



Methodological Evaluation of Field Research Stations Systems in Tanzania for Time-Series Forecasting of Adoption Rates

Kamau Misemwa¹, Semiyo Simba^{2,3}, Mwakalani Ngowi⁴, Nyawata Kasiya¹

¹ Mkwawa University College of Education

² Department of Crop Sciences, Mkwawa University College of Education

³ Tanzania Commission for Science and Technology (COSTECH)

⁴ Department of Crop Sciences, State University of Zanzibar (SUZA)

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Correspondence: kmisemwa@yahoo.com

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Author notes

Kamau Misemwa is affiliated with Mkwawa University College of Education and focuses on Agriculture research in Africa.

Semiyo Simba is affiliated with Department of Crop Sciences, Mkwawa University College of Education and focuses on Agriculture research in Africa.

Mwakalani Ngowi is affiliated with Department of Crop Sciences, State University of Zanzibar (SUZA) and focuses on Agriculture research in Africa.

Nyawata Kasiya is affiliated with Mkwawa University College of Education and focuses on Agriculture research in Africa.

Abstract

This study addresses a current research gap in Agriculture concerning Methodological evaluation of field research stations systems in Tanzania: time-series forecasting model for measuring adoption rates in Tanzania. The objective is to formulate a rigorous model, state verifiable assumptions, and derive results with direct analytical or practical implications. A structured review of relevant literature was conducted, with thematic synthesis of key findings. The results establish bounded error under perturbation, a convergent estimation process under stated assumptions, and a stable link between the proposed metric and observed outcomes. The findings provide a reproducible analytical basis for subsequent theoretical and applied extensions. Stakeholders should prioritise inclusive, locally grounded strategies and improve data transparency. Methodological evaluation of field research stations systems in Tanzania: time-series forecasting model for measuring adoption rates, Tanzania, Africa, Agriculture, scoping review This work contributes a formal specification, transparent assumptions, and mathematically interpretable claims. The empirical specification follows $Y = \beta_{\vec{0}+\beta} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Sub-Saharan, GIS, econometrics, spatial analysis, participatory modelling, data quality, forecasting methodologies*

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