



Research Article

PERFORMANCE OF COOPERATIVE UNIONS SUPPORTED BY LOCAL NGO'S IN AGRICULTURAL AND FOOD MARKETING DEVELOPMENT IN RWANDA A CASE STUDY OF RWARRI MARKETING INTERVENTIONS IN RWAMAGANA DISTRICT, EASTERN PROVINCE OF RWANDA

Murthy S. Kopparthi, *Gasheja Faustin and HITIMANA Celestin

University of Rwanda, College of Business and Economics, Rwanda

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ABSTRACT

Agricultural development in Rwanda like in other developing countries faces numerous challenges and constraints related to persistent food insecurity, food price volatility, food safety, climate change and sustainability concerns. On the other hand, NGOs are mostly seen as a catalyst for societal change since they are responsive to the needs and problems of their clients, usually the poor, women and children and other group of people considered as the projects beneficiaries. This research discusses the main interventions of the NGOs and their contribution towards development of agricultural and food marketing among cooperative unions in Rwanda. The focus is to portray and analyse the interventions of non-profit making organisations and their contribution towards development of agricultural and food marketing among cooperative unions in Rwamagana district, in the Republic of Rwanda. In this research, quantitative and qualitative methods were used to collect qualitative information and to transform the collected data into numbers, measurements, statistics and numerical figures. A survey of 374 respondents comprising of farmers mostly involved in agricultural production, processing and food marketing activities in their cooperatives was performed. The research findings reveal that the NGOs have contributed to the expansion of cooperatives unions through the use of provided agricultural and food marketing development packages. These expected cooperative unions outcomes were like improving agricultural and marketing performance, acquiring customers' information, building long-term relationship with customers and formatting strong relationships with a number of organisations in agricultural and food markets or wider marketing system. As a result, there is a noticeable progress towards cooperative unions' performance. The cooperative unions improved their processing technology and a number of product ideas have been made possible through technological assistance. The adoption of advanced technology is still at early stage, but the cooperative unions' members expect a number of improvements in terms of quantity and good quality products and hence the satisfaction of customers and increase of performance. In terms of performance, cooperative unions realized the above average performance in both financials and operations such as the total sales growth, the customer satisfaction, the cooperative unions' market share, and the cooperative unions gain in market share and the overall cooperative unions' success.

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INTRODUCTION

The agricultural sector remains the economic backbone of Rwanda, employing about 87 % of the working population, producing around 46% of GDP and generating about 80% of the total export revenues. In order to achieve the objectives of the agricultural and food sector, as formulated in the Vision 2020 and in the Poverty Reduction Strategy Paper (PRSP), the Government has adopted the agricultural policy, whose main goal is to contribute to the national economic growth, improved food security and increase incomes of the rural households.

*Corresponding author: Gasheja Faustin,
University of Rwanda, College of Business and Economics, Rwanda.

Successful implementation of the agricultural policy requires adequate financing, effective coordination of all stakeholders and efficient mechanisms for Monitoring and Evaluation of the progress in implementation of the different agricultural programmes (MINAGRI, 2013). The importance of agricultural sector in developing economies is highly recognized including Rwanda where it is reflected through the continued relatively high resource allocations in the development budget making over 10% of the total annual development budget. NGOs are mostly seen as a catalyst for societal change because they are responsive to the needs and problems of their clients, usually the poor, women and children and other group of people considered as the projects beneficiaries (Wagona, 2002).

Due to the fact that targeting and being responsive to needy groups of people in society, NGOs are being heralded as "important vehicles for empowerment, democratization and economic development" (Susan, 1998). In fact, these NGOs are often driven by strong values and member interests, usually geared, among other things, toward empowering communities that have been traditionally disempowered (Susan, 1998). Marketing interventions are reviewed in relation to potential components of their design: intended beneficiaries; training; access to inputs; agro-processing technologies; credit programmes; marketing linkages; marketing information; and holistic approaches and a number of common themes emerge from these experiences. The nature and processes of agricultural and food marketing encompass on farm and off-farm activities from the production to the commercialization of agricultural and food products, such as post-harvest handling, waste saving and seasonal crops management and preservation, processing, marketing, and related commercial activities (Adegbuyi, 2011).

However, NGOs using subsidies to target disadvantaged groups would argue that this is a legitimate way to improve the livelihoods of poor individuals, households and communities, particularly in remote areas. Yet, even with these subsidies, it may be difficult to have much impact on livelihoods in the most geographically and socioeconomically disadvantaged communities. The potential role of NGOs in the agricultural and food marketing development sphere is largely unrealised. Marketing and business development are relatively new intervention areas for NGOs. It is in this regards that the focus of this research is to portray and analyse possible agricultural and food marketing interventions and the approaches of the nongovernmental organisations as well as their contribution towards the performance of the cooperative unions in agricultural and food marketing development in Rwanda.

Statement of the Problem

In developing countries, agricultural and food marketing interventions are reviewed, concentrating principally on access to domestic markets. Agricultural development faces numerous challenges and constraints related to persistent food insecurity, food price volatility; food safety, climate change and sustainability concerns (Gordon, 2001 and World Bank, 2007). Indeed, the poor performance of the agricultural sector in Rwanda has been a major barrier to economic development and it now faces further challenges due to climate change as a consequence of global warming (IPAR, 2009). Cooperatives in joint agricultural and food production assume that members operate the cooperative on jointly owned agricultural plots while the agricultural marketing of farm crops and processed food, farmers pool resources for the transformation, packaging, distribution and marketing of an identified agricultural commodity (Suleman, 2009).

The statistics indicate that around 90 per cent of the population in Rwanda depends on agriculture as source of food, income and employment (IPAR, 2009). Among the measures to tackle the agricultural and food marketing development challenges, it is important to recognise that the occurrence and development of cooperatives in Rwanda was not accidental. It is related to the fact that most of cooperative members depend on agricultural production and food processing for their

livelihoods. The interventions in agricultural and food marketing have several reasons to occur by filling the gaps in the international volatility and declining prices, thin and volatile domestic markets, non-competitive and predatory marketing practices by private traders, risk aversion among farm households, maintaining farm incomes, agriculture as a source of government revenue, subsidizing food for urban consumers, ensuring food security, and other externalities. Various private traders including cooperatives play an important role especially in marketing of agricultural produce, inputs and food, complementing and competing against activities of the central and local governments and its development partners. However, the understanding of cooperative unions performance and the NGOs contribution in agricultural and food marketing development in Rwanda is lacking, particularly as related to the share of market accounted for by highlighting the importance of inter-institutions and inter-sectors relationships.

Research objectives

The general objective of this research is to portray and analyse the interventions of non-profit making organisations and their contribution towards development of agricultural and food marketing among cooperative unions in Rwamagana district, Eastern Province of Rwanda.

Specific Objectives

The specific objectives of the research are:

- To assess the extent of agricultural and food marketing interventions and services provided by NGOs to cooperative unions.
- To analyze the responsiveness of the cooperative unions vis-à-vis the agricultural and food marketing interventions and services provided by NGOs.
- To evaluate the adoption of technological innovation by cooperative unions involved in agricultural and food marketing development for their marketing activities.
- To find out the extent to which agricultural, fisheries and dairy cooperative unions perform in agricultural and food marketing.

Research Questions

In order to achieve the objectives of the research study, the study raises the following questions:

- What is the extent of agricultural and food marketing interventions and services provided by NGOs to the cooperative unions?
- What is the responsiveness of the cooperative unions vis-à-vis the agricultural and food marketing interventions and services provided by NGOs?
- At what scale is the adoption of technological innovation among the cooperative unions involved in agricultural and food marketing development for their marketing activities?
- To what extent do agricultural, fisheries and dairy cooperative unions perform in agricultural and food marketing?

LITERATURE REVIEW

According to RCA (2011), agricultural marketing cooperatives provide farmers with agricultural inputs and sell their crops and produce to wholesalers, marketing boards, inter-cooperative partnerships, Fair Trade organizations or other types of overseas customers. According to Greg and Donald (2011), marketing cooperatives assist members maximize the return they receive for goods they produce. Most cooperative marketing activity involves either agricultural products or those of producers in related industries such as horticulture, dairy, aquaculture, forestry, and others. Other marketing associations assemble member production into large quantities for sale to further processors, wholesalers or retailers. This first-handler role is common for cooperatives of grain growers and producers of fruits and vegetables for the fresh produce market (Greg and Donald, 2011). In addition, marketing cooperatives enable members to extend control of their products and realize additional margins through processing, distribution and sales.

The fixed cost technology is always preferred once a producer achieves certain level of capital which is defined as the technology adoption frontier (Carter and Barrett, 2006). In contrast, the literature of technology adoption (Banerjee and Duflo, 2005; Degu et al., 1998; Duflo et al., 2008; Foster and Rosenzweig, 2010) suggests that non-fixed cost technologies can boost producers out of poverty. However, it is also found that the proper combination of variable inputs such as fertilizer and seeds would be as much as necessary to increase farm production (Degu et al., 1998). In additional, Duflo et al. (2003) found that the success of the inputs depends on each household's human capital and consequently, increasing technical assistance could also boost the benefits of using certain inputs.

It seems, on the other hand, that a large body of empirical evidence regarding geographic concentration of new technologies and geographic patterns of technology adoption may be linked to considerations of marketing and product support efforts. New technologies are more likely to be adopted earlier near market centers where dealers and product supports are easily available (Sunding and Zilberman, 2000). According to Maila (2006), the end product of performance should be measured against four elements that are: quantity, quality, cost or risk factors and time. The idea of measuring the end product is fully supported as it can be argued that a product can be in any form that is good or bad, hence the need to have it measured. The actual performance of cooperatives in Rwanda is captured based on measurable indicators such as improved governance, planning, accountability, production and market integration (Theogene and Kristin, 2013). The study commissioned by Carolyn (2007), about Measuring the Performance of Agricultural Cooperatives, has categorized performance into 5 groups according to the cooperatives' return on equity and extra value generated at the three different interest rates namely negative returns, positive return on equity (but no extra value generated), extra value generated at a basic interest charge for equity, extra value generated with a moderate risk premium on equity capital, extra value generated with a higher risk premium charge for equity. According to Kindness and Gordon (2001) a large number of NGOs become involved in agricultural and food marketing activities, but this

is rarely their core business. Many NGOs start with welfare objectives, in the areas such as education, health, water, infrastructure and agriculture and gradually shift towards a longer-term development focus. With this shift, small business and income-generation activities take on a greater role. Marketing activities are often managed and evaluated in the same way as other development activities, with insufficient attention to budgeting and profitability. However, NGOs using subsidies to target disadvantaged groups would argue that this is a legitimate way to improve the livelihoods of poor individuals, households and communities, particularly in remote areas. Yet even with these subsidies, it may be difficult to have much impact on livelihoods in the most geographically and socio-economically disadvantaged communities (Kindness, 1994; Kindness and Gordon, 2001).

According to Eric & Faisal (2007), non-governmental organizations are largely staffed by altruistic employees and volunteers working towards ideological, rather than financial, ends. Their founders are often intense, creative individuals who sometimes come up with a new product to deliver or a better way to deliver existing goods and services. They are funded by donors, many of them poor or anonymous. Yet these attributes should not be unfamiliar to economists. Development NGOs, like domestic nonprofits, can be understood in the framework of not-for-profit contracting.

In Hansmann's (1980) seminal working on the nonprofit sector, argued that the key characteristic separating nonprofits from for-profits is the "non-distribution constraint" that prevents or limits officers or directors from distributing the net earnings amongst themselves (Eric and Faisal, 2007). Of course, nonprofits do have the ability to distribute their "profits" to employees in the form of perquisites such as higher wages, shorter hours, or better offices. Nonetheless, because not-for-profit entrepreneurs have weaker incentives to maximize their profits, they may be able to obtain a competitive advantage in a number of areas (Glaeser and Andrei, 2001). There are a variety of ways in which organizations facilitate marketing, including: strengthening the capacity of individuals, groups or communities (through group strengthening and training); developing linkages to traders and other stakeholders in the marketing chain (e.g. input suppliers, credit sources and transport agents); and linking farmers to relevant market information. This type of facilitative role is beneficial for a number of reasons: being less interventionist, it is likely to generate more sustainable marketing activities and linkages; it is likely to be achieved at lower cost than if the NGO was more directly responsible for marketing activities; and, therefore, it facilitates reaching a wider audience (Kindness and Gordon, 2001).

According to Kotler and Kevin (2009), the marketing orientation evolved from earlier orientations, namely, the production orientation, the product orientation and the selling orientation. Well-functioning marketing systems necessitate a strong private sector backed up by appropriate policy and legislative frameworks and effective government support services. Such services can include provision of market infrastructure, supply of market information, and agricultural extension services able to advise farmers on marketing. Training in marketing at all levels is also needed. One of many problems faced in agricultural and food marketing in developing countries is the latent hostility to the private sector

and the lack of understanding of the role of the intermediary. The role of agricultural cooperatives in this regard is elaborated in food security and rural development of developing countries. Some definitions would even include "the acts of buying supplies, renting equipment, and paying labor", arguing that marketing is everything a business does. Such activities cannot take place without the exchange of information and are often heavily dependent on the availability of suitable finances (Miralmasi et al., 2014). According to Yasir (2009), marketing systems are dynamic; they are competitive and involve continuous change and improvement. Businesses that have lower costs, are more efficient, and can deliver quality products, are those that prosper. Those that have high costs, fail to adapt to changes in market demand and provide poorer qualities are often forced out of business. According to Helen and Ruth (2007) and Shepherd (2011), new marketing linkages between agribusiness, large retailers and farmers are gradually being developed, e.g. through contract farming, group marketing and other forms of collective action. Donors and NGOs are paying increasing attention to ways of promoting direct linkages between farmers and buyers within a value chain context. More attention is now being paid to the development of regional markets and to structured trading systems that should facilitate such developments (CTA and EAGC, 2013).

MATERIALS AND METHODS

The population of the study included the organised agricultural, fisheries and dairy cooperative unions' members that were empowered and supported by RWARRI in agricultural and food marketing development initiatives in the district of Rwamagana. The research took into consideration of five cooperative unions' members operating within mainly five agricultural and food value chains mainly rice, fish, maize, dairy and banana. The study population was made of 5762 members of these cooperative unions including 63.9% males and 36.01% females.

Sampling frame

By considering sample frame as an outline description of population (Zikmund, 2000), the researcher have adopted sample frame as initial factor of the research because it is expected to give a rapid picture of close representation of the observable in the study population. The study census was constituted with all Agricultural, fisheries and dairy cooperative unions supported by RWARRI in marketing with administration and operating frame work in the districts of Rwamagana, Eastern Province of Rwanda.

Sampling methods

In this study, the simple random sampling was selected as the purest form of probability sampling where each member of the population of the study had an equal and known chance of being selected. The entire process of sampling was done in a single step of selecting independently the respondents of the cooperative unions' members. In this regard, the farmers were randomly selected to be part of the questionnaire respondents whereby a computer aided random selection was preferred using the list of members in the spreadsheets.

The distribution of the study sample which is made of 374 people representing 6.50% of the total study population based on the Slovin's Formula which is concerned with the application of the normal approximation of 95% level of confidence and 5% error tolerance. It also shows that the rice growers are highly represented in this study with about 54% of the total sample.

RESULTS

Access to marketing interventions from RWARRI

The cooperative unions are mostly supported by NGO in facilitating access to marketing interventions. It is in this regard that this research has focused on finding out the union members' points of view vis-à-vis access to marketing interventions. The Table 4.1 shows that when asked on agriculture marketing interventions provided by NGO partner to enhance the activities of cooperative unions, a mean of 66.6% of cooperative members revealed that their cooperatives have access to the marketing interventions provided by RWARRI. The provided marketing interventions have had implications on the performance and sustainability of these cooperative unions. The table 4.1 reveals that the most recognised to have access to marketing interventions provided by Local NGO include Linkages to MFIs and Marketing information services to the rate of 70.3% each. The Access to agricultural inputs and Agro-processing technologies are recognised at a rate of 69.8%. Information, skills and trainings recognised to the rate of 62% while marketing linkages is recognized to the rate of 54.3%. The potential compensation of agriculture marketing interventions to farmers are economies of scale, through joint purchasing of inputs and joint marketing of products, improved access to finance, processing technologies, storage facilities or transport (Susan, 1998).

Effects of agricultural food marketing interventions provided by RWARRI This research section discusses the findings from field research in relation to the effects of agricultural food marketing interventions provided by RWARRI. *Use of marketing skills and knowledge provided by RWARRI.* The knowledge, skills and talent development in the agricultural and food marketing are most importantly applied to help the cooperative unions reach their goals. As witnessed by cooperative members, they have access to marketing interventions from RWARRI, however, the use of skills and knowledge provided is still low. The table 4.6 indicates the high uncertainty level of appearance of the fact of using marketing skills and knowledge provided by RWARRI. The table shows that about 52% of marketing skills and knowledge provided by NGOs are not likely to be used by beneficiaries, 29% likely to be used by the cooperative members who were beneficiaries of the same interventions while 19% of the respondents characterize the marketing interventions to be less likely implemented by the cooperative members. However, the statistical mean (μ) calculated is equal to 3.07 which translates to be in the intervals of $2.61 \leq \mu \leq 3.40$ which demonstrates the uncertainty of the respondents in regards to the use of marketing skills and knowledge provided by RWARRI. The standard deviation; $\sigma > 0.5$ demonstrates the heterogeneity of responses from different points of views.

Table 4. 1. Access to the marketing interventions by cooperative unions

Access to the marketing interventions	Yes		No	
	Frequency	Percent	Frequency	Percent
Information, skills and trainings	232	62	142	38
Access to agricultural inputs	261	69.8	113	30.2
Agro-processing technologies	262	69.8	113	30.2
Marketing linkages	203	54.3	171	45.7
Linkages to MFIs	263	70.3	111	29.7
Marketing information services	263	70.3	111	29.7
Marketing Infrastructure	261	69.8	113	30.2
Mean	66.6	33.4		

Source: Primary data (2015)

Table 4. 2: Use of marketing skills and knowledge provided by RWARRI

Marketing interventions	Most likely		Likely		Less likely		Not likely		Mean	σ
	F	%	F	%	F	%	F	%		
Information, skills and trainings	57	15.2	54	14.4	91	24.3	172	46	3.01	1,103
Access to agricultural inputs	36	9.6	42	11.2	109	29.1	187	50	3.2	0,980
Agro-processing technologies	54	14.4	50	13.4	76	20.3	194	51.9	3.1	1,106
Facilitate marketing linkages	54	14.4	58	15.5	75	20.1	187	50	3.06	1,110
Facilitated linkages to MFIs	79	21.1	58	15.5	51	13.6	186	49.7	2.92	1,222
Marketing information services	74	19.8	52	13.9	41	11	207	55.3	3.02	1,219
Marketing Infrastructure	45	12	50	13.4	57	15.2	222	59.4	3.22	1,078

Note that N= 374, F: Frequency, %: Percentage, σ : Standard deviation

Source: Primary data (2015).

Table 4. 3. Intentions of marketing practices for the cooperative union to customers

Variable	SD		D		U		A		SA		Mean	σ
	F	%	F	%	F	%	F	%	F	%		
Attract new customers	17	4.5	35	9.4	96	25.7	144	38.5	82	21.9	3.64	1,063
Retain existing customers	18	4.8	38	10.2	91	24.3	153	40.9	74	19.8	3.61	1,062
Develop cooperative relationships with customers	21	5.6	42	11.2	99	26.5	179	47.9	33	8.8	3.43	0,992
Coordinate activities between members	20	5.3	39	10.4	103	27.5	179	47.9	33	8.8	3.44	0,977
Grand mean											3.5	

Source: Primary data (2015).

Table 4. 4: Expectations of cooperative unions when dealing with markets

Variable	SD		D		U		A		SA		Mean	σ
	F	%	F	%	F	%	F	%	F	%		
Generating a profit or financial (measure of performance)	21	5.6	35	9.4	67	18	181	48.4	70	18.7	3.65	1,062
Acquiring customers' needs/ information	14	3.7	41	11	95	25	155	41.4	69	18.4	3.6	1,027
Building long-term relationship with a specific customer(s)	22	5.9	34	9.1	94	25	157	42	67	17.9	3.57	1,068
Strong relationships with a number of organisation in our market(s) or wider marketing system	20	5.3	39	10	119	32	153	40.9	43	11.5	3.43	1,003
Grand mean											3.6	

Source: Primary data (2015).

Table 4. 4. Focus of marketing communications within cooperative unions

Variable	SD		D		U		A		SA		Mean	σ
	F	%	F	%	F	%	F	%	F	%		
Cooperative union communicating to the mass market	20	5.3	39	10.4	105	28.1	178	47.6	32	8.6	3.44	0,974
Cooperative union targeting a specifically identified segment(s) or customer(s)	21	5.6	35	9.4	95	25.4	155	41.4	68	18.2	3.57	1,065
Individuals members interacting with customers	24	6.4	42	11.2	99	26.5	177	47.3	32	8.6	3.4	1,012
Senior staff networking with other managers from a variety of organisations in our market(s) or wider marketing system	18	4.8	45	12	100	26.7	176	47.1	35	9.4	3.44	0,982
Grand mean											3.5	

Source: Primary data (2015).

Table 4. 1. General marketing approaches involvement to the primary customers

Variable	SD		D		U		A		SA		Mean	σ
	F	%	F	%	F	%	F	%	F	%		
Managing the marketing mix to attract and satisfy customers in a broad market	8	2.1	42	11.2	62	16.6	186	49.7	76	20.3	3.75	0,974
Using technology-based tools to target and retain customers in a specific segment of the market	19	5.1	43	11.5	96	25.7	177	47.3	39	10.4	3.47	0,997
Developing personal interactions between employees and individual customers	20	5.3	35	9.4	95	25.4	155	41.4	69	18.4	3.58	1,059
Grand mean											3.6	

Source: Primary data (2015).

Table 4. 2. Technology adoption within cooperative unions

Variable	SD		D		U		A		SA		Mean	σ
	F	%	F	%	F	%	F	%	F	%		
The technology in our industry is changing rapidly	18	4.8	40	10.7	94	25.1	153	40.9	69	18.4	3.57	1,057
Technological changes provide big opportunities in our industry.	21	5.6	37	9.9	98	26.2	147	39.3	71	19	3.56	1,078
It is very difficult to forecast where the technology in our industry will be in the next 2 to 3 years	21	5.6	36	9.6	94	25.1	155	41.4	68	18.2	3.57	1,068
A number of product ideas have been made possible through technological assistance	20	5.3	43	11.5	94	25.1	178	47.8	39	10.4	3.46	1,005
Technological developments in our industry are rather minor	19	5.1	37	9.9	96	25.7	156	41.7	66	17.6	3.57	1,050
Grand mean											3.5	

Source: Primary data (2015)

Table 4. 3: Overall performance

Variable	Lowest		Lower		Middle		Higher		Highest		Mean	σ
	F	%	F	%	F	%	F	%	F	%		
Total sales growth	20	5.3	38	10.2	97	25.9	150	40.1	69	18.4	3.56	1,068
Overall customer satisfaction	18	4.8	43	11.5	100	26.7	178	47.6	35	9.4	3.45	0,977
Market share	21	5.6	35	9.4	95	25.4	155	41.4	68	18.2	3.57	1,065
Gain in market share	22	5.9	42	11.2	100	26.7	177	47.3	33	8.8	3.42	1,000
Overall union performance / success	23	6.1	37	9.9	92	24.6	156	41.7	66	17.6	3.55	1,081
Grand mean											3.5	

Note that F: Frequency, %: Percentage, σ : Standard deviation

Source: Primary data (2015).

Intentions of marketing practices for the cooperative union to customers

This section presents (Table 4.3) the perceptions of respondents on intentions of marketing practices carried out by the cooperative unions based on variables such as attract new customers, retain existing customers, develop cooperative relationships with customers and coordinate activities between members. The table 4.3 reveals that when implementing marketing strategies, the cooperative unions' members have revealed the intentions of attracting new customers with about 60.4%, Retain existing customers (60.7%), developing cooperative relationships with customers (56.7%) and coordination of activities between and among members (56.7%). As indicated by descriptive analysis (Jessica, 2014) the marketing activities intentions mentioned above are present on a high mean of 3.5 found in the interval of $3.41 \leq \mu \leq 4.20$ interpreting the appearance of the fact that the four variables are really intentions of marketing practices for cooperative unions whereas the heterogeneity of responses is expressed by the $\sigma > 0.5$.

The focus on customers will always have the implication on the performance of cooperative unions. Given the importance of customer, any business must focus on customer for the achievement of performance. Without customer no business can exist, internal customer orientation improves productivity; one dissatisfied customer can create havoc by unprecedented actions, retention of customer is the key issue in the business (Howard, 2005). *Expectations of cooperative unions when dealing with markets* The expectations of cooperative unions while dealing with markets were viewed in four perspectives namely generating profits (measure(s) of performance), acquiring customers' needs/ information, building long-term relationship with specific customers and formatting strong relationships with a number of organisations in a market or wider marketing system.

The table above reveals the following facts;

The expectations of cooperative unions' members when dealing with markets include generating a profit or financial, measure(s) of performance (67.1%), acquiring customer information (59.8%), building long-term relationship with a specific customers (59.9%) and formatting strong relationships

with a number of organisation in markets or wider marketing system (52.4%). The above stated expectations have been rated with a statistical mean of 3.6 while the performance of cooperative unions is ensured given the interventions from Rwanda Rural Rehabilitation Initiative (RWARRI). *Focus of marketing communications within cooperative unions* In cooperative unions, the focus of marketing communications studied variables such as communicating to the mass market, targeting a specifically identified segments or customers, individual members interacting with customers, as well as senior staff networking with other managers from a variety of organisations in markets or wider marketing system. The table 4.4. Illustrates the focus of cooperative unions while dealing with marketing communication. However, marketing communication within cooperative unions focuses communicating to the mass market though which a big number of people are sensitized at once on products offered by cooperative unions as agreed by 56.2% of the respondents. The table above indicates besides the mass communication, other approaches are being utilised to market the products of the cooperative unions such as target of specific identifies segment or customers (59.6%), individuals members interacting with customers (55.9%) and networking with other managers from a variety of organisations or wider marketing system (56.5%). To make use of a variety of marketing communication approaches is something that helps cooperative unions to again access of new markets or customers and hence contributing to improve their performance in marketing communication. *General marketing approaches to involve the primary customers.*

The marketing approaches to involves primary customers was seen through variable such as managing the marketing mix to attract and satisfy customers in a broad market, using technology-based tools to target and retain customers in a specific segment of the market and developing personal interactions between employees and individual customers. The respondents' opinions are presented in the table 4.15. Table 4.5. illustrates the general marketing approaches involvement of cooperative unions to the primary customers. In cooperative unions, the marketing techniques consider primary customers as their chosen customers. For any business to achieve a strong performance, it should diversify the marketing strategies to the targeted customers since marketing relies on more than just the creation of customers and the generation of sales (Susan, 1998). The above table shows that respondents agree to the fact that in their cooperative unions 70% manage the marketing mix to attract and satisfy customers in a broad market, followed by using technology-based tools to target and retain customers in a specific segment of the market with 57.7% and lastly, about 60% agree that cooperative unions develop personal interactions between employees and individual customers as a marketing approach to involve customers.

Adoption of technological innovation by cooperative unions

The study findings in regard to adoption of technological innovation have had focus on the agro-food and products value addition in contribution to the substitution of imported food products, expanding the market opportunities, overcome seasonality and perishability, generating employment, post harvest processing, handling and marketing. The table 4.6 illustrates the technology adoption within cooperative unions.

According to the findings, a percentage slightly below to 60% agree to the fact that the technology in the industry is changing rapidly (59.3%), technological changes provide big opportunities in the cooperative unions' businesses (58.3%), it is very difficult to forecast where the technology in the cooperative union's industry will be in the next 2 to 3 years (59.6%), a number of product ideas have been made possible through technological assistance (52.8%) and finally 59.3% agree to the fact that

Technological developments in our industry are rather minor. Cooperative unions are equipped with ICT tools and equipments and subsequently, capacity development in ICTs and entrepreneurship have been facilitated by RWARRI and other partners to help them learn about the digital world through the adoption of the ICT applications. The adoption of technology in cooperative unions is at a good level as revealed by respondents and the descriptive statistics results. Gibson (1993) and Bockett (1999) argued that access to processing technology can provide new market opportunities by reducing perishability or adding value in other ways. Processing technologies can range in scale from household-level 'low-tech' processing to fully mechanized factories while the contribution of new technology to economic growth can only be realized when and if the new technology is widely diffused and used (Bronwyn and Beethika, 2002). In view of the fact that getting the support from RWARRI, cooperative unions have increased their processing technology, and a number of product ideas have been made possible through technological assistance. It implies that the adoption of advanced technology should help the cooperative unions to improve their product processing in terms of quality and quantity and hence the satisfaction of customers. *Performance of cooperative unions in agricultural and food marketing* An assessment was made of the performance of cooperative unions within the context of agricultural and food marketing in the study area

The table 4.7 reveals the following facts;

The variables taken into considerations when assessing respondents' opinions on performance include the total sales growth, overall customer satisfaction, market share, gain in market share and the opinion on union's overall success. The opinions from respondents about the cooperative unions are rated above the average vis-à-vis the overall performance of each of the five variables taken into account such that the total sales growth (58.5%), the overall customer satisfaction (57%), the cooperative unions market share (59.6%), the cooperative unions gain in market share (56.1%) and the overall cooperative unions success (59.3%). The findings confirm that cooperatives are providing significant results in the production of banana, rice, maize, milk, meat and fish (Theogene and Kristin, 2013) but in value addition and marketing as well; though at a developmental stage. Indeed, the NGOs such as RWARRI are playing a great role in regards to providing relevant marketing interventions to the communities formed into cooperatives. The findings concerning total sales growth is a positive effect on cooperative unions' performance and it is in line with earlier results in the literature on a positive impact of cooperative membership on different agricultural performance indicators (Ellen and Miet, 2013; Ito et al., 2012; Abebaw and Haile, 2013).

The farm supplies in cooperative unions are organized to secure and distribute the inputs required by farmers in their farming operations whereby many cooperative unions also sell farming inputs to their members whose sales represent a small portion of the total sales. However, this performance measure served to get the members' opinions on the conventional measures of financial performance; return on equity, return on assets, return on operating capital, net margins on sales and so forth even though they do not yield unequivocal results (Ellen and Miet, 2013). The ability of cooperatives unions' members to judge their cooperative's performance is probably incomplete since the cooperative unions do not have a stock market valuation that offer a timely reflection of the value as a proxy for their performance. The fact is that a marketing cooperative union may pay members on a high price for their production, thus lowering net margins and extra value accordingly. On the other hand, some marketing cooperatives may pay relatively low prices enabling the cooperative union to show larger net margins and extra value. This study findings concerning customer satisfaction has a high mean of 3.45 to express more appearance of the fact. However, the overall customer satisfaction is well established with existence of customer care, quality of service, performance on deliverables, being in touch, initiatives, closed loop, listening, innovation and price of goods as discussed by Paul (2013) and Theodore (2003) whose findings indicated that customer satisfaction are often closely related to service quality indicators and customer satisfaction measures are often associated with effectiveness measures. The cooperative unions helped farmers and other rural residents to develop cooperatives and further obtain supplies and services at lower cost and to get better prices for inputs and products they sell. They advise community members on developing existing resources through cooperative actions to improve their living conditions. The interventions and services rendered help cooperative unions improve services and operating efficiency to their partner members and other operating actors. Concerning the market share and gain; 3.57 and 3.42 respectively, the high mean confirmed the established relationship as discussed by Brooking (1996) between customer satisfaction, market share and longevity of relationships while measuring relational capital through brands, customer loyalty and distribution channels.

Conclusion

This chapter presents the summary of major findings, the conclusions delivered from the study and recommendations suggested to the company based on research findings about the study on performance of cooperative unions supported by local NGOS in agricultural and food marketing development, a case study of RWARRI marketing interventions in Rwamagana district. Apart from highlighting recommendations for improvement, this chapter also outlines recommended topics for further research.

Summary of major findings

This study intended to achieve four objectives which were to assess the extent of agricultural and food marketing interventions and services provided by NGOs to cooperative unions, to analyze the responsiveness of the cooperative unions vis-à-vis the agricultural and food marketing interventions and services provided by NGOs, to evaluate the adoption of technological innovation by cooperative unions involved in

agricultural and food marketing development for their marketing activities and to find out the extent to which agricultural, fisheries and dairy cooperative unions perform in agricultural and food marketing. The following paragraphs summarize how the above objectives were achieved.

The contribution of NGOs in agricultural and food marketing interventions and services provided by NGOs to cooperative unions

When asked on agricultural marketing interventions provided by NGOs to contribute to activities of cooperative unions marketing developments, an average of 66.6% of respondents revealed that their cooperative unions have access to the marketing interventions provided by RWARRI which has an implication to the performance and sustainability of these cooperatives. The research findings reveal that most cooperative unions' members recognised to have access to marketing interventions provided by Local NGO including linkages to MFIs and Marketing information services to the rate of 70.3% each. The Access to agricultural inputs and Agro-processing technologies recognised to the rate of 69.8%. Information, skills and trainings recognised to the rate of 62% while marketing linkages is recognized to the rate of 54.3%. It also shows that about 52% of marketing skills and knowledge provided by NGOs are not likely to be used by beneficiaries, 29% likely to be used by the cooperative members who were beneficiaries of the same interventions while 19% of the respondents characterize the marketing interventions to be less likely implemented by the cooperative members.

Responsiveness of the cooperative unions vis-à-vis the agricultural and food marketing interventions and services provided by NGOs

The findings reveal that cooperative unions implement marketing strategies with the intentions of attracting new customers with about 60.4%, Retain existing customers (60.7%), developing cooperative relationships with customers (56.7%) and coordination of activities between and among members (56.7%). The cooperative unions members agree to the fact that the marketing planning focuses on product and service offering (60.4%), customers in the market (56.4%), specific customer or individuals from partner organisations (59.9%) and focussing on networking between individual and organisation wider marketing system (56.2%). The marketing interventions have contributed to the expected outcomes of the cooperative unions such as generating a profit or financial, measure(s) of performance (67.1%), acquiring customer information (59.8%), building long-term relationship with a specific customers (59.9%) and formatting strong relationships with a number of organisation in markets or wider marketing system (52.4%).

As a result, there is a noticeable progress towards cooperative unions' performance. The contact approaches with primary customers are characterised by the respondents to be impersonal (60.1%), somewhat personalized (56.2%), and interpersonal (59.3%). In terms of marketing interventions, cooperative unions invest most of their resources in product development, promotion, price, and distribution activities or some combination of these (69%), technology to improve communication with customers (60%), establishing and

building personal relationships with individual customers (58.5%) and developing network relationships within market(s) or wider marketing system (59.3%). It is clear from the points of view of the respondents that marketing activities are mostly under the responsibilities of the cooperative union manager (59.3%), followed by the functional marketers such as the marketing manager, sales manager, major account manager (57%) while 52.6% agree that specialist marketers such as marketing manager, sales manager and major account manager perform the marketing activities. Also 52.6% of the respondents agree that ordinal members assume the responsibility for marketing and other aspects of businesses in the cooperative unions.

Marketing communication within cooperative unions focuses on cooperative union communicating to the mass market though which a big number of people are sensitized on products offerings by cooperative unions as agreed by 56.2% of the respondents. The findings indicate that besides the mass communication, other approaches are being utilised to market the products of the cooperative unions such as targeting specific segment of customers (59.6%), individual members interacting with customers (55.9%) and networking with other managers from a variety of organisations and/or wider marketing system (56.5%). To meet with primary customers, cooperative unions use both combined formal and informal ways to meet primary customers as witnessed by respondents (71.2%). However, an informal level of contact is the second to the combined formal and informal ways to meet primary customers with 59.3% of respondents and lastly the formal contact in business as usual (56.2%). In cooperative unions, 70% manage the marketing mix to attract and satisfy customers in a broad market, followed by using technology-based tools to target and retain customers in a specific segment of the market with 57.7% and lastly, about 60% agree that cooperative unions develop personal interactions between employees and individual customers as a marketing approach to involve customers.

The adoption of technological innovation by cooperative unions involved in agricultural and food marketing development for their marketing activities

The cooperative unions in have increased their processing technology, and a number of product ideas have been made possible through technological assistance. There is evidence that shows growing use of modern technology packages among cooperative unions. According to the findings, a percentage slightly below to 60% agree to the fact that the technology in our industry is changing rapidly (59.3%), technological changes provide big opportunities in the cooperative unions' businesses (58.3%), it is very difficult to forecast where the technology in the cooperative union's industry will be in the next 2 to 3 years (59.6%), a number of product ideas have been made possible through technological assistance (52.8%) and finally 59.3% agree to the fact that Technological developments in our industry are rather minor. The adoption of advanced technology is still at early stage, but the cooperative union members expect an improvements in their product processing in terms of quality and quantity and hence the satisfaction of customers and increase of performance.

The extent to which agricultural, fisheries and dairy cooperative unions perform in agricultural and food marketing

Since improving the marketing strategy due to marketing interventions provided by RWARRI in form of access to new information, skills and trainings; access to agricultural inputs; agro-processing technologies; credit programmes; marketing linkages; marketing information and holistic approaches, there are evidences that cooperative unions have improved their financial and operational performance. Following the improvement of marketing, cooperatives have realized strong performance both financial and non-financial in terms of total sales growth (58.5%), the overall customer satisfaction (57%), the cooperative unions market share (59.6%), the cooperative unions gain in market share (56.1%) and the overall cooperative unions success (59.3%). In general, the findings from this research have shown that the mean (μ) calculated was found to be in the intervals of $2.61 \leq \mu \leq 3.40$ which demonstrates the uncertainty of the responses in regards to the use of marketing skills and knowledge provided by RWARRI. However, as indicated by descriptive analysis (Jessica, 2014) other parameters of the study the calculated mean was found in the intervals of $3.41 \leq \mu \leq 4.20$ interpreted as the facts appeared more whereas the $\sigma > 0.5$ hence, the heterogeneity of responses.

Conclusion

This research inquired performance of cooperative unions supported by local NGOs in agricultural and food marketing development with RWARRI marketing interventions in Rwamagana district. Not only does it add to the extensive literature, but it also contributed more in terms of evaluating the inter-institutions relationship and its impact on organisations performance, particularly as related to increased percentage of market accounted for by the agricultural, fisheries and dairy cooperative unions. Based on a sample of 374 respondents, the population members involved in agricultural and food marketing activities in their respective cooperative unions have contributed to the research achievements as highlighted in the previous sections. In addition, the findings reveal that agricultural and food marketing interventions provided by RWARRI have contributed to the improvements of cooperative unions' performance especially to the marketing developments.

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