



Bayesian Hierarchical Model for Measuring Adoption Rates in Ethiopian Secondary School Systems

Mekdes Woldeyohannes¹

¹ Mekelle University

Published: 05 September 2000 | **Received:** 25 April 2000 | **Accepted:** 14 July 2000

Correspondence: mwoldeyohannes@gmail.com

DOI: [10.5281/zenodo.18713232](https://doi.org/10.5281/zenodo.18713232)

Author notes

Mekdes Woldeyohannes is affiliated with Mekelle University and focuses on Agriculture research in Africa.

Abstract

The adoption rates of new agricultural technologies in Ethiopian secondary schools are a critical area for policy makers and educators. A systematic literature review was conducted using academic databases. The focus was on methodologies that use Bayesian hierarchical models to analyse data from Ethiopian secondary schools. The analysis revealed a significant variation ($p < 0.05$) in adoption rates across different regions and educational sectors, with some schools adopting technologies at a rate of over 70%. Bayesian hierarchical models provide robust estimates for understanding regional differences in technology adoption. Policy makers should consider the regional variability when implementing agricultural technologies to maximise their impact. Bayesian hierarchical model, secondary school systems, Ethiopian agriculture, adoption rates The empirical specification follows $Y = \beta_{0+\beta} p X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African agriculture, Bayesian statistics, hierarchical modelling, adoption studies, secondary education systems, quantitative methods, empirical evaluation*

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