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# Willingness of the African food industry to adopt edible insects as raw material or ingredient in food processing: A multi-country survey

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## Abstract

Edible insects can be consumed whole or processed for easier integration into food systems. While Africa has a long tradition of entomophagy, its edible insect industry remains underdeveloped, with limited commercial production or formal processing. This study evaluated the willingness of African food industry to use edible insects as raw materials in food processing. It also explored the factors influencing adoption readiness addressing the research gap in industry's perspectives and preparedness. An online survey of 194 food companies from 15 African countries revealed diverse adoption patterns. While 84% of respondents knew about edible insects, adoption remains low among medium and large companies, suggesting institutional resistance or regulatory barriers. Logistic regression and structural equation modelling show that perceived benefits, awareness, and company type are associated with edible insect use while firm size, business duration, and management systems have minor effects. Key challenges include food safety, formulation issues, and local factors, emphasising the need for regulation, consumer education, and processing innovation. Companies prefer insect products over whole insects, reflecting consumer aversion to visible insect content. Only 33% were willing to use edible insects in existing products, but interest in protein extracts was higher at 47%. Social pressure and attitudes are weak predictors of adoption. Findings reveal both structural flexibility and psychological barriers in adopting edible insects in Africa, providing a solid basis for policy, investment, and innovation toward sustainable protein and food security. Findings suggest region-specific regulatory and processing support is essential to drive integration, and boost investments in processing technologies