

Unpacking the link between digitalization and cleaner food production through the lens of agility

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Abstract

We employ a multiple-case study research design to investigate the relationship between digital transformation (DT), agility, and environmental performance in the agri-food industry. Our findings show that DT is a crucial antecedent of sustainable food production. Yet, DT is influenced by nature-driven agility, a novel type of agility that we conceptualised and defined as the ability to flexibly and effectively reconfigure natural resources to adapt the full production process to market changes and capture new value-creation opportunities. This study also reveals that the impact of nature-driven agility on sustainable food production is affected by managers' commitment to environmental sustainability and customer pressure. These findings are summarised in the Digital-Agile-Sustainable-Food (DASF) model and resultant propositions. Practitioners may employ the DASF Model to redefine operations and improve environmental performance.

Keywords: Nature-driven agility; customer pressure; cleaner food production; agri-food; environmental sustainability; multiple-case study.

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