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Research article

Maturity Model Assessment of SMART Logistics for SMEs

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Abstract The objective of this study is to propose and operationalise a maturity model assessment of SMART logistics for SMEs. Under the current substantial changes in business practices, the concept of Industry 4.0 (I4.0) has amplified the complexity of the business eco-system, especially for SMEs. Several SMEs have attempted to cultivate the benefits of the technological advancement under the I4.0 concept; however, due to the increasing complexity of technological capabilities and development of adequate strategies, a rising concern of uncertainty hinders the adaptation of new management practices such as SMART logistics. The current paper intends to contribute to fill the scientific 'gap' with the question on how SMEs may assess their readiness in adapting the I4.0 and how they could plan their activities and operations to heighten firms' competitive advantage through SMART logistics in the current business environment. Overall, the authors have identified six dimensions and assigned 18 items for assessing the maturity of I4.0 for SMEs. The model has been transformed into a practical tool that can be used to test the readiness of firms in a real business environment.

Keywords: Indicator assessment, Maturity model, Measurement model, SMART logistics, SMEs

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