National Institute of Technology Rourkela

Departmental Seminar

Seminar Title	: Analyzing the drivers and barriers of sustainable supply chain management in the Indian steel industry: A fuzzy TISM approach
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Venue	: Seminar Hall (Room Number: ME -001)
Date and Time	: 20 Dec 2024 (15:00)
Abstract	: India plays a significant role in global steel production, with its steel industry serving as a fundament for the nation's economic development. However, the steel industry is energy-intensive and rapidly depletes natural resources to fulfill the nation's demand, causing environmental degradation. Therefore, it has become essential to maintain a proper balance between the economic, environmental, and social issues in the supply chain of the Indian steel industry. A lot of factors affect the implementation of sustainability in the steel industry's supply chain. Therefore, these industries need to identify the most crucial factors for sustainability implementation. Thus, this study aims to contribute to both theory and practice by identifying and analyzing the critical drivers and barriers with the help of fuzzy Total Interpretive Structural Modeling (F-TISM) to prioritize them hierarchically. Data were collected from three experts with extensive experience in sustainability and supply chain management from a steel industry located in eastern India. The study's practical implications lie in providing steel industry practitioners with a clear roadmap to prioritize sustainability efforts. Key findings reveal that 'Compliance with environmental standards' is the most influential driver, while 'Inadequate government regulation' on sustainability emerges as the most significant barrier to SSCM implementation.