論 文 の 内 容 の 要 旨

論文題目 Modeling the Policy Portfolio of Systemic Innovations for the Sustainability of the IoT in Manufacturing Industry by Using a Novel MADM Based Integrated Framework（製造業におけるIoT の持続可能性に向けた政策ポートフォリオに関する研究）

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　　The definition of the innovation policy portfolio is critical for technological innovations and industrial sustainability. Due to the fast emergence of the technology for the Internet of Things (IoT), novel applications have evolved rapidly in the past years. In manufacturing industries, the adoptions of the IoT have also increased promptly. For fast catching-up economies such as Taiwan, although the government has proposed policies which include subsidies and financial supports, the diffusions of industrial IoT into manufacturing related applications are relatively slow. To improve such problem, this research attempts to propose a novel multiple attribute decision making (MADM) model and analytical process. The analytical process can be split into several steps. First, this research explores the systemic factors' causality. By the causality result, we can understand influential relationship among factors. Then, this research evaluates the systemic innovation problems in which we can easily understand how to improve different identified systemic problems. Finally, based on different systemic problems, this research attempts to derive the policy portfolios and roadmaps to solve specific problems. An empirical case based on the smart manufacturing industry in Taiwan will be leveraged to validate the proposed analytical framework. The empirical study results based on the novel MADM based integrated framework can offer the innovative insights for policy makers in formulating future policies to develop the IoT industry and support the industrial sustainability.