

The Relationship between World-Class Manufacturing Pillars as Key Driver towards Manufacturing Small and Medium Enterprise (SME) Business Performance in Indonesia: The Mediation Role of Industrial Estate Functions and the Moderation of Information & Communication Technology (ICT) Adoption

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Abstract

Purpose – Manufacturing small medium enterprises (SMEs) must adapt world-class manufacturing (WCM) practices to better serve large enterprises in order to increase manufacturing SMEs business performance and competitiveness. One of the breakthroughs to develop the potential of manufacturing SMEs is to include them with multi-national enterprises (MNEs) that apply WCM pillars in industrial estates to gain greater benefits for them. The objectives of WCM practices are zero waste, zero defects, zero accidents, and zero stock. This research will be focusing on 6 of the 10 WCM pillars which include: Cost Deployment pillar, Environment pillar (zero waste); Quality Control pillar (zero defects); People Development pillar, Safety pillar (zero accidents), and Logistics & Customer Service pillar (zero stock). The other 4 WCM pillars related to the engineering and design departments can be applied later in certain circumstances. Industrial estates, as the main means for the manufacturing industries, are planned, built, and managed to create a conducive manufacturing climate. This study was initially motivated by the absence of references to elucidate the functions of industrial estate as a mediating factor to help improve manufacturing SMEs business performance by adapting the WCM pillars as their key driver. Additionally, this study is proposed to address the moderator effect of information & communication technology (ICT) adoption on manufacturing SMEs business performance within industrial estates in Indonesia as a developing country.

Design/methodology/approach – The quantitative research study is conducted for data collection and analysis to test the hypotheses. This study is conducted by distributing questionnaires to manufacturing SMEs' owners, industrial estate firm managers, and management teams of related multi-national enterprises, all of whom are located within the industrial estate environment. Sampling in this study uses a non-probability sampling technique. Data analysis from this study plans to be carried out using the Structure Equation Modeling-Partial Least Square (SEM-PLS) method through the WarpPLS 7.0 analysis tool.

Keywords: world-class manufacturing; manufacturing SMEs; industrial estates; Information & communication technology