

Effects of Value Management Barriers on Sustainability Success in Australian Infrastructure Sector

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Abstract

The purpose of this study is to understand the relationship between overcoming value management (VM) barriers and overall sustainability success (OSS) in the Australian steel industry. It is well documented in literature that VM can help businesses to gain value improvement and efficiency; however, the literature is scarce in terms of whether VM could overcome VM implementation barriers to result in OSS in the Australian steel industry. The researchers developed a research design that included an extensive literature review on the barriers of VM and selected suitable OSS indicators. A survey was then conducted among a sample of 81 respondents in different roles within the Australian steel industry. Partial least squares structural equation modelling was used to build the study model. The modelling result shows a positive and significant impact between the two latent variables (LVs), overcoming VM barriers and OSS. The path coefficient between the two LVs is positive and significant ($p < 0.05$). A significant amount of variance in OSS was explained in the model ($R^2 = 0.160$). The predictive relevance is established by the Q^2 value being greater than zero ($Q^2 = 0.123$). Recognizing and overcoming the VM barriers will help decision-makers provide long-run assurance of sustainability within the steel industry. The present paper provides decision-makers with insights to embed value-based thinking within their daily business operations to actualize sustainability thinking. This research is one of the first research in practice to empirically investigate and offer a validated and replicable model to understand the relationship between VM implementation barriers and OSS in the Australian steel industry.

Keywords

Value Management, Barriers to VM implementation, Partial Least Square-Structure Equation Modelling, Steel, Manufacturing, Australia, Overall Sustainability Success.