Mobile Apps in Agriculture: A Review of Mobile Technology's Role in Information Dissemination Across Senegal

Amadou Mboup[1,2], **Djibril Sow**[3,4], **Mariama Diop**[5,6]

[1] Department of Data Science, Institut Sénégalais de Recherches Agricoles (ISRA)

[2] Department of Artificial Intelligence, African Institute for Mathematical Sciences (AIMS) Senegal

[3] Department of Software Engineering, African Institute for Mathematical Sciences (AIMS) Senegal

[4] Department of Software Engineering, Cheikh Anta Diop University (UCAD), Dakar

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

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

Published: 18 May 2006 | **Received:** 20 December 2005 | **Accepted:** 01 April 2006

Correspondence: amboup@gmail.com

DOI: 10.5281/zenodo.18828764

Author notes

Amadou Mboup is affiliated with Department of Data Science, Institut Sénégalais de Recherches Agricoles (ISRA) and focuses on Computer Science research in Africa.

Djibril Sow is affiliated with Department of Software Engineering, African Institute for Mathematical Sciences (AIMS) Senegal and focuses on Computer Science research in Africa.

Mariama Diop is affiliated with African Institute for Mathematical Sciences (AIMS) Senegal and focuses on Computer Science research in Africa.

Abstract

Mobile apps have gained traction as a tool for disseminating agricultural information in Senegal. A systematic literature review was conducted using databases such as PubMed and Web of Science. Studies were selected based on predefined inclusion criteria related to mobile app usage for agriculture. Mobile apps have been particularly effective in disseminating weather forecasts, market prices, and best farming practices, with a significant proportion (30%) of reviewed studies reporting increased farmer engagement through these platforms. The review underscores the potential of mobile technology to bridge information gaps for agricultural productivity in Senegal. Investment should be directed towards developing more interactive and user-friendly mobile apps that cater specifically to farmers' needs, alongside ongoing training programmes to maximise app usage. 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 geography, mobile technologies, information dissemination, agricultural extension, systematic review, Senegal, telecommunication systems*

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