Medicon Engineering Themes
Volume 7 Issue 2 August 2024
Article Type: Research Article
ISSN: 2834-7218

Enhancing Co-Operative Records Management with Web-Mobile Solutions: Evidence from Kilimanjaro Region, Tanzania

George Sizya Germinous[1]*, Mwapashua Hamis Fujo[2] and Mussa Ally Dida[1]

[1]School of Computational & Communication Science and Engineering (CoCSE) Nelson Mandela African Institution of Science and Technology (NM-AIST)

[2]Department of Information and Communication Technology, Moshi Co-operative University (MoCU)

***Corresponding Author:** George Sizya Germinous, School of Computational & Communication Science and Engineering (CoCSE) Nelson Mandela African Institution of Science and Technology (NM-AIST), P.O.BOX 447, Arusha, Tanzania.

Received: July 26, 2024; **Published:** August 16, 2024

Abstract

Co-operatives have proved to be one of the driving forces in the socio-economic empowerment of its members. The Government of Tanzania has been implementing the Poverty Reduction Strategy by encouraging people to form co-operatives in order to improve their economic prospects. Establishing a primary co-operative society involves a process which passes through district co-operative office, regional co-operative office and the registrar of co-operatives' office at the national level. These processes bring about the issue of documentation and records keeping. The processing of records is done manually by using pen and papers, or electronically using computers, smart phones and cameras. The research work essentially used questionnaire, interview, observation and document review to gather data. Findings of this study show that 8 out of 13 respondents (61.5%) responded to physically visit co-operative offices to acquire existing records about co-operative societies. This vividly explains use of manual procedure for co-operative records management thus leading to unsolved challenges such as; data inaccuracy and inconsistency, bureaucracy during physical access, money and time consumption due to geographical challenges, lack of transparence, and improper presentation of co-operative information in request. This ongoing research work proposes a web-mobile approach named Co-operative Records Management System (CRMS). CRMS will offer a solution which enable District Co-operative officers (DCOs) to record, process and generate electronic reports on co-operative societies' records thus mitigating challenges about, but not limited to; time wastage, inconsistency in recording financial records as well as reducing costs for data acquisition. Therefore, this paper explores methods to enhance co-operative records management through web-mobile solutions, as evidenced in the Kilimanjaro region, and presents a proposed design solution.

Keywords: Information Systems; Co-operative society; Information management; Record keeping; CRMS; Co-operative management

Abbreviations

NM-AIST - Nelson Mandela African Institution of Science and Technology.
CoCSE - Computational and Communication Sciences and Engineering.
MoCU - Moshi Co-operative University.
CRMS - Co-operative Records Management System.
DCO - District Co-operative Office/Officer.

CCM - Co-operative College Moshi.
ICT - Information and Communication Technology.
DRCO - Deputy Registrar of Co-operatives.
ODK - Open Data Kit.
TCDC - Tanzania Co-operative Development Commission.

Introduction

Co-operative society is a group of people residing in the same village or group of villages, who pool funds through regular contributions, with the objective of then providing loans to members [1]. It has proved to be one of the driving forces in the socio-economic empowerment of its members [2]. Co-operative societies are established to deal with production, purchasing, processing, marketing, distribution, and any such activity provided for in the rules and by-laws; Nevertheless, co-operative societies involve; savings and credit co-operative societies, financial co-operatives, Consumer co-operatives, housing co-operatives, Industrial co-operatives, Mining co-operatives, microfinance institutions, and co-operative banks which focus on mobilizing savings and providing credit services to households, smallholder producers, and micro-enterprises in both rural and urban areas;

Globally, co-operatives can be sorted out in hierarchical structures comprising of primary societies, secondary societies, apexes, and federation. Co-operative structure may differ depending on country's rules and by-laws and membership nature. A case in Kenya, co-operative structure may include an apex society to oversee activities performed by unions of different structures which depends on their membership nature. In Tanzania, co-operatives have been an important part of the economic development. The Government of Tanzania has been implementing the Poverty Reduction Strategy by encouraging people to form co-operatives in order to improve their economic prospects [3].

Establishment of the primary co-operative society involves a process which passes through district co-operative office, regional co-operative office and the registrar of co-operatives' office at the national level. These processes bring about the issue of documentation and records keeping. The information and reports regarding co-operative societies are solely availed at the district co-operative office and not openly available to the public [4]. Bulkiness of the records and procedural requirements to transfer data from one level to another brings difficulties to incorporate all the recorded data regarding a specific primary co-operative society at the district level when moving to either regional or national level during the registration process [5]. Nevertheless, co-operative records are being kept in hard file cabinets, excel sheet forms, and other auxiliary storage devices like memory sticks and external hard disks but the questions remain; are they enough for record management especially when it comes to bulkiness of records, data redundancy, time consumption in accessing records, and durability?, are the records well updated?, what about reliability issue during record accessing? On the other hand, there is a limited concentration on keeping records and making them available to the public.

Therefore, this paper explores the challenges in order to enhance co-operative records management strategies for managing information records in public co-operative offices which is as a result of data collection and analysis conducted in Kilimanjaro region, Tanzania. In addition, this paper provides a technological designed solution based on web-mobile application that will; improve dissemination of information regarding primary co-operative societies' statistics in the country, thus minimizing the cost needed to acquire such information, reduce or split the power of custodians of the related information, encouraging gender equality and membership openness in primary co-operatives, and lastly, encourage researchers to improve the co-operative sector due to the easy way of accessing related data. Other parts of the document are organised as follows: Part 2 introduces a review of associated studies in the literature review. Part 3 focuses on the description of study area, sample size and the technique for sampling, the tools and techniques that guided this study, and the way data were analysed. Part 4 displays the results of the study as well as discussion of the reported results.

Literature Review

The Co-operative Movement

The development of co-operative movement has its roots in the far reaching economic social and political changes which took place in Europe in the late 18th and all through the 19th centuries especially the industrial revolution and the liberation of peasantry from former feudalistic system of life [6]. In western countries particularly in England it marked a first consumer co-operative society established by men like Robert Owen (1777-1856) and Dr. William King through their theories and efforts.

The success of co-operative movement in Tanzania in the development process marked the raised interest of the government by initiating and establishing various co-operative supporting institutions. Among the established and exiting supporting institutions are Moshi Co-operative University (MoCU) and Tanzania Co-operative Development Commission (TCDC). MoCU, then called Co-operative College Moshi (CCM) which provides co-operative education and training, research and consultancy especially in the co-operative field. The MoCU has offices and co-dominators in all regions in Tanzania with the aim of providing close services to co-operative societies throughout the country.

Information and Communication Technology in the Co-operative Field

Recently, Information Communication Technology (ICT) enhances communication, reporting and processing of information or records electronically. It may also, facilitate management of co-operatives by enhancing management of records, reports, financial information and members' management [7]. Moreover, the management of transaction contributed by members of co-operative societies is well managed by the use of ICTs as it reduces the time used in processing payment and retrieving financial statements [8].

Co-operatives with information systems provide a way for storing data and exchanging data among regions. It has been stated that in order to provide viable co-operatives information system solutions, three facet must be considered; Organizational facet, group collaboration facet and systems facet. Organizational facet concerns with how organization manage its business process in a formal way regardless of who is performing the work (group collaboration) and what technology is used (system facet), group collaboration involves how people work in a common business process and system facet involves the use of different technologies to meet organization needs [9]. The researcher insists on the use of co-operative information system to process the data and store records in order to increase accuracy and efficiency [9].

This paper is an ongoing research work intended to explore the challenges facing existing strategies for management of co-operative society records in Tanzania which may be as a result of production, processing, storing, and dissemination of the records. The researcher proposes a web-mobile approach known as the Co-operative Records Management System (CRMS) which will empower District Co-operative Officers (DCOs) to efficiently record, process, and generate electronic reports on co-operative societies' records. This proposed solution seeks to alleviate issues such as time wastage, financial record inconsistencies, and high data acquisition costs. In summary, this paper presents fact-based strategies for managing information records in public co-operative offices, focusing on the Kilimanjaro region and proposing a tailored solution.

Methodology

Description of the study Area

The case for this study was Kilimanjaro Region with three district co-operative officers of Moshi municipal, Moshi rural and Rombo, and thirteen respondents from MoCU's regional offices who represented researchers in the co-operative arena; The Kilimanjaro region was selected among Tanzania regions due to the availability of large number of co-operative societies compared to other regions and presence of three key stakeholders of the study; District Co-operative Officers (DCOs), Researchers (who were represented by 13 MoCU's regional programme coordinators) and office of the Registrar of co-operatives as an overall overseer of co-operative society undertakings in the country.

Sampling Strategy

The study employed purposive sampling to focus on key stakeholders involved in co-operative records management in the Kilimanjaro region. It included 20 respondents chosen for their specific roles and expertise, such as district co-operative officers from Moshi Municipal, Moshi Rural, and Rombo, responsible for receiving and processing co-operative records from primary co-operative societies and playing integral roles in local governance of co-operative societies. Additionally, thirteen (13) respondents from MoCU's regional offices, encompassing researchers in the co-operative field as members of the public, were included. Stakeholders from the Registrar of Co-operatives also participated to provide regulatory perspectives. This approach aimed to gain a deep understanding of current practices and perceptions in co-operative records management, prioritizing detailed insights over statistical representativeness, thereby ensuring relevance and depth in the qualitative study.

Data collection Method

During the study, data were collected in the period of two months January and February. The study used questionnaire, interviews, observation and document review as tools for data collection. Questionnaires were distributed to 13 respondents who were the researchers in the co-operative arena to gather information on current process for acquiring co-operative records. Semi-structured interviews were used to key informants whereby 3 District Co-operative Officers (DCOs) as well as 4 representatives from the office of the Registrar of co-operatives (wherein refers to Registrar) were involved. The objective of the interview was to understand the manual process of recording and preparing co-operative societies reports. Observation was conducted physically at the DCO Office observing how employees used manual process of keeping the co-operatives' records. The work observed the use of papers and ink to update co-operative societies' information and found errors in recording some of the financial calculations. In addition, the study observed how the employees compile data from different co-operative societies and found that, the process of compiling data takes long time. Document review method in this study was to review the reports prepared by the co-operative societies, DCOs, Deputy Registrar of Co-operatives (DRCOs) and the Registrar. In addition, forms used by the DCOs to register co-operatives societies were reviewed.

Data analysis method

The shared out study questionnaires had both hard-copy and soft-copy structured questions which were managed by using the Open Data Kit (ODK) software. Aftermath, the gathered statistical data were analysed using a mixed approach whereby quantitative approach was used with the purpose of; firstly, knowing existing ways for accessing and keeping co-operative records as well as use of co-operative records being searched, reliability of co-operative information being provided, understanding the challenges experienced in the existing way of handling co-operative data, identifying respondents' experience in using online resources as well as tools being used, and finally, to capture proposed information that should be in the CRMS and reports to be generated. On the other hand, quantitative approach was used with the aim of; identifying tools that are in use for processing co-operative data, grasp the extent of challenges experienced when acquiring co-operative information, and obtaining suggestions on the ways of improving the existing process of accessing co-operative information.

In all above mentioned cases, SPSS software as a statistical package was used for analyses. The reason being, SPSS provides the easiest and customary virtualization of tables and charts compared to other statistical packages like Excel, SAS, and R. For example, Excel requires formula for every calculation to be entered manually thus providing a room for errors. In conjunction to that, R and SAS are thorny to learn, conditional to programming locale [10].

Discussion of the Major Findings

Challenges facing existing ways of accessing co-operative records

This sub section relied on examining the challenges that different stakeholders face in the process of acquiring co-operative information.

Reliability of co-operative information

To know how to obtain the required co-operative data when needed, the study provided YES or NO questions to the respondents. Therefore, it was revealed that, a small number of only 4 respondents which is equivalent to 33% showed that they normally get what they wanted whenever in need while 9 of them equal to 67% normally do not obtain co-operative data as required. Percentage distribution clearly shows unreliability of co-operative data whenever acquired by those in need of them.

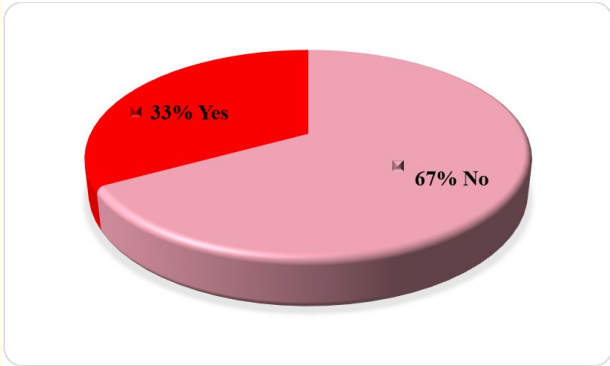

Figure 1: Reliability of co-operative information being searched.

The study found that 67% of respondents struggled to obtain the co-operative data they needed, indicating significant issues with data accessibility. Only 33% were able to access the required data reliably. These findings clearly show the need for improved data management systems and access protocols to enhance data availability and reliability.

Existing ways for accessing and keeping co-operative records

The study sought to know how the public access co-operative information. Respondents mentioned only two ways; "either by physically paying a visit to respective offices for detailed information or by going through the TCDC website for summarized reports" as it may be observed in table 1.

Methods	***Frequency***	***Percentage***
Physically visiting respective offices	13	100
Using online resources	9	69.2
Asking others (colleagues)	7	53.2
Reading books and other articles	3	22.1
Other	0	0

Table 1: Existing record acquisition methods.

On the other hand, the researcher interviewed DCOs as well as Registrar's office on various ways that are used for keeping different records about co-operatives as shown in figure 2.

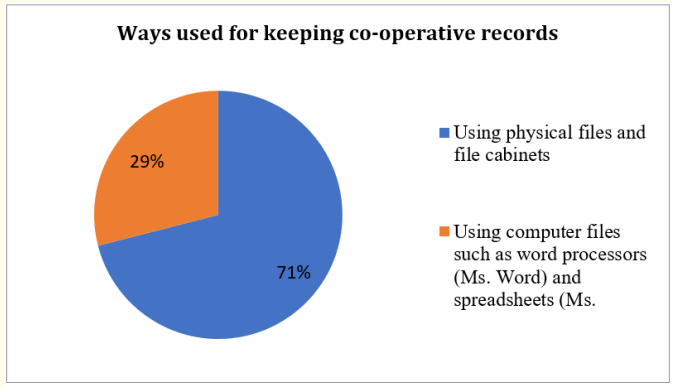

Figure 2: Presents ways being used in keeping co-operative records.

The findings reveal a heavy reliance on in-person visits to access detailed co-operative information, which can be time-consuming. Online resources are used but often provide only summarized reports. Other methods, like asking colleagues or reading secondary sources, indicate informal information networks. These results highlight the need for improved digital platforms with comprehensive, easily accessible co-operative records to enhance public access and align with modern information management practices.

Challenges experienced in the existing processes for handling co-operative data

In this part the study wanted to acquire all the challenges experienced by respondents as a result of using existing methods for processing, keeping, and accessing co-operative information. The study observed that, out of 13 respondents only 8 responded to the question whereby all of them agreed that data inaccuracy and inconsistency as well as lack of single source of obtaining required information are the main challenges being experienced in the whole process of acquiring co-operative data. Also, 7 respondents which is equivalent to 87.5% had similar opinions on the challenges experienced during acquisition of co-operative records by pointing out the following; bureaucracy during physical access, untimely provision of the needed co-operative information, and provision of un-updated information, inadequate online resources, and most co-operatives do not keep records. Other challenges pointed out with their percentage were; time consumption due to geographical challenges (75%), increased cost in data acquisition (62.5%), lack of transparence (50%), and improper presentation of co-operative information in request (12.5%) as seen in figure 3.

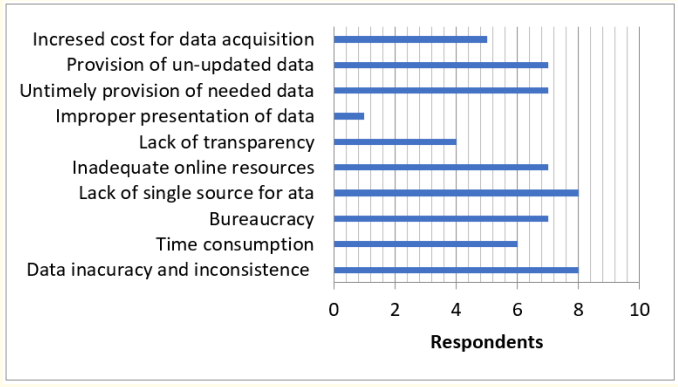

Figure 3: Presents challenges experienced in the existing process for co-operative data handling.

The study identified key challenges in handling co-operative data, including data inaccuracy, inconsistency, and the lack of a central information source. Respondents also faced bureaucratic delays, outdated information, inadequate online resources, and poor record-keeping. Additional issues included time-consuming geographical challenges, increased costs, lack of transparency, and improper data presentation. The results emphasize on the need for improved data management practices to enhance data accuracy, accessibility, and efficiency.

Extent of the challenges in acquisition of co-operative information

The study assessed the extent of challenges in acquiring co-operative information using a scale from 0 to 5. Data inaccuracy and inconsistency were rated as very serious problems by 7 out of 13 respondents (score of 5). In contrast, increased costs in data acquisition were considered a moderate challenge, with 8 respondents rating it as a less severe issue (score of 3). Graphical representations of these responses are shown in Table 2.

Challenges	***0***	***1***	***2***	***3***	***4***	***5***
Data inaccuracy & inconsistency	0	1	1	1	3	7
Wastage of time during the process	0	1	1	3	3	5
Increased in data acquisition cost	1	2	1	8	1	0
Bureaucracy	0	0	1	2	9	1
Lack of transparency	4	2	2	1	2	2
Improper presentation (format) of requested information	1	0	1	1	7	3
Communication barrier	2	4	4	1	1	1

Table 2: Presents extent of the stated challenges in acquisition of co-operative information.

The study underscores that data inaccuracy and inconsistency are major issues in acquiring co-operative information. Other significant problems include inefficiencies due to time wastage and bureaucracy. Increased costs are a moderate concern, while transparency and presentation issues also need addressing. Communication barriers are less critical but still relevant. Overall, improvements in data quality and management processes are needed.

Tools being used for processing co-operative data

The study aimed to identify the tools used by District Co-operative Officers (DCOs) and the Registrar's office for processing co-operative data. Respondents reported using both manual tools (pens and paper) and electronic tools (Excel sheets and word processors), with memory sticks and external hard drives for data storage as depicted in figure 4. The reliance on manual tools indicates a traditional, error-prone approach, while electronic tools still require significant manual input and lack advanced features. Portable storage devices pose risks to data security and integrity.

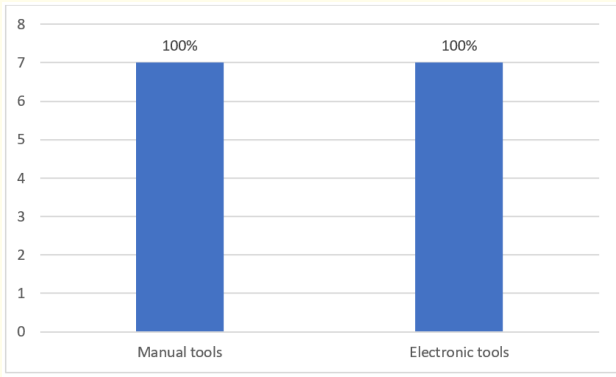

Figure 4: Shows the tools being used for processing co-operative data.

These findings underscore the need for advanced digital solutions and better training in data management technologies to improve efficiency and accuracy.

Use of co-operative information being searched

The study aimed to assess public usage of information that is being processed and kept by DCOs as well as Registrar's office. The following table present results from respondents on the usage of co-operative information.

Statistically, all 13 respondents which are equal to 100% proved to use the co-operative data for research purposes. Apart from research, 11 of them pointed out to use the information for knowledge enrichment, which is equivalent to 84.6% and 7 of them use for policy-related issues which is equivalent to 53.9%. Lastly, 6 respondents equal to 46.2% revealed to use the information for training and other consultancy issues, while the same frequency normally search the information just out of curiosity. These results are as summarized in table 3.

Use	***Frequency***	***Percentage***
Research purpose	13	100
For policy issues	7	53.9
Out of curiosity	6	46.2
Just for knowledge	11	84.6
Training and consultancy (other)	6	46.2

Table 3: Usage of co-operative information being searched.

The study shows that co-operative information is mainly used for research (100%) and knowledge enrichment (84.6%). It is also used for policy-related issues (53.9%) and training or consultancy (46.2%), with some searching out of curiosity (46.2%). These results highpoint the diverse and valuable uses of co-operative data. Improving access to detailed and comprehensive information could further enhance its impact on research, policy-making, and professional development. Therefore, aforementioned challenges rise the need for improvising digital solution.

Generally, the results indicate that the reliability of cooperative information is low, with 67% of respondents finding the data unreliable. This unreliability stems from the use of physical files and file cabinets, with 100% of respondents physically visiting offices to access records. These traditional methods have resulted in significant data inaccuracies and inconsistencies, highlighting the urgent

need for improved technological solutions for processing, storing, and accessing cooperative information.

Proposed solution for handling co-operative records

This part scrutinized suggestions from the respondents on solutions to overcome the challenges associated with keeping and accessing co-operative records.

Suggested ways of improving the existing process of accessing co-operative data

Then study provided an avenue for respondents to suggest better ways for improving the way co-operative records are being accessed or disseminated. From the snipped image of responses bellow, it was found that some respondents wished for institutions to invest in online resource which actually utilize use of information technologies through management information systems in co-operatives. A snapshot displayed in figure 5 clearly shows that 4 respondents mentioned the need for more investment in online resource as seen in point number (i), 6 respondents saw the need for proper use of information technologies in co-operatives as seen in point number (iv), and other 4 respondents wished the installation and use of management information systems in co-operatives as seen in point number (v) below. As it may be observed, all 3 responses pointed above had a common view in point, ie, more investments on ICT. On the other hand, more suggestions insisted on proper handling of co-operative data being kept whereby 2 respondents saw need for safe keeping data and information as seen in point number (ii), and other 3 suggested frequent updating of co-operative data in point number (iii). Then again, there was a respondent who claimed just to be comfortable with the prevailing process.

Respondents suggested improving the access to co-operative data through increased investment in online resources, better use of information technologies, and the implementation of management information systems. They also highlighted the importance of secure data handling and regular updates.

Respondent's experience on using online resources

The study sought to know respondents' experience on using online resources. It was found that about 46% of respondents were strongly dependent on online resources while 54% of respondents were average consumers of online resources as depicted in figure 5. Therefore, all respondents use online resource.

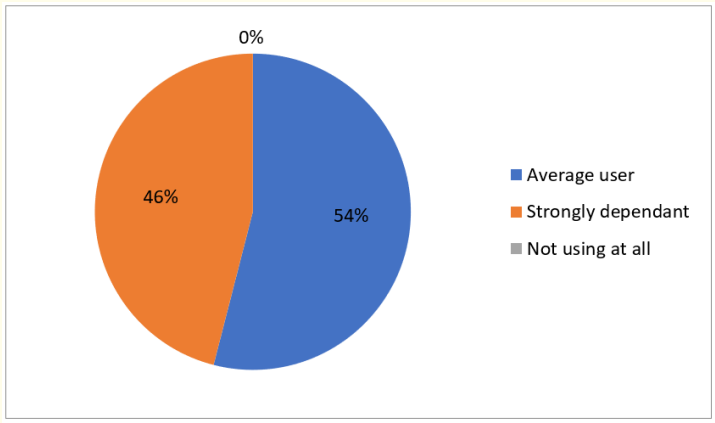

Figure 5: Presents respondent's experience on using online resources.

The findings shown indicate a strong but varied dependence on digital tools. Enhancing online resources and balancing them with other information access methods could improve overall user experience.

Tools currently being used to access online resources

This part explored on tools or devices that are currently being used by respondents in order to access online resources. It was revealed that all 13 respondents which was equivalent to 100% use smart phones and laptops in order to access online resources. Figure 6 shows that out of 13 respondents, 4 of them included desktop computers to access online resources while only 1 respondent uses tablet.

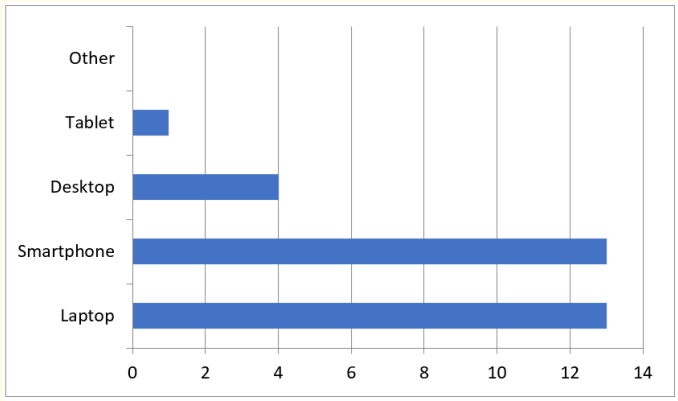

Figure 6: Presents tools currently being used to access online resources.

Findings clearly depict that Respondents primarily use smartphones and laptops to access online resources, with a smaller number using desktop computers and tablets. This indicates a need to optimize online resources for smartphones and laptops to improve accessibility for the majority of users.

As it may be realized from the results, respondents have good knowledge on using online resources as well as use of various electronic tools to access online information. This clearly brings about need for a web-based solution called Co-operative Records Management System (CRMS) to overcome the challenges associated to existing methods of co-operative records management.

Extracted requirements for CRMS

In this segment the researcher tried to extract system requirements for CRMS from the responses provided.

Information proposed to be in CRMS

Figure 7 displays proposed information supposed to be in the management system (CRMS). The study provided an avenue in the questionnaire for respondents to select the type of information they would like to access in the CRMS from the given list.

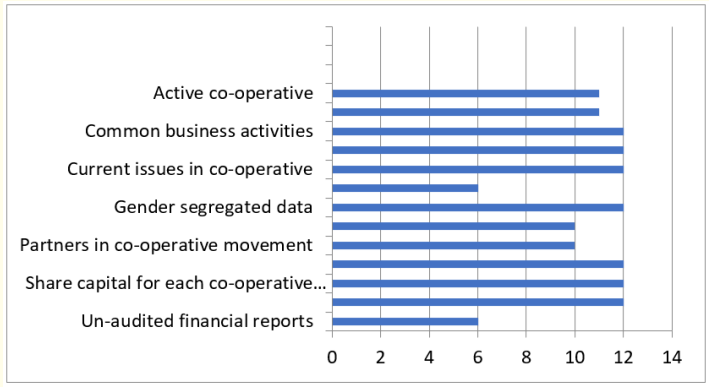

Figure 7: Represents information proposed to be in CRMS.

The findings from the study indicate a clear interest among respondents in specific types of information for inclusion in the CRMS. The proposed information categories reflect the types of data respondents find essential for effective management and utilization within the system. By aligning the CRMS with these preferences, the system can be better tailored to meet user needs and enhance its overall functionality.

Reports to be generated by CRMS

The study required respondents to indicate kind of reports they would like to access from CRMS after processing. Respondents were provided with an anticipated list of reports respondents to make a choice out of them as seen in figure 8. The list allowed respondents to make more than one choice.

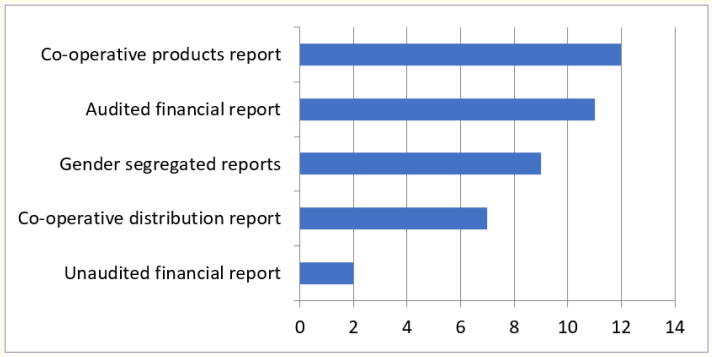

Figure 8: Represents reports to be generated by CRMS.

Respondents indicated various types of reports they want the CRMS to generate. The range of selected reports shows a need for diverse reporting capabilities to meet different user requirements. Incorporating these reports will enhance the CRMS's functionality and support better decision-making.

Proposed framework for CRMS

The designed CRMS is going to be a client-server-based system, which will consist of the following interfaces: user interface and server-side interface that are linked together via an internet connection. The flow of the proposed solution starts from co-operatives societies, DCOs, DRCOs and Registrar. Co-operative societies submit their details to the DCOs Office manually then DCOs Office register and feed the submitted co-operative data to the system then submit to the DRCOs Office. Thereafter, DRCOs Office manipulates data and submits to the registrar. All the offices can search and generate reports according to their requirements. Moreover, all the processes will be conducted through the system as seen in the proposed framework for CRMS in figure 9.

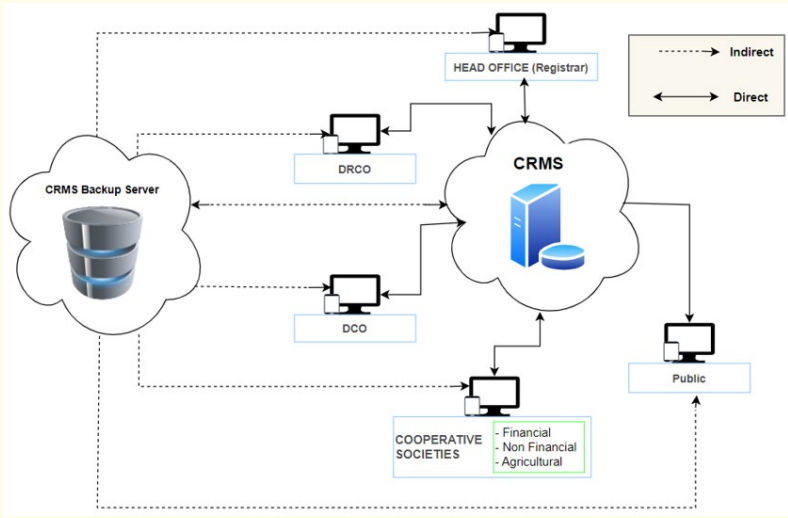

Figure 9: General framework of the proposed software solution.

Conclusion and Recommendations

The primary aim of this research was to examine the challenges in the current methods of cooperative data management and to propose a technological solution (CRMS) to address these challenges. The implementation of CRMS is expected to enhance the accessibility of cooperative records and eliminate issues related to data inaccuracy, inconsistency, and bureaucratic inefficiencies. Additionally, the CRMS database will enable cooperative societies to forecast their financial sustainability and monitor membership trends using machine learning algorithms. By adopting CRMS, cooperatives can achieve greater efficiency, accuracy, and strategic insight into their operations, ultimately fostering better decision-making and growth.

References

1. Maleko G and Msuya R. "Women Participation in Co-operatives - Challenges and Prospects. The Case of Selected Saccos and Amcos in Kilimanjaro and Arusha Regions Tanzania, East Africa". Journal of Business Administration and Education 7.1 (2015): 81-111.
2. Dogarawa AB. "The Role of Co-operative Societies in Economic Development". SSRN Electronic Journal (2012): 1-20.
3. United Republic of Tanzania. United Republic of Tanzania National Strategy for Growth and Reduction of Poverty 06 (2005): 1-119.

4. Kayunze KA and Kimaryo LP. Members' Views on Ownership and Democratic Sustainability in Primary Agricultural Marketing Co-Operatives in Tanzania; Members' Views on Ownership and Democratic Sustainability in Primary Agricultural Marketing Co-Operatives in Tanzania; Evidence From 1 (2020): 71-84.
5. United Republic of Tanzania (URT). The-Co-operative-Societies-Act-2013.pdf (2014).
6. Cronery Rwekaza G and Mhihi B. "Co-Operative Development in Tanzania: A Tool for Equality and Socio-Economic Development". Journal of Economics and Sustainable Development Www.Iiste.Org 7.6 (2016): 29-40.
7. Maghimbi S. Co-operatives in Tanzania mainland: Revival and growth (2010).
8. Suyono E, Rusmana O and Riswan R. "The Revitalization Model Through the Implementation of Accounting Information System for Village Unit Co-operative in Banyumas Region, Indonesia". Media Ekonomi Dan Manajemen 34.1 (2019): 1-13.
9. Zouari MBC and Dakhli SBD. "A multi-faceted analysis of knowledge management systems". Procedia Computer Science 138 (2018): 646-654.
10. Fujo MH and Dida MA. "Web-based admission system for advanced level, private schools: case of Kilimanjaro region, Tanzania". International Journal of Advanced Technology and Engineering Exploration 5.47 (2018): 407-418.

Volume 7 Issue 2 August 2024