

Abstract

The underutilization of coconut and its by-products imply poor livelihoods and, ultimately food insecurity for farmers growing coconut. Sustainable practices like a circular economy (CE) need to be promoted for uptake by the farmers to achieve sustainable development through better utilization of coconuts and their by-products. Various stakeholders have disseminated the technology through different pathways that have different uptake-enhancement capabilities. Furthermore, previous studies have focused on modelling technology adoption as a static, discrete choice, and therefore fail to consider the timing of the adoption. Using a discrete-time duration model, this study sought to determine how different dissemination pathways influence farmers' time of adoption of CE practices in Kilifi County in Kenya. A multistage sampling technique was used to sample 384 farmers from the county. Semi-structured questionnaires from a household survey were used to collect primary data. The data was analysed using a parametric (Weibull) functional form to specify time to adoption from the date a farmer was first aware of the technology. The findings indicate positive duration dependence and a positive rate of change in the adoption process. The media, specifically radio and television, had a positive effect on the speed of adoption. Other variables that accelerated adoption were access to credit, frequency of interaction with other value chain actors and farmers' perceptions AfJARE Vol 20 No 3 (2025) pp 220–238 Muriuki et al. 221 on the importance of CE. Frequency of interaction with friends and family on coconut farming and farmer field schools (FFS) as a dissemination pathway had delaying effects on the adoption process. The findings suggest that strategies for promoting faster adoption should focus on providing information about new technologies through the media (particularly radio and television)