



Mobile Innovations in Agricultural Information Dissemination: A Senegalese Perspective

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Abstract

In Senegal, agricultural productivity is crucial for economic growth and poverty reduction. A mixed-methods approach combining qualitative interviews with quantitative data analysis on farmer feedback and adoption rates. Mobile apps led to a 20% increase in crop yield among participating farmers, with user engagement peaking at 75% during the first six months of use. Mobile technology significantly boosts agricultural information dissemination, indicating improved yields and farmer satisfaction. Government investment should focus on expanding mobile app distribution networks to underserved regions. Model estimation used $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sumiell}(y_i, f\theta(\xi)) + \lambda \operatorname{Vert}\theta \operatorname{Vert}^2$, with performance evaluated using out-of-sample error.

Keywords: *African geography, qualitative research, mobile innovation, participatory action research, rural development, telecoupling, technological diffusion*

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