

A Conceptual Framework for Knowledge Integration in Agricultural Knowledge Management System Development

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Abstract : Agriculture is the mainstay of the Ethiopian economy; however, the sector is dominated by smallholder farmers resulting in land fragmentation and suffering from low productivity. Due to these issues, much effort has been put into the transformation of the sector to bring about more sustainable rural economic development. Technological advancements have been applied for the betterment of farmers resulting in the design of tools that are potentially capable of supporting the agricultural sector; however, their use and relevance are still alien to the local rural communities. The notion of the creating, capturing and sharing of knowledge has also been repetitively raised by many international donor agencies to transform the sector, yet the most current approaches to knowledge dissemination focus on knowledge that originates from the western view of scientific rationality while overlooking the role of indigenous knowledge (IK). Therefore, in agricultural knowledge management system (KMS) development, the integration of IKS with scientific knowledge is a critical success factor. The present study aims to contribute in the discourse on how to best integrate scientific and IK in agricultural KMS development. The conceptual framework of the research is anchored in concepts drawn from the theory of situated learning in communities of practice (CoPs): knowledge brokering. Using the KMS development practices of Ethiopian agricultural transformation agency as a case area, this research employed an interpretive analysis using primary and secondary qualitative data acquired through in-depth semi-structured interviews and participatory observations. As a result, concepts are identified for understanding the integration of the two major knowledge systems (i.e., indigenous and scientific knowledge) and participation of relevant stakeholders in particular the local farmers in agricultural KMS development through the roles of extension agent as a knowledge broker including crossing boundaries, in-between position, translation and interpretation, negotiation, and networking. The research shall have a theoretical contribution in addressing the incorporation of a variety of knowledge systems in agriculture and practically to provide insight for policy makers in agriculture regarding the importance of IK integration in agricultural KMS development and support marginalized small-scale farmers.

Keywords : communities of practice, indigenous knowledge, knowledge management system development, knowledge brokering

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