

## ABSTRACT

*Industry 4.0 has become the global standard for manufacturing industry to be able to compete in the digital world. Efforts for this transformation not only initiated by manufacturing organizations but also initiated by governments around the world. This condition will benefits Indonesia to revitalized manufacturing sector which has significant contribution to national Gross Domestic Products (GDP). “Making Indonesia 4.0” initiated by Indonesia government to serve as national roadmap in pursuit of Industry 4.0 which prioritized 5 (five) manufacturing sectors. One of them is the Food & Beverages Industry with high impact and feasibility according to government study. However, a current study by World Economic Forum shows that Food & Beverages Industry has low in digital maturity or Industry 4.0 readiness. This research tries to explore the gap between opportunities from Food & Beverages Industry in Indonesia and its readiness to pursue Industry 4.0.*

*The purpose of this research is to understand current conditions of digital maturity or Industry 4.0 readiness in Food & Beverages Industry in Indonesia, as well as the maturity dimensions which has high priority or specific in this industry. These findings will be used to develop a strategic roadmap to help manufacturers transition into Industry 4.0.*

*Explanatory sequential mixed method design will be used to explore the phenomenon in this research. In the first stage, the readiness of Industry 4.0 will be assessed using the Smart Industry Readiness Index (SIRI) framework. The assessment was conducted to 7 (seven) enterprises in Food & Beverages Industry. The second stage will find the priority SIRI dimensions by utilizing SIRI The Prioritization Matrix framework. Top priority KPIs and strategic planning horizon will be taken into consideration in this calculation. The results will be explored further through interviews with 3 (three) industrial experts from the participative companies and will be used as foundation to develop Industry 4.0 strategic roadmap for Food & Beverages Industry.*

*This research found that Indonesian F&B manufacturers have better average readiness index compared to global F&B average but significantly lower than the best-in-class manufacturers. The Vertical Integration, Shop Floor Intelligence, Shop Floor Automation, and Workforce Learning & Development identified as 4 (four) priority dimensions to increase the readiness index from Indonesian F&B manufacturers. On the last stage of research, we developed conceptual roadmap to improve the implementation of Industry 4.0 based on the strategic planning horizon, prioritized dimensions, and initiatives identified from interview results.*

*Our findings aim to contribute as additional reference for F&B industry practitioners to planning and improving the implementation of Industry 4.0. In addition, this research could be used as a resource in applying the sequential explanatory mixed method design.*

**Keywords:** *digital maturity, Industry 4.0, roadmap, food and beverages industry, mixed method, explanatory sequential design*