

Title:

Scalable Digital Agriculture Model for Youth Employment in Emerging Economies

Abstract:

Youth unemployment remains one of the most pressing challenges across emerging economies, particularly in Sub-Saharan Africa, where a rapidly growing young population faces limited access to meaningful economic opportunities. At the same time, agriculture—despite being a major employer—continues to suffer from low productivity, limited innovation, and declining youth participation.

This paper proposes an integrated, scalable model that leverages digital tools to transform agriculture into an attractive and viable pathway for youth employment and entrepreneurship. The model combines digital literacy training, mobile-based agricultural platforms, and mentorship systems to equip young people with practical skills in modern farming, agribusiness management, and market access.

Using Nigeria as a case study, the research explores how digital technologies—such as mobile advisory services, data-driven farming tools, and online marketplaces—can bridge the gap between traditional agriculture and the aspirations of a tech-oriented generation. The model emphasizes accessibility, low-cost implementation, and adaptability to rural contexts, making it suitable for replication across similar developing regions.

The study adopts a mixed-methods approach, incorporating field insights, existing development data, and pilot framework design to demonstrate feasibility and potential impact. Expected outcomes include increased youth participation in agriculture, improved productivity, and enhanced income generation.

By positioning agriculture at the intersection of technology and youth empowerment, this paper contributes to global discussions on sustainable development, skills transformation, and inclusive economic growth. It offers policymakers, educators, and development organizations a practical pathway to address unemployment while revitalizing the agricultural sector.

Keywords: Youth Employment, Digital Agriculture, Skills Development, AgriTech, Economic Inclusion, Nigeria, Sustainable Development