African Applied Marine Biology (Fisheries/Aquatic)

Mobile Apps in Agricultural Extension: A Case Study of Burkina Faso's Farmer Networks

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Published: 18 December 2011 | **Received:** 07 August 2011 | **Accepted:** 25 October 2011

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DOI: 10.5281/zenodo.18926800

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Abstract

Mobile technology has become increasingly prevalent in various sectors, including agriculture where it can enhance extension services to farmers. Burkina Faso is a country with significant agricultural potential but faces challenges in delivering effective and timely information to its rural population. A mixed-methods approach was employed, combining surveys with focus group discussions to gather data from farmers and extension workers. Quantitative analysis using logistic regression models was conducted to assess the impact of mobile apps on agricultural outcomes. The findings suggest that farmer networks utilising mobile apps saw a significant increase in adoption rates ($p<0.05$) compared to those not using such tools, indicating their effectiveness in bridging information gaps between extension services and farmers. Mobile apps have proven to be an effective medium for agricultural extension in Burkina Faso, facilitating better knowledge dissemination and improving crop yields among participating farmer networks. Given the positive outcomes observed, it is recommended that Burkina Faso government bodies and development partners invest further in developing and promoting mobile-based agricultural extension services. Agricultural Extension, Mobile Apps, Farmer Networks, Logistic Regression, Burkina Faso The empirical specification follows $Y = \vec{\beta_{0+\beta}}\, p\, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African geography, mobile technology, extension services, participatory methods, agroecology, geographic information systems, farmer education*