# A FRAMEWORK FOR EFFECTIVE IMPLEMENTATION OF MANAGEMENT INFORMATION SYSTEMS IN THE RURAL DEVELOPMENT SECTOR

Muhandiramge Don Amila Helanuwan

(099061)

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Department of Computer Science and Engineering

University of Moratuwa Sri Lanka

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**DECLARATION** 

I declare that this is my own work and this dissertation does not incorporate without

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Signature Date:

Dr. Shantha Fernando

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# **DEDICATION**

To my wife and children for their endless patience, benefaction and encouragement.

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### **ABSTRACT**

Information and Communication Technologies are increasingly used by developing countries in strategies that see the new technology as having the potential to deliver economic growth, employment, skills generation and empowerment. The Information communication technology advancement contributes to the improvement of information system literacy within the society.

A Management Information System has a greater contribution to increase competitiveness and effectiveness of managers in the decision making process and in solving different problems that emerge when managing an organization.

The aim of this thesis is to identify and analyze critical factors that may have an impact on an effective implementation of a Management Information System (MIS) that has been developed for many projects of the rural development sector in Sri Lanka. The information needs of the various managerial levels are pointed out and the stages in the development of MIS are defined. The growing importance, of the application of MIS in the rural development sector, is highlighted. The implementation of an MIS tool in order to improve the service quality among the staff is expected to provide an excellent facilitation to the community.

Firstly, preliminary data gathering was carried out by reviewing the available literature to identify critical factors, which highlighted when implementing information systems on various projects local and overseas. After conducting the interviews and the literature survey, a theoretical framework was designed, hypotheses were identified and an appropriate statistical method was selected.

Secondly, a research was conducted to obtain the views from the village community, field officers, management Consultants and senior officials who play a key role in the system implementation.

Thirdly, collected data were analyzed and recommendations were proposed together with a framework for effective implementation of management information systems in the rural development sector.

The main outcome of this thesis is a guideline or framework for development projects which planning to implement an MIS solution for their organizations. The analysis highlights the relationship between the four important factors (i.e.: Perception, Usability, Sustainability and Suitability) which could be seen as possible barriers to the successful introduction of MIS. Furthermore, these factors will be helpful to examine the sustainability of the system either during the project process or in connection with the usage in their practices.

**Key words:** Management Information System (MIS), Information Technology (IT), Rural Development (RD).

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### LIST OF ABBREVIATIONS

ADSL Asymmetric Digital Subscriber Line

APL Adaptable Program Loan ATM Automatic Teller Machine

CDD Community Driven Development
COM Community Operations Manual
DLC Distance Learning Center
EOI Expression of Interest

G.C.E General Certificate Examination

GDF Gemidiriya Foundation GND Grama Niladhari Division GOSL Government of Sri Lanka

ICT Information Communication Technology

ICTA Information Communication Technology Agency
IEC Information Education and Communication
ISAP Indian Society of Agri-Business Professionals

ISRO Indian Space Research Organization

IT Information Technology
JAD Joint Application Development
ME&L Monitoring, Evaluation and Learning
MIS Management Information System
NCB National Competitive Bidding

NCPLTC National Community Professional & Training Center

NGO Non- Government Organization
NPA National Procurement Agency
PAD Project Appraisal Document
PIP Project Implementation Plan
PPP Public, Private, People

PTCRRMP Post Tsunami Coastal Rehabilitation & Resource Management Program

PTLiveSPP Post Tsunami Livelihood Support & Partnership Program

RAD Rapid Application Development

RFP Request for Proposal

SDLC Software development Life Cycle SWAP Sujala Watershed Action Plan

SWS Sub-Watersheds

TEC Technical Evaluation Committee

TOR Terms of Reference
TOT Training of Trainers
VC Village Committee
VO Village Organization

VSAT Very Small Aperture Terminal

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