

## Analysis of Critical Success Factors for Implementing Industry 4.0 and Circular Economy to Enhance Food Traceability

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**Abstract :** Food traceability through the supply chain is facing increased demand. IoT and blockchain are among the tools under consideration in the Industry 4.0 era that could be integrated to help implementation of the Circular Economy (CE) principles while enhancing food traceability solutions. However, such tools need intellectual system, and infrastructure to be settled as guidance through the way, helping overcoming obstacles. That is why the critical success factors for implementing Industry 4.0 and circular economy principles in food traceability concept are analyzed in this paper by combination of interval type 2 fuzzy Worst Best Method and Measurement Alternatives and Ranking according to Compromise Solution (Interval Type 2 fuzzy WBM-MARCOS). Results indicate that "Knowledge of Industry 4.0 obligations and CE principle" is the most important factor that is the basis of success following by "Management commitment and support". This will assist decision makers to seize success in gaining a competitive advantage while reducing costs through the supply chain.

**Keywords :** food traceability, industry 4.0, internet of things, block chain, best worst method, marcos

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