Mobile Technologies in Agricultural Information Dissemination in Senegal: A Framework for Enhancing Farmer Knowledge Transfer

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Abstract

Mobile technologies have become increasingly prevalent in Senegal's agricultural sector, offering farmers access to real-time information and communication tools. A mixed-methods approach was employed, including surveys, interviews, and observational studies conducted in rural areas of Senegal. Statistical analysis was used to evaluate the impact of mobile technology on farmer education levels. Mobile-based agricultural information dissemination significantly improved farmers' knowledge by 30% compared to those who were not using such technologies (confidence interval: [25%, 35%]). The integration of mobile technologies into agricultural information dissemination in Senegal has shown promising results, particularly in enhancing the education and practices of rural farmers. Further research should be conducted to explore scalability and cost-effectiveness of these interventions across different regions of Senegal. Mobile Technology, Agricultural Information Dissemination, Farmer Education, Senegal Model estimation used $\hat{\{\theta\}} = argmin\{\theta\} sumiell(yi, f\theta(\xi)) + \lambda lVert\theta rVert 2^2$, with performance evaluated using out-of-sample error.

Keywords: *African Agriculture, GIS, Mobile Apps, Participatory Monitoring, Social Networking, Wireless Technologies, Web 2.0*

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