



Mobile Innovations in Agricultural Information Dissemination: A Senegal Case Study

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Abstract

Mobile technology has rapidly advanced in recent years, offering new opportunities for information dissemination, particularly in rural settings where traditional methods are often inefficient or unreliable. The research employs a mixed-methods approach involving surveys, interviews with stakeholders, and an analysis of usage data from existing mobile agriculture apps. Quantitative data are analysed using descriptive statistics to identify patterns in user engagement and service utilization. A significant proportion (60%) of surveyed farmers reported increased access to timely agricultural advice through text messages, contributing to improved crop yields and reduced input costs. The findings underscore the potential of mobile technology as a robust tool for enhancing agricultural information dissemination in Senegal. The study provides empirical evidence supporting its efficacy. Future research should consider integrating multimedia elements into mobile platforms to further improve user engagement, while policymakers could support infrastructure development and training programmes. Agricultural Extension, Mobile Technology, Information Dissemination, Senegal Model estimation used $\hat{\theta} = \operatorname{argmin}_{\theta} \{ \sum_i \ell(y_i, f_{\theta}(\xi)) + \lambda \|\theta\|_2^2 \}$, with performance evaluated using out-of-sample error.

Keywords: *Sub-Saharan, Participatory, Mobile Apps, Geospatial, Impact Assessment, Community Engagement, Precision Agriculture*

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