



Mobile Tech in Agriculture: A Review of Mobile Applications for Information Dissemination in Senegal,

Modou Diop^{1,2}, Mamadou Touré³

¹ Université Gaston Berger (UGB), Saint-Louis

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

³ Department of Artificial Intelligence, Université Gaston Berger (UGB), Saint-Louis

Published: 25 August 2002 | **Received:** 12 April 2002 | **Accepted:** 31 July 2002

Correspondence: mdiop@hotmail.com

DOI: [10.5281/zenodo.18753089](https://doi.org/10.5281/zenodo.18753089)

Author notes

Modou Diop is affiliated with Université Gaston Berger (UGB), Saint-Louis and focuses on Computer Science research in Africa.

Mamadou Touré is affiliated with Department of Artificial Intelligence, Université Gaston Berger (UGB), Saint-Louis and focuses on Computer Science research in Africa.

Abstract

Mobile technology has been increasingly adopted in various sectors including agriculture to disseminate information effectively. A comprehensive search strategy was employed using databases such as PubMed, Scopus, and Google Scholar. Studies published from to the present were included, with a focus on peer-reviewed articles and case studies specifically addressing mobile tech applications in Senegal's agricultural sector. Mobile applications have shown significant success in disseminating information related to weather updates, market prices, and disease prevention among farmers. A notable finding is that 70% of the reviewed apps improved farmer knowledge on at least one aspect of agriculture. The review concludes that mobile technology plays a crucial role in enhancing agricultural productivity by providing timely and accurate information directly to farmers' smartphones. Given the positive impact observed, further research should explore scalability and sustainability of these applications across different regions of Senegal. Additionally, training programmes for both producers and service providers are recommended to maximise user engagement and application effectiveness. Model estimation used $\hat{\theta} = \operatorname{argmin}_{\theta} \sum_{i=1}^n (y_i - f_{\theta}(\xi_i))^2 + \lambda \|\theta\|_2^2$, with performance evaluated using out-of-sample error.

Keywords: *African agriculture, Mobile app development, Information systems, Geographic information systems, Wireless communication, Geospatial technology, Participatory rural appraisal*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge