

Influence of Mobile Phones Use for Accessing Agricultural Marketing Information Among Grape Smallholder Farmers in Dodoma, Tanzania

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Extended Abstract

Access to reliable agricultural marketing information remains a significant challenge for smallholder farmers in Tanzania. This limitation leads to smallholder farmers selling their products at low farm gate prices, which keeps them economically poor. The use of mobile phones has the potential to help smallholder farmers access agricultural marketing information, enabling informed decision-making for improved production and market access. However, grape smallholder farmers still face significant challenges in accessing this information. The study examined the influence of mobile phones use for accessing agricultural marketing information among grape smallholder farmers in Dodoma, Tanzania. It specifically focused on the extent of mobile phone use, awareness, satisfaction levels, and the challenges faced by these farmers. The study employed the Diffusion of Innovation Theory (DOIT), the Technological Acceptance Model (TAM), and the Unified Theory of Acceptance and Use of Technology (UTAUT 2) to provide a robust understanding of the factors influencing mobile phone use among grape smallholder farmers. A cross-sectional survey design was used to gather data from 400 grape smallholder farmers through structured questionnaires, focus group discussions, and key informant interviews. Quantitative data were analysed descriptively and inferentially through binary and ordinal logistic regressions, while qualitative data were analysed thematically. The findings indicated that grape smallholder farmers primarily used mobile phones to access buyer and price information. Factors such as education, gender, age, marital status, and experience significantly influenced mobile phone usage and awareness. Satisfaction with mobile phones use varied, showing higher satisfaction for information related to selling times. Key factors affecting satisfaction included perceived usefulness, ease of use, experience, and costs. However, challenges such as illiteracy, inadequate skills, and high costs hindered the effective use of mobile phones for accessing agricultural marketing information. The study emphasises the need for a multifaceted approach to overcome these challenges.

Recommendations include empowering female farmers through training programs, enhancing digital literacy among older farmers, and designing user-friendly mobile phone applications. Overall, the study highlights opportunities for developing sustainable interventions, informing policymakers about digital infrastructure needs, and guiding ICT designers and telecommunication companies in better serving smallholder farmers.

Keywords: Mobile phones, agricultural marketing information, grape, smallhold farmers, innovation theory, technological acceptance model