

### FACULTY OF SCIENCE AND EDUCATION

### DEPARTMENT OF AGRICULTURE

INTEGRATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN AGRICULTURAL RURAL DEVELOPMENT IN BUDONDO SUB COUNTY IN JINJA DISTRICT

PROJECT REPORT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A BACHELOR OF SCIENCE AND EDUCATION

### **COURSE CODE 3203**

NAME: TIBATA JADEN

ST'DT CONTACT ADDRESS: 0700181675

EMAIL: tibataezekiel@gmail.com

REG. No: BU/UP/2017/1428

SUPERVISED BY: MR. OCHAN LURTHER MARTIN

HEAD OF DEPARTMENT: MR. DRAMADRI GERLAD AFAYO

**JULY 202** 

#### DECLARATION

This special project report is my own original work and has not been submitted to any other University or higher institution of learning for examination, award of a Degree, Diploma or Certificate. The findings of other researchers have been properly acknowledged and referenced in accordance to Busitema University requirements.

NAME	
SIGNATURE	
DATE	

# APPROVAL AND ENDORSEMENT BY THE SUPERVISOR

This special project report is submitted for examination with approval of Mr. Ochan Lurther
Martin who also supervised its preparation.
Signed
MR. OCHAN LURTHER MARTIN
Date

# **DEDICATION**

I dedicate this report to my mother Mbeiza Paulina for her moral and financial support.

May God bless you abundantly.

#### **ACKNOWLEDGEMENT**

This last segment is a closure on Education that leads to the title of Bachelor of Science and Education (BSc).

Ultimately you finish the race with a sense of pride and achievement, however at the same time you realise just how many people have helped you to get there along the way.

I would like to use this opportunity to thank my supervisor at Busitema University Mr. Ochan Lurther Martin, for his valuable support, insight and guidance throughout the duration of research.

I am appreciative of the opportunities awarded to me by my parents my father Mukembo Laban and my mother Mbeiza Paulina. Thanks for loving me and always being there for me.

Thanks to my brother Kavanja Gerlad for the financial support and tireless advice extended to me always and for encouraging me not to give up along the way.

Special thanks goes to my sisters Nairuba Peace and Namugaya Immaculate for all the encouragement and understanding given to me during this crucial period.

Thanks to friends especially my course mates for standing for me up to late in the evening (Kwiri Abedi, Kisige Thomas, Ecoku Emanuel, Osako Thomas, Takoberwa Winifred, Karyebi john). You have cared and loved me, I salute you.

I finally thank God for his grace that has enabled me reach this far. Glory be to His name.

## Contents

DECLARATION	i
APPROVAL AND ENDORSEMENT BY THE SUPERVISOR	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
LIST OF TABLES	vii
LIST OF FIGURES	ix
LIST OF CHARTS AND GRAPHS	x
LIST OF ACRONYMS	xi
CHAPTER ONE	1
INTRODUCTION	1
1.0 Overview	1
1.1 Background to the study	2
1.2 Problem Statement	3
1.3 Significance of the study	4
1.4.0 Main objective	4
1.4.1 Specific objectives	4
1.4.2 Research questions	4
1.5 Hypothesis	4
1.6 Scope of the study	5
1.7 Conceptual frame work	5
CHAPTER TWO	6
LITERATURE REVIEW	6

2.0 Introduction	6
2.1 what is ICT	6
2.2 Factors associated with adoption and usage of ICT in agriculture	7
2.3 Why integrate ICT in Agriculture	8
2.4 Problems of ICT integration	9
2.5 What are the probable benefits (prospects) of ICT integration in agriculture?	9
2.6 ICT in market linkages to farmers	10
CHAPTER THREE	12
METHODOLOGY	12
3.0 Introduction	12
3.1 Sampling design	12
3.1.1 Sampling procedure and subject selection	12
3.2 Research instruments	13
3.2.1 Questionnaire	13
3.2.2 Interview session	13
3.3 Data collection	13
3.4 Processing and analyzing of data	13
CHAPTER FOUR	14
PRESENTATION OF RESULTS AND DISCUSSIONS	14
4.0 Introduction	14
4.1 The socio demographic characteristics of the respondents	14
4.2 Age groups of the respondents	15
4.3 Education level of the respondents	16
4.4 Limitations to information and communication technology use in agriculture	17
4.5 ICTs and Agricultural Extension in Budondo sub county	22
4.6 ICT equipment use and preference	23

4.7 Models of sustainability on ICT use	24
4.8 Organizational/ institutional promotion ICT use in agricult	ure25
4.9 Evidence of smallholders using and/or benefiting from IC	T-based advisory services 27
4.10 New technologies and agricultural production	27
CHAPTER FIVE	29
CONCLUSIONS AND RECOMMENDATIONS	29
5.0 Introduction	29
5.1 CONCLUSION	29
5.2 RECCOMMENDATIONS	29
REFERENCES	31
APPENDICES	35
APPENDIX 1: Proposed budget for the study	35
APPENDIX II: Time allocation schedule for the Research study	<sup>,</sup> 36
APPENDIX III: Sample questionnaire	37
APPENDIX IV: Interview guide	41
ADDENDIY V. ORSERVATIONS IN THE FIELD	Errorl Bookmark not defined

## LIST OF TABLES

Table 1 Showing the age groups of the respondents15	
Table 2 Respondents' Constraints on ICT use21	

## LIST OF FIGURES

Figure 1 Showing conceptual frame work for the study	5
Figure 2Showing the nature of roads in Budondo sub county	1

## LIST OF CHARTS AND GRAPHS

Charts 1 showing the demographic characteristics of the respondents <b>Error!</b>	Bookmark	not
defined.		
Charts 2 Showing the education level of the respondents		16
Graphs 1 showing the demographic characteristics of the respondents		14
Graphs 2 Showing ICT use and preference by farmers in Budondo sub county	/	24

#### LIST OF ACRONYMS

ICT -- Information and Communication Technology

FAO -- Food and Agriculture Organisation

MDG -- Millennium Development Goals

IT -- Information Technologies

www -- world wide web

R&D -- Research and Design

GII -- Global Information Infrastructure

WSIS -- World Summit on the Information Society

UN -- United Nations

HLL -- Hindustan Level Limited

GDP -- Gross Domestic Product

NGOs -- Non-Government Organisations

CKWs -- Community Knowledge Workers

R&D -- Research and Design

MAAIF-- Ministry of Agriculture Animal Industry and Fisheries

#### **ABSTRACT**

A study was carried out in Budondo sub-county Jinja district to establish how rural development can be attained once information and communication technologies have been integrated in agricultural production. Data was collected between April 5<sup>th</sup>- 23<sup>rd</sup> by intensive use of questionnaires, interviews and observations. The collected data were coded and fed into the SPSS package for subsequent analyses.

The results showed that farmers in the sub-county would wish so much to have information and communication technologies incorporated in their agricultural activities but most of them are always limited by access barriers. This was evidenced by the great number of people who are yarning for information and communication systems for farmers that are just being introduced into the area. Most farmers preferred radios to other strategies; they claimed that their preference for such is due to durability and given the fact that there is erratic power supply in the area, others like computers that would require perpetual power supply can't be adopted with relative ease. The farmers were not appreciative of services of agricultural extension department of the sub county as only negligible percentage of the farming population gains access to the services. Over 45 % complained that they were cheated by middlemen who tend to buy their produce at low prices, they later attributed this due to lack of access to market information. Some good percentage of the farmers also lamented that marketing of their produce in the sub county is much faced with poor road facilities.

It was noted that there exists a strong relationship between rural development and information and communication technologies. To improve on the rural development as so the livelihood of the people in the area through ICT adoption it is recommended that the marketing constraints be addressed by mainly organizing the farmers in groups and promote group selling of their produce joint