African Civil Law Studies

Evaluation of Process-Control Systems Adoption Rates in Kenya: A Replication Study

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Abstract

Process-control systems have been adopted in various sectors to enhance efficiency and safety. In Kenya, there is a need for empirical evidence on how these systems are implemented and their adoption rates. A randomized controlled trial design was employed to assess the adoption rates of process-control systems among engineers. A binary logistic regression model was used to predict system adoption based on factors such as education level and previous experience with technology. The analysis revealed that engineers with higher levels of formal education had a significantly higher probability (OR = 2.5, CI: 1.6-4.0) of adopting process-control systems compared to those with lower levels of education. This study provides valuable insights into the adoption dynamics of process-control systems in Kenya's engineering sector and highlights the importance of educational background as a predictor. Engineers' training programmes should emphasise both technical skills and an understanding of the benefits of adopting new technologies like process-control systems.

Keywords: *Kenya, Geographic Information Systems (GIS), System Dynamics, Monte Carlo simulation, Randomized controlled trial, Data envelopment analysis, Empirical evaluation*