

Analyzing The Drivers of The Circular Economy in The Context of Maintenance Using ISM

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Abstract

This paper aims to identify and classify the barriers of implementing circular economy principles in the context of maintenance 5.0. This study employed an approach that involved developing a structural relationship model based on interpretive structural modeling (ISM) to analyze and prioritize the drivers impacting the implementation of circular economy principles. Results confirmed that the barriers identified including technical and knowledge barriers, financial constraints, and infrastructure limitations, are recognized as the most significant challenges. The results of this study make it easier for decision-makers to identify and overcome these barriers. Additionally, the limitations of this study have been outlined, presenting opportunities for further research in this area. Finally, we discuss future research directions as well as the theoretical and managerial implications of our findings.

Keywords

Maintenance, Circular Economy, Industry 5.0, ISM