Mobile Innovations in Agricultural Information Dissemination: A Case Study of Senegal

Toumani Senghor[1,2]**, Fouli Diop**[2,3]**, Mamadou Wade**[1]**, Samba Ndiaye**[4]

[1] Institut Pasteur de Dakar

[2] Council for the Development of Social Science Research in Africa (CODESRIA), Dakar

[3] African Institute for Mathematical Sciences (AIMS) Senegal

[4] Cheikh Anta Diop University (UCAD), Dakar

Author notes

Toumani Senghor is affiliated with Institut Pasteur de Dakar and focuses on Computer Science research in Africa.
Fouli Diop is affiliated with Council for the Development of Social Science Research in Africa (CODESRIA), Dakar and focuses on Computer Science research in Africa.
Mamadou Wade is affiliated with Institut Pasteur de Dakar and focuses on Computer Science research in Africa.
Samba Ndiaye is affiliated with Cheikh Anta Diop University (UCAD), Dakar and focuses on Computer Science research in Africa.

Abstract

Mobile technology has become a critical tool for agricultural information dissemination in Senegal, particularly among smallholder farmers who face challenges accessing traditional channels of knowledge. A mixed-methods approach was employed, integrating quantitative surveys with qualitative interviews to assess farmers' perceptions and usage patterns of mobile apps designed for agriculture. The survey revealed a significant adoption rate of mobile applications (75%) among surveyed farmers, with a preference for platforms offering weather forecasts (60%), market price updates (42%), and disease management tips (38%). Mobile innovations have the potential to significantly enhance agricultural productivity in Senegal by providing timely and relevant information directly to farmers. Further research should explore the long-term impacts of mobile interventions on crop yields and farmer incomes, while policymakers should consider subsidizing mobile data services for rural areas. Agricultural Information Dissemination, Mobile Technology, Senegal, Mixed-Methods Research 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.

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