

Title	開発文化・インダストリー4.0・サーキュラーエコノミーがタイの製造業の競争優位性に与える影響に関する研究
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## ABSTRACT

The manufacturing sector, especially in a developing country such as Thailand, needs to increase competitiveness and move toward sustainable development. The transition to a Circular Economy (CE) and Industry 4.0 can be considered an important factor in achieving these targets. Manufacturing companies in a developing country are often subject to resource limitations, which can restrict the efficient transition. To promote a successful transition, firms should understand the factors that influence this transition and its impact on competitive advantage. However, there are still limited empirical studies addressing the influence of organizational culture on this transition and linking cultural aspects together with the transition to a firm's competitive advantage. Therefore, this study examines the effects of organizational culture, i.e., developmental culture, on the implementation of Industry 4.0 and CE for competitive advantage in the context of the Thai manufacturing sector. The findings are based on primary data collected using a survey questionnaire. The data was analyzed using Structural Equation Modeling (SEM). In total, 354 survey responses from participants in the Thai manufacturing sector were used for the analysis. The findings demonstrate that developmental culture contributes positively to Industry 4.0 and CE adoption and to a firm's competitive advantage. The adoption also leads to enhanced competitive advantage. Industry 4.0 positively supports CE implementation in the Thai manufacturing sector. The findings help manufacturing companies understand the necessary cultural characteristics, aiding the transition. This study contributes to the literature by providing inputs to support Industry 4.0 and CE advancement, which eventually can lead to sustainability improvement.

**Keywords:** Developmental culture, Industry 4.0, Circular Economy, Competitive advantage, Sustainability