

# **USAGE OF ICT FOR EMPOWERMENT OF FARMERS**

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Degree of Master of Business Administration in Information Technology

Department of Computer Science and Engineering

University of Moratuwa

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## **DECLARATION**

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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The above candidate has carried out research for the Masters thesis under my supervision.

Name of the supervisor: Dr. Shantha Fernando

Signature of the supervisor:

Date: 4/22/2017

## ABSTRACT

Integrating Information Communication Technology (ICT) with Agriculture is identified as one of the most important tasks in order to achieve sustainable development in the agriculture sector in Sri Lanka. Main objective of this research is to suggest more suitable and proper approach to empower the Sri Lankan farmers through ICT. As entry criteria for the main objective there will be a fact finding session, which measures the current level of ICT knowledge of Sri Lankan farmers, identify the information needs, pattern of use of ICT and factors that hinder the use of ICT by the farmers.

The research started with a literature survey to identify the factors that affect the use of ICT in agriculture sector. A structured questionnaire was used as the research instrument to collect data from farmers in Southern province. Galle, Matara and Hambantota districts were selected to collect data and farmers from diversified agriculture segments were interviewed.

According to the result shown in the survey the farmers are ready to receive information. They are using ICT equipment mainly for entertainment purposes and they are not educated about the importance and how they can use ICT for their agricultural business related activities. The results of the study shows that Television, Radio, Mobile phone and Land phone are the most popular ICT tools that farmers are using and willing to use for the personal and business activities. The most highlighted barrier that discourages farmers using ICT is the fear to embrace new technology due to lack of knowledge. High cost of the equipment, technology and language limitation are the other main issues to be addressed in order to introduce ICT to the rural agriculture community. Results have shown that younger generation is willing to adopt and interested in the new technology while farmers above 45 years are still prefer the old system. It is found that information sharing on peer was wide accepted and popular among the farmers.

It could also be proven that usage of social networking applications specific for the farmers was highly satisfactory and widely accepted by the farming communities.

The research end-up by recommending the actions to be taken such as conducting ICT awareness sessions, introducing social media that enables the farmers to communicate each other, introducing easy payment systems for the farmers to buy ICT tools and introducing reward system to early adoption of ICT for agriculture related activities

Key words: ICT, Agriculture, Farmers, Knowledge, Information, Empowerment

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## **List of Abbreviations**

AMIS	Agricultural Market Information System
DSS	Decision Support System
FSC	Forward Sales Contracts
GGs	Govi Gnana Service
GNP	Gross National Production
HARTI	Hector Kobbekaduwa Agrarian Research and Training Institute
ICT	Information Communication Technology
IoT	Internet of Things
IVRS	Interactive Voice Response System
PPA	Personal Portable Assistant
SMS	Short Message Service
VoIP	Voice over Internet Protocol
WLAN	Wireless Local Area Network