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## Farm and Farmer Characteristics that Influence Tomato farmers’ Awareness and Willingness to Adopt Mobile Phone Based MIS in Ghana

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### Abstract

The provision of mobile phone based market information services (MIS) is an innovation that can improve marketing options, market efficiency and incomes of tomato farmers, who hitherto are easily censored out of market information as a result of the ‘two-level’ tomato marketing system in Ghana. Following the theory of technology adoption, the success of this innovation depends on the awareness, willingness to adopt and adoption by farmers’ which in turn are influenced by farmer and farm level characteristics. The aim of this study is thus to determine the farm and farmer characteristics that influence the awareness and willingness to adopt mobile phone based MIS. Purposive sampling techniques were used to sample 107 tomato farmers from 10 communities in the Dangme East and West districts of the Greater Accra region, Ghana. The binary probit model was used to analyse the data. The results of the study shows a low level of awareness of mobile phone based MIS among tomato farmers however farmers showed high level of willingness to adopt. Farm characteristics were more important in explaining awareness and the willingness to adopt mobile phone based MIS than farmer based characteristics. The ability to send SMS, farm size, farm income, location and district are the significant variables explaining tomato farmers’ awareness of mobile phone based MIS. On the other hand, tomato farmers’ willingness to adopt mobile phone based MIS was significantly influenced by education, farm size and location. The implication of these findings is that organisations pioneering the use of mobile phone based MIS in Ghana should strengthen awareness raising activities among farmers. More training (in mobile phone use) should be incorporated into mainstream extension services in order to encourage farmers’ interest and willingness to adopt mobile phone based MIS.

**Keywords:** Ghana, market information services, mobile phone, probit model, horticulture