USE OF MOBILE PHONES IN AGRICULTURAL SERVICE DELIVERY IN THE EASTERN REGION OF GHANA

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Abstract
The Ministry of Food and Agriculture Ghana, (MoFA-Ghana) has adopted mobile phone for extension service delivery. However, much was unknown about the competencies and frequency of mobile phone use by farmers and extension agents. The study used descriptive correlation design to assess mobile phone use in agricultural extension service delivery in the Eastern Region of Ghana. Multi-stage sampling and structured interviews were used to gather data from 95 Agricultural Extension Agents (AEAs) and 330 farmers. Statistical tools such as frequencies, percentages, means, standard deviation, correlation coefficients, T-test and stepwise multiple linear regression were used to analyze the responses gathered. The study revealed that socio-economic and background characteristics of farmers and AEAs correlate with frequent use of mobile phones for extension delivery. Farmers and AEAs use voice calls via mobile phone applications but differently in extension delivery. Differences exist between AEAs and farmers' competency in the use of mobile phones. While the amount of money spent per week and quality of network reception are important factors that influence the frequency of use of mobile phones for farmers, AEAs also includes type of phone, income, and age. High call tariffs and access to recharge credit were main challenges to using mobile phones for extension. The study recommends among others the need for MoFA to provide training on the use of mobile phone applications and incentives for farmers and AEAs to use mobile phones. Furthermore, more youthful AEAs and females should be recruited as AEAs.

Key words: AEAs, extension service delivery, correlation coefficients, multi-stage sampling, multiple linear regression, socio-economic, call tariff.