

Information and Communication Technologies as Enablers for Effective Functioning of Agricultural Innovation Systems in Tanzania: Experiences of Young Farmers

Sylvester Jotta ^{1*}, Dismas L. Mwaseba², Jeremia R. Makindara³, Shiferaw Feleke⁴

¹St. Augustine University of Tanzania, P. O. Box 307, Mwanza, Tanzania.

²Dept. of Agricultural Extension and Community Development, Sokoine University of Agriculture, Tanzania

³Dept. of Business Mgt, School of Agricultural Economics & Business Studies, Sokoine University of Agriculture, Tanzania

⁴International Institute of Tropical Agriculture

*Corresponding author: Sylvester Jotta; Email: jottasyl@yahoo.co.uk, jottasil@gmail.com

Received 8 July 2022; revised 3 August 2022; accepted 23 September 2022

Abstract

This study presents the usefulness of Information and Communication Technologies (ICTs) in Agricultural Innovation Systems (AIS) functioning among young farmers in Tanzania. The AIS approach's preference for development results from its inclusiveness and interactions among the actors in influencing each other into learning and innovation. Young farmers in Tanzania are key actors in AIS functioning, but their ability to influence other actors using ICTs to maximize their crop productivity is contentious. This paper applied the Social Network Analysis (SNA) method to assess 90 young farmers' influence on other 38 actors to interact using ICTs for crop productivity endeavours. These actors include researchers, extension agents, input suppliers (fertilizers, seeds and pesticides), seed agencies, processors, local traders, financial institutions, NGOs, and consumers. The study revealed that young farmers were dissatisfied with the quality and frequency of interaction with key stakeholders or actors such as extension agents, researchers, and financial institutions. However, despite the low level of interaction, the study has revealed that young farmers are important actors in enhancing crop productivity. Therefore, the need for researchers, extensionists, input suppliers, financial institutions, and NGOs to interact with young farmers is recommended because young farmers are the centre of knowledge in AIS functioning.

Keywords: Agricultural Innovation System, Social Network Analysis, Knowledge Management Systems, Multi-stakeholders' Platforms, Farming, Youths

1.0 INTRODUCTION

The Tanzanian agricultural sector is characterized by new programmes such as Agricultural Sector Development Programme (ASDP) I and II and actors' relationships that influence young farmers to access and use agricultural information and knowledge. In Tanzania, young farmers are young men and women from the age of 15 to 35 years old (United Republic of Tanzania (URT), 2007) that constitute about 35.5% of the total population (URT, 2014) and majority of whom are unemployed (Roudi, 2011; Zimmermann *et al.*, 2013). Engagement in crop production presents a viable means of employment for many young people (URT 2016). However, for a few decades, many African youths have increasingly abandoned farming because of its persistent negative challenges such as low productivity, less appealing characteristics of rural areas, and others (Lohento and Ajilore, 2015). For example, a study by Ruta (2012) indicates that awareness of agricultural initiative programs among the youth is very low. The youth consider agriculture an

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