

Cyber supply chain risk management and performance in industry 4.0 era: Information system security practices in Malaysia

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ABSTRACT

This study aims to investigate the direct and indirect effects of information system security practices that observed the relationship effect between cyber supply chain risk management and supply chain performance. In Industry 4.0 era, a cyber-attack becomes unavoidable and needs to adopt cyber supply chain risk management to improve the firm. The data were collected from 105 firms in Malaysia through online surveys. The partial least squares structural equation modeling technique examined the model's goodness and research hypothesis. The results revealed that operations, directly and indirectly, influence (via mediators) supply chain performance. In contrast, governance directly affects supply chain flexibility and indirect (via mediators) influence on supply chain performance; in addition, systems integration did not, directly, and indirectly, influence supply chain performance. This framework indicates the manufacturing industry and related parties with a better understanding of cyber supply chain risk management.

KEYWORDS

Cyber risk; Cyber-attacks; Digitalization; Industry 4.0; Information system security; Supply chain management; Supply chain risk

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