

**LOAN INFORMATION MANAGEMENT SYSTEM  
CASE STUDY: TORORO FARMERS SACCO**

**BY**

**OPOYA PONSIANO**

**BU/UG/2019/2307**

**A PROJECT REPORT SUBMITTED TO THE DEPARTMENT OF COMPUTER STUDIES FOR PARTIAL  
FULFILLMENT OF BACHELOR OF SCIENCE IN COMPUTER SCIENCE**

**SUPERVISOR**

**DR. NAKASI ROSE**

**DEPARTMENT OF COMPUTER STUDIES**

**FACULTY OF SCIENCE AND EDUCATION**

**JANUARY, 2023**

DECLARATION

I, Opoya Ponsiano, declare that this is my original work and has never been submitted for any award or any other purpose in any University, or academic institution of higher learning.

Signed: Opoya Ponsiano

Date: 25/01/2023

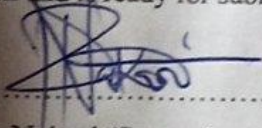
Opoya ponsiano

Student

### APPROVAL

I certify that this project report is an original work of Opoya ponsiano, was done under my supervision and is ready for submission.

Signed.....



Date.....

31/1/2023

Dr. Rose Nakasi (Supervisor)  
Department of Computer Studies  
Faculty of science and Education

31/01/2023

## **ACKNOWLEDGEMENT**

I would like to appreciate all the help and support given by my parents, brothers and sisters throughout the entire course

I wish to appreciate my supervisor Dr. Nakasi for her supervision and guidance that has enabled me to come up with this project.

Special thanks go to Mr. Byaruhanga Moses who helped me during the coding part of the system, he played a very big role and I gained a lot from him.

Finally, I would like to thank my lecturers and classmates whom I have shared with all kinds of challenges, happiness as far as school life is concerned and our patience has made us succeed in our course of study.

## **ABSTRACT**

This paper presents a careful study and analysis of an existing manual loan management system at Tororo farmers association and aimed at designing a web-based Loan management system in order to increase the efficiency and accuracy of the SACCO. The loan management system is a web-based system business solution

which is utilized to simultaneously track sales activity in addition to inventory.

The study was carried out to reduce the problems of inconsistency and inaccuracy of loan and mismanagement of the record due to the existing manual system used. An analysis of the existing manual system was done to get a better understanding of the system.

Hence, Rapid Application Development (RAD) methodology was used in this research to implement an

iterative methodology which is suitable for stand-alone applications that can be updated from time to time as may be required by the web-based system. Testing was done in every phase of the development life cycle to ensure that the new system worked properly.

The system was designed and implemented using PHP programming language and MYSQL for the database. This system designed provides a daily, weekly, monthly, and yearly report of all the transactions in the SACCO and other activities such as product sales, customer's registration among others.

## TABLE OF CONTENTS

|                                            |                              |
|--------------------------------------------|------------------------------|
| DECLARATION .....                          | ERROR! BOOKMARK NOT DEFINED. |
| APPROVAL.....                              | ERROR! BOOKMARK NOT DEFINED. |
| ACKNOWLEDGEMENT.....                       | III                          |
| ABSTRACT .....                             | IV                           |
| TABLE OF CONTENTS.....                     | V                            |
| LIST OF FIGURES.....                       | II                           |
| LIST OF TABLES.....                        | III                          |
| LIST OF TERMS .....                        | IV                           |
| CHAPTER ONE .....                          | 1                            |
| 1.3 GENERAL OBJECTIVE OF THE STUDY .....   | 2                            |
| 1.4 SPECIFIC OBJECTIVES OF THE STUDY ..... | 2                            |
| 1.5 SCOPE OF THE STUDY .....               | 2                            |
| <b>1.5.2 GEOGRAPHICAL SCOPE.....</b>       | <b>3</b>                     |
| <b>CHAPTER TWO .....</b>                   | <b>4</b>                     |
| <b>LITERATURE REVIEW .....</b>             | <b>4</b>                     |
| CHAPTER THREE .....                        | 14                           |
| METHODOLOGY .....                          | 14                           |
| 3.3 DATA COLLECTION METHODS.....           | 14                           |
| 3.3.1 INTERVIEWS .....                     | 15                           |
| 3.3.3 QUESTIONNAIRE.....                   | 15                           |
| CHAPTER FOUR .....                         | 17                           |
| DATA PRESENTATION AND ANALYSIS .....       | 17                           |
| 4.1 ANALYSIS OF EXISTING SYSTEM.....       | 23                           |
| CHAPTER FIVE .....                         | 6                            |
| SYSTEM IMPLEMENTATION .....                | 6                            |
| LOGIN SCREEN .....                         | 8                            |
| 5.8.1. PAYMENT FORM.....                   | 12                           |
| 5.8.2 DIALOG BOXES.....                    | 12                           |
| CHAPTER SIX.....                           | 4                            |
| REFERENCES.....                            | 7                            |

## LIST OF FIGURES

|                                                                               |        |
|-------------------------------------------------------------------------------|--------|
| Figure 1 Showing the age distribution graph, frequency and percentage.....    | 18     |
| Figure 2 A bar chart showing the frequency and percentage of respondents..... | 19     |
| Figure 3: illustrates a bar chart for employees' level of education.....      | 20     |
| Figure 4 shows the pie chart of the occupation of respondents.....            | 21     |
| Figure 6 Shows the Flowchart of LMIS.....                                     | 28     |
| Figure 7 Shows Dataflow Diagram.....                                          | 29     |
| Figure 8 Shows Entity-Relationship.....                                       | xxix28 |
| Figure 9 Shows ERD.....                                                       | xxix   |
| Figure 10 <b>Login Screen</b> .....                                           | 8      |
| Figure 11: Main Menu Screen.....                                              | 9      |
| Figure 12:shows registration form for adding new system user.....             | 10     |
| Figure 13: <b>Clients' Main Registration Form</b> .....                       | 11     |
| Figure 14: shows loan details form.....                                       | 11     |
| Figure 15 Payment form.....                                                   | 12     |
| Figure 16: Loan payment schedule.....                                         | 13     |

## LIST OF TABLES

|          |                                                                          |    |
|----------|--------------------------------------------------------------------------|----|
| Table 1  | Table showing the gender of respondents .....                            | 18 |
| Table 2  | Table showing education level of employee respondents in the SACCO ..... | 19 |
| Table 3  | Table showing the occupation of respondents .....                        | 20 |
| Table 4  | Table showing the efficiency of the coming system .....                  | 21 |
| Table 5  | : shows the pie chart of the efficiency of the coming system.....        | 22 |
| Table 6  | Table showing the list of respondents during the study .....             | 23 |
| Table 7  | shows hardware requirement of the system.....                            | 25 |
| Table 8  | shows the software requirement of the system.....                        | 26 |
| Table 9  | Table of account type .....                                              | 2  |
| Table 10 | Table of address.....                                                    | 2  |
| Table 11 | : Calculate Table.....                                                   | 3  |
| Table 12 | : Clients Table .....                                                    | 4  |
| Table 13 | payment Table .....                                                      | 5  |
| Table 14 | : Loan details table .....                                               | 6  |



## LIST OF TERMS

**Data:** This is raw facts that have not been processed

**Information:** This is the data that has been processed in such way as to be meaningful to the person or receiver.

**Attributes:** These are particular properties that describe an entity.

**Database management system:** The software product through which user' interact with database.

**Form:** The form in this study is screens that will have seen set up to display or accept information either directly to or from a table.

**Data abstraction:** This hides the internal working of the system from the user.

**Integration of data:** In databases, data are organized into a single, logical structure, with logical relationships defined between associated data entities. This makes it easy for users to relate one item of data to another.

**Information system:** The arrangement of people, data, processes and interfaces that interact to support and improve day to today operations in business as well as support the problem solving and decision makes needs of management and users.

**Abstract:** This is an over view perception of the available and involving ideas

**A many-to-many (M:M) relationship:** It is when for one instance of entity A, there are zero, one, or many instances of entity B and for one instance of entity B there are zero, one, or many instances of entity A.

**A one-to-many (1:M) relationships:** It is when for one instance of entity A, there are zero, one, or many instances of entity B, but for one instance of entity B, there is only one instance of entity A.

**A one-to-one (1:1) relationship:** Is when at most one instance of entity A is associated with one instance of entity B.

**Back-up:** A copy of data stored on a remote site to recover in case of data loss or data corruption.

**Data model:** This is an integrated collection of concepts for describing data, relationships between data, and constraints on the data in an organization.

**Database:** This is a collection of stored, integrated files that can be maintained and manipulated with great flexibility.

**Database Administrator:** The person, responsible for establishing policies and procedures to control and protect a database. He (she or it) works within guidelines set by data administration to control the database structure, manage data changes, and maintain DBMS programs.

**Entity:** This is any tangible or intangible object on which an organization wishes to store data.

**File:** The group of related data or information

**Goal:** This is a desired state that may have a gap from the current state.

**Hardware:** Physical components of a computer system i.e. the monitor, keyboard, hard disk

**Hard Disk:** A storage device in the computer used for storage of data.

**Manual System:** A system that uses a manual means of collecting data, inputting, outputting and storage through the use of manpower.

**Master Files:** A permanent file where all the records are stored.

**Management Information System:** This is a computer-based information system that uses data recorded by transaction processing system (TPS) as input programs that produce routine reports as output.

**Model:** This is a representation of real-world objects and events and their associations.

**Operating System:** This is software that supports a computer's basic functions.

**Operation Level:** This is concerned with day to day running of the organization

**Primary Key:** Is a field in which every entry uniquely identifies its records.

**Process:** An operation performed on data

**Redundancy:** Action of repeating the same data more than once.

**Relational Database:** This is a collection of normalized relations.

**Relational Model:** This is a model where all data is logically structured within relations

**Report:** Is a database object used to display data/information in a print preview format.

**Table:** Table is a database object where all data in a database is stored.

**Time Schedule:** This is the stipulated time period under which tasks are set to be accomplished.

**Security:** Provides the much-needed protection for the system to allow normal functioning

**System:** Refers to a set of interrelated-components that work together in an integrated way to achieve a common goal

## List of Acronyms

|        |                                                |
|--------|------------------------------------------------|
| SACCO: | Saving and Credit Co-operative                 |
| LMIS:  | Loan Management Information System             |
| MIS:   | Management Information System.                 |
| MIR:   | Management Information Requirement.            |
| DBMS:  | Database Management System.                    |
| E-R:   | Entity relationship                            |
| DFD.   | Data Flow Diagram                              |
| GB:    | Gigabytes                                      |
| RAM:   | Random Access Memory.                          |
| MB:    | Megabytes.                                     |
| SDLC:  | System Development Life Cycle.                 |
| SSADV: | Structured System Analysis and Design Methods. |
| MS:    | Microsoft access.                              |
| IS:    | Information System                             |
| NF:    | Normal Form                                    |

## **CHAPTER ONE**

### **1.0 Introduction**

This chapter 'presents the background, statement of the problem, objectives, Conceptual Framework and scope of the study.

### **1.1 Background of the Study**

The Tororo Farmers' SACCO Ltd started as a small financial institution with few employees and clients around 2004. The SACCO had the objectives of uplifting the Farmers in the villages by giving them short loans and in return it gets little profits from them and now it is one of the leading financial institutions/ SACCO in Tororo municipality as well as in the whole nation. The Sacco often uses traditional methods like paper, pens, and manual filling to capture and manage data and information about clients' details and this leads to time consuming, when the administrators are trying to arrange every record in a proper way. Since this SACCO receives many and different clients both around and outside Tororo to get loans for personal and project developments and thus the information captured is a lot, and this leads to incorrect, and inaccuracy data recording then the administrators get tired during data entry. There is much time consumed when recording and keeping details about customers leading to time delay and tirelessness of both administrators and clients. If nothing is done. Tororo Farmers' SACCO Ltd will lose customers, fail to deliver timely services and delay in decision making. However, LMIS has proven to be more reliable, effective and efficient since it allows ease capturing, storage, easy retrieval, easy to back up, and security of the data.

## REFERENCES

1. Philip J. Praff and Joseph Adamski (1987), database systems management and design, Boyd and Fraser' Publishers Company.
2. Fred R. McFadden and Jeffrey A. Hoffer (1994), modern database management 4<sup>th</sup> edition, the Benjamin Cummings Publisher.
3. Sarah E. Hutchinson and Stacey C. Sawyer (2000), computer's, communications and Information, a user's introduction 7<sup>th</sup> edition, the McGraw-hill Publisher.
4. Jeffrey L. Whitten Lonnie D. Bethey I Cevin C. Dittman (2000), systems analysis and design methods 5<sup>th</sup> edition, liwin/McGraw-hill Publishers.
5. . Charles's. Paker and Deborah Morley (2003), understanding computers today and tomorrow 2003 enhanced edition.
6. flat Hwang (1993), advanced computers architecture parallelism, scalability programmability, McGraw-hill Publisher
7. Gei'ald V. Post (2003), database management system (designing and building business applications) 2<sup>nd</sup> edition, the McGraw-mill Publishers
8. Raglau Rainakrisluaan. Johannes Geliike (2000), database management system 2<sup>nd</sup> edition. McGraw-hi 11 Publisher
9. Htt://www.google.co.ug/ ft'om wikipia, the free encyclopedia 2/18/2015.4:22:09 PM
10. Bar i y William PM Principal consultant database fi om [www.abforuins.com](http://www.abforuins.com)
11. Barratt, Christopher (1996), management Strategy and Information Technology. Eds, International Thomson Business Press.
12. Mbowa .I (2006). An Academic information System to enhance students' results management.
13. Clifton H.D. & Sutcliffe A.G (1994), Business information Systems, 5<sup>th</sup> Edition, Pitman

publishing.

14. Don Yeates & James Cadle (1996), *Project Management: A Practical Approach*, 2<sup>nd</sup> Edition, Financial Times Pitman Publishing.
15. Elliot Geoffrey and Star kings Susan; *Business information Technology*, 5<sup>th</sup> Edition, Prentice Hall international Editions