

Proposal for Master or Bachelor Thesis: Digital Technologies in Nigerian Agriculture

The use of digital technologies, particularly information and communication technologies (ICTs) has attracted considerable attention as a promising means of promoting agricultural development in low- and middle-income countries. These technologies include mobile applications, digital advisory services, and online platforms that can provide farmers with information on weather, input and output markets, extension services, and financial products. A growing body of research suggests that by improving farmers' access to such information and services, ICTs have the potential to enhance agricultural productivity and rural livelihoods. However, despite the growing enthusiasm surrounding digital agriculture, empirical evidence remains limited on the extent to which farmers use these technologies, what they use them for, and which socioeconomic and geographic factors are associated with their adoption.

This thesis investigates the adoption and use of digital technologies among farming households in Nigeria using a nationally representative household survey dataset from 2024. It will provide evidence on the prevalence of digital technology use, the purposes for which these technologies are used, farmers' perceptions of their usefulness, and the socioeconomic and geographic factors associated with their adoption.

Nigeria provides an interesting case study due to its rapid expansion of digital agricultural services. At the same time, considerable disparities in digital access persist across, making it well suited for studying the use of digital technologies in agriculture.

Related literature

Abate, G. T., Abay, K. A., Chamberlin, J., Kassim, Y., Spielman, D. J., & Tabe-Ojong, M. P. J. (2023). Digital tools and agricultural market transformation in Africa: Why are they not at scale yet, and what will it take to get there?. *Food Policy*, 116, 102439.

Parlasca, M. C., Johnen, C., & Qaim, M. (2022). Use of mobile financial services among farmers in Africa: Insights from Kenya. *Global Food Security*, 32, 100590.

Rajkhowa, P., & Baumüller, H. (2024). Assessing the potential of ICT to increase land and labour productivity in agriculture: Global and regional perspectives. *Journal of Agricultural Economics*, 75(2), 477-503.

Requirements

- Background in agricultural economics, development economics, rural studies, or a related field.
- Prior experience using statistical software, such as Stata or R, and an interest in further developing coding skills necessary to prepare the data, as well as analyze it.

Interested students should send an email to Marlene Wätzold (mwatzold@uni-bonn.de), including a brief statement of motivation and a current transcript of records from their respective master's or bachelor's programme.