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## Abstract

This study had to determine the contribution of microfinance services to performance of cooperatives in Rusizi district, with a case study of KOIMUNYA, through identifying the contribution of microcredit, assessing the contribution of saving services and the contribution of money transfer services, as offered by microfinance, in addition to analyzing the contribution of financial trainings organized by microfinance, to the performance of KOIMUNYA, from June 2023 up September 2023. The literature review defined key concepts and developed conceptual review related to microfinances services and cooperative performance, and theoretical review such as Financial Intermediation Theory, Agency theory, Social Capital Theory, Social Exchange Theory and Resource Dependence Theory. Moreover, empirical review and conceptual framework regarding the contribution of microfinance services, in terms of independent variables, on performance of KOIMUNYA, in terms of dependent variables, were provided to finally end up with a research gap. This study was conducted on 1804 members of KOIMUNYA, among whom a sample size of 327 respondents was selected, to respectively answer to questionnaire for a descriptive and correlative analysis, with the help of SPSS computer packages, version 20. The study revealed that microcredit, saving services, money transfer and financial trainings as offered by microfinance institutions, with respective ( $\beta=0.539$ ), ( $\beta=0.597$ ); ( $\beta=0.593$ ) and ( $\beta=-0.593$ ) and with significance (all  $p<0.05$ ) had significant contribution to the performance of KOIMUNYA. So, the study concluded that microfinance services had been significantly contributing to the performance of cooperatives in Rusizi district. However, the study recommended, for cooperatives, to further develop and expand its microcredit offerings to better meet the diverse financial needs of cooperative members, to consider introducing innovative savings products that incentivize regular saving and provide competitive interest rates, and assess the content, format, and delivery of financial training programs to identify potential areas for improvement.

**Key words:** Microcredit, Saving Services, Money Transfer And Performance Of Cooperatives

**1. Introduction**

Globally, microfinance is frequently considered both as a tool for fighting poverty in developing countries and as a tool for post-conflict reconciliation. Many countries have employed and created conditions for microfinance, especially after 1990s, as a resource and additional capital for poverty reduction. Micro finance is present in different countries since early '70s. With this, international profile as a tool for poverty alleviation was secured and many post-conflict countries have incorporated microfinance within their restructuring strategies. The reality in the field has shown that in recent years, microfinance was incorporated within reconstructing and development strategies of post-conflict countries more than it is expected, (Nagarajan and McNulty 2014).

All over the world, cooperative performance is a problem for all the countries irrespective of their level of achievements. It can be observed in many forms since it has both income and non-income dimensions. In consideration of poverty line, people in each country can broadly be divided into two categories namely poor and non-poor and both could be stakeholders of cooperatives even though the non-poor are could be living above and the poor living below the poverty line (Salia, 2014). According to Gutiérrez-Nieto and Serrano-Cinca (2023), in the recent days, microfinance schemes have been proliferating in all parts of the world as a way from which cooperatives could get financial means to help them well perform. Although the impact of those schemes on the cooperatives' businesses and members welfare is widely contested, the number of cooperatives working with them has been on sharp increase.

In Africa, the recognition of cooperatives as crucial means for poverty alleviation and, therefore, African development has been widely acknowledged. It is for this reason that cooperatives have been promoted in virtually all African countries since the colonial period. This has witnessed a significant growth of the cooperative movement. Despite the growth of the Microfinance Institutions (MFIs) movement, the question on how cooperatives can improve their contribution to well perform toward African development arises with the purpose of assessing the challenges to working with microfinance institutions in Africa as a starting point to effectively contribute to cooperative performance on the continent (Ali et al., 2021).

In east-African region, the promotion of microfinance institutions to champion cooperative performance has seen the history, generally phased into two eras: the first era running from the immediate post-colonial period in the 1960's to the mid-1990s and the second era occurring during the global economic reforms from the mid 1990's to the present, which has been characterized by the liberalization of the economy, (Kpessa-Whyte & Tsekpo, 2022). There is a range of MFIs whose participation is essential to address appropriately the challenge cooperatives throughout their performance (Salia, 2014). Furthermore, Haley (2017) notes that there is evidence to support the premise that it is possible for a microfinance institution to serve the cooperatives and achieve financial performance, The reality on the ground indicates that the increase on the number of cooperative poorly performing both in rural and urban Kenya is worrying. Therefore, if cooperatives with poor performance are not reduced in Kenya, then the MDG goal number 1 on the eradication of poverty to less than 30% of the Kenyans by 2025 and as envisioned in the Kenya Vision 2030 not achieved. This creates a need to intensify cooperatives performance efforts through MFIs in planning and outreach. (Okibo&Makanga, 2016).

In Rwanda, The MFI sector balance sheet continued to expand in 2019, with total assets of the sector increasing by 6.6% in December 2019 to FRW 223 billion. This is significantly lower growth than the 31% increase in assets in 2018. The share of loans over total assets of

the sector increased from 53% in December 2018 to 57% in December 2019. The reduced pace of lending from MFIs is due to an increased vigilance surrounding prudential lending caused by credit risk concerns arising from poor commercial performance in 2019. However, cooperatives remain a key lending sector for MFIs and accounts 9% of total MFI loans, (MINICOFIN, 2020).

Microfinance plays a crucial role in the Rwandan economy, and more broadly in society as a whole. Government of Rwanda in implementing microfinance as one of the tools to be used in facing the cooperatives performance problem believed that it would help to generate financial funds and to diversify sources of income, thereby contributing to the improvement of the Rwandan cooperatives and its sustainable performance. In Rusizi district, people being committed in working together through cooperatives and at the same time catalysts to cooperatives performance, the microfinance institutions, with the collaboration of administration of the district, found it important to establish a scheme that would facilitate in delivering good services for cooperatives performance. Throughout this study, the contribution of microfinance to cooperative performance had to be determined, taking into account KOIMUNYA.

**Problem statement**

Microfinance, the provision of financial services to individuals and cooperatives with limited access to banking services, has been recognized as a crucial tool for empowering cooperative performance. It is widely acknowledged that when properly utilized and supported, microfinance can enhance the economic empowerment of cooperatives, leading to sustainable performance and overall development (Akanmu et al., 2018).

However, the poor performance of cooperatives, particularly in least developed countries like Rwanda, remains a significant challenge. The United Nations has expressed concern over the high poverty rates among the more than 1.3 billion people engaged in cooperatives worldwide (Wanyama, 2016). To address this issue, the Rwandan government has identified microfinance as a vital instrument within its cooperative-driven poverty reduction program (MINECOFIN, 2020).

By providing access to financial services, microfinance has the potential to uplift underperforming cooperatives and enable them to generate sustainable wealth for their members. While the importance of microfinance in cooperative performance is acknowledged, its impact is often described as a drop in the ocean (Irobi, 2018). Scholars such as Leach and Sitaram (2015) recommend that microfinance institutions should not only provide financial assistance but also focus on improving the technical and business skills of cooperatives through training programs.

Furthermore, the establishment of micro-insurance schemes can help cooperatives mitigate risk and losses, thus promoting better performance. Despite the potential benefits, few studies have been conducted on microfinance and cooperative performance in Rwanda. Furthermore, the available body of academic work and investigations conducted in various geographical contexts produce ambiguous findings concerning the efficacy of microfinance services in enhancing the performance of cooperatives. (Leach & Sitaram, 2015).

In Rusizi District, the cooperative sector plays a crucial role in economic growth and poverty reduction. However, there is a lack of comprehensive research examining the specific impact of microfinance on cooperative performance in this context. This study aims to address this research gap by investigating the contribution of microfinance on the performance of cooperatives, with a specific focus on the case of KOIMUNYA cooperative.



**Research objectives**

The general objective of this study is to determine the contribution of microfinance services to performance of cooperatives in Rusizi district. Specifically, the study aimed to:

- To identify the contribution of microcredit as offered by microfinance to the performance of KOIMUNYA.
- To assess the contribution of saving services as offered by microfinance to the performance of KOIMUNYA.
- To assess the contribution of money transfer services as offered by microfinance to the performance of KOIMUNYA.
- To analyze the contribution of financial trainings organized by microfinance to the performance of KOIMUNYA.

**2. Literature Review**

**Microcredit and performance of cooperatives**

The credit facilities are a component of microfinance services. It involves giving small loans to poor rural people for relatively short periods and regular and frequent repayment. Small amounts of loan are however a relative term and varies from institution to institution and from time to time, (Vonderlack, 2014).

Addae-Korankye (2018), who explored the implication of microcredit in Kosovo since the war ended, by evaluating its effects in terms of cooperative performance, and if microfinance institutions improved access to credit for microenterprises. Post-conflict countries such as Kosovo are the best examples where microfinance could provide its contribution on cooperative performance and better access to finance needed for startup micro-entrepreneurs. The objective of this paper was to introduce the matter of micro financing to a broader audience in Kosovo, to assess the economic impact of micro-financial institutions, and who has benefited the most. It was concluded that the MFIs were bearing part of success in developing Kosovo. It is more than obvious that MFIs had supported the local cooperatives, by offering them micro-credits and creating an opportunity for them to have access to financial funds. However, on the other side, there were many critic voices suggesting that microfinance institutions should essentially have obstructed the development of cooperatives, rather than supporting them. This was seen as one of the major obstacles that MFIs had to exceed, in order to fulfill their proclaimed intentions in providing support to economic development.

Beatriz Armendáriz de Aghion, (2005) conducted research on microcredit and cooperative performance, focusing on the social and economic impact of microfinance institutions. She employed a combination of qualitative and quantitative methodologies, including case studies, surveys, and data analysis. She examined the experiences of various microfinance institutions and borrowers to assess the impact of microcredit on poverty reduction and cooperative development. The research highlighted the multidimensional impact of microfinance beyond financial inclusion. She found that responsible lending practices, appropriate interest rates, and client protection measures are crucial for sustainable microcredit programs. Her research also underscored the importance of financial literacy training and complementary financial services such as savings and insurance. She recommended a holistic approach to microfinance, focusing on the integration of financial services with social support, education, and healthcare. She emphasized the need for transparent and ethical practices in the microfinance sector and called for regulatory frameworks that balance financial viability with social goals.

**Saving services and cooperative performance**

As for Dhakal and Nepal (2016), focused on finding out the contribution of saving services in microfinance on cooperatives development of rural community. The study was based on the quantitative design. Cross-sectional data was collected from the 8 microfinances of Syangja district. Purposive sampling technique was adopted to select the respondents. The perceptual analysis of data reported the significant contribution of micro-finance in social economic change and development of cooperatives. On the other hand, microfinances working since 2 to 20 years covering the diverse field of social activities were the samples of the study and it was revealed that there was a need to improve the internal management of microfinance to provide saving services more effectively.

According to DEWELE (2017), he examines the impact of microfinance saving services on economic growth of cooperatives, thus using Nigeria as a case study. The study employed the multiple regression analysis given that the data are cross-sectional and time series in nature. Secondary data of all commercial banks were extracted from the Central Bank of Nigeria statistical Bulletin and Annual Reports. Data used in this model are time series secondary data for the period 1992 to 2012. The findings of the study showed that microfinance saving services have a significant positive impact on the short run economic performance of cooperatives in Nigeria. Microfinance saving services enhanced consumption per capita in short run with an impressive coefficient, although these saving services did not have a significant impact on economic growth in the long run. Microfinance investment in saving services however, had a significant impact on economic performance of cooperatives in Nigeria in the long run. He recommended that, microfinance institutions should loan to improve consumption in the short run, while the long run goal should be to improve investment and other capital accumulation.

**Money transfer services and performance of cooperative**

This service facilitates the free flow of money and subsequently trade and investments. The easy transfer of money from one place to another and from person to person is a very effective instrument in facilitating business between people and places near and far. Thus, with banking services that enhance investors and even individual to easily access money, greater income is available among people in the rural area and their consumption level increases, (Vonderlack, 2014).

Kangabe (2014), explored how money transfer services through microfinance institutions help in performance of cooperatives which have access to microfinance institutions in Rwanda. To evaluate the contribution of the intervention of COPEDU Ltd on the increase in income of the cooperatives, the multiple linear regression analysis had been used. The R-square of the model was 0.87. This is to mean that the 87% of variation in income of cooperatives after the intervention of COPEDU Ltd could be explained by the regression model provided. The adjusted R-squared was often used to summarize the fit as it took into account the number of variables in the model. For the above model, it was 0.860 and it showed how the income of cooperatives was explained by variable such as receiving and sending money, saving, income before the intervention and the duration of intervention at 86%. It was concluded that COPEDU Ltd played a big role on performance of cooperatives as indicated by increased incomes which in turn were used for basic needs satisfaction and future economic development prospects

**Financial training and cooperative performance**

This is to develop basic financial competencies which can be used to guard their assets from being eroded by misusing the already available resources in addition to counselling and financial Management which help people develop debt management skills to avoid loan

defaulting which can lead to loss of the securing assets or collateral security, (Rhyne & Christen, 2014).

Therefore, Tagesse Woelamo and Mohammed (2020) carried out the study in order to establish the level of microfinance contribution towards the performance of agricultural cooperatives through financial trainings, specifically the coffee cooperative societies in Trans Nzoia County, Kenya. The study utilized structured questionnaire administered to 346 coffee farmers. The respondents were arrived at using purposive and simple random sampling techniques. Data were analysed using Spearman's correlation coefficient together with regression. It was established that financial training plan had positive statistical significance on the organizational performance ( $P < 0.05$ ), hence microfinance development practitioners and agricultural extension officers should enhance utilization of financial trainings in the agricultural cooperative societies.

As for Mahazril'Aini et al. (2012), who aimed at identifying the factors influencing the cooperatives performance through microfinance institutions and members' participation in financial trainings. Questionnaires constructed have been distributed among cooperatives board members in Kota Setar District, Malaysia. The findings indicated that there is a weak positive relationship between financial trainings organized by microfinance institutions and cooperatives performance measured by their profit growth as the Pearson correlation value 0.253,  $r = 0.253$ . financial trainings are important for cooperatives in ensuring their continuous business. It was suggested that every cooperative should conduct at least short-term financial training plan and the top management must be responsible for the cooperatives strategic financial planning. It was supported by a study conducted among the 250 board of directors of cooperatives in Malaysia that cooperative that properly works with microfinance institutions significantly contribute towards the success of the cooperatives.

**Theoretical review**

Theoretical review is a collection of interrelated concepts such as in a theory to guide a research work as it determines the items for measurement and the statistical relationships being studied. A theory is a reasoned statement or group of statements, which are supported evidence meant to explain some phenomena. The following part is giving the theories related to micro finance institutions and performance.

**Financial Intermediation Theory**

This theory examines the role of financial intermediaries (like microfinance institutions) in channeling funds to borrowers. The study could assess how microfinance institutions serve as intermediaries and affect the financial performance of cooperatives.

By dealing in financial assets, intermediaries are by definition in the financial risk business. By virtue of the fact that they originate, trade, or service financial assets, intermediaries are managing and trading risk. As Merton (1989) noted, a key feature of their franchise is the bundling and unbundling of risks. However, some of the risks inherent in the intermediaries' franchise was not borne directly by them. Some traded or transferred, and others eliminated altogether. In fact, it is useful to decompose the risks inherent in financial assets into these three subgroups. This allowed us both to consider which risks belong to each group and how intermediaries deal with each type of risk. Using this approach, risks can be segmented into the following groups (Franklin, 2018): risks that can be eliminated or avoided by business practices; risks that can be transferred to other participants; and risks that must be actively managed at the firm level.

In the first of these cases, the charge of the financial intermediary is to engage in actions to reduce the chances of idiosyncratic losses by eliminating risks that are superfluous to the

financial transaction's purpose. Common risk avoidance actions, here, are underwriting standards, due diligence procedures, and portfolio diversification. In each case the goal is to rid the financial transaction of risks that are inconsistent with the desired financial characteristics of the asset, or not essential to the financial asset being created. What remains is some portion of systematic risk, and the idiosyncratic risks that are integral to a product's unique business purpose. In both of these cases, risk reduction remains incomplete and could be further enhanced. In the case of systematic risk, any element not required or desired can be minimized by offsetting hedging activity. Whether or not this is done is a decision that can be clearly indicated to asset holders whether they are stockholders of the institution creating the asset and bearing the risk or a buyer obtaining ownership of the traded asset. The idiosyncratic risk also can be virtually eliminated. However, such actions are costly and it is up to the institution to determine the point where the cost of further risk reduction is higher than its value. (Franklin, 2018)

This theory suggests that microfinance institutions (MFIs) act as intermediaries between the savers and the borrowers in the informal sector. It emphasizes the role of MFIs in mobilizing savings from individuals and channeling them as loans to micro-entrepreneurs who lack access to formal financial services. The theory highlights how this intermediation helps to bridge the gap between the supply and demand for financial services in underserved markets.

By considering the principles and insights of the Financial Intermediation Theory, it can shed light on the mechanisms through which microfinance services impact cooperative performance and provide valuable insights for policymakers, practitioners, and stakeholders involved in the design and implementation of microfinance interventions within the cooperative sector.

**Agency theory**

This theory explores the relationship between principals (owners) and agents (managers) in organizations. In the context of cooperatives, it can be used to examine how microfinance services influence the behavior of members and managers, and whether these services mitigate agency problems.

The theory recognizes the incomplete information about the relationship, interests or work performance of the agent described as adverse selection and moral hazard. Moral hazard and adverse selection affect the output of the agent in two ways; not doing exactly what the agent is appointed to do, and not possessing the requisite knowledge about what should be done. According to Lopes, (2016), Agency theory describes firms as necessary structures to maintain contracts, and through firms, it is possible to exercise control which minimizes opportunistic behavior of agents.

In order to harmonize the interest of the agent and the principal, a comprehensive contract is written to address the interest of both the agent and the principal; they further explain that the relationship is further strengthened by the principal employing an expert to monitor the agent. This affects the overall performance of the relationship as well as the benefits of the principal in the form of cash residual (Wakiriba et al., 2014).

Agency theory, although originally developed for understanding the relationship between shareholders and managers in corporations, can also be applied to cooperatives. It examines the potential conflicts of interest that may arise between cooperative members (principals) and managers or elected representatives (agents) who make decisions on their behalf. The theory emphasizes the importance of aligning the interests of cooperative members and managers through effective governance mechanisms, such as transparency, accountability, and member participation, to improve cooperative performance (Kyazze et al., 2017).



Agency theory focuses on the principal-agent relationship between the lender (principal) and the borrower (agent) in microfinance. It explores the challenges and potential conflicts of interest that arise due to information asymmetry between the two parties. The theory suggests that by implementing mechanisms such as group lending, joint liability, and frequent monitoring, microfinance institutions can mitigate these agency problems and improve repayment rates.

**Social Capital Theory**

Robert Putnam is one of the influential scholars in the field of social capital. In his book "Bowling Alone: The Collapse and Revival of American Community, in 1970" he discusses the decline of social capital in modern societies and its consequences for social and economic well-being. He defines social capital as the networks, norms, and trust that facilitate cooperation among individuals. Putnam's work highlights the importance of social connections and networks in creating opportunities and fostering collective action.

Social capital theory emphasizes the role of social networks, trust, and social norms in facilitating access to finance for individuals in low-income communities. It argues that microfinance programs leverage existing social networks and social capital to reduce transaction costs, enhance borrower accountability, and foster financial inclusion. This theory highlights the importance of social ties and community cohesion in the success of microfinance initiatives.

By incorporating the principles of Social Capital Theory, this research study can examine how microfinance interventions impact social capital within the cooperative, as well as how changes in social capital influence cooperative performance.

**Social Exchange Theory**

Social Exchange Theory, as applied to cooperative performance, focuses on the interactions and relationships among cooperative members. It suggests that cooperative performance is influenced by the social exchanges and reciprocity between members.

Peter M. Blau, a sociologist, is often credited with developing Social Exchange Theory. In his book "Exchange and Power in Social Life" published in 1964, Blau presents a comprehensive framework for understanding social exchange and its impact on social relationships. He emphasizes the importance of reciprocity and the exchange of resources, including tangible and intangible benefits, in shaping social interactions and relationships.

Social exchange theory focuses on the interactions and relationships among cooperative members. It suggests that cooperative performance is influenced by the social exchanges and reciprocity between members. According to this theory, cooperative members engage in cooperative activities and contribute to the organization based on the expectation of receiving benefits in return. The theory highlights the importance of trust, cooperation, and mutual support among members in achieving high-performance outcomes for the cooperative.

**Resource Dependence Theory**

Resource Dependence Theory focuses on how organizations, including cooperatives, rely on external resources to survive and perform. It examines how the control and acquisition of critical resources from external sources influence organizational behavior and outcomes.

Geffrey Pfeffer and Gerald R. Salancik are well-known for their book "The External Control of Organizations: A Resource Dependence Perspective," published in 1978. They developed Resource Dependence Theory and introduced the concept of interorganizational relationships. They argued that organizations, including cooperatives, must manage their relationships with external entities to secure necessary resources and reduce dependence on specific sources.

They emphasized the importance of power, influence, and resource scarcity in shaping organizational behavior.

Resource dependence theory explores the external environment's influence on cooperative performance. It suggests that cooperatives' performance is influenced by their ability to acquire and control critical resources from external sources, such as capital, technology, and information. The theory emphasizes the cooperative's ability to manage relationships with external stakeholders, such as suppliers, customers, and government institutions, to ensure a steady flow of resources. Effective resource management and diversification strategies are important for improving cooperative performance.

**3. Research methodology**

A descriptive survey design was used in this study where in the context of microfinances' services and cooperative performance. It involved describing and analyzing the contribution of various services as offered by microfinance institutions (microcredits, saving facilities, money transfer services and financial trainings) on performance of cooperatives, particularly increase of investment, members' satisfaction and corporate image of the cooperative.

The study population consisted of 1804 members of KOIMUNYA operating in Muganza-Nyakabuye rice marshland, Rusizi district. Due to the large population size, a sample of 327 respondents was chosen using the Slovene's formula, allowing cost-effective estimation without surveying every member of the population. Purposive sampling was employed, specifically including individuals relevant to the study's variables, ensuring targeted information collection.

Both primary and secondary data sources were utilized, with primary data collected through questionnaires and key informant interviews. Secondary data were obtained through a documentary review process.

The research instruments were tested for validity and reliability. Questionnaires, as a primary data collection method, were designed to align with the research objectives, utilizing a mix of close-ended and open-ended questions, primarily based on a Likert scale. Documentary review supplemented the primary data collection process, enhancing the depth of information acquired. For reliability, the Cronbach's alpha values for various variables were calculated, all surpassing the acceptable threshold of 0.7, indicating strong internal consistency. Editing, coding, and tabulation processes were employed to ensure data quality, consistency, and organization.

Data analysis involved Statistical Package for Social Science (SPSS V 21.0) for quantitative analysis. Descriptive statistics like frequencies, percentages, mean scores, and standard deviation were employed. Inferential statistics, including Pearson correlation analysis and multiple regression analysis, were conducted to establish relationships between microfinance services and Performance of the cooperative. Ethical considerations were a priority, ensuring confidentiality by avoiding the disclosure of respondents' identities and maintaining strict confidentiality of sensitive information throughout the study.

**4. Findings**

This chapter delves into the study's findings and provide their interpretation, drawing from the analysis of the data gathered through questionnaires. The study scrutinizes the influence of each microfinance services on performance of cooperatives, employing correlation analysis to unveil the associations between microfinance services and performance of

cooperatives. Additionally, regression analysis is leveraged to elucidate both the individual and collective impacts of these microfinance services on performance of cooperatives at KOIMUNYA.

**Correlation analysis Results**

The correlation matrix presented below provides valuable insights into the complex interrelationships among microcredit, saving services, money transfer services, financial training and performance of cooperatives. This matrix quantifies both the strength and direction of the connections between these crucial variables, offering a clearer understanding of their interconnected nature.

**Table 1: Correlation analysis**

		Microcredit to increase investment	Saving services to meet members' satisfaction	Money transfer services leading to better returns.	The financial trainings to influence corporate image of KOIMUNYA.	Performance of cooperative
Microcredit to increase investment	Pearson Correlation	1	-.041	.038	-.106	.575
	Sig. (2-tailed)		.460	.494	.057	.077
Saving services to meet members' satisfaction	Pearson Correlation	-.041	1	-.075	-.113*	.503
	Sig. (2-tailed)	.460		.177	.041	.056
Money transfer services leading to better returns.	Pearson Correlation	.038	-.075	1	.125*	.521*
	Sig. (2-tailed)	.494	.177		.024	.028
The financial trainings to influence corporate image of KOIMUNYA.	Pearson Correlation	-.106	-.113*	.125*	1	.531
	Sig. (2-tailed)	.057	.041	.024		.051
Performance of cooperative	Pearson Correlation	.575	.503	.521*	.531	1
	Sig. (2-tailed)	.077	.056	.028	.051	
	N	327	327	327	327	327

**Source:** Primary data, August, 2023

Table 1. reveals several noteworthy findings. Firstly, microcredit for increasing investment exhibits a strong positive correlation with the performance of KOIMUNYA cooperative ( $r = 0.575$ ), indicating that as microcredit for investment increases, the cooperative's overall performance tends to improve. However, there are weak and statistically insignificant negative correlations between microcredit and other variables. Secondly, saving services have a significant positive impact on both members' satisfaction ( $r = 1$ ) and the performance of the cooperative ( $r = 0.503$ ), with a weak and statistically significant negative correlation with corporate image ( $r = -0.113$ ). Thirdly, money transfer services are associated with a moderate positive correlation with corporate image ( $r = 0.125^*$ ) and a strong positive correlation with the performance of the cooperative ( $r = 0.521^*$ ), suggesting that these services positively

influence corporate image and overall cooperative performance. Lastly, financial trainings also have a positive effect on corporate image ( $r = 0.125^*$ ) and the performance of the cooperative ( $r = 0.531$ ) but exhibit weak and statistically significant negative correlations with increase of investment ( $r = -0.106$ ) and members' satisfaction ( $r = -0.113^*$ ). These findings provide valuable insights into the relationships between microfinance services and different aspects of KOIMUNYA's performance, indicating areas of strength and opportunities for improvement.

Therefore, the findings suggest that saving services, money transfer services, and financial trainings have a positive impact on the performance of KOIMUNYA cooperative, with varying degrees of correlation strength. Microcredit for increasing investment doesn't show strong correlations with other variables except for a strong positive correlation with cooperative performance.

**Regression model**

Regression statistics analysis had to be done for statistical tests to determine whether there is enough evidence to accept or reject the null hypothesis.

**Table 2. Analysis of variance (ANOVA)**

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.386	4	0.346	3.681
	Residual	30.391	322	.094	
	Total	31.777	326		

- a. Dependent Variable: Performance of our cooperative
- b. Predictors: (Constant), Financial trainings, Microcredit, Saving services, Financial training.

**Source:** Primary data, August, 2023

Table 2. indicates as evidenced by the F-statistic ( $F(4, 322) = 3.681, p = 0.006$ ). The F-statistic tests whether the overall model, which includes all these predictors, is statistically significant in explaining the variation in the dependent variable. In this instance, the low p-value of 0.006 indicates that there is a statistically significant relationship between the predictors and the cooperative's performance.

**Table 3. Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.698 <sup>a</sup>	.487	.127	.50207

- a. Predictors: (Constant), The financial trainings, microcredit, Money transfer, Saving services.

**Source:** Primary data, August, 2023

Table 3. provides crucial information about the performance and goodness of fit of a regression model used in the study. The model's R Square value of 0.487 suggests that the predictors "The financial trainings," "microcredit," "Money transfer," and "Saving services" collectively account for approximately 48.7% of the variation in cooperative performance. This indicates a moderate level of explanatory power, meaning that these predictors have some influence on the cooperative's performance. The Adjusted R Square of 0.127 suggests that after adjusting for the number of predictors, around 12.7% of the variability in cooperative performance can still be attributed to the included predictors. The R value of 0.698 implies a strong correlation between the predictors and the dependent variable, cooperative performance.



Table 4. Regression model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	53.967	.875		61.675	.000
	Microcredit	.539	.137	.558	3.934	.029
	Saving services	.597	.141	.630	4.234	.019
	Money transfer	.593	.139	.629	4.266	.018
	Financial	-.533	.137	-.549	-3.890	.031

a. Dependent Variable: Performance of cooperative

Source: Primary data, August, 2023

Table 4. presents information about the relationship between the dependent variable "Performance of cooperative" and the independent variables ("Microcredit," "Saving services," "Money transfer," and "Financial trainings"). The constant term in the model is 53.967. This value represents the estimated value of the dependent variable ("Performance of cooperative") when all independent variables are zero. The t-value of 61.675 and a significance level of .000 indicate that this constant term is statistically significant.

The unstandardized coefficient for "Microcredit" is 0.539, "Money transfer" is 0.593, "Saving services" is 0.597, and "Financial trainings" is -0.533. These coefficients represent the estimated change in the dependent variable when they increase by one unit while being held constant. With respective standardized coefficients (Beta) of 0.537, 0.541, 0.539 and -0.537 indicate a positive relationship and represent impact in terms of standard deviations. Therefore, respective (t=3.934, sig= .029); (t=4.234, sig.= .019); (t=4.266, sig.= .018) and (t=-3890, sig.= .031) indicate that this impact is statistically significant.

So, the cooperative's performance has a baseline value, represented by the constant term ( $\beta_0$ ), which is approximately 53.967. This is the expected performance when all other factors are absent. Microcredits ( $X_1$ ) have a positive impact with a coefficient ( $\beta_1$ ) of 0.539. Savings services ( $X_2$ ) also contribute positively, with a coefficient ( $\beta_2$ ) of 0.597, and Money transfer services ( $X_3$ ) show a positive effect, with a coefficient ( $\beta_3$ ) of 0.593 while Financial trainings ( $X_4$ ) exhibit a negative impact, with a coefficient ( $\beta_4$ ) of -0.533, resulting in  $Y=53.96+0.539X_1+0.597X_2+0.593X_3-0.533X_4$

Given these findings, we can deduce that the null hypothesis "Microcredit service offered by microfinance has no significant contribution on performance of KOIMUNYA" is rejected. The evidence from the data ( $\beta=0.539$ ,  $p<0.05$ ) suggests that there is a significant relationship between microcredit services and the performance of KOIMUNYA cooperative. In other words, the data indicates that microcredit services do have a significant contribution to the cooperative's performance. This contradicts the null hypothesis and supports the idea that microcredit services offered by microfinance play a role in enhancing the cooperative's overall performance.

Given the hypothesis "Ho2" which states that saving services have no significant contribution to the cooperative's performance, the coefficient ( $\beta=0.597$ ), and the associated significance ( $p<0.05$ ) suggest that this null hypothesis should be rejected since the analysis based on the table 4.5. and the given hypothesis could potentially suggest that there isn't strong enough evidence to support the significant contribution of saving services offered by microfinance to the performance of KOIMUNYA cooperative.

Therefore, the relatively coefficient ( $\beta=0.593$ ,  $p<0.05$ ) might be considered evidence against the null hypothesis, "Money transfer services offered by microfinance has no significant

contribution on performance of KOIMUNYA,". This means that there is statistical support to assert that money transfer services have a significant contribution to the performance of KOIMUNYA cooperative. The analysis based on the table 4.9. and the given hypothesis could potentially support the assertion that money transfer services offered by microfinance have a significant contribution to the performance of KOIMUNYA cooperative.

Subsequently, the coefficient of ( $\beta=-0.593$ ,  $p<0.05$ ) could be seen as evidence against the null hypothesis, "Ho4: Financial trainings offered by microfinance has no significant contribution on performance of KOIMUNYA.". This implies that there is statistical support to argue that financial trainings do indeed hold a negative significant contribution to the performance of KOIMUNYA cooperative. The analysis based on the presented table and the provided hypothesis could potentially substantiate the claim that financial trainings offered by microfinance have a significant negative contribution to the performance of KOIMUNYA cooperative.

Therefore, the regression model suggests that the independent variables, namely "Microcredit," "Saving services," and "Money transfer," have statistically significant positive impacts on the "Performance of cooperative." These services seem to contribute positively to cooperative performance. On the other hand, "Financial trainings" show a statistically significant but negative relationship with cooperative performance.

**5. Conclusion**

Overall, the findings of this study underscore the critical role that microfinance services have a significant contribution to cooperative performance, at KOIMUNYA in Rusizi district. By implementing microfinance services that encompass microcredit, saving services, money transfer services, and financial training optimized the performance of cooperatives. The findings showed that the combined influence of "Microcredit," "Saving services," "Money transfer," and "Financial trainings" collectively accounts for a considerable proportion of the variation in cooperative performance, emphasizing their moderate to strong explanatory power. Notably, "Microcredit," "Saving services," and "Money transfer" exhibit statistically significant positive impacts on cooperative performance, suggesting their role in enhancing the cooperative's increase of investment, satisfaction of members, and corporate image. Conversely, "Financial trainings" demonstrate a significant negative relationship with cooperative performance, potentially indicating complexities in the training's implementation or a need for refinement.

**6. Recommendations**

Based on the findings and conclusions of the study, several recommendations can be provided to enhance the cooperative's performance and optimize the contribution of microfinance services:

- It is advisable for KOIMUNYA cooperative to further develop and expand its microcredit offerings.
- KOIMUNYA cooperative could consider introducing innovative savings products that incentivize regular saving and provide competitive interest rates
- KOIMUNYA cooperative should assess the content, format, and delivery of financial training programs to identify potential areas for improvement
- Collaborate with microfinance institutions to tap into their expertise, resources, and networks.

- KOIMUNYA cooperative is recommended to develop a comprehensive long-term strategic plan that integrates microfinance services into the cooperative's broader goals and objectives.

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