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## **Agro-agent: Exploitation of ICT in Sri Lankan farmer community to improve the transfer of expertise knowledge**

As a developing country, it is vital for Sri Lanka to pay more attention to addressing the issues of the agriculture sector for the benefit of rural farmers as well as for the benefit of the whole Sri Lankan economy. During the past few years, taking advantage of considerable improvements in Information and Communication Technology (ICT), various organizations have been able to offer a number of ICT models to facilitate the transfer of knowledge to address some problems in the agriculture sector. However, these ICT initiatives have hardly been able to help Sri Lankan farming communities due to the issues such as lack of access to ICT, lack of ICT literacy, lack of awareness and poor maintenance of those systems. This paper tries to identify the problems faced by Sri Lankan farmers, and evaluates the effectiveness of existing ICT models to the farming community through an empirical study and online desk research. It then proposes a web-based farmer advisory system which can be accessed through a “kiosk” located in a public place in the farmers’ village.

Considering human computer interaction factors for an ICT solution to the Sri Lankan farmer community, the pilot prototype is developed using icon-based, interactive interfaces and important but simple set of functions, mainly targeting computer illiterate farmers. The key contributions of this paper are the recommendations raised from the study to enlighten policy makers about the problem areas which need to be addressed with regard to the farmer community, and also regarding existing ICT models in order to offer more sustainable solutions on information delivery that can help farmers to do agricultural processes more effectively and efficiently to improve their livelihood. Furthermore, it sheds light on the human computer interaction factors to be considered when implementing an ICT system for a rural farmer community in Sri Lanka.