

CHAPTER 5 – CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Analyzing the relationships between people's safety awareness, safety leadership, rewards and punishments, and safety culture reveals several important insights. First, people's safety awareness (X1) and safety leadership (X2) have a significant and positive impact on safety culture (Y). Safety leadership in particular has a particularly strong impact, indicating that leaders play a critical role in shaping and maintaining a robust safety culture. The reward and punishment system (X3) in this context does not show a significant impact on safety culture, suggesting that the current implementation of these mechanisms may not be effective.

Table 0.1 Summary

Category	People Safety Awareness (X1)	Safety Leadership (X2)	Reward and Punishment (X3)
Research Findings Summary	Has a significant impact on safety culture; Awareness programs and ongoing training are essential.	Has a major impact on safety culture; Transformational leadership is particularly effective.	Minimal impact on safety culture in the current context; Effectiveness varies depending on design and implementation.
Research Gap	Limited understanding of specific mechanisms through which awareness influences safety culture across industries.	Need for longitudinal studies to assess the long-term effectiveness of leadership development programs.	Understand cultural factors that influence the effectiveness of reward and punishment systems.
Research Questions	What specific impact do safety awareness programs have on safety culture in mining?	What are the long-term effects of safety leadership development programs on safety culture?	How do cultural factors influence the effectiveness of reward and punishment systems in promoting safety culture??

5.2 Research Limitation

The respondent in this study is an employee of an Indonesian coal mining company. For the purpose of both confirmation and description, this study employs a quantitative technique. This study's questionnaire-based data collection period ran from November

2023 to August 2024. A comprehensive analysis of the data is carried out using inferential and careful analysis methods.

5.3 Recommendation for Future Research

Future research should focus on several key areas to further improve the understanding and effectiveness of safety culture initiatives. First, examining the specific mechanisms through which safety awareness programs can shape safety culture in different industrial contexts, such as: B. in mining, influence, deliver more targeted strategies to improve safety outcomes. This may include qualitative studies that explore employee perceptions and experiences of safety training and campaigns. Furthermore, examining the role of cultural factors in shaping the effectiveness of reward and punishment systems can provide insights into how these systems can be tailored to better align with local values and norms, thereby enhancing their impact.

Another important area for future research is the longitudinal study of security leadership development programs. By tracking the progress and results of such programs over time, researchers can assess their long-term effectiveness and identify key elements that contribute to sustained improvements in safety culture. Additionally, exploring the integration of advanced technologies such as virtual reality training and AI-driven security monitoring could provide innovative solutions to improve security awareness and compliance.

Finally, future research should also consider the interaction between organizational structure and safety culture. Understanding how different organizational designs and management practices impact safety culture can help organizations implement structural changes that support a strong safety culture. By addressing these areas, future research can provide a comprehensive and nuanced understanding of how to build and maintain a robust safety culture in various industrial environments.

In the framework of an integrated research model, this study explored and elucidated the relationships among all planned buildings. This work closes gaps and provides clarifications regarding earlier research. The results of hypothesis testing, research questions, and research gaps are summarized in Table 30. With an emphasis on high-

risk professions to support sustainable business practices, further research can be helpful in a variety of industries, including manufacturing, transportation, automotive, construction, nickel mining, gold mining, and more. Future research is made more fascinating by the increasing business competition in Indonesia as a result of the country's current economic instability and rapid technological advancement.

