

Role of Agriculture-based Cooperatives on Socioeconomic development in Rwanda

A case of Abajeneza Cooperative in Kayonza District

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DOI: 10.29322/IJSRP.11.05.2021.p11370

<http://dx.doi.org/10.29322/IJSRP.11.05.2021.p11370>

Abstract- This study focused on contribution of agriculture based cooperative on socio-economic development in Rwanda. The general objective of the study was to investigate the contribution of agriculture based cooperative on socio-economic development of beneficiaries using a case study of Abajeneza cooperative in Nyamirama Sector in Kayonza district. The project had the following specific objective: To examine social impact of beneficiaries of Abajeneza cooperative, to analyze the economic impact of Abajeneza cooperative's beneficiaries, and to examine the relationship between cooperative movements and socio-economic development. The sample size was 87 members of the cooperative and all had participated in this research. Purposive sampling technique was adopted during data collection. Questionnaire and interview guide have been used as research instruments, while SPSS and excel software was used during analysis. The findings of this research revealed that the result are statically significant at 82%, which means that cooperative movement has played a role in socio-economic development of members. Examination of the role of cooperatives in social life of members showed that 100% benefited from cooperative health insurance, while 86% of respondents showed that the cooperative assisted them to increase their productivity. The regression analysis results proved that agriculture based cooperatives are important factors to the socio-economic development of their members as proved by a multiple correlation coefficient, $R=0.82$, which implies that 82% of the Socio-economic development of respondents is determined by their belonging to the cooperative. Therefore there is a positive correlation between contributions of Abajeneza cooperative, in Kayonza district to the Socio-economic development of its members.

Index Terms- Cooperative, Economic Development, Social Development, Socio-economic Development.

I. INTRODUCTION

In Rwanda, the cooperative concept is consistent with the Enterprise school, and share similarities with the definition by the International Cooperative Agency. The Rwandan cooperative law defines cooperatives as natural and legal associations formed by people who share activities with the aim of promoting beneficiary members with estimations of self-improvement, common obligation, value, and equality in access to assets, and openness (Republic of Rwanda-Official Gazette, 2007). Similar to other African societies, the nature of cooperatives in Rwanda suggest the existence of numerous forms of cooperation and mutual help that can identified every day. The cooperation spirit is anchored in Rwanda's social capital and has existed for a long time. Among the common cooperation practices inscribed in the Rwandan social and economic culture include; 'Umuganda', 'umubyizi' 'ibimina' and 'Ubudehe' (Sentama, 2010).

Rwanda has a national policy aimed at promoting the formation of cooperatives. Prepared in 2006, the policy document describes the goals and intentions of the government for all forms of cooperatives registered to operate in the country. When well implemented, these intentions provide a policy framework that facilitates the formation of vibrant cooperative movements in the country. Future prospects suggest that cooperatives will make a significant portion of the enterprises in the private sector and will also provide income and employment opportunities especially to populations residing in rural areas of the country.

A vibrant cooperative movement has the ability to be autonomous, self-reliant, and poses sustainable structures that have the potential of dealing with the needs of its members effectively and efficiently (RCA, 2011). The current cooperatives have been used to provide farmers with agricultural inputs and provide markets to sell their crops at wholesale prices. Cooperatives which are engaged in agricultural marketing activities contribute funds that are used to improve the social services and welfare of their members especially in rural areas.

However, farmers are burdened with high cost of farm inputs, inefficient farming techniques, inadequate infrastructure, poor producers' price and heavy constraints in obtaining credits and insurance. Benson (2010) remarked that the situation is further compounded by the general economic downturn and governments drive to remove all subsidies on inputs such us fertilizers, vaccines

and foundation stock. Consequently, the cooperative option comes into focus as a viable way to effectively mobilize farmers to form groups and pool resources to become more effective in agricultural production. In addition to the values and principles of cooperatives, Veerakumaran (2012) explained that cooperatives serve as fundamental tool for achieving high level of socio-economic development.

ABAJENEZA is an agriculture cooperative founded by one of International Non-Government Organization called Women for women in 2006, earlier the cooperative was composed by women only but by the time they have changed their mind set and start to recruit men as gender promotion and equality is being encouraged here in Rwanda, now the cooperative is composed by 87 members, the cooperative is located in Nyamirama Sector of Kayonza District (The Researcher 2019).The oval aim of this study is to investigate the role of agriculture based on socio-economic development of beneficiaries using a case study of Abajeneza cooperative in Nyamirama Sector in Kayonza district.

I.1. Objectives of the study

When proposing this study, the research was guided by the following General objective and specific objectives.

I.1.1 General Objective

The overall aim of this study was to investigate the role of agriculture based cooperative on socio-economic development of beneficiaries using a case of Abajeneza cooperative in Nyamirama Sector in Kayonza district.

I.1.2 Specific objectives

More specifically, this study aimed to:

- To assess the role of agriculture based cooperatives in Abajeneza Cooperative, Nyamirama sector.
- To establish the level of Socio-economic of beneficiaries in Abajeneza cooperative, Nyamirama sector.
- To determine the relationship on roles of agriculture based cooperatives on socio-economic development in Abajeneza cooperative, Nyamirama sector.

I.1.3 Research questions

In terms of research questions, this study responds to the following questions:

- What is the contribution of agriculture based cooperative in Abajeneza Cooperative, Nyamirama sector?
- What is the level of the Socio-economic development of Abajeneza cooperative members?
- What is the relationship between roles of agriculture based cooperative on socio-economic development?

II. REVIEW OF RELATED LITERATURE

II.1 Theoretical Litterature

Agricultural cooperatives are created in line to assist farmers in different socio-economic household occurrences in conformity with cooperative principles through which are user-owned and user-controlled, and the interest gained by the cooperative are equitably shared by the cooperative members (Özdemir, 2005). Agriculture has been recognized as a drive for rural economic development as a means of poverty reduction and the family food accessibility is increased (Abdu-Raheem & Worth, 2011). Agriculture growth provide a variation means of food availability at family level and eradicate hunger and malnourishment by increasing family food utilization and expand economic opportunities for endangered people, especially those engaged in subsistence farming (Hendreks & Lyne, 2011). According to Ruccio, state that agricultural based cooperatives play a key role in enhancing household income as the members actually work cooperatively to attain a specific goal of getting profit. Also, the objectives of a cooperative are to offer goods and services to its members through which there is a raise up of income and savings for socio-economic benefits of cooperative members. The difference between the total incomes and total expenditure of a cooperative is profit or surplus at given period (e.g; one year), and this profit is divided equitably by all cooperative members (Ruccio, 2011).

Even though cooperative receive a small interest margin on each cooperative operation, the main purpose of a cooperative is to offer basic needs to the members. Zimbelman (2014) explains that this is done by deliver services that are rare to the members or by amelioration of those already in the place. Cooperatives based on agricultural activities for instance, supply a variety of importance services needed by the members for enhancement of their agricultural production. Use of agricultural inputs training when are offered in a good conditions result in remarkably increase of agricultural production without forgetting to provide training related to post-harvest value-added activities like processing, packaging, distribution and marketing of cooperative products. A crucial objective of a cooperative is to carry out all activities involved in the value-added chain (Yunez-Naude, 2013).

II.2 Empirical Literature

A Study carried out in East Africa by (Salami, 2010) the research sought that smallholder farming share about to 75 per cent of agriculture production and more than 75 per cent of employment, however nationally faces challenges of weak institutions, restricted access to market and access to credit. All of these factors hamper productivity improvements such as training intended to develop skills and encourage technology use and innovation. The study by (Yengoh, 2012) in Cameroon found that women were the predominant food producers among small-scale farmers. Investment in agricultural extension contributes to increased food-crop yield

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<http://dx.doi.org/10.29322/IJSRP.11.05.2021.p11370>

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and food security, and spreads the use of technologies like improved seed, fertilizer and residue management. Failure to provide financial assistance hinders the propagation of these technologies, leaving smallholder farming communities in continued food insecurity and poverty.

A study conducted in Swaziland by (Mavimbela, 2016) indicated that agricultural cooperatives are an important tool for boosting household income as the members normally work together towards a specific goal of getting profit. Also, the objectives of a cooperative are to provide goods and services to its members whereby they increase income and savings for social and economic benefits of cooperative members. Profit or surplus of a cooperative is the difference between the total incomes of the cooperative and the total cooperative expenditures at a given period of (e.g., one year), and the surplus is equitably shared by the cooperative members.

Kumar showed that rural markets facilitate national development by boosting the economy of rural areas where a high proportion of the population is involved in agrarian activities (Kumar, 2011). Challenges that preclude access to market by rural people include poor infrastructure, costly and inadequate transport, and lack of contract farming. These logistical weaknesses in the distribution of products cannot be easily tackled by an individual.

A study conducted by Dung (2011) in Bac Ninh province of Vietnam found that agricultural cooperatives provide a high number of services to farm households, with the focus on seed supply, crop varieties, supply services, irrigation, fertilizer and pesticides, field protection, extension services and other farm activities. Many of these activities need financial support that can be raised either from contributions by cooperative members, surplus retained, or credits provided by the banks.

Similarly, a study by Gana et al. (2010) in Nigeria recommended that small-scale farmers looking for a bank loan should be encouraged to form a cooperative. Formation of cooperative will facilitate access to credit and applications for loans, with the double advantage that loans are made to a group of people which develop their social and economy capacity, and administrative cost is reduced for banks making such loans. Finally, a study conducted by Harelimana and Mukaruka in Rwanda found that cooperatives are playing a big role in contribution to social-economic development, like poverty reduction more especially for job creation and financial security (Harelimana and Mukaruka, 2020).

II.3 Critical Review and Research Gap Identification

Prior and recent scholarly evidence suggests that the cooperative landscape in Africa is dominated with success stories detailing the contributions of cooperatives in different areas of human life. Other cooperatives have also died while others continue hanging on the hopes for funding from the governments, contributors, and NGOs (FAO, Investing in collective action: Opportunities in agrifood cooperatives, 2018) There is paucity in research regarding the existence of cooperatives in Africa before 2004 when the ILO, ICA, DFID, and the World Bank encouraged a progression of concentrates halfway as a major aspect of the Global Cooperative Campaign against Poverty.

The review established paucity in African studies given that most of the researcher sought for available data suggesting that most of the registered cooperatives were dormant and the realization that most were not registered officially or sought refuge in other forms of organizations (Pollet, 2014). Recent studies suggest that there is paucity in African research on African Cooperatives despite the continuing debates linking cooperatives with poverty alleviation in the continent (Emana, 2011).

Although a number of existing studies on cooperative and socio-economic development are partially part of the Global Cooperative Campaign against Poverty, the common feeling is that these studies are yet to exhaust the relationship between the two variables (Pollet, 2014).

It is thus not a wonder that a number of policy implications are derived. The role of agricultural based cooperative may be re-evaluated in instances that developing countries differ with respect to their economic environments. As such, it remains unclear as to whether there exists any socio-economic relationship between interventions of Abajeneza cooperative in beneficiaries members have been traditionally producing for home consumption as no empirical evidence has so far documented the relationship. A gap therefore exists in establishing role of cooperative movement on socio-economic development with particular emphasis to the Abajeneza cooperative in Kayonza district. This is in respect with the 2008 World Development Report which suggested agriculture based as the primary engine for socio-economic development, as well as a tool for transforming nations more so in poverty eradication globally (World Bank, 2007).

II.4 Theoretical framework

Cooperative Theory

The neoclassical theory of cooperatives is important as it brings forth important information regarding the expected behavior of cooperatives in numerous markets and the differences in how cooperatives behave and carry out their functions. Given that the theoretical analysis of cooperatives can be applied in diverse contexts in line with the cooperative objectives, the cooperative theory illuminates in the economic effects of the choices and decisions made by cooperatives in the development of business strategies and how these elements are consistent with the objectives. Besides, the cooperative theory produces significant implications for public policy based on the expectations (Chambo, 2012). This theory is connected to the independent variables that anchored this study. As this theory highlight how cooperatives plays a big roles in inputs supply, emphasize on agricultural increased income, and how cooperatives plays a crucial role in regulating market failure as well as the welfare and wellbeing of the members of abajeneza cooperative.

II.5 Conceptual Framework

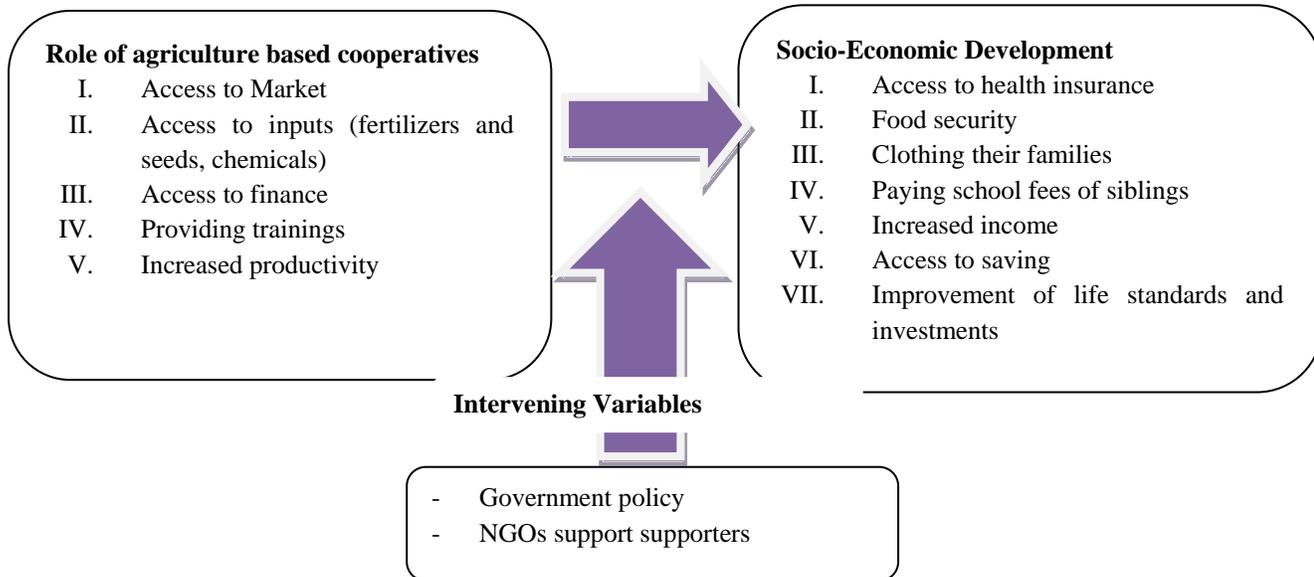


Figure 2. 1:Conceptual Framework

Source: Researcher, (2020).

Figure 2.1 illustrates the conceptual framework that explains the link between the independent and dependent variables guiding the study. Under the independent Variable (Role of agriculture based of cooperative) there are a number of attributes which include; Access to Market, Access to inputs (fertilizers, chemicals and seeds), Access to finance, providing trainings and increased productivity independent variables influence dependent variables in many ways. The dependent variable is socio-economic development. The predictors of the dependent variable include; access to health insurance, Food security, Clothing their families, paying school fees of siblings, increased income and Access to saving. The intervening variables guiding the study including and government policies.

III. RESEARCH METHODOLOGY

III.1 Research Design

A descriptive survey design was used to carry out the study. Both qualitative and quantitative approaches were adopted. Quantitative approach encompasses the measurement and analysis of data numerically and provision of precise descriptions. That this mode of inquiry follows several logical and distinct steps from identifying and stating research problem to making appropriate conclusions and inferences to the population.

III.2 Sample design

The target population was small to 87 respondents, researcher has taken all target population, and census sample technique was adopted.

Different sampling techniques was used, firstly purposive sampling technique was used for selecting the cooperative, respondents were randomly selected.

III.3 Data collection methods

To improve the reliability of information and results, the data collection methods that was employed in the research process included research questionnaires, focus groups and key-informant interviews.

III.4 Validity

As reliability refers to the consistency of measurement and is frequently assessed using test and re-tests reliability method. In this study reliability of the questionnaire was assessed by carrying out a pilot test among agricultural cooperatives. The pilot test helps to answer if the questionnaires consistently measure what they are intended to measure. It provided an opportunity to correct any errors, ambiguous questions as well as change the questions that do not match with the study.

During piloting, researcher used Crobach's alpha equation test as follow:

$$\alpha = \frac{N \cdot \bar{c}}{(\bar{v} + (N - 1) \cdot \bar{c})}$$

The Cronbach's alpha showed that data are reliable at 80% variance. The Cronbach's alpha scale is 0.8, which is a good reliability. The coefficient of variation with the formula: $C.V = \frac{\sigma}{\mu}$; Where C.V = Coefficient of Variation; σ = Standard deviation of the dataset; μ = Mean of the dataset; showed that C.V is less 10%, which proved that the questionnaire was reliable.

IV. FINDINGS AND DISCUSSION

Objective One: Assessing the role of agriculture based cooperatives in Abajeneza Cooperative members

As shown in the table 4.1, 100.0% of respondents replied that since they joined Abajeneza Cooperative it increased their access to seeds, 74.4% benefited from fertilizers and 65.5% have access to others inputs. As Zepeda stated that agricultural inputs are imperative in farming systems and lack of sufficient investment in inputs results in a reduction of agriculture production growth (Zepeda, 2010). This finding is also in line with Aregay's (2012) findings that proved that farmers who use inputs such as fertilizers and irrigation boost their agricultural production and better fulfill household needs.

In addition, the said table shows that 85.1% of the respondents said that the cooperative have helped them to access credits and savings, while 88.5% responded that they have managed to access the market through the cooperative. According to Chiyoge, (2012), through cooperatives, farmers can attract traders and institutional buyers, and increase their negotiating power because the primary objective of agricultural cooperatives is to assist its members in the rational organizing of agricultural production, the processing, and marketing of the cropping output as well as animal production also, thus such joint activities contribute to strengthening the economic position of agricultural output in a market economy (Chiyoge, 2012).

Table 4. 1: Role of Abajeneza cooperative

| variables | N | Frequency | Percentage |
|----------------------------|----|-----------|------------|
| Access to seeds | 87 | 87 | 100.0% |
| Access to fertilizers | 87 | 65 | 74.7% |
| Access to other inputs | 87 | 57 | 65.5% |
| Access to finance(credits) | 87 | 74 | 85.1% |
| Access to market | 87 | 77 | 88.5% |

Source: Primary Data (2021)

Table 4. 2: Benefits and support from Abajeneza cooperative

| Services/Support | N | Frequency | Percentage |
|-------------------------------------------------------------------------------------------|----|-----------|------------|
| Trainings/ capacity building in good agriculture practices and climate change resilience. | 87 | 65 | 74.7% |
| Trainings on financial management and good cooperative governance? | 87 | 47 | 54.0% |
| Agriculture equipment like sprayer pumps/ Sheller machine? | 87 | 54 | 62.1% |
| Irrigation Subsidies from the government | 87 | 30 | 34.5% |

Source: Primary Data(2021)

As for the benefits and support got from the cooperatives, the table 4.2 shows that 74.7% of respondents showed that Abajeneza Cooperative provide them with trainings related to good agriculture practices and climate resilience, while 54.0% replied that they have benefited from different training on financial management and good governance. 62.1% of respondents proved to have benefited from different agriculture equipment like sprayer pumps or Sheller machines, while 34.5% have benefited from Irrigation subsidies from the government through the cooperative.

This is not far from the study conducted by Dung (2011) in Bac Ninh province of Vietnam found that agricultural cooperatives provide a high number of services to farm households, with the focus on seed supply, crop varieties, supply services, irrigation, fertilizer and pesticides, field protection, extension services and other farm activities. Many of these activities need financial support that can be raised from either contributions by cooperative members, surplus retained, or credits provided by the banks.

Objective Two: Contribution of cooperative to socio-economic development Abajeneza cooperative of members

The results in the table 4.3 show that members rated high on income pays school fees of children, 56.6% of the members agreed with this statement yet 24.9% were against it. Only 18.5% were not sure. The same, 72.42% of members answered that the income earned

from the cooperative has helped them to pay family medical insurance but 11.49% were not sure. Finally, 75.86% of the respondents agreed with the fact that Abajeneza cooperative have helped to ensure food security yet 18.40% of the respondents disagree with the statement but only 5.75% were undecided.

In Rwanda as indicated in the report of RCA (2019) demonstrated that the increment of both participants and share capital since 2010-2019, from 238,353 members with share capital of 5,178,550,576 Frw in 2010 to 1,839,956 members with 31,881,597,219 Frw in 2019. This reveals the cooperatives contribute to poverty reduction as there is increment of investments made in cooperative, which implies that members are gaining from this investment which helps them to upgrade to better standard of life. Cooperatives contributed financial security through job creation and access finance through loan to both members and to the community in general.

Table 4.3: socio-economic development Abajeneza cooperative of members

| Statement | N | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Total |
|---------------------------------------------|----|----------------|--------|---------|----------|-------------------|-------|
| Income pays school fees of siblings | 87 | 19.90% | 36.70% | 18.50% | 15.80% | 9.10% | 100% |
| The income has improved my living standards | 87 | 20.30% | 41.10% | 12.10% | 18.30% | 8.20% | 100% |
| The income pays family medical insurance | 87 | 27.59% | 44.83% | 11.49% | 5.75% | 10.34% | 100% |
| Food security | 87 | 39.08% | 36.78% | 5.75% | 9.20% | 9.20% | 100% |

Source: Primary Data (2021)

A research conducted in Rwanda relating to “institutional environment and household food security at local level in Rwanda” case of cooperatives for the agriculture farmers and its findings focused on the problem of global production, trade and stocks. Hence, the current studies were in accordance with the findings this study where the original food security debate focused on adequate supply of food and ensuring stability of these supplies through food reserves. Subsequent food security efforts focused primarily on food production and storage mechanisms to offset fluctuations in global supply and ensure the ability to import food when needed. Food availability addresses the “supply side” of food security and is determined by the level of food production, stock levels and net trade (Mathai et al., 2011).

As indicated in Table 4.4, most of the respondents agreed that their income earned from Abajeneza cooperative range between 410,000 to 500,000Rwf per year yet 12.3% of the respondents disagreed with this figure and only 10.3% neither agreed nor disagreed. Also, 32.4% of the respondents agreed to be earning between 10,000-100,000Rwf per year a significant number of the respondents 52.3% were against this figure yet only 15.3% of the respondents were not sure. In the same way, 40.9% of the members agreed to be earning between 110,000-200,000 Rwf per year yet 34.6% of them disagreed with this figure but 24.1% were undecided.

Table 4. 4: Descriptive analysis of the total income earned by members from Abajeneza cooperative

| Statement | N | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Total |
|--------------------------------------|----|----------------|--------|---------|----------|-------------------|-------|
| Btn 10,000-100,000Rwf per yr | 87 | 10.30% | 22.10% | 15.30% | 28.20% | 24.10% | 100% |
| Btn 110,000-200,000 Rwf per yr | 87 | 12.30% | 28.60% | 24.10% | 24.40% | 10.20% | 100% |
| Btn 210,000-300,000 Rwf per yr | 87 | 13.20% | 37.90% | 23.40% | 14.30% | 11.20% | 100% |
| Btn 310,000-400,000Rwf per yr | 87 | 20.40% | 42.80% | 6.10% | 26.60% | 4.10% | 100% |
| Btn 410,000-500,000Rwf and above per | 87 | 25.10% | 52.30% | 10.30% | 8.20% | 4.10% | 100% |

Source: Primary Data(2021)

Members who agreed to be earning between 210,000 to 300,000Rwf per year, had a percentage of 51.1% and those who disagreed with this statement were 25.5% yet 23.4% were undecided. On the other hand, 63.2% of the respondents stated that their total income earned from Abajeneza cooperative range between 310,000-400,000Rwf per year but 30.7% of the respondents were against this amount yet only 6.1% neither agreed nor disagreed. The results clearly show that majority of the respondents earned a relatively significant amount of money from being Abajeneza cooperative members between 410,000 to 500,000Rwf per year.

This corresponds with earlier researcher (Nsingize, G. 2013) indicate that agricultural cooperative have made positive contribution to the smallholder members income. According to Ghosh & Maharjan (2001) assessed the role of government sponsored cooperatives in

improving the socio-economic conditions of their members. They collected data through questionnaire, observation and case study from both cooperative and non-cooperative members. They reported that household income for members was higher than non-members and much higher than the national figure. The current study shown that the cooperative members received more income, which were in the same line with the study conducted by Gashaw, (2018) found that the total household income for cooperative member was 2.9 times higher than the poverty line.

Objective three: determination of the relationship between contributions of agriculture based cooperatives on socio-economic development

Table 4.5 shows the the socio-economic development status of Abajeneza Cooperative members before and after joining the organization. As for accessing to three meals per day the number before was 60.9% but now it is 90.8% there is an increase of almost 30.0%, about the statement concerning if they have managed to bought a cattle or cow, 17.2% have bought a cattle/cow before joining the cooperative contrast 93.1% who have bought a cattle/cow after joining the cooperative, this is the result of Abajeneza cooperative initiative where they have decided to buy for every member a cattle, 11.5% have managed to buy a bicycle before joining the cooperative and their counterparts equal to 48.3% have managed to buy a bicycle. The cooperative members have accessed to the electricity and 24.1% managed the light in their house before joining the cooperative while 71.3% have access to electricity/ solar lighting system after joining the cooperative.

According to statistic from Rwanda Energy Group (REG), the number of households accessing electricity has increased from 10% in 2010 to 41% in October 2017. Among the 41% accessing to electricity, 30% of the households are connected to the national grid while 11% are accessing through off-grid solution, mainly solar energy. The result are in line with the government policies, as there is a high increase of electrification in Abajeneza cooperative members because this cooperative is located in Eastern province which is the second province at national level to be electrified with 39% access to the electricity of total population of eastern province while the first province is Kigali city with 82% of households have access to the electricity.

Table 4.6: Socio-economic status before and after joining the cooperative

| Socio-economic status | Before Joining cooperative | | After Joining the cooperative | |
|----------------------------------------------------------------------------------------------|----------------------------|------------|-------------------------------|------------|
| | Frequency | Percentage | Frequency | Percentage |
| Access to three meals per day | 53 | 60.9% | 79 | 90.8% |
| You buy basic clothes every year | 29 | 33.3% | 56 | 64.4% |
| You have a permanent house, fairly good/ you managed to repair your house | 57 | 65.5% | 62 | 71.3% |
| You can afford to buy a piece land piece of land? | 29 | 33.3% | 47 | 54.0% |
| You have bought a cattle/ cow | 15 | 17.2% | 81 | 93.1% |
| You have bought a bicycle | 10 | 11.5% | 42 | 48.3% |
| You have connected your house to electricity/ you bought a solar system to light your house? | 21 | 24.1% | 62 | 71.3% |

Source: Primary Data(2021)

According to table 4.7, the researcher got intercept a= 0.212 and slope b= 0.82 thus the linear equation was $Y = 0.212 + 0.82X$, where Y was agriculture based cooperative, and X was Socio-economic development. From this equation, the researcher established a relationship between cooperative movements and Socio-economic development. This implies that, unitary change in agriculture based cooperative result in a change in socio-economic development by 0.212 units. The standards error of the estimate serves as a measure of probable deviation from the true figure of prediction and usually the less the standards error the more reliable are the results.

Table 4.7: Coefficients of Linear regression Analysis on Cooperative movements and Socio-economic development in Abajeneza cooperative

| Model | Unstandardized coefficients | | Standardized coefficient | | |
|-------------------------------|-----------------------------|--------|--------------------------|--------|------|
| | B | Std. d | Beta | T | Sig |
| Agriculture based cooperative | .212 | .200 | 0.9 | 10.642 | .009 |
| Socio-Economic development | .082 | .202 | -.305 | -.453 | .695 |

Source: Primary Data(2021)

Beta, a standardized coefficient, indicates that agriculture based cooperative's factors can be ranked from the most important factors which contribute on socio-economic development. In order to find out the strength of the model (the strengths of relationship between contribution of agriculture based cooperative on socio economic development) the researcher looked for a multiple correlation coefficient, R, which measures the degree of correlation between the dependent variables and independent variables was 0.82, which implies that 82% of the sector Socio-economic development is determined by the agriculture based cooperative in place and the remaining 18% of the development is determined by other factor not mentioned in the model. As such, the findings tackled the third research question by suggesting that there was a positive correlation between contributions of agriculture based cooperative on Socio-economic development in Abajeneza cooperative in Nyamirama sector.

In Schultz (2011)'s view, Cooperatives were significant contributors in the Socio-economic development of a region through offering subsistence advantages which growth is pegged on, this is in accordance of the current study where respondents was positively answered that there is a significant correlation between agriculture based Cooperative and Socio-economic development in members of Abajeneza cooperative, in Kayonza district in Rwanda 82% influence. According to earlier researchers Harelimana & Mukaruka (2020) cooperatives played big role in poverty reduction and it has been good approach to end poverty of all forms and everywhere. Rwanda was marked as faster growing economy country on continent with strong enforcement of strategies of poverty alleviation, cooperatives helped to bring people with shared capital and start-up business of which every member is equally gain from.

V. CONCLUSION

The study revealed that the relationship of agriculture-based cooperative is positively associated with socio-economic development in a sense that the higher the cooperative productivity level, the lower the rates of poverty experienced. Abajeneza Cooperative have contributed to poverty reduction of its members as there is increment of the members' socio-economic status. Members are gaining from the cooperative investment, which helps them to upgrade to better standard of life. Cooperatives contributed to the financial security through job creation and access finance through loan to both members and to the community in general. According to earlier researchers such as Harelimana & Mukaruka (2020) showed that cooperatives played a big role in poverty reduction and it has been good approach to end poverty of all forms and everywhere.

ACKNOWLEDGMENT

I deeply acknowledge the Almighty God for his protection and blessings throughout the entire period of my studies and I thank Him for protecting me and giving me energy, courage, and wisdom, which will help me to successfully complete my work thesis. I am sincerely indebted to my supervisors Dr SAFARI Ernest (PhD) for the precious time he invested in offering guidance, advice, and corrections that made my research proposal successful. I also acknowledge Mount Kenya University, Kigali Campus and all their lectures for equipping me with relevant knowledge and skills.

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