

Practising circular economy performance in Malaysia: Managing supply chain disruption and technological innovation capability under industry 4.0

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ABSTRACT

In response to environmental awareness and financial return, manufacturing firms are increasingly concerned about practicing circular economy performance (CEP). The lack of comprehensive evidence on the integrated technology capability in IR4.0 driven based supply chain management literature has motivated this study to investigate how the company manages the disruption of Industry 4.0 technology and its impact on CEP. Data were obtained from 130 Malaysian manufacturing companies. Data were analyzed using structural equation modelling using PLS-SEM. The results showed CEP's positive and significant effect on managing supply chain disruption and technological innovation capability (TIC). Positive relationships prove that CEP has a considerable influence on the manufacturing industry. The mediating results found that the TIC has played a complimentary mediation effect to support the nexus of managing supply chain disruption, supply chain disruption recovery and CEP. Supply chain managers are encouraged to control interference problems and improve effective communication and teamwork.

KEYWORDS

Circular economy performance; Supply chain disruption orientation; Supply chain disruption discovery; Technological innovation capability; Industry 4.0

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