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Internet Economy: Enhancing Information Communication Technology Adaptation, Service Delivery, Content and Digital Skills for Small Holder Farmers in Uganda

Authors : Baker Ssekitto, Ambrose Mbogo

Abstract : The study reveals that indeed agriculture employs over 70% of Uganda's population, of which majority are youth and women. The study further reveals that over 70% of the farmers are smallholder farmers based in rural areas, whose operations are greatly affected by; climate change, weak digital skills, limited access to productivity knowledge along value chains, limited access to quality farm inputs, weak logistics systems, limited access to quality extension services, weak business intelligence, limited access to quality markets among others. It finds that the emerging 4th industrial revolution powered by artificial intelligence, 5G and data science will provide possibilities of addressing some of these challenges. Furthermore, the study finds that despite rapid development of ICT4Agric Innovation, their uptake is constrained by a number of factors including; limited awareness of these innovations, low internet and smart phone penetration especially in rural areas, lack of appropriate digital skills, inappropriate programmes implementation models which are project and donor driven, limited articulation of value addition to various stakeholders among others. Majority of farmers and other value chain actors lacked knowledge and skills to harness the power of ICTs, especially their application of ICTs in monitoring and evaluation on quality of service in the extension system and farm level processes.

Keywords : artificial intelligence, productivity, ICT4agriculture, value chain, logistics
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