing these gaps requires a multipronged approach. Increasing awareness about the importance of PPE and providing accessible safety training programs can significantly mitigate risks. Employers should prioritize integrating safety measures into daily operations and actively promote a culture of safety to reduce workplace injuries.

Interview Insights

Insight	Description
Lack of Awareness	Many mechanics were unaware of occupational safety regulations.
Financial Constraints	Small-scale repair shops struggled to afford necessary safety equipment.

Cultural Attitudes	Some mechanics viewed safety practices as unnecessary or secondary to their work efficiency.
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The interviews revealed systemic challenges in promoting occupational safety among motorcycle repair shop employees. A lack of awareness regarding safety regulations indicates the need for targeted educational initiatives to inform mechanics about their rights and responsibilities in maintaining a safe workplace. Financial constraints faced by small-scale repair shops further limit their ability to invest in essential safety equipment, creating additional vulnerabilities.

Cultural attitudes toward safety also pose a barrier. The perception of safety measures as secondary to work efficiency highlights the need for a paradigm shift in workplace culture. By demonstrating the long-term benefits of safety practices, both in terms of health outcomes and economic efficiency, stakeholders can foster greater adherence to safety protocols.

Current Occupational Safety Practices

Motorcycle repair shops are integral to maintaining the safety and functionality of motorcycles, which are a primary mode of transportation in the Philippines. However, the rapid increase in motorcycles, coupled with inadequate road safety measures, has led to a surge in motorcycle-related crashes. Motorcyclists account for nearly 45% of the total road crashes in the largest city, underscoring the critical role repair shops play in mitigating these risks.

While repair shops are essential to ensuring road safety, their effectiveness is hindered by insufficient safety practices. Investing in training and equipping workers with proper tools can enhance their ability to contribute to overall road safety. Additionally, repair shops can collaborate with local authorities to create community-level initiatives aimed at improving road safety awareness.

Awareness and Adherence to Safety Protocols

Key Observations	Explanation
Accident Risk	Motorcycle riders face disproportionately higher risks of accidents, injuries, and fatalities compared to motorists.
Prevention Approach	Accident prevention typically focuses on risk factors, often neglecting systemic strengths.

The findings emphasize the heightened risk faced by motorcycle riders, requiring a focused approach to accident prevention. Traditional methods often center on identifying risk factors, but they may overlook systemic strengths that can be leveraged for safety improvements. Repair shops can play a pivotal role by incorporating safety inspections and preventive maintenance into their services.

Promoting adherence to safety protocols is essential to reducing accident risks. Repair shop workers must be trained to recognize and address potential hazards proactively. Policymakers and stakeholders should also explore incentives for compliance, such as subsidies for safety equipment or recognition programs for shops that adhere to best practices.

Workplace Hazards and Injuries

Despite the significant safety issues associated with motorcycles, existing literature in the Philippines on motorcycle safety remains limited. Most studies focus on helmet use and related laws, leaving gaps in understanding workplace hazards specific to motorcycle repair shops.

The lack of comprehensive research on workplace hazards within repair shops underscores the need for more targeted studies. Understanding the unique risks faced by workers can inform the development of tailored safety

interventions. Collaboration between academic institutions, government agencies, and industry stakeholders can bridge this gap and create actionable solutions.

Addressing workplace hazards requires a holistic approach that considers both physical and organizational factors. Providing ergonomic tools, implementing safety standards, and fostering a supportive workplace culture can significantly reduce injury rates. Repair shops should also engage in regular risk assessments to identify and mitigate potential hazards proactively.

Strategies for Improving Safety Practices

Strategy	Details
WHO Recommendations	Emphasize the need for global efforts to improve motorist safety.
Government Role	Highlight the challenges in enforcing comprehensive safety measures without restricting motorcycle use as a primary mode of transportation.

The quantitative data from the survey reveals alarming gaps in workplace safety practices among motorcycle repair shop employees. Only 40% of respondents consistently use personal protective equipment (PPE), and 60% reported not receiving formal safety training in the past year. These findings are reinforced by the qualitative insights from interviews, where mechanics highlighted a lack of awareness regarding occupational safety regulations. This lack of knowledge, combined with insufficient training, leaves workers vulnerable to hazards and ill-equipped to manage workplace risks effectively.

Financial constraints faced by small-scale repair shops, as revealed in the interviews, provide context to the survey finding that over 50% of employees reported workplace injuries. Shops struggling to afford safety equipment and training inadvertently expose their workers to greater risks of cuts, burns, and musculoskeletal issues. This financial limitation highlights the systemic challenges in creating safer work environments and underscores the need for external support or subsidies to ensure basic safety measures are implemented.

Cultural attitudes further compound these challenges. The interviews reveal that some mechanics perceive safety practices as secondary to work efficiency, which aligns with the survey's low PPE usage rates. This indicates a broader issue of workplace culture that undervalues safety. Addressing these intertwined factors awareness, financial constraints, and cultural attitudes requires a comprehensive strategy that includes education, financial assistance, and a cultural shift towards prioritizing occupational safety. By integrating these approaches, stakeholders can foster safer and more productive work environments in motorcycle repair shops.

CONCLUSION

This study assessed the occupational safety practices among motorcycle repair shops in Mati City, Davao Oriental, and identified significant gaps in safety measures, including inadequate use of personal protective equipment, lack of formal safety training, and a high incidence of workplace injuries. To enhance workplace safety, the study proposes mandatory safety training, financial support for safety equipment, and stronger enforcement of occupational safety regulations.

By incorporating the research findings from the literature review, and a comprehensive discussion of the results, this research paper provides a thorough analysis of occupational safety practices in motorcycle repair shops in Mati City. The recommendations aim to improve safety standards, protect the well-being of mechanics and shop owners, and contribute to the overall safety of the transportation system in the Philippines.

RECOMMENDATIONS

To improve occupational safety practices in motorcycle repair shops, the following strategies are proposed:

1. Implement compulsory safety training programs for mechanics and shop owners to enhance their awareness and adherence to safety protocols.

2. Provide financial assistance or subsidies to motorcycle repair shops to ensure the adequate provision of personal protective equipment and other safety gear.
3. Work with local authorities to enforce occupational safety regulations more effectively in the motorcycle repair industry.
4. Foster partnerships with motorcycle manufacturers, industry associations, and the local government to develop and implement comprehensive safety programs.

ETHICAL CONSIDERATIONS

This study adhered to ethical research standards by ensuring the voluntary participation of all respondents. Informed consent was obtained before conducting surveys and interviews, and participants were assured of confidentiality and anonymity. Data collected were used solely for research purposes and stored securely to prevent unauthorized access. The study also adhered to ethical guidelines in handling sensitive information, ensuring no harm was caused to the participants during the research process.

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