



# Mobile Innovations in Agricultural Information Transmission: A Senegalese Case Study

Oumar Ndiaye<sup>1,2</sup>, Mamadou Faye<sup>3</sup>, Ibrahima Sall<sup>1,4</sup>

<sup>1</sup> Cheikh Anta Diop University (UCAD), Dakar

<sup>2</sup> Council for the Development of Social Science Research in Africa (CODESRIA), Dakar

<sup>3</sup> Department of Artificial Intelligence, Council for the Development of Social Science Research in Africa (CODESRIA), Dakar

<sup>4</sup> African Institute for Mathematical Sciences (AIMS) Senegal

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**Correspondence:** [ondiaye@yahoo.com](mailto:ondiaye@yahoo.com)

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## Author notes

Oumar Ndiaye is affiliated with Cheikh Anta Diop University (UCAD), Dakar and focuses on Computer Science research in Africa.

Mamadou Faye is affiliated with Department of Artificial Intelligence, Council for the Development of Social Science Research in Africa (CODESRIA), Dakar and focuses on Computer Science research in Africa.

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

## Abstract

Agriculture in Senegal faces challenges such as climate variability and limited access to information, leading to suboptimal crop yields and economic instability. A mixed-methods approach combining quantitative surveys ( $n=300$ )  $\wedge$  qualitative interviews ( $n=20$ )  $\downarrow$  assess mobile app usage frequency, content relevance,  $\wedge$  perceived benefits. Statistical models were employed to analyse survey data for robust inference. Mobile app users reported an average of 5 daily interactions with the platform, with a significant proportion (43%) noting improved crop yields as a direct result of receiving accurate agricultural information. The study underscores the potential of mobile technology in enhancing agricultural productivity and sustainability in Senegal by providing farmers with timely and relevant information. Government agencies should support further development of mobile apps, while also investing in training programmes to maximise user engagement and impact. Agricultural Information, Mobile Technology, Senegal, Productivity Enhancement

**Keywords:** Sub-Saharan, GIS, Participatory Monitoring, Mobile Apps, Precision Agriculture, Data Visualization, Farmer Networks

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