

Internal organizational factors and financial performance of cooperatives in Rwanda: A case of Zigama CSS

Kumuyange Eric*, Rusibana Claude**

*MBA student, Mount Kenya University, Rwanda

**Senior Lecturer Mount Kenya University, Rwanda

DOI: 10.29322/IJSRP.10.07.2020.p103102

<http://dx.doi.org/10.29322/IJSRP.10.07.2020.p103102>

Abstract- Although financial institutions and cooperatives have been present in Rwanda since 1970s, Saving and Credit Cooperative Societies have not significantly performed well to impact on people lives as it was initially expected due to different challenges. ZCSS was established since 1998 with the mission to uplift the wellbeing of its members the majority of whom come from security organs. To achieve this mission, ZCSS is to collect savings from and provide loans to its members at an affordable interest rate. The main purpose of this study was to establish how internal organizational factors influence financial performance of cooperative in Rwanda. The study was guided by three specific objectives, namely, to determine the effect of liquidity management factor on the financial performance of ZCSS, to assess the influence of capital strength factor on the financial performance of ZCSS and to determine the effect of credit management factor on the financial performance of ZCSS. The study made use of correlation research design. The target population comprised of 193 employees from which 103 were selected using stratified random sampling technique as the sample elements. The research used structured questionnaire to gather primary data. The data gathered cleaned, entered into SPSS version 21 presented and analyzed using tables, charts, frequencies, means and standard deviation. At the same time, correlation, regression analysis and analysis of variance conducted to provide further data analysis. According to the findings, the internal organizational factors were found to have $R^2=0.572$, $R^2=0.557$ and $R^2=0.383$ on ROA, interest margins and ROE respectively. Therefore, internal organizational factors were found to influence the financial performance of ZCSS. In line with these results, the researcher recommended that other microfinance institutions should mobilize savings (minimum monthly saving) from their members to strengthen their capital base for the long-term sustainability and introduce a solidarity fund. Further, the management should pay keen attention to the liquidity management and credit worthiness because these were found to have significant effect on financial performance of cooperative banks.

Index Terms- Internal Organizational Factors, Financial Performance, Credit and Saving Society, Cooperative Bank, Zigama CSS

I. INTRODUCTION

Credit and Savings Cooperatives Society refers to an association of people with common objective or drive coming together in order to transform their lives economically and socially. These credit associations are part of the larger financial sector and play key role in providing credit, savings and other services in Rwanda. The first cooperative society to be established was in 1944 in Rochdale, a village in England. This was formed by the Rochdale pioneers at a time of industrial revolution in Britain (KNFC Website). However, Savings and Credit Cooperative (SACCOs) first appeared in 1846 in South Germany Europe when it was experiencing crises in agriculture associated with draught (Birchall, 2004).

In fact, evidence shows that most of the now big and famous organizations in developed countries begun small. They only grew big and even became multinationals later but their base history is that they were small or medium enterprises and most banks started as microfinance institutions. In Africa, SACCOs are said to have begun in Ghana in 1952. Since then, SACCOs have turned out to be key players in Africa in promoting financial inclusion especially for the low-income earners and to the marginalized due to rural location, poverty, literacy levels among others. They play a transformational role of bringing about economic and social self-reliance to majority living in rural areas as well as supporting their financial (ACCOSCA, 2009).

In Rwanda, the creation of SACCOs, microfinance institutions and cooperative societies are part of the strategies in the country for mobilizing savings for the community. They have also been put in place to aid the government, agents and policy makers in improving access to finance in Rwanda. To this effect, the advent of these financial institutions was in the light of making all Rwandans have access to finance more easily, more affordable and with more financial service usage. All of these financial institutions have been rightly referred to as microfinance institutions due to their capital base, market share, service provision and their targeted clientele. According to Abraham (2011), microfinance can be regarded as the facilitation of services, which are financial in nature. Some of these financial services include deposit taking, savings, loans creation, and insurance in relatively smaller units targeting low-income clients. The microfinance sector is considered relatively younger in

Rwanda compared to other parts of Africa. The microfinance sector growth in Rwanda, which can be traced to small self-support peasant cooperations (e.g. tontines-ROSCA or ibimina) would only accelerate after the formation of Banques Populaires du Rwanda or Union des Banques Populaires du Rwanda (UBPR) in 1975.

In 2008 December, a meeting was held at the national level to pave way for effective inclusion of the rural residents into the financial systems. This national dialogue passed a strategy for the integration of the population in the rural areas into the financial realm by creating at least one COOPEC for each Umurenge (sector) all over the country. By the closure of the same, the sector accounted for 125 MFIs.

These included one hundred and eleven COOPECs, eleven SA and three limited liability companies. Globally, cooperative banks have a crucial part to play in the economic stimulus of the country as well as distribution of growth (Barney, 2011). Banks as well as cooperatives channels funds from depositors to (small) investors hence linking economic players of the nation. Cooperative banks are instrumental to building a nation by the services they offer such as credit provision and safeguarding the funds contributed from members (Capone, 2010). For this reason, studies seeking to improve cooperative banks performance have increased tremendously (Capone, 2010; Barney, 2011; Cook & Heiser, 2011).

However, various factors affect the performance of these organizations. The factors can be categorized as external or internal factors. For external factors, the organization may not have full control of them and hence can do little to improve its performance. Organizational internal factors are those factors that are within an organization, in this case a cooperative bank, that influence the organizational performance. According to Capone (2012), the management decisions play a bigger part in determining the internal factors in an organization. Cook and Heiser (2011) explain that these internal factors can be manipulated by the management in order to enhance the performance of the organization. According to Daft and Marcic (2016), internal organizational factors are those factors that are within an organization and can affect the performance of the organization. These factors represent the strength or weakness of an organization. They include the resources that are available within the organization setting. Some of these factors include capital, human resource, technology, assets and liquidity, among others.

Zigama Credit and Saving Society (ZCSS) is a saving and cooperative providing financial service with a cooperative status. It is a cooperative whose members are mainly from three security institutions. These include, The Rwanda Defence Force (RDF), Rwanda National Police (RNP), and Rwanda Correctional Services (RCS). It was incorporated in Rwanda under Law 31/1988 of the 12th October 1988 on the Organization of Co-operative Societies. It is licenced by the National Bank of Rwanda (BNR) Instructions no. 06/2002 governing Micro-Finance Institutions. For more than 25 years now, ZCSS has been playing a significant role in transforming its members' lives and uplifting their living standards. It has been doing this by providing savings services as well as providing credit to the members at competitive interest rate.

Problem Statement

Although financial institutions and cooperatives have been present in Rwanda since 1970s, Saving and Credit Cooperative Societies have not significantly affected people lives as it was initially expected. It was expected that Rwandan would have been included in financial services by 2020. The level of financial inclusion achieved by 2018 was 89% showing that 11% of the Rwandan people are excluded in accessing financial services. (MINECOFIN, 2019). In light of this, the presence and flourishing of SACCOs in Rwanda have not been able to accomplish much in comparison to other conventional financial institutions like commercial banks. According to BNR (2019), the financial sector is still dominated by banks with 66.1% of total financial system assets while MFIs and SACCOs contribute only 6.4%. These statistics show that, despite the fact that SACCOs cover wide geographical areas compared to banks including the rural areas, they are still lagging behind in their performance. SACCOs are established to cater for particular needs of its members, but this has encountered different challenges that have negatively influenced the financial performance of the SACCOs.

These challenges have been highlighted in literature for example by Mvula (2013) who presents various concerns that affect performance of savings and credit cooperatives in Malawi. Some of the issues he points out are insufficient capital, poor loan portfolio management, governance related factors, unprofitability, liquidity problems and noncompliance. Further, Mmari and Thinyane (2019) discuss the main factors that affect financial performance of savings and credit unions and other microfinance institutions like cooperative banks as weak regulatory framework, limited services and products, insufficient marketing strategies and poor public image. However, the effect of interest rate charged and the rate of loan repayment on Sacco performance is yet to be established.

Regardless of the significant role and contributions of SACCOS in provision of financial services to those previously excluded, they are facing diverse challenges which eventually end up affecting their financial performance. The main challenges affecting the effective performance of ZCSS is in relation to internal organizational factors. This study therefore investigated some internal organizational factors, namely, liquidity management, capital strength and credit management effect on financial performance of cooperative banks in Rwanda taking a case of ZCSS.

The main objective of this study was to determine the effect of internal organizational factors on the performance of cooperative banks in Rwanda taking a case study of ZCSS, Rwanda. The specific objectives guiding the research were:

- i) To determine the effect of liquidity on the financial performance of ZCSS, Rwanda.
- ii) To assess the influence of capital strength on the financial performance of ZCSS, Rwanda.
- iii) To determine the effect of credit worthiness on the financial performance of ZCSS, Rwanda.

II. LITERATURE REVIEW

As described by Robinson (2001), microfinance is considered as the provision of financial services in smaller units targeting the low-income earners and the marginalized. These

financial services include savings services, credit provision, insurance, money transfer and other services. A microfinance institution therefore provides similar financial services to a commercial bank only that it is geared towards providing such to their members. In addition, it provides such financial services with more flexible terms and conditions as well as at more affordable costs. The objective of such micro financing services is to serve the financial needs of those who have been excluded by banks due to their salary status or their lack of collateral. The financing services provided enable micro and small as well as the medium enterprises to grow their business operations by providing additional capital and technical advice. Other members could seek such financial assistance to be able to meet immediate and emergency family cases related to food, health or education. Therefore, microfinance has become a practical means for the low-income earners to secure their economic status and living conditions. It smooth out the fluctuation of income for poor households and enable them to manage their limited resources (Robinson, 2001).

Further, microfinance provide a safe means for the management of finances for the poor and the rural residents. Through the savings services, the microfinance institutions mobilize their members to keep some savings out of their income for the future need. This saving facility enable the poor and other members to keep safely some finance for future use. This in itself enable households to manage their finances better. One of the driving force of the micro financing is the realization that the members have variety of financing need and demands. It has been recognized as an effective tool in fighting poverty and in promoting the living conditions of many rural residents (Basu *et al.*, 2000). However, MFIs and cooperatives can provide financial services to their members if the institutions are financially sustainable (Wanyama 2008). Various factors affect the financial performance of these institutions. These factors can be grouped into external factors and internal factors.

According to Daft and Marcic (2016), internal organizational factors are those factors that are within an organization and can affect the performance of the organization. These factors represent the strength or weakness of an organization. They include the resources that are available within an organization setting. In contrast to the external factors, an organization has much control of the internal factors. Therefore, there is need for effective management of these factors, which can greatly influence the financial performance as well as their operational performance of organizations. Cook and Heiser (2011) explain that internal factors are experiences within an organization and that the commercial banks can be able to manipulate them to perform and these factors are unique in every bank. This research concentrated on liquidity, capital strength and credit worthiness as the selected internal organizational factors.

Liquidity

As stated by Aver (2008), to measure liquidity, the cash and cash equivalent are used and divided by the total asset. The result of this shows high liquidity if the ratio is greater than one and low liquidity if the ratio is less than one. Maintaining high liquidity is important for banks, which could help them in times of dire need. This enables banks to avoid costly borrowing at such time of needs. Insufficient liquidity has led to many financial institutions

to fail in their operation and in some case resulted in closure of the said banks (Bibow, 1995). However, it is worth noting that holding liquid assets represent an opportunity cost for the bank of possible greater return. Aver (2008) established out that a positive and statistically significant correlation exists between bank liquidity and bank performance. Yet, in the time of economic instability, banks may opt to hold more liquid assets to cover for any possible risks associated with the instability. Derbali (2011) in his findings noted that there exists negative link between bank liquidity levels and its performance.

According to ZCSS treasury management (2019), the function of liquidity management is assumed by the treasury department. This department has the following objectives. First, it is mandated to organize and manage the available funds efficiently in order to increase profit following the laid down regulatory requirements. Secondly, to follow up on any investments of the surplus funds to ensure that the fund leaps maximum returns while maintaining low cost of the fund. Third, the department has an objective of maintaining a healthy investment portfolio. Fourth is to minimize returns from forex operations and lastly, to minimize non-performing investments. ZCSS therefore invests its surplus funds in the Treasury bonds, Term deposits, Forex market or investment in shares (Capital market).

According to Betty (2008), one of the main components, showing the availability of cash in an organization is the working capital. The working capital in fact tracks the changes of current asset against current liabilities. In response to the general sales levels. The treasury department will offer the way forward whenever there are any changes in the regulation on the working capital as well as on the cash requirements. In order to ensure that sufficient cash is always there for usage to meet daily operations, ZCSS treasury department should remain focused in its functions and objectives.

Capital Strength

According to Cook and Heiser (2011), capital is one of the major factors within the bank internal operations that influences the performance of the bank. If it is adequately managed, the capital in a banking institution can enhance the financial performance of the bank. According to Chandler and McEvoy (2010), capital can be seen as the owner's contributions in terms of funds. These contributions are availed to support the banking operations and also preserved to be a reserve to go to in cases of liquidity constraints. It consequently creates both funds for operating, the working capital, as well as a reserve in future needs. Accordingly, therefore, capital has two main functions for a banking institution. First, it provides for liquidity, that is short-term function and secondly it provides for stability, that is, long-term function. As analyzed by Athanoglou *et al.* (2005), capital also is a preserve in times of financial distress.

According to Okore (2011), a bank that is well capitalized is less likely to be exposed to risks and can therefore build on this perception to build a greater market share. Capital strength is therefore described in terms of the ratio of equity to assets. The higher this ratio is, the better the capital strength of the organization. Since capital provides a buffer zone for time of distress, maintaining capital strength can be seen as a good management practice. In addition, those banks with stronger capital base are perceived to have a safer net to invest in or put

deposits in. This angle of argument is supported by Danny (2014) explaining that banks with capital strength are highly likely to be insured from adverse events that can lead to bankruptcy. According to Migai (2010), banks with capital strength also have greater opportunity to grow since they can be able to have funds to seize opportunities as they come. Thus, such banks can be able to increase market share, increase their operation capacities and hence increase their financial performance.

Following these arguments, Kithinji (2010) concludes that capital strength is a key internal factor that commercial banks can be able to control for enhancing their financial performance. Moreover, the banking industry operates in a very volatile environment. This is especially so for developing countries with Rwanda included. As Chandler and McEvoy (2010) elucidates, banks need to be able to manage their internal factors if they are to remain competitive and be able to support their operations for longer period. Okore (2011) concludes that various risk are associated with too much capital and therefore, banks should be strategic in their management decisions and activities.

Credit Worthiness

The term credit worthiness refers to the ability of a borrower to repay the credit given to him/her. Though the functions played by the credit in an economy cannot be ignored, banks should investigate the credit worthiness before they give any credit to potential clients. Moreover, many microfinances and SACCOs have failed due to inability to assess fully the credit worthiness of their clients. Loan repayment depends on the capability of the loan holder to pay back the loan and its interest. It is during the loan processing when the loan application should be seriously scrutinized and securities of the loan be examined. When the loan officer/analyst and/or the credit manager is evaluating your loan application, he wants to know whether by lending you money he can get his money back and earn some profit on it from you. Before institution approves a loan application, it needs to evaluate if the business can repay the loan with interest for the period in question to avoid loan default (Chandler & McEvoy, 2010).

In most of the African countries, loan repayment is faced with various factors caused by the borrowers. Other factors also relate to poor management of the lending institutions. Bagachwa (2007) in his study found that repayment of loans in Africa is faced with myriad of challenges. This has made the loan performance in many lending institutions to be one of the biggest challenges that banking and other financial institutions have to deal with. For instance, in Tanzania, commercial banks face 14% to 20% loan repayment problems while in Ghana agricultural loan face 45% of repayment problems.

Besley (2003) in his study discusses how loan repayment in Africa and other developing countries differ from loan repayment in developed countries. In his comparative analysis, he observed that the loan repayment in developing countries is coupled with challenges like poor institutional infrastructure, inadequate management skills, insufficient regulatory framework and follow-up. In addition, failure for MFIs and SACCOs to institute proper appraisal procedures have tended to aggravate the situation. Another factor that the author highlights is the poor condition of the rural in Africa who have failed to meet their loan obligation to the SACCOs they belong.

Most of ZCSS members are salaried while others have regular and active accounts with the bank. What makes ZCSS unique in the industry is the recovery system that is done almost every day. The recovery system is largely on the following lines: i) Automatic recovery from payroll and current accounts; ii) Management of late loan repayment and iii) Management of the non-performing loan. According to Cook and Heiser (2011), operational inefficiency has also hindered the loan repayment experienced among many microfinance institutions. As a matter of fact, operational efficiency in a bank can enhance its financial operation and could lead to better financial performance. Operational efficiency is one of the key internal factor that points to the efficient management practices within an organization. The quality and the performance measure of the management can therefore be seen when a firm is able to operate efficiently and meet its targets within the require timeframe (Jason, 2006).

According to Bonfim (2009), operational efficiency in a commercial bank and cooperative banks is to be seen in its loan performance. The better the loan performance in a bank, the better the operating efficiency and consequently, the better the quality of management. In addition, loan performance, which is highly dependent on the credit appraisal procedures can lead to the financial performance of the bank. Similarly, operating costs in a bank can reveal the quality of management as an internal factor driving operational performance (Athanasoglou et al., 2005). Meanwhile, Bonfim (2009) further expounds that operational efficiency can lead to profitability as well as increased market share for a bank. This therefore calls for vigilant performance among the commercial banks in order to gain competitiveness. However, banks should not fail to practice credit appraisal for the sake of gaining market share.

Musyoki (2011) in his study found that there is a significant and positive correlation between asset quality management and performance in Kenya commercial banks. This clearly indicate that there is need for a better asset quality management in commercial banks and cooperative banks in order to ensure improved financial performance. In general, the results show that even though the banks in Kenya score highly in terms of efficiency, there is still a room for improving the operations to achieve full efficiency. The study established that during the study period, commercial banks increased in their total productivity, which coincided with technological development over the study period.

Another study by Ngetich (2011) focuses on the empirical analysis of the commercial bank's efficiency and performance in Kenya. This study concluded that banks with effective and efficient management, credit lending policy, credit portfolio, labour productivity, information technology, risk and quality management could perform twice better in terms of operations. This is centrally to the performance of banks that do not apply proper management of internal factors are not aligned with organization goals and objectives.

Kithinji (2010) explains that whenever the cost of operations increases from external factors for financial institutions, only banks that nurture good management skills and expertise to cut down on the cost will realize a boost in their performance. Migai (2010) adds that internal factors that contribute to the financial performance of commercial banks should be well managed. These factors are diverse and it is the

work of the management to determine the key factors and put more resources on them.

Financial Performance of Cooperatives

For Stoner (2003), performance is defined as capacity for an entity to work successfully towards a sustainable growth and provide responses either to internal or external opportunities and threats. Furthermore, Stoltenberg and Anderson (1995) posited that, performance refers to how successful an entity is, basing on its smooth utilization of available resources to attain its missions, goals and objectives. The main source of revenue that ZCSS generates is earned from loans issued to its clients, commissions and other banks services, therefore, analysis of the loan and its management is the key activities of ZCSS. The financial performance therefore depends on those factors among others.

The measurement of financial performance of organizations is a subjective one. However, the measurement of financial performance is recognized as the key indicator of how well SACCOs and other MFIs are performing. It therefore needed to provide the key financial indicators that can ensure confidence among many of the key players in the market. According to Kiama (2014), one of the key measures of performance in SACCOs can be seen in terms of resource utilization. In terms of financial indication, this resource utilization is expressed in ration form that measures how well the assets have been utilized to provide returns for the company. This is the common measure well known as return on assets. Financial institutions and other organizations are required to report their performance and therefore need to track performance in relation to the return on assets.

Financial performance of MFIs, SACCOs and other organizations can also be measured in terms of return on equity. This measures how well a firm is able to put the equity it has to better use in generating returns. In addition, financial institutions can be able to measure their financial performance through determining the interest margins. This refers to the difference between the interest charged on loans to borrowers and the interest paid by the banks for the use of money to depositors. An interest margin is the area in which banks are said to gain profit from. This is because provision of credit is one of the main activities of a bank (Fiorillo, 2006).

Empirical literature

Empirical review is referred to as the existing literature by previous studies on the research subject relevant to the study. In the empirical review, a research tends to investigate the previous studies that are more related to the study variables and analyze their findings. The objective is to guide the researcher in identifying areas of research, identifying concepts and providing a research gap as well as a critical review.

Botti, Corsi and Zacchia (2018), conducted an empirical research on the European microfinance network with an object of establishing the role played by MFIs in Europe. The core objective of the study was therefore to explore the mission, target, social and financial impact of microfinance to the society at large. Using survey questionnaire, the research covered 394 micro lenders in 16 European countries from 2006 to 2015. The results revealed that financial performance of these microfinance institutions was promising with ROE ranging from 3.1% to 13.1% while ROA ranged from 3.0% to 12.5%. In addition, the results findings

showed that majority of the MFIs have impacted on the social welfare of the members and community at r-squared of 0.782. The researchers therefore recommend that the policy makers and key players in the microfinance institutions should ensure that the MFIs are performing and have necessary resources for sustainable performance.

On his part, Nduba (2018) did an empirical study in Congo. The research concentrated on the factors affecting the financial sustainability of MFIs. The population was made up of 3218 customers of MFIs and from which a sample 355 customers was selected. The research used descriptive research design and questionnaire made up of both open-ended and closed-ended questions. Using SPSS and excel, the research findings were presented using tables, graphs and frequencies. The results showed that around 64% of clients had taken loan from MFIs with 35% having a guarantor while 31% used assets as security. The results further revealed that the sustainability of the MFIs is highly dependent on the performance of loans with R squared of 0.738. The regression analysis output showed the F-statistics of 1310 revealed the model to be significant. The researcher recommends that MIFs to strengthen loan processing to reduce loan defaults.

In another related research, Wafula (2016) investigates the various factors that affect the sustainability of microfinance institutions in Kenya. In this study, the goal was to determine the influence of liquidity level, operating expense, profitability, leverage of the institutions on the financial sustainability of MFIs. Using descriptive survey research design, the research collected data from 44 MFIs through structured questionnaire and interview guide to key informants. The findings revealed that liquidity ($r=0.7$), capital adequacy ($r=0.645$) and leverage ($r=-0.731$) are significantly correlated with financial stability with, and while performance ($r=-0.128$) is not. The multiple regression analysis revealed that the model was significant with F-statistics of 38.579 and p -value=0.007.

Frank, Mbabazize and Shukla (2015) in their research investigated the service terms provided by SACCOs on the members' economic development in Kenya. The research took a case study of Zigama CSS. The main guiding the research was to find out whether the terms attached to the services provided by ZCSS has an impact on the socioeconomic development of members. The research adopted a cross sectional, correlational and survey research designs. Primary data was collected using questionnaire, interview and observation. The findings revealed that there exists a positive and strong correlation ($r=0.695$) between services provided by Zigama and the economic development of members. The regression analysis show that the model is significant with t-statistics, $t=2.374$. The researchers recommended that there is need for awareness among the members in relation to terms and conditions applied in the provision of services like credit.

Further, a research by Mwangi and Wambua (2016) on the factors influencing performance of SACCOs in Kenya took a case study of UNTAS SACCO. In this research, the main objective was to determine those factors that have an influence on the performance of SACCOs. The factors identified in this research were organizational culture, structure, leadership capacity and rewarding practices. The research design used a case study design adopting descriptive analysis and collected primary data using a structured questionnaire. The targeted population was 96 senior

staff from which a sample of 50% that is 48 was selected. All the selected factors were found to be significantly and positively related with performance, namely Organizational culture (0.440), structure ($r=0.568$), leadership ($r=0.375$), rewarding practices ($r=0.388$). The F-statistics ($F=9.25$) showed that the regression model was significant with an R-square of 0.481.

Mmari and Thinyane (2019) conducted an empirical research on factors influencing performance of SACCOs in Maseru District, Lesotho. While adopting a cross sectional research design, the researchers collected primary data from a sample of 369 respondents drawn from all the 23 SACCOs in the study area. The primary data was collected using structured questionnaire. Seven factors were considered for analysis and among these was loan delinquency ratio, growth of share capital, among others. The results of this research showed that the loan delinquency was high since the ratio was less than 1% of the total loans. It also revealed that the SACCOs performance was good in relation to share capital of the members because they had a strong capital base that enabled them to operate smoothly.

Theoretical framework

According to Kothari (2004), theoretical framework refers to a group of interconnected concepts, expressed in a theory form though not necessarily worked upon very well. This study was based on neoclassical theory and efficient structure theory.

a. Neo-classical theory

Neo-classical theory of a firm is a theory that can be traced back to Honohan (1997). The theory explains how firms can be efficient in their operations. For instance, technical efficiency, which is derived from this theory, assumes profit-maximizing behavior of a firm. A bank can be able to achieve technical efficiency by having well trained personnel as well as employing machines and technology that are more efficient in operation. A bank can on the other hand become inefficient if technically, it adopts poor technical approach or lack adequately trained staff. In the process of installing new technology, the bank may experience delays since the diffusion of technology is not automatic nor is it instantaneous. However, Derbali (2011), in the X-inefficiency posit that the inefficiency does not occur due to delay in installing or up taking a new technology, but rather on the internal organization of how to deal with this process. Similarly, lack of a certain skill should not be the main cause of inefficiency, but on how to handle the challenge that the bank faces. This implies that the efficiency of a firm is more to do with the management action rather than resource availability.

The neo-classical theory applies in this current study, which is concerned with determining the effect of internal organizational factors on the performance of cooperative banks in Rwanda. The theory postulates that firms can achieve efficiency and hence financial performance for technical reasons. In order to be more efficient in provision of these services, the theory postulate the need for internal management of the resources. Therefore, the efficient performance of a bank is solely dependent on the internal operation of the organization. Without such care, even adequate resource availability can turn ineffective if the firm internal management is up to the task (Makiyan, 2003; De Grauwe (2008)). These reasons are due to internal organization management of the resources. It therefore implies that the

organizational performance can be achieved through internal organizational factors.

b. Efficient structure theory

The efficient structure theory originated first with Demsetz in 1973. This theory was first proposed as an alternative to organizational performance tied to the market structure arguments on performance (Bibow, 1995). The efficiency structure hypothesis holds that when a bank operates in an efficient way, it is going to gain a competitive advantage due to reduced costs of operations that effectively influence the pricing of its services. This implies that the differences created in the operational costs between competitors can end up creating different market share between the competitors. This end up bringing about market dominance for one firm while others may have a lower market share. It consequently shows that firms with efficient operation may end up dominating in a market because of their efficiency (Aver, 2008; Derbali, 2011).

When these arguments are applied in the banking industry, this theory clarifies that only those banks, whose operation is more efficient in comparison to theirs, are more likely to gain higher profits. These profits result from the associated low costs of operational whenever there is efficiency in the bank. Such banks may end up holding a bigger market share due to their related lower pricing of their products and services. This theory therefore relates with the current study because efficient management of internal organizational factors can lead to lowering operating costs within a bank and therefore resulting into better financial performance. For instance, efficient credit management in ZCSS can save the organization from high costs related to loan recovery.

Conceptual framework

A conceptual framework aims at developing a comprehensive situation. Naughton (2016), argue that conceptual framework refers to opinions concerning the interaction and correlation between independent and dependent variables and indicating the relationship in Figures 2.1.

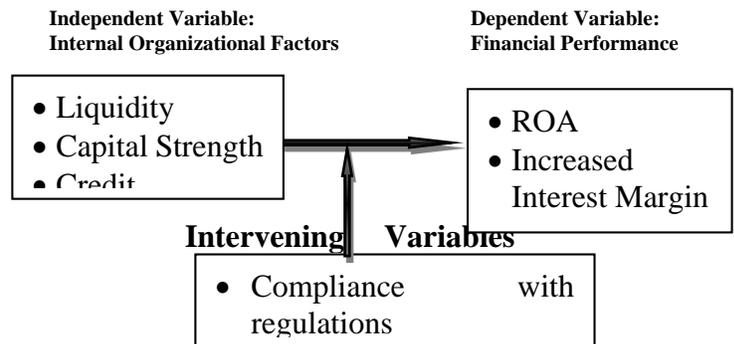


Figure 1: Conceptual Framework.
Source: Researcher (2019)

Figure 1 indicates the study’s conceptual framework that comprises of independent and dependent variable. The independent variables in this study are some internal organizational factors, namely, liquidity, capital strength and credit Worthiness. These factors lead to influence the financial

performance of cooperative banks, which is the dependent variable. In this regards, the dependents variable will be measured through the following indicators: ROA (return on asset); ROE (return on Equity) and increased interest margin. The figure also shows the intervening variables, which include compliance with regulations and working out problems of activities.

III. MATERIALS AND METHODS

A descriptive research design was adopted by using both primary and secondary data. This helped to describe findings of information pinpointed for several impediments (Caroline, 2010). The design was found to be highly effective when it comes to describing the performance of an organization and hence adopted to analyze the factors influencing performance of ZCSS. In addition, correlational research design was also used. In this, the researcher was able to establish the relationship that exists among the study variables.

Sample size is defined as the number of people, units and objects chosen in the sample, Kothari (2009) whether the sample is chosen adequately. The researcher used a study population of 193 staff of ZCSS from which a sample size of 103 was determined using Yamane’s formula (1967) is used to estimate the sample size.

$$n = \frac{N}{1 + Ne^2} = \frac{193}{1 + 193 * 0.05^2} \approx 103$$

Where n is the sample size, N is the total population and e is the sampling error=0.05. In this research project, the researcher used stratified random sampling technique. According to Creswell and Creswell (2017), stratified random sampling technique involves dividing the population into strata within which the elements exhibit similar characteristics. The selection of the sample element within each stratum is then done using simple random technique and according to the proportion of each stratum.

Table 1: Target Population and Sample Size

Categories	Target population	Sample size
Executive	2	1
Management Committee	15	8
Middle Managers	16	9
Analysts	62	33
Junior Staff	98	52
Total	193	103

Source: Researcher (2020)

Primary data was collected using closed ended-questionnaires, which were distributed to the respondents using the technique of dropping the questionnaires to the selected respondents and picked them after answering the questionnaire. The questionnaires were given to them in hard copy and respondents were able to respond by filling in the space provided.

IV. RESULTS AND DISCUSSIONS

Introduction

All the questionnaires were filled and returned representing 100% response rate. Majority of the respondents were male representing 58% of the total respondents while female were 42%. Out of the 103 respondents who participated in the study 15.53%, were in age group 20-29 years; 17.48% in the age group of 30-39 years; 62.14% were aged between 40-49 years whereas 4.85% were aged 50 years and above. 58.25% of the respondents hold bachelor’s degree, 19.42% have diploma, 14.56% master’s degree and 0.97% with PhD while 6.8% have other professional courses.

Findings on Objective One

The first internal organization factor investigated in this research was liquidity management.

Table 1: Constitution of the liquidity

Constitution of the liquidity	f	%
Equity	29	28%
Interest from loans & Deposits	13	13%
Retained earnings	20	19%
Deposits from clients	40	39%
Investment returns	1	1%
Total	103	100%

Source: Primary data (2020)

Out of the 103 respondents who participated in the study 40 (39%) believe that the liquidity of the bank comes from the deposits from the clients, 29 (28%) are of the view that it is supported by the interests from loans and deposits. Few of them 1 (1%) think that the liquidity is supported by the investment returns. These findings are in line with the findings by Wafula (2016) who found that liquidity has an influence on the financial performance of microfinance institutions in Kenya.

A short analysis of the Statement of financial position from 2014 to 2018 shows that ZCSS liquidity is made of 76% customer deposits, 19 % is the share capital, whereas the retained earnings supports 3%. The customer deposits are money on the clients’ current accounts, voluntary savings and compulsory savings. Customer deposits are term deposits for a determined period and at an agreed interest rate. The ratios are almost the same from 2014 to 2018.

Table 2: Constitution of the cash and cash equivalent

Constitution of the cash Equivalent	f	%
Promissory notes	0	0%
Term deposits	20	19%
Government security & other bonds	12	12%
Cash & cash reserves at BNR	29	28%
Treasury bills	42	41%
Total	103	100%

Source: Primary data (2020)

As shown in Table 3, majority of the respondents, that is, 42(41%) believe that the cash and cash equivalent of the bank made of Treasury bills. In addition, 29(28%) are of the view that it is made of cash and cash reserves at BNR, 20(19%) think that it is made of term deposits and 12(12%) say that it is made of government security and bonds.

A short analysis of the Statement of financial position from 2014 to 2018 shows that ZCSS cash and cash equivalent is made of 42% Treasury bills (amount due from other banks), 26% is made of cash and cash reserves at BNR, 26% is also made of government securities and bonds, whereas the remaining 6% is made of other equity investment. The ratios are almost the same from 2014 to 2018.

Table 3: Financing the total assets

Financing the total assets	f	%
Loans	59	57%
Interest coverage	30	29%
Reserves to BNR	10	10%
Other investments & financing	3	3%
Provisions for doubtful debts	1	1%
Total	103	100%

Source: Primary data (2020)

Different respondents have different views on how the liquidity of the cooperatives finances the assets. Most of the respondents 59(57%) more than half of the total sample think that liquidity covers the loans contracted by the clients. A further 30(29%) said that it covers interests on treasury bills, bonds and other short-term obligations, 10(10%) said that the liquidity is used to constitute the liquidity to BNR, while 3(3%) said it used to finance other investments. Only 1(1) responded that the liquidity is used to create provisions for doubtful debts of the defaulters. Nduba (2018) found that majority of what finances the operations of MFIs are the loans taken by clients.

Table 4: Liquidity Management by CAMELS Model

Management by CAMELS Model	f	%
Capital adequacy	21	20%
Asset quality	20	19%
Management	26	25%
Earnings	13	13%
Liquidity	20	19%
Sensitivity	3	3%
Total	103	100%

Source: Primary data (2020)

Different respondents have different views on where ZCSS gets its strength. Most of the respondents 26 (25%) attribute its strength from the management which is able to ensure the safe operations of the institution as they comply with the necessary and applicable internal and external regulations. Other respondents, 21(20%) say that it comes from its capital adequacy which enables it to meet its cash demand, 20 (19%) say that it is from asset quality

(loan's quality) and liquidity, 13 (12%) said that it competitive advantage is drawn from the earnings, 3 (3%) think that it is from the sensitivity factor. Internationally, those factors are given the followings rates: Management (25%), Capital adequacy and Asset quality (20%) each, Earnings (15%), Liquidity and Sensitivity (10%) each. As Ngetich (2011) pointed out, bank efficiency should be measured in line with the CAMELS model.

Table 5: Maintaining Liquidity for Daily Operations

Maintaining liquidity for daily operations	f	%
Working Capital	30	29%
Short term Finance	20	19%
Current Ratio	19	18%
Other Liquid assets	18	17%
Cash	16	16%
Total	103	100%

Source: Primary data (2020)

Different respondents have different views on why ZCSS maintains its liquidity for day-to-day operations. Most of the respondents 30 (29%) say that it is for working capital purposes like issuing loans to the clients, 20 (19%) say it is to finance the short term finance like buying treasury bills and bonds whose maturity is one year and less. Another 19 (18%) say it is to keep the current ratio as a requirement of the central bank, 18(17%) say that it is to finance other liquid assets while, 16 (16%) said that it is to keep the cash ratio and reserves at the BNR. Ngetich (2011) also found the need for maintaining liquidity at optimal levels to ensure smooth operations of the bank.

Findings on Objective Two

The second internal organizational factor was capital strength has big effect on the performance of a financial institution.

Table 6: Determinants of CSS capital strength

Determinants of financial performance	f	%
Debt Capital ratio	20	19%
Investment Returns	30	29%
Retained Earnings	30	29%
Working Capital	13	13%
Members Contribution	10	10%
Total	103	100%

Source: Primary data (2020)

Out of the 103 contacted respondents 30 (29%) believe that the performance of financial statement is determined by the increase of the retained earnings as well as investment returns. Another 20 (19%) believe that it is determined by debt equity ratio which shows the ability of the company to pay its debts, 13 (13%) say that it is determined by the working capital while only 10 are of the view that it is determined by the members' contribution which constitutes the cheaper source of finance. In line with the findings by Nduba (2018), the findings show that investment

returns and members contribution influence the performance of cooperative bank.

Table 7: Ability of ZCSS to meet the requirements of BNR

BNR Requirements	f	%
Capital Adequacy	30	29%
Debt- Equity Ratio	15	15%
External Capital	19	18%
Debt Ratio	20	19%
Internal Capital	19	18%
Total	103	100%

Source: Primary data (2020)

As shown in Table 8, most of the respondents, that is, 30 (29%) believe that the ZCSS Capital has been adequate enough to enable it sustain in the business. Another 20 (19%) of the respondents believe that ZCSS has been able to maintain its debt ratio to sustain its growth within the range required by BNR. In addition, 19 (18%) the internally generated capital as well as the external capital also supported ZCSS to meet the requirement of the regulator while only 15 (15%) are of the view that it is the debt equity ratio was also among the factor well controlled to meet the requirement of the central bank. Capital strength was found by Cook and Heiser (2011) as a major factor that influence bank performance.

Table 8: Sustainability of ZCSS

Sustainability	f	%
Working Capital	2	2%
Interest Coverage	50	49%
Equity	10	10%
Retained Earnings	11	11%
Debt	30	29%
Total	103	100%

Source: Primary data (2020)

Out of the 103 respondents, majority, 50 (49%) believe that interest coverage ratio within ZCSS is enough to ensure its sustainability into the business. This is because, most of its members get their salary through ZCSS and it covers the debts on the salary before the members gets paid, hence the defaulters rate is very minimum. 30 (29%) believe that ZCSS debt are also a determinant factor to ensure its sustainability whereas the 76% of the total assets are deposits from the clients. Among these deposits include voluntary savings and compulsory savings which ZCSS remunerates 4-5% interests. 11 (11%) say that the retained earnings are enough to ensure the sustainability in the fore future. 10 (10%) of the respondents say that the equity of the bank is also strong enough to ensure the sustainability in the business. The argument is that on top of the members' contribution, the compulsory savings is considered as equity of the bank because the member does not have direct access to that money anytime needed while 2 (2%) believe that it is the working capital that is sufficient enough to ensure its sustainability into the financial industry. Cook and Heiser (2011) provide similar insights on the need of capital for sustainability.

Table 9: Capital Base for ZCSS financial performance

Capital base	f	%
Profit Earned	60	58%
Special Reserve	0	0%
General Reserve	0	0%
Statutory Reserve	18	17%
Revenue Reserve	25	24%
Total	103	100%

Source: Primary data (2020)

The results displayed in Table 10 shows that majority of the respondents, that is, 60 (58%) believe that the profit earned are enough and will significantly increase the capital base of the cooperative to ensure its long-term sustainability into the business. Another 25 (24%) believe that ZCSS takes a big portion of the revenue for the retained earnings which ensures the growth of the capital base. Lastly, 18 (17%) say that the already constituted statutory reserves at BNR are enough to ensure the long run of the cooperative. There was no response on special reserve and general reserve. According to the findings by Danny (2014), the long-term sustainability of banks is hinged on its capital base.

Table 10: Efficient capital management

Efficient capital management	f	%
Efficient Cash flow	16	16%
Weighted capital	14	14%
Working capital Management	25	24%
Investments	20	19%
Efficient capital Structure	28	27%
Total	103	100%

Source: Primary data (2020)

Out of the 103 respondents, 28 (27%) and 25 (24%) believe that efficient capital structure and working capital management respectively affect in the increase of the members' contribution. Another 20 (19%) say that good investments also contribute to the increase of the members' contribution. While 16 (16%) believe that efficient cash flow management is a determinant factor to increase the profitability of the cooperative therefore the increase of the members' contribution. 14 (14%) believe that e well balance between capital and debt (weighted capital) enables the bank to become more profitable hence increase of the members' contribution. Aver (2008) found that efficient working capital management could help the banking systems operate more efficiently and reduce their operating costs. In addition, Mmari and Thinyane (2019) found that performance of SACOs is very much influenced by the capital they possess.

Findings on Objective Three

The third internal organizational factor was sound credit policies and good scrutiny of the loan applications.

Table 11: Assessment of the client capacity

Assessment of the client capacity	F	%
Past cash flow statement	29	28%
Projected cash flows	13	13%
Regular income of the owner (eg. Salary)	40	39%
Other income (eg. Spouse income)	20	19%
Stability of their employment	1	1%
Total	103	100%

Source: Primary data (2020)

Out of the 103 respondents, 40 (39%) support that regular income of the owner of the business is an important factor to determine the client capacity to repay the loan should the projected income from the business fail. Another 29 (28%) believe that past cash flow of the business is a good sign that the project is viable. In addition, 20 (19%) say that when the promoter has other source of income like the salary of his/her spouse is an assurance that the loan will be paid. 13 (13%) respondents place importance on the projected cash while only one respondent place reliance on the stability of the employment. Botti, Corsi and Zacchia (2018) established that MFIs were more effective when their credit policy is strong.

Table 12: Assessment of the client' capital investment required

Capital investment required	f	%
Cash Owner' equity	41	40%
Loan amount	22	21%
Retained earnings	12	12%
Grant or facility	8	8%
Other assets used in the business	20	19%
Total	103	100%

Source: Primary data (2020)

The results as shown in Table 13 revealed that the majority of the respondents, at 41 (40%) support that owner's equity contribution in cash play signifies commitment of the owner in the business which also induces the bank to invest in that business. Another 22 (21%) of the respondents say that the loan size also is an indication of the capital investment required in the business. This is followed by the owners' other assets used in the business by 20 (19%) respondents. 12(12%) believe that the amount of retained earnings of an existing project is also an indication of the capital investment required while 8(8%) consider whether the project has got any grant or any facility. From time to time, the central bank may decide to give grant or some facility to investors who want to invest in some sector of the economy as motivation like agriculture, energy etc. Avar (2008) attributed the growth and penetration of the banking industry in Slovenian partly due to their reduced cost through loan recovery processes.

Table 13: Assessment of the client' condition

Client condition	f	%
Age	25	24%
Duration of the loan	30	29%
Period stayed in service	6	6%

This publication is licensed under Creative Commons Attribution CC BY.

<http://dx.doi.org/10.29322/IJSRP.10.07.2020.p103102>

Business industry	14	14%
Period remaining in service	28	27%
Total	103	100%

Source: Primary data (2020)

Out of the 103 respondents, 30 (29%) support that the duration of the loan is an important factor that ZCSS consider to grant the loan because the longer it takes to pay the loan, the riskier it becomes. 28 (27%) of the respondents say that the employees, the period remaining in service is also an important factor to be considered because one of the regular source of his income will change. Another 25 (24%) respondents of the loan applicant also say that age of the respondent matters because the older he is, the lessor innovative he becomes and vice versa. Further, 14 (14%) of the respondents believe that the business industry they want to invest in counts in the sense that if it is the first project in that industry, changes of the project to fail are high. The less important considered is the period the loan applicant has stayed in the service with 6 (6%) of the respondents. Wafula (2016) research pointed the need for thorough screening on the potential clients to increase loan performance.

Table 14: Assessment of the client' character

Client Character	f	%
Reference to CRB	52	50%
Marital status	8	8%
Bankruptcy history	22	21%
Education background	6	6%
Reputation	15	15%
Total	103	100%

Source: Primary data (2020)

The findings shown in Table 15 revealed that out of the 103 respondents contacted, 52 (50%) say that the analyst has to refer to the Credit Reference Bureau (CRB) to check the rating and the level of indebtedness of his client. Another 22 (21%) of the respondents say that a client who has not been honoring his obligation with the bank (bankruptcy of the client) is also scrutinized very seriously before granting him another loan. Out of the total, 15 (15%) respondents say that a client with a good reputation has high chance to succeed in the business environment. 8 (8%) respondents that a married business man is more stable and will always struggle to respect his obligation with the bank. While only 6(6%) respondents believe that education background has a big influence on someone's behavior including his relationship with the bank, hence paying well his loan obligations.

Table 15: Assessment of the client' collateral

Client Collateral	f	%
Physical assets	30	29%
Insurance	25	24%
Movable assets (eg. vehicle)	6	6%
Other fund guarantee	26	25%
Cash (eg. savings)	16	16%
Total	103	100%

Source: Primary data (2020)

Out of the 103 respondents, 30 (29%) say that the more value of the mortgage the more the client will fear to lose his asset in case of default. However, the bank has more preference on the fund guarantee and insurance as agreed by 26 (25%) and 25 (24%) respondents respectfully. The cash guarantee or insurance are paid immediately upon bank first demand, unfortunately fund guarantee are very rare to get and insurance are more expensive. 16 (16%) of the respondents say that a client who has good saving history on his account is less risky hence is more preferred while 6 (6%) of the respondents say the movable assets are given less weight. This is considered in case of financing a car and the bank

requires a comprehensive insurance with interest transferred to ZCSS. On the collateral, Wafula (2016) recommended that use of collateral might salvage banks from increased non-performing loans.

Effect on Financial Performance of ZCSS

When bank has good credit policies, with enough capital and the management is able to take appropriate decision, it becomes good performing. The researcher also investigated the effect of the internal organizational factors on the performance of ZCSS. This is further explained in the following subthemes

The correlation Matrix

First, the researcher checked the relationship among the study variables as shown in Table 17.

Table 16: Correlation Matrix

		ROA	Interest	ROE	Liquidity	Capital	Credit Worth
ROA	Pearson Correlation	1	.617*	.313**	.570**	.616**	.754
	Sig. (2-tailed)		.038	.001	.000	.000	.071
	N	103	103	103	103	103	103
Interest	Pearson Correlation	.617*	1	.692**	.690**	.691**	.645**
	Sig. (2-tailed)	.038		.000	.000	.000	.000
	N	103	103	103	103	103	103
ROE	Pearson Correlation	.313**	.692**	1	.564**	.539**	.380**
	Sig. (2-tailed)	.001	.000		.000	.000	.000
	N	103	103	103	103	103	103
Liquidity	Pearson Correlation	.570**	.690**	.564**	1	.726	.743*
	Sig. (2-tailed)	.000	.000	.000		.121	.031
	N	103	103	103	103	103	103
Capital	Pearson Correlation	.616**	.691**	.539**	.726	1	.768
	Sig. (2-tailed)	.000	.000	.000	.121		.069
	N	103	103	103	103	103	103
Credit Worth	Pearson Correlation	.754	.645**	.380**	.743*	.768	1
	Sig. (2-tailed)	.071	.000	.000	.031	.069	
	N	103	103	103	103	103	103

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed)

Source: Primary data (2020)

According to Table 17 the correlation between the dependent variables, namely, return on asset (ROA), interest margin and return on equity (ROE) shows positive and high relationship with the independent variables namely the liquidity, capital strength and credit worthiness. For instance, the Pearson’s correlation between ROA and liquidity is 0.570, with capital strength is 0.616 and with credit worthiness is 0.754. On the other hand, the Pearson’s between interest margin and liquidity is 0.690, with capital strength is 0.691 and with credit worthiness is 0.645. Lastly, the Pearson’s correlation between ROE and liquidity is 0.564, with capital strength is 0.539 and with credit worthiness is

0.380. These findings confirm findings by Danny (2014), Wafula (2016) and Botti, Corsi and Zacchia (2018). However, Derbali (2011) found a negative correlation between liquidity and bank performance.

Regression Model on the ROA

In addition to the correlation analysis, the researcher also conducted the regression analysis to determine the effect of internal organizational factors on the return on assets.

Table 17: Regression Model between Organizational Factors and ROA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.756 ^a	.572	.559	.354		

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.424	3	5.475	44.152	.000 ^b
	Residual	12.434	100	0.124		
	Total	28.858	103			

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	.940	.000		3.637	.000
	Liquidity	.011	.089	.030	2.125	.009
	Capital	.090	.000	.196	2.871	.038
	Credit Worth	.653	.000	.743	6.105	.005

a. Dependent Variable: ROA

b. Predictors: (Constant), Credit Worth, Liquidity, Capital

Source: Primary data (2020)

As shown in Table 18, the Pearson’s correlation between ROA and the predictors is 0.756 with an R² of 0.572. This shows that 57.2% of the changes in return on asset for ZCSS is influenced by the changes in liquidity, capital strength and credit worthiness of the clients.

Mwangi and Wambua (2016) also found positive and significance relationship between liquidity, capital adequacy, leverage and performance of SACCOS.

Further analysis were also conducted using analysis of variance (ANOVA) as shown in Table 18. According to the findings, the model was found to be significant with F-statistics of 44.152 and a p-value of less than 5%. Since that model was found to be significant, the researcher went ahead to investigate the coefficient for each of the independent variables on the return of asset as shown in Table 4.18. Botti, Corsi and Zacchia (2018) found that the model on ROA was significant.

The analysis of the regression coefficients revealed that all the indicators were significant since the p-values were less than 0.05. For liquidity, the p-value (p=0.009) was less than the threshold level of significance of 0.05. Hence, the variable was found to have a positive and significant effect on ROA. Similarly, the coefficient of capital strength was found to be significant with (p=0.038) and that of credit worthiness with (p-value =0.005). These was concluded to mean that both capital strength and credit worthiness have a positive and significant effect on ROA. These results are in line with the findings by Wafula (2016).

Regression Model on Interest Margins

To determine the effect of the selected organizational factors on the interest margin, the researcher conducted regression analysis whose results are discussed in the sections that follow.

Table 18: Regression Model between Organizational Factors and the Interest Margins

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.747 ^a	.558	.544	.345

Model		Sum of Squares	Df	Mean Square	F	Sig.
2	Regression	14.736	3	4.912	41.628	.000 ^b
	Residual	11.761	100	.118		
	Total	26.497	103			

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
2	(Constant)	1.016	.251		4.041	.000
	Liquidity	.281	.086	.326	3.272	.001
	Capital	.309	.100	.424	3.081	.003
	Credit Worth	.108	.104	.206	1.039	.301

a. Predictors: (Constant), Credit Worth, Liquidity, Capital

b. Dependent Variable: Interest

Source: Primary data (2020)

As shown in Table 19, the Pearson’s coefficient of correlation between the internal organizational factors and the interest margin was found to be positive and high with R=0.747. On the other hand the R²= 0.558 shows that 55.8% of the changes of interest margin in ZCSS is influenced by the changes in the internal organizational factors, namely, liquidity, capital strength and credit worthiness. These results corroborate with those of MMari and Thinyane (2019) on the factors that influence the profit margin for banks.

Table 19 shows the results of ANOVA between the internal organizational factors and the interest margins. According to the results the F-statistics (F=41.628) and the p-value (p<0.05) show that the model is significant. This is interpreted to mean that the regression model between the internal organizational factors as predictor variables of interest margins is significant and further analysis can be conducted on the same.

Further analysis of the effect of the internal organizational factors on the interest margins of ZCSS were conducted based on

the coefficients of regression for each predictor variable. As shown in Table 19, the coefficient for liquidity was found to be significant since the p-value (p<0.05) was found to be less than 0.05. The coefficient of capital was also found to be significant since the p-value (p<0.05) was also less than 0.05. This shows that both liquidity and capital strength in ZCSS have a positive and significant effect on the interest margins of the cooperative bank. However, the effect of credit worthiness on interest margins was not found to be significant since the p-value (p= 0.301) is greater than 0.05. Wafula (2016) also found positive and significant correlations between liquidity, capital adequacy with performance of microfinance.

Regression Model on the ROE

The researcher wanted to know the impact of the liquidity management, capital strength and credit worthiness on the ROE of the cooperative bank. The findings of this study are presented in Table 20.

Table 19: Regression Model between Organizational Factors and ROE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
3	.619 ^a	.383	.365	.485

Model		Sum of Squares	Df	Mean Square	F	Sig.
3	Regression	14.336	3	4.779	20.510	.000 ^b
	Residual	23.262	100	.233		
	Total	37.598	103			

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
3	(Constant)	1.659	.353		4.693	.000
	Liquidity	.461	.121	.533	3.810	.002
	Capital	.445	.141	.633	3.159	.002
	Credit Worth	-.322	.146	-.163	-2.201	.030

a. Dependent Variable: ROE

b. Predictors: (Constant), Credit Worth, Liquidity, Capital

Source: Primary data (2020)

As shown in Table 20, the Pearson’s coefficient of correlation R= 0.619 with an R² of 0.383. This reveals that 38.3% of the changes in the ROE in ZCSS is influenced by the changes in liquidity management, capital strength and credit worthiness as internal organizational factors. On ROE, Wafula (2016) found positive and strong correlation.

The analysis of variance between the internal organizational factors and return on equity was also conducted with the results as shown in Table 20. According to the table, the model was found to be significant with F-statistics (F=20.510) and p-value (p<0.05). These results shows that the regression analysis conducted between the internal organizational factors as predictor variables of return on equity has significant value.

Lastly, the researcher also conducted an analysis on the coefficient of regression of all the predictor variables on the dependent variable, ROE. According to the results displayed in Table 20, all the coefficients were found to be significant with liquidity management having p-value (p<0.05), capital strength with p-value (p<0.05) and credit worthiness with p-value (p= 0.30) all of which are less than 0.05. These mean that liquidity management and capital strength both have positive and significant effect on ROE in ZCSS performance. Similar results were found with various factors being significant with performance in the research by Anver (2008), Wafula (2016) and Nduba (2018). However, in this research credit worthiness has a negative and significant effect on the ROE in ZCSS performance.

Financial performance of ZCSS

ZCSS operating income has been increasing every year from 9.5B Rwf in 2014 to 20.9B Rwf in 2018, this show on average an annual increase of 20.1%. The retained earnings have been increasing every year from 4.2B Rwf to 9.6B Rwf. Hence, the Return on Equity (ROE) and Return on Asset have been increasing every year as shown here below.

Description	Year 2018	Year 2017	Year 2016	Year 2015	Year 2014
ROE	15%	17%	15%	14%	14%
ROA	3.40%	3.80%	3.20%	3.10%	3.10%

Discussions with ZCSS management

In a discussion with the leadership of ZCSS in light of how the cooperative constituted its capital base to ensure its sustainability, the manager said that all members of the cooperative are required to make a compulsory saving of 7% of their regular income (salary or any other monthly income) that will be based on to be granted a loan. In addition to that, members were also sensitized to put aside any amount of their choice on a voluntary saving account every month. The two savings accounts constitute therefore a strong capital base of the cooperative, which ensures long-term sustainability of the business. The voluntary saving account is remunerated 7% interest whereas compulsory saving account earns 8%.

Although members are required to contract life insurance that will pay the outstanding loan in case of death of the client, ZCSS introduced a solidarity fund with the aim of supporting the family members of the deceased client. This was introduced because some members complained about expensive amount of fees paid to contract that life insurance and in case of short-term loan, they do not even go for it. In case of death therefore, the solidarity fund pays the outstanding liability up to 25M and the life insurance pays the balance. This fund offers a number of advantages like, reducing the number of defaulters, the family members risk of losing the mortgage reduce, once the loan gets fully paid, the members of the deceased client are allowed to access the savings (voluntary and compulsory savings), the fund is kept in the bank as another source of cash etc. This solidarity fund is made of 15% of the remuneration of the saving accounts

(7% for voluntary saving and 8% of the compulsory saving account).

V. CONCLUSION AND RECOMMENDATION

This study identified issues that affect financial performance of the ZCSS. ZCSS top management has been stable and is composed of competent management committee with at least Master's degree and other profession qualification. This is at the core center of its success over the past 5 years. Based on CAMELS Model, the management factor is the most important factor with the highest score and determinant factor for the success of any cooperative bank.

ZCSS management and majority of employees representing 68.9% have worked for the bank for more than 5 years and have acquired experience in the banking industry, hence the more experienced the employee becomes, the more he performs better. This also indicates that employees' turnover within ZCSS is low and it employed good retention policy.

ZCSS Management also put in place good and sound credit policies that enabled the cooperative to constitute a good loan portfolio with a low rate of bad performing loans less than 2%. ZCSS has been able to attract deposits and savings from its clients to constitute its capital. This allows the bank to meet its cash demand and it constituted investment that were able to generate good returns.

- ❖ It is recommended to other microfinance institutions to mobilize savings (minimum monthly saving) from their members to strengthen their capital base for the long-term sustainability and introduce a solidarity fund as discussed above.
- ❖ It is also recommended that other microfinance institutions should hire competent employees with relevant qualifications and deploy policies to retain the good performing employees especially at the top management level.
- ❖ The researcher also recommends that the management of MFIs should streamline their credit policy to ensure that nonperforming loans are minimized and enough liquidity is maintained.
- ❖ It is recommended that the ZCSS should diversify its products and introduce for example school solidarity fund for the members' children.

REFERENCES

[1] Abraham H.B (2011) Microfinance Business Proclamation, Proclamation No. 626/2009. Federal Negarit Gazeta published on 12th May 2thiopia.

[2] Alemayehu Y. (2008) the performance of Microfinance Institutions in Ethiopia; Case of six MFIs, Ethiopia.

[3] Aryeetey, E. (2008). From Informal Finance to Formal Finance in Sub-Saharan Africa: Lessons from Linkage Efforts. Washington, D.C: International Monetary Fund 2 (34-52)

[4] Athanasoglou, P, Brissimis, S. N., & Delis, M. D, (2005). Bank-Specific, Industry-Specific and Microeconomic Determinants of Bank Profitability. Athens: Economic research department.

[5] Aver, B. (2008). An Empirical Analysis of Cost Factors of the Slovenian Banking System. *Managing Global Transitions*, 6 (3), 317-334.

[6] Babbie, E. (2010). *The Practice of Social Research* (12th ed.). Belmont, California, USA: Cengage Learning.

[7] Baumgarten, M. (2012). *Paradigm wars-validity and reliability in qualitative research*. GRIN Verlag.

[8] Barney, A. W. (2011). *Resources Management Guide* (1st Edition). Hopkins Publishers: New York.

[9] Bayeh, M. (2012). *Financial sustainability of Microfinance Institutions (MFIs) in Ethiopia; Vol. 4 Dire Dawa, Ethiopia*

[10] Beck, N. & Katz, J. N. (2005). What To Do (and Not To Do) with Time-Series Cross-Section Data. *American Political Journal Review*, 105, 634 - 647.

[11] Betty, U. (2008). *Banking system challenges*. London: Oxford University Press.

[12] Bibow, J. (1995). Some Reflections on Keynes Finance Motive for the Demand for Money. *Cambridge Journal of Economics*, 19 (5), 647-66.

[13] BNR, (2019). *Annual financial stability report, 2018-2019*. Rwanda: government publications.

[14] Bonfim, D. (2009). Cost Drivers: Evaluating the Contribution of a Firm Level of Information and Macroeconomic Dynamics. *Journal of Banking and Finance*, 33 (2), 281-299.

[15] Botti, F, Corsi, M., & Zacchia, G. (2018). A new European microfinance panel data set: The European Microfinance Network survey 2006-2015 (No. 13d43173-6966-45ab-b920-fb4e43803764).

[16] Brace, I. (2008). *Questionnaire Design: How to Plan, Structure, and Write Survey Material for Effective Market Research* (2nd ed.). Philadelphia, USA: Kogan Page Limited

[17] Brigham, Z. (2017), *introduction of Financial Management; 1st Edition*, New Delhi Publishers.

[18] C.A.Wongnaa & D. Awunyo-Vitor (2013), *Factors affecting loan repayment performance among Yam farmers in Sene district, Ghana*; Kwame Nkrumah University of Science and Technology.

[19] Capone, W. (2012). The Job Characteristics Approach to Task Design: A Critical Review. *Journal of Applied Psychology*, 66, 193-217.

[20] Chandler, D., & McEvoy, T. (2010). *Quality Management Practices*. *Journal of operations a management*, 34, 1111-1117.

[21] Cook R., & Heiser, M. K. (2011). The Effect of Task Complexity and Expert System Type on the Acquisition of Procedural Knowledge: Some Evidence. *International Journal of Accounting Information Systems*, 2, 103-124.

[22] Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. India: Sage publications.

[23] Daft, R. L. & Marcic, D. (2016). *Understanding management*. USA: Cengage Learning.

[24] Danny, D. (2014). How to Keep Your Best Employees: Developing an Effective Retention Policy. *Academy of Management Executive*, 15 (4), 96-103.

[25] De Grauwe, P. (2008). *The Banking Crisis: Causes, Consequences and Remedies*. Mimeo: University of Leuven and Cesifo.

[26] Derbali, A. (2011). Determinants of Banking Profitability, Before and During the Financial Crisis of 2007: The Case of Tunisian Banks. *Interdisciplinary Journal of Contemporary Research in Business*, 15 (3), 1256-1269.

[27] Easterling T, James W., Fenton F, and Sands B. (2008) *Factors Affecting Economic Growth*, October 2008, Heiman Educational Books Limited, London.

[28] Ece, D, Hamsici, T. & Oral, E. (2005). Building up a Real Sector Business Confidence Index for Turkey. In: OECD (ed.) *Joint European Commission – OECD Workshop on International Development of Business and Consumer Tendency Surveys*. Brussels: OECD.

[29] *Environmental Uncertainty in Behavioural Accounting Research*. *Behavioral Research in Accounting*, 10, 23-46.

[30] Fabian, F. & Gunther, A. W. (2009). *Structural Adaptation to Environment: Study of Insurance Company Departments and Branch Banks*. Unpublished PhD Dissertation, Ohio State University.

[31] Filippone, M. (2012). *Strategic Management: A Review of the Literature and a Proposed Typology*. *Academy of Management Journal*, 12 (3), 454-470.

[32] Frank, T, Mbazize, M., & Shukla, J. (2015). Savings and credit cooperatives (SACCO's) services' terms and members' economic development in Rwanda: A case study of zigama SACCO ltd. *International Journal of Community and Cooperative Studies*, 3(2).

- [33] Fred, A. (2007). The effect of Saving and Credit Cooperatives (Zigama CSS) on members' saving culture. Case study: Ntungamo District, Kampala, Ministry of Tourism, and Industry.
- [34] Ghana Statistical Service, (2010). Ghana Living Standard Survey, 2nd Report, September, 2009 – August 2010, Accra.
- [35] Hansson, J. Jansson, P. & Löf, M. (2005). Business Survey Data: Do they help in forecasting GDP growth? *International Journal of Forecasting*, 21, 377-389.
- [36] Honohan, P. (1997). Banking System Failures in Developing and Transition Countries: Diagnosis and predictions. BIS Working Paper No. 39.
- [37] Hor, K. (2011). The Evolution of Microfinance. Available from The economics-today, 2011.[12 October 2016].
- [38] Innocent, J. (2007). Financial systems and small enterprises development. MCC records.
- [39] Irsova, Z. & Havranek, T. (2010). Measuring Bank Efficiency: A Meta-Regression Analysis. *Prague Economic Papers*, 17 (4), 307 – 328.
- [40] Jason, M. (2006). Overcoming the Dark Side of Worker Flexibility. *Journal of Operations Management*, 21, 81-92.
- [41] Juma, M. J. O. (2014). The Structure of Project Teams Facing Differentiated Environments: An Exploratory Study in Public Accounting Firms. *The Accounting Review*, 4, 259273.
- [42] Kagwa, P. (2003). Financial Institutions loan portfolio performance in Uganda. A comparative study of Barclays bank and microfinance Institutions. An MBA research dissertation to Makerere University, Kampala, Uganda
- [43] Katende, M. (2008). The law of big organization in East and central Africa; MK publishers (U) LTD.
- [44] Rwanda Bankers Association (2013). Audit Technology and Preferences for Auditing Standards. *Journal of Accounting and Economics*, 86 (8), 73-89.
- [45] Kithinji, A. M. (2010). Cost Management and Profitability of Commercial Banks in Rwanda. *Journal of Business and Public Management*, 2 (4), 47 – 58.
- [46] Kothari, C. (2004). *Research methodology: Methods & techniques* (2nd ed). New Delhi: Wishwa Prakashan.
- [47] Kothari, C. R. (2009). *Research Methodology: Methods and Technique*. New Delhi: New Age International (P) Ltd
- [48] Kundid, A. Ercegovac, R., and Klinac, I. (2009). Bank liquidity distress transfer toward real economy ahead of financial crises, *Global Business & Economics Anthology, Proceedings of Business & Economics Society International Conference in Kona, HI, Danvers, MA, USA*, pp.210-20.
- [49] Litenah, E. (2009). Performance analysis of sample microfinance institutions in Ethiopia, University of Business School, India.
- [50] Makiyan, S. N. (2003). Role of Return on Loans in the Islamic Banking System of Iran: *Managerial Finance*, 25(7), 62-69.
- [51] Migai, K. (2010). Productivity growth in large commercial banks: The initial postderegulation experience. *Journal of Banking and Finance*, 25 (5), 913 – 939.
- [52] MINECOFIN (2018). Key Statistics on Rwanda http://www.minecofin.gov.rw/fileadmin/Key_statistics_on_Rwanda_Feb_25.pdf Accessed 1st Dec 2019.
- [53] Mmari, G. A., & Thinyane, L. C. (2019). Analysis of Factors Influencing Financial Performance of Savings and Credit Co-operative Societies in Lesotho: Evidence From Maseru District. *International Journal of Financial Research*, 10(2).
- [54] MNaughton, S. (2016). Statistical and other numerical techniques for classifying individuals.
- [55] Mugenda, O. M. & Mugenda, A. G. (2003). *Research methods: Quantitative & qualitative approaches*. Nairobi: African Centre for Technology Studies.
- [56] Musyoki, D. (2011). The Impact of Cost Management on the Financial Performance of Commercial Banks in Rwanda. *Journal of Business and Public Management*, 2 (2), 7280.
- [57] Mwangi, E., & Wambua, L. (2016). Factors Influencing Performance of SACCOS in Kenya: A Case of UNAITAS SACCO. *European Journal of Business and Strategic Management*, 1(1), 20-38.
- [58] Naceur, S. B. & Omran, M. (2014). The Effects of Bank Regulations, Competition and Financial Reforms on Banks Performance. *Emerging Markets Review*, 12, 1-20.
- [59] Nasieku, T., Kosimbei, G. & Obwogi, J. (2013). Intermediation efficiency and productivity of commercial banks in Rwanda: A Data Envelopment and Malmquist Productivity Index Analysis. *Economics and Finance Review*, 3 (1), 1 – 13.
- [60] Nduba, M. P. (2018). Factors Affecting Financial Sustainability of Microfinance Institutions in Democratic Republic of Congo: The Case Study of MFIs in the City of Kindu Doctoral dissertation, United States International University-Africa.
- [61] Ngetich, J. C. (2011). The Effects of Interest Rate Spread on the Level of Non-Performing Assets in Commercial Banks in Rwanda. *Journal of Business and Public Management*, 1 (1), 58-65.
- [62] Nzioka, N. K. (2007). An empirical study of the relationship between managerial skill & technical efficiency of commercial banks in Rwanda. Unpublished MBA project, University of Nairobi.
- [63] Ohkubo, N. (2012). Awakening of Africa: Tenets for Banks Developments. *OMEGA*, 31 (2), 63-73.
- [64] Okore, M. (2011). Critical Analysis and Recommendations Regarding the Role of Perceived
- [65] Ongore, C. K. (2013). The empirical analysis of the commercial banks efficiency and stock returns in Rwanda. Unpublished MBA project, University of Nairobi.
- [66] Pandey, H. (2000). *Financial management 8th Edition*, New Delhi publishers Report; Oxford University press.
- [67] Peil, R. D. (2003). *Social Science Research Methods* (6th Edition). New York: MacGraw-Hill Publishers.
- [68] Wafula, D. N. (2016). Determinants of Financial Sustainability of Microfinance Institutions in Kenya. Unpublished PhD thesis, Juja: Jomo Kenyatta University of Agriculture and Technology, Kenya.
- [69] Wambugu T. M. (2008) A survey of credit risk management practices by micro-finance institutions in Rwanda. Unpublished MBA Research Project, University of Nairobi
- [70] Wilson, J. (2010). *Essentials of Business Research: A Guide to Doing Your Research Project*. London, United Kingdom: Sage Publications Ltd.
- [71] ZIGAMA Credit and Saving Society. (2019). Bank operations manual. Kigali, Rwanda.
- [72] ZIGAMA Credit and Saving Society. (2019). Human Capital Management Manual. Kigali, Rwanda.
- [73] ZIGAMA Credit and Saving Society. (2019). Treasury Management. Kigali, Rwanda.
- [74] ZIGAMA Credit and Saving Society. (2019). Risk Management and Legal Departments. Kigali, Rwanda.

AUTHORS

First Author – Kumuyange Eric, MBA student, Mount Kenya University, Rwanda and Head of Finance , Rugari Meat Processing, +250788413488, ekumuyange@gmail.com

Second Author – Dr. Claude Rusibana, PhD Senior Lecturer, Mount Kenya University, Rwanda

