

ABSTRACT

Recently, there has been emergence in the use of modern Information Communication Technologies (ICT) in the different operations of agrienterprises. This ranges from the provision of agricultural information to marketing of agricultural products through the use of ICT tools such as mobile phones, television and radio. Despite the potential of ICT tools to enhance efficiency in agrienterprises operations, little is known about the effect of ICT use on performance and farm income of small scale farmers in rural areas. The aim of this study, therefore, was to examine the effect of ICT use on performance of pineapple agrienterprises. Specifically, it sought to: characterize structure of ICT usage among the smallholder agripreneurs; determine factors influencing use of ICT among smallholder agripreneurs and determine effect of ICT use on income of smallholder agripreneurs. The study was based on data collected from a sample of 183 households drawn from Gatundu North Sub-County in Kiambu County. Multistage sampling procedure was used to select the respondents and semi structured questionnaires employed to collect qualitative and quantitative data through face to face interviews. The determinants of ICT use was estimated by multivariate probit model while the effect of ICT use was estimated using endogenous switching regression model. The results show the most commonly used ICT tool to access agricultural information was mobile phones (86%), radio (79%) and then television (59%). Findings revealed that age, education, household size, farm size, group membership, extension contact, credit access, installation of electricity and attributes of ICT tool significantly influenced the usage of ICT tools. Results suggest that optimal users of ICT tools realized more income per acre than they would have had they not used the ICT tools. While, sub-optimal users realized lower household income per acre than they would have had they not decided to use ICT tools in their agrienterprises. Usage of ICT tools is associated with a 98% and 28% gain in average household income for optimal and sub-optimal users, respectively. Hence use of ICT tools leads to increase in income of smallholder agrienterprises. Consequently policies targeting usage of ICT tools in agrienterprises must consider the age and education level of farmers when developing ICT tools for dissemination of agricultural information and should concentrate on improving the extension services, farmer groups and electricity access to rural areas.