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How Can Halal Food Manufacturers Benefit from IR 4.0 Technology?
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Abstract
Global economies are constantly changing due to urbanization, demographics, consumer demand, business environment, legislation, and technological advancement. As part of the larger global market, the halal food sector must be more proactive in creating and capturing value to stay resilient amidst rapid changes. One of the ways forward for food producers is to adopt the latest technologies. The technologies are important tools for not only increasing productivity but also for ensuring food safety, sustainable practices, and the integrity of halal products. This chapter discusses the applications of IR4.0 core technologies such as blockchain, Internet of Things (IoT), automation and robotics, robotic + AI/machine learning, digital twin, and augmented reality (AR) that could benefit manufacturers in ensuring the productivity, food safety, sustainability, and integrity of halal food products. © 2024 selection and editorial matter, Nor Aida Abdul Rahman, Kamran Mahroof and Azizul Hassan; individual chapters, the contributors.

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