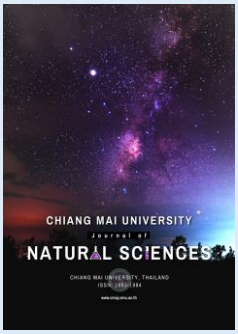

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Corresponding author:
Apichat Sopadang,
E-mail: *apichat@eng.cmu.ac.th*

Research article

Smart SMEs 4.0 Maturity Model to Evaluate the Readiness of SMEs Implementing Industry 4.0

Nilubon Chonsawat[1] and Apichat Sopadang[2,*]

1 Graduate Program in Industrial Engineering, Department of Industrial Engineering, Faculty of Engineering, Chiang Mai University, Chiang Mai 50200, Thailand
2 Department of Industrial Engineering, Excellent Center in Logistics and Supply Chain Management, Chiang Mai University, Chiang Mai 50200, Thailand

Abstract In the Industry 4.0 revolution, advanced manufacturing capabilities integrate technology and data to create intelligent production systems, such as automation, cloud computing, the Internet of Things and cyber-physical systems. Small and medium-sized enterprises, which are the backbone of economic growth, especially must apply the advanced technology in their business and operations so as to increase productivity. This paper empirically proposes the Smart SMEs 4.0 maturity model and its implementation for assessing the readiness of an organisation to enter the realm of smart manufacturing. The model is categorised into five dimensions as well as 43 sub-dimensions for evaluating SMEs 4.0 maturity. These dimensions are mainly composed of "manufacturing and operations", "people capability", "technology-driven process", "digital support" and "business and organisation strategies". Moreover, the model is implemented in two case studies for two companies in Thailand. The results imply that the model can evaluate an organisation's readiness and also can guide companies to implement the Smart SMEs 4.0 efficiently.

Keywords: Evaluation, Industry 4.0, Implementation, Maturity model, Readiness, Smart manufacturing, Smart SMEs,

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