SAVING AND CASH FLOW INFORMATION SYSTEM CASE STUDY: SACCO JYAMBERE BWERAMANA

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ABSTRACT

The main target of this work is to design and implement a "Distributed Application system for Microfinance management system (SACCO)" to help solving problems relating to saving and Cash flow and movement of funds -up in the microfinance.

This Application offers the ability to register Clients, Creating their account , credit delivery information Deposit information and withdrawing information ,report and print information about all operations listed above, and finally it lets the users know how many hours are remained and how many are finished for every operation . The users in one department cannot access the data of the other department. But the users in the same department have the provision to access all departments' information.

In implementation of this research is the "Prototyping Model".

Using this methodology, developers receive quantifiable user feedback and this facilitates system implementation since users can know what is expected.

PHP   with its Remote Method Invocation technology, Xampp as A mySQL based Integrated database management system and Dream weaver as Integrated Development Environment (IDE), To implement this application, package   are created and some are hosted locally on the server side and the other is locally hosted on the client side.

Keywords: *Analysis, Modeling, Conception, Cash flow management, Information management system*

INTRODUCTION

Today, technology has a significant impact on our lives - changing the way we live, work, and play. The process, distribution and controlled sharing of information have become a very important aspect of global development. Some information systems collect information, manage it and create information products. SCF/MIS/SACCO also has the potential of taking advantages of such new technology in its daily Services and customer's management to minimize the time of execution pain working, to enhance the quality of work in managing customers' services and other related issues. The Republic of Rwanda has the good vision of providing and sharing the bank services in the whole country. The Rwanda government with that idea it has introduced the common public

services of cooperative UMURENGE SACCO. This one can be considered as a target of government which has been reached and for now it has become popular in Rwanda citizens, since introduction of this service up to now the Rwandese have starting saving their money safely, comparatively with the present situation .

1. LITERATURE REVIEW

A co-operative can be defined as independent or a private association of persons united freely to meet their common economic, social, and cultural wants and aspirations through a jointly owned and constitutionally controlled enterprise. The different members in rights and liabilities take part democratically in the management and the administration of the company of which they share the duties and the advantages proportionally with the transactions of each member. All active members form the general body and it elects the Board of Directors. The Board appoints its paid employees to run the cooperative.

The fundamental objective of a cooperative is not "to maximize the profits" as in a capitalist company, nor to act initially like "actor of a social change" as in the nonprofit- making associations, but "to maximize the benefit which the members users can obtain from their commercial transactions with the cooperative."In fact, with their cooperative, the members try to obtain the maximum of individual benefit through the particular type of commercial transactions which they carry out with it. It is thus for example, that a SACCO could promote by the mutual aid, the

economic, ownership and social of its members in their granting loans to cover their economic needs, by supporting the spirit of initiative and agricultural or industrial local work, by the careful use of the saving produced locally.

Credit Unions and SACCOs are nothing new to Rwanda where diverse small SACCOs and "Banque Populaire du Rwanda" (BPR), the most important credit union, have operated for many years.

However despite a long history behind, SACCOs coverage remain very limited, with only 3% of the population saving with all MFIs in general, SACCOs included.

To address this issue analyzed as a major factor hindering economic development, a recent National Dialogue Meeting held in December 2008 recommended the creation of at least one SACCO at the level of each Administrative Sector (UMURENGE).

In line with this a task force composed of representatives from diverse Government institutions, especially from MINECOFIN, MINICOM, MINALOC, and BNR was formed and was assigned to propose a strategy to implement this policy directive. The strategy proposed in this document is in line with the National Micro Finance Policy, the National Microfinance Policy Implementation Strategy, and the recently validated National Savings Mobilization Strategy.

Towards this aim, the structure of this document is designed as follows: the first step is to explain what

is a SACCO, what are its major characteristics and roles, related advantages and specific challenges

Then after having analyzed the current level of development of SACCOs which cover 18% of adult Rwandan population, the document highlights the specific major challenges prevent the free movement of (hampering) their development which are a little education on them; poor governance and little human resource capacity, little information on bad clients of; inappropriate legal framework and taxes; lack of adequate infrastructure

(energy, roads, offices, equipments…; real return on deposits little or negative.

To address the issues analyzed, the strategy recommends developing a successful SACCO Model in line with national policies and international best practices; the strategy proposes a number of actions to be implemented in three phases:

❖ Phase one is related to preliminary actions which will increase the funds rate of the current SACCO.

❖ Phase two is related to creation of SACCOs and making them operational(Deposit ,withdraw ,credits and loan and Mobilization to people)

❖ Phase three is the development phase once SACCOs will be created and effectively operational detailed action plan for all those steps, as well as related time frame, budget and responsibilities are proposed.

3. EXISTING SYSTEM

UMURENGE SACCO Has an overall office which leads out together with the Leadership at the headquarter(the main branch) located in Kigali that The sub branches that is located in all sectors of the entire country

The following are main activities in an UMURENGE SACCO Manual system process:

- First of all the client give all information include the identifications.

- The client fill the form of opening an account which is done for free.

- The client must deposit at least 2000 Rwandan francs by default.

- The account begins its movement and cash flows.

- All documents regarding to the client is kept by the manager

There is always an inter relation or let's say relationship in the above processes and shortly we will explain the flow of how everything is done accurately and in time.

Advantages and Disadvantages of existing system

a. Advantages

The current manual system that is used in UMURENGE SACCO BANK especial in department of saving and Cash flows department has some advantages:

☞ Management of savings account and account cash flows are very easy to workers uneducated in computer sciences field they use the manual system paper and pen the record data.

☞ To provide documents related to the transactions performed done by using the same techniques.

☞ Account management done by calculating manual statement and the balance.

☞ Keeping documents with big folders and archives provide them the easy file management.

Due to those advantages the manual system had been a big obstacle to some many companies to become innovative in computerization management systems

b. Disadvantages

The Manual System of UMURENGE SACCO has some problems and Disadvantages as well as some weaknesses that we are going to give details below:

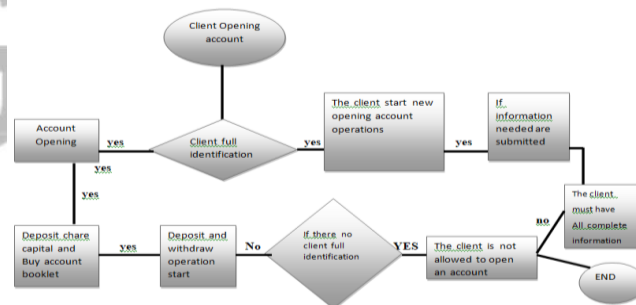❖ UMURENGE SACCO has different services to manage the following:

✓ Accounting management: income and outcome

✓ Registration department: to register new clients

✓ Cash flows and saving: to manage all cash flows and clients saving accounts

Although those all services make workers (cashiers ,tellers ,managers) working hardly and with pain.

❖ It is difficult to mark the paper once it is given, Because of many clients.

❖ It is hard to know the information for clients in case they have a big numbers of registered people

❖ They may have a loss of one of the paper of client or marking badly may also occur when one is marking while tired.

Having detected all these problems under different circumstances that may occur during or after data recording and transactions management, we have adopted and recommended the use of the New developed software to help solving the said problems and disadvantages putting in order the UMURENGE SACCO system so the every work that will be produced will be sure and accurate in any needed time without delay as to win time because time is money. This software will help mostly on both sides on clients as well as bank workers. In addition the information recorded will be used in generation of dynamic reports required at time.

4. EXISTING SYSTEM FLOW CHART DIAGRAM

Source: Own Drawing

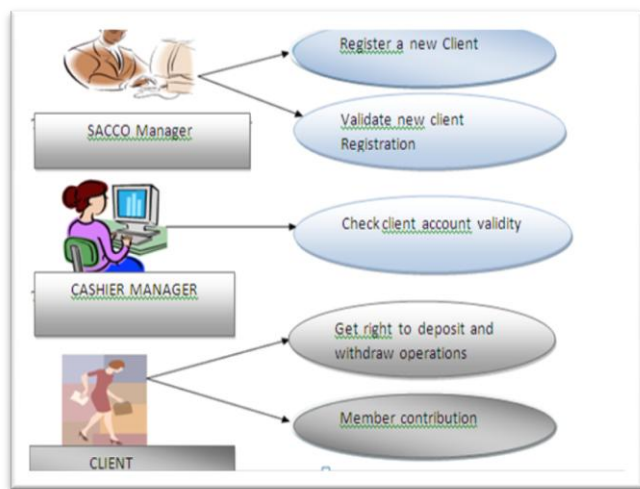### c. The proposed system

The proposed system is the new computerized system in which all workers will use a computer as a daily activities tool , in computerized system all activities are done using a computer in which the software designed is installed and all data are entered in the database using the keyboard throughout the software Front-end , the stored data will kept in the database as Backend

d. Advantages of the proposed system

➢ The reduction of working time : means that in times of wasting by calculating client balance and preparing daily reports manually the software will be able to handle that task in a short time.

➢ Quick services delivery : as the system designed help users to perform their task quickly this cause a good quality services to clients.

➢ Time management: the time taken by workers using manually system is very different to time taken by workers using computerized system because this one is efficient and quick

➢ Efficiency data security; by using keyboard as data entry input devices ,users save their data into the database protected by the authentication code which gives data integrity

➢ Easy to generate reports : all information saved must be reported even if they are wanted by users or administration for printing.

New system Use case diagram

5. CONCLUSON

The main objective of this study was to provide a solution to the problem at SACCO JYAMBERE BWERAMANA in management of saving and cash flow.

This objective was successfully achieved for a practical solution it is possible to implement saving and cash flow management system for SACCO JYAMBERE BWERAMANA. But due to the limited time it is still a system which once improved can be successful for this bank.

In order to reach that point, we initially proceeded has the analysis of what exists. That enabled us not only to understand the operation of existing but also to be able to release from the gaps which the system knows. Thereafter, we have, by using UML, process with the modeling of the system.. We made thereafter the development with the language PHP.

The developed application will allow in particular:

> To have a global vision of the situation of saving and cash flow available in SACCO JYAMBERE BWERAMANA;

> To reduce the search time of the data in related customers;

> To implement data security parameters;

> To generate report automatically at any time.

6. CODING

Sample of coding for client management
```
<?php @session_start();?>
<?php
include('config.php');
?>
```

```html
<!DOCTYPE html>
<!-- Website template by freewebsitetemplates.com
-->
<html>
<head>
        <meta charset="utf-8">
            <link     rel="shortcut     icon"
href="icons/apps/media.ico">
        <link    href="<?php    echo    $design;
?>/bootstrap.css" rel="stylesheet" title="Style" />
        <link    href="<?php    echo    $design;
?>/bootstrap-responsive.css"    rel="stylesheet"
title="Style" />
        <link href="<?php echo $design; ?>/docs.css"
rel="stylesheet" title="Style" />
        <title>..::   SACCO   SAVING   AND
CASHFLOW ::..</title>
            <meta            name="viewport"
content="width=device-width, initial-scale=1.0" />
<link            href="assets/css/bootstrap.css"
rel="stylesheet">
   <link   href="assets\css\bootstrap-responsive.css"
rel="stylesheet">
   <link            href="assets\css\docs.css"
rel="stylesheet">
   <link            href="assets\css\prettify.css"
rel="stylesheet">
        <link            rel="stylesheet"
href="assets/css_files/css3menu1/style.css"
type="text/css"            /><style
type="text/css">._css3m{display:none}</style>
   <link       rel="shortcut       icon"
href="banners/basket.png">
        <script type="text/javascript">
     function print_page() {
     var        ButtonControl        =
document.getElementById("btnprint");
        ButtonControl.style.visibility = "hidden";
            window.print();
     }
   </script>
   <script    type="text/javascript"    src="jquery-
1.2.1.pack.js"></script>
<script type="text/javascript">
        function lookup(inputString) {
            if(inputString.length == 0) {
                // Hide the suggestion box.
                $('#suggestions').hide();
            }
            else
```

```javascript
            {
$.post("rpc.php",{queryString: ""+inputString+""},
function(data){
                if(data.length >0) {
        $('#suggestions').show();
        $('#autoSuggestionsList').html(data);
                }
            });
        }
    } // lookup
        function fill(thisValue) {
        $('#inputString').val(thisValue);
        setTimeout("$('#suggestions').hide();",
200);
    }
</script>
<style type="text/css">
        .suggestionsBox {
        position: absolute;
        margin: 5px 0px px 0px;
        background-color: #FFF;
        border: 10px solid #0000CC;
        color: #fff;
    }
    .suggestionList {
        margin: 10px;
        padding: 5px;
    }
        .suggestionList li {
        margin: 0px 0px 3px 0px;
        padding: 8px;
        cursor: pointer;
    }
        .suggestionList li:hover {
        background-color: #659CD8;
    }
#nu {
    font-size: 16px;
}

.exp {
    color: #C00;
    font-size: 16px;
    font-family: Calibri;
}
```

```
#main table tr .nu {
        font-size: 16px;
}
#main table tr td {
        font-size: 16px;
}
</style>
    <!-- Le fav and touch icons -->
        <style type="text/css" title="currentStyle">
                                @import
"assets/css/grid_sytles.css";
                                @import
"assets/css/jquery-ui-1.8.4.custom.css";
        </style>
</head>
<body bgcolor="#0000FF">
<table align="center">
<tr><td><a            href="cassier.php"><img
src="logo/logo.jpg"    width="" title="clique pour
retourne    sur    menu"    class="img-
rounded"></a></td></tr></table>
 <table align="center" width=80% border="0">
 <tr><td><br/><br/><h2
align="center">CUSTOMER        ACCOUNT
REPORT</h2> </td>
 </tr><tr>
   <td> <?php
        //if(isset($_REQUEST['idsms']))
        //{$term=
        $reture1=@mysql_query("SELECT    *
FROM clients ORDER BY district ASC",$con)or
die(mysql_error());
        echo"<center><table    class='table table-
bordered table-hover btn' style='width:570px;'><tr
class='success'>
<th>No.    de    compte</th><th>CUSTOMER
NAME</th><th>SURNAME</th><th>No.
IDENTITY</th><th>DISTRICT</th>
</tr>";

        while($row=@mysql_fetch_array($reture1)
)
{
        echo"<tr><td>".$row['compteid']."</td><td
>".$row['nom']."</td><td>".$row['prenom']."</td>
<td>".$row['idcard']."</td><td>".$row['district']."<
/td></tr>";
        }
        ?>
         </td>
```

```
        </tr>
</table>
 <center><br/>
 <br/>
 <br/>
 <form target="_blank">
                             <input         type="submit"
class="btn    btn-primary"    src="icons/apps/news-
subscribe-2.ico"    id="btnprint"    value="Imprimer
rapport" onClick="print_page()"  />
        </form></center>
</body>
<script                        type="text/javascript"
src="http://platform.twitter.com/widgets.js"></scri
pt>
    <script src="assets/js/jquery.js"></script>
    <script            src="assets/js/google-code-
prettify/prettify.js"></script>
    <script            src="assets/js/bootstrap-
transition.js"></script>
    <script            src="assets/js/bootstrap-
alert.js"></script>
    <script            src="assets/js/bootstrap-
modal.js"></script>
    <script            src="assets/js/bootstrap-
dropdown.js"></script>
    <script            src="assets/js/bootstrap-
scrollspy.js"></script>
    <script src="assets/js/bootstrap-tab.js"></script>
    <script            src="assets/js/bootstrap-
tooltip.js"></script>
    <script            src="assets/js/bootstrap-
popover.js"></script>
    <script            src="assets/js/bootstrap-
button.js"></script>
    <script            src="assets/js/bootstrap-
collapse.js"></script>
    <script            src="assets/js/bootstrap-
carousel.js"></script>
    <script            src="assets/js/bootstrap-
typeahead.js"></script>
    <script            src="assets/js/bootstrap-
affix.js"></script>
    <script src="assets/js/application.js"></script>
        <script            type="text/javascript"
src="assets/js/jquery-search.js"></script>
        <script            type="text/javascript"
src="assets/js/jquery-search1.js"></script>
        <script            type="text/javascript"
src="js/interface.js"></script>
```

```
<script type="text/javascript">
$(document).ready(
        function()
        {       $('#dock').Fisheye(
                {
                        maxWidth: 50,

                        items: 'a',
                        itemsText: 'span',

                        container: '.dock-container',

                        itemWidth: 40,

                        proximity: 90,
                        halign : 'center'
                }
                )
        }
);
</script>
</html>
```

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