

## Abstract

Knowledge management (KM) is the process of taking advantage of organizational know how to deliver long lasting advantage to an organization. Kenya Agricultural and Livestock Research Organization (KALRO) has a mandate to ensure sufficient food production in Kenya through research and sharing of their research findings to farmers. Despite the organization's consciousness about their mandate and the use of knowledge management processes and technologies to enhance productivities, KALRO still struggles to meet its obligation since Kenya is still ranked as one of the countries struggling with perennial food security problems. Research has been conducted on maize management for food security in Kenya, Post-Harvest grain management and its effects on food security and knowledge management system developed for horticulture farming in Kenya. These studies did not consider KM practices as a means for enhancing planting, post-harvest practices, and improving food security. The general objective of the study is to create an integrated knowledge management model for promotion of food security in Kenya. The general objective was guided by these specific objectives: 1. To analyze the existing KM practices within Kenya Agricultural and Livestock Research Organization (KALRO). 2. To analyze the existing technologies used by KALRO to process and manage knowledge. 3. To develop and propose a model for KM that will promote food security in the country. 4. To evaluate the usability of the proposed model through expert reviews. Data was collected through questionnaires, structured interviews and documents analysis. The study evaluated the current technologies used to discover, capture, store, disseminate and apply knowledge in KALRO. Additionally, current KM practices in KALRO were evaluated and a new model of KM for promoting food security was created. The findings revealed that despite the fact that the organization has a knowledge management directorate, leadership structure had been a major challenge to effective KM practices in the organization. The study results also revealed that there is no integrated technology for managing knowledge leading to fragmentation of knowledge, duplication of research proposals and research funding and in some case hoarding of information by the different departments. This research considered the socio-environmental aspect of knowledge management which included policy, leadership, people and organizational structure. The research finding also revealed that there is no KM strategic plan document, and no KM policies currently in the organization. KM practices are not properly coordinated within the two main arms of the organization, namely: crop and livestock sections. It is thus hoped that by employing the proposed model, KALRO and other public sector organization operating in a similar environment could better exploit knowledge to help improve food security.