

Development and Content Validation of a Cross-Industry Safety Culture Measurement Instrument in the Malaysian Context

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Abstract

Safety culture is a key determinant of occupational safety and health performance, yet many instruments used in Malaysia are sector-specific or adapted from international contexts, limiting their contextual relevance and cross-industry use. This study aimed to develop and establish the content validity of a safety culture measurement instrument for Malaysian workplaces. A multi-phase approach was applied, beginning with a systematic literature review to identify relevant safety culture dimensions and domains. The identified constructs were used to develop a preliminary questionnaire, which was then reviewed by nine experts from occupational safety and health academia, industry practice, institutional safety management, and regulatory enforcement. Content validity was assessed using the Item-Level Content Validity Index (I-CVI), Scale-Level Content Validity Index based on average agreement (S-CVI/Ave), and universal agreement (S-CVI/UA), supported by qualitative expert feedback. The initial structure comprised eight dimensions and 38 domains. I-CVI values ranged from 0.89 to 1.00, with S-CVI/Ave of 0.997 and S-CVI/UA of 0.97, indicating excellent content validity. Following expert recommendations, the final questionnaire comprised nine dimensions and 47 domains. The instrument provides a contextually relevant and content-validated tool for assessing safety culture across Malaysian industries.

Keywords

Safety Culture, Content Validity, Instrument Development, Cross-Industry.