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**Implementation of Value Chain and Cooperative Performance: A Case of Twongere
Umusaruro Wa Kawa Cooperative Kayonza District, Rwanda**

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Abstract

Purpose: In this study, the Twongere umusaruro wa kawa cooperative's value chain implementation and cooperative performance were analyzed. The general purpose of the research study was to evaluate the relationship between the value chain implementation on cooperative performance in the Twongere umusaruro wa kawa cooperative. The study based on value chain and human capital theories.

Methodology: The study used a descriptive cross-sectional survey to learn about value chain operations, investigate value chain marketing activities, learn about value chain service, and discover the extent to which these activities affect cooperative performance in Rwanda's Kayonza District. The total population consisted of 170 value chain actors, all of whom were farmers and members of the cooperative. A sample of 119 surveys based on the Slovenian formula used. In this study, the proportional random sampling was used as the sampling method. A questionnaire based on moderately structured interviews used to collect the primary data. The results of the survey were compiled, codified, tabulated, and analyzed. Made a change to improve data accuracy for encoding. The encoded data then entered in Statistical package for Social Sciences version 25. The statistically apparent relationship between factors and cooperative performance was examined with the Qui Square independence test. .

Findings: Based on the study results, it was found a meaningful relationship between gender and cooperative performance, service and cooperative performance because p-values associated with gender and service, respectively, were p=0.03 and p=0.00 and did not exceed the 5% significance level. The findings also exposed no significant relation between operations and cooperative performance and marketing and cooperative performance. The findings indicated that the level of significance was above 5% for the operations and marketing-related p=0.462 and p=0.122, respectively. According to the study, value chain operators in cooperatives should pay closer attention to service and gender because of their strong associations with cooperative performance. Value chain developers in operations and marketing should be committed to overcoming any obstacles that hinder the cooperative's performance and should collaborate closely with members and partners to strengthen operations and marketing efforts for the cooperative's sustainability.

Unique Contribution to Theory, Practice and Policy: Further studies should conduct a thorough analysis in this area by taking into account many independent factors in different districts of the country or the region to clearly show how value chain activities affect cooperative performance and to examine the impact of such changes, research should also invest in collecting data from several cooperatives and various cooperative types.

Keywords: Value Chain, Performance, Twongere Umusaruro Wa Kawa, Cooperative, Kayonza Distict, Rwanda

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INTRODUCTION

Current enterprise operations in a change in, complex and unsure require marketers to be pressured by the corporate government to extend their business transactions (Tauab and Insor, 2019). However, the commercial functionality of small and medium establishments is always necessary to expand and adapt the resulting commercial instances. A value chain evaluation shows the commercial operation of the entire production system to final consumption. It additionally affords records on all sports that create cost introduced to clients, in addition to applicable and vital information among agencies and perspectives that affect special sports inside the cost chain (Barua, Rahman and Barua, 2021).

The countrywide Plan for financial and Social improvement 12 (2017-2021) and the orientation of the countrywide economic and Social improvement Plan 13^o of Thailand attention on grassroots financial system and promotion of monetary association to strengthen the financial system (office of the national financial and Social development Council, 2016; 2021) and the orientation of the countrywide monetary and Social improvement Plan 13^o of Thailand recognition on grassroots economic system and promoting of economic affiliation to reinforce the use of a's economic system (office of the country wide economic and Social development Council, 2016; 2021).

According to the development of the East Africa network method on cotton, fabric and clothing, enterprise has emerge as a number one area in the national improvement plans of member international locations to build a fabric zone and competitive garb. The rural area contributes drastically to the economy and the discount of poverty. It offers a process for 72% of the populace and debts for 29.5% of the Gross countrywide Product (GDP) (NISR, 2018). The main objective of this study was to assess the Implementation of Value Chain and Cooperative Performance with the Case of Twongere Umusaruro wa Kawa Cooperative Kayonza District, Rwanda. .

It was guided by the following specific objectives:

- i. To determine the association between operations and performance of Twongere umusaruro wa kawa cooperative.
- ii. To examine the association between marketing and sales and performance of Twongere umusaruro wa kawa cooperative.
- iii. To find out the correlation analysis between service and performance of Twongere umusaruro wa kawa cooperative.

Problem Statement

Ghonar (2015) researched Safaricom Kenya Limited's performance and strategic management of value chain actions. His conclusion said that Safaricom had accepted tactics in the area of the economy, technology, business organization, and goods with clients. To provide anticipated value that is enormous to competitors, Safaricom management had clearly described the purpose behind the creation of their products in terms of consumer circumstances. Chamaru (2012) demonstrated that while cooperatives do generate revenue, their mission sets them apart from other organizations in several specific ways. They must provide goods and services to their members to help them improve their income, savings, investment, production, and purchasing power. They must also support each other in providing the net excess appropriately by taking full advantage of considerable savings, cost and risk sharing without orienting the cooperative's activities towards philanthropic purposes as a result. As an outcome, they don't

have profit maximization objectives. That is, they don't operate to maximize profit, so it's important to evaluate the success of their business. To connect the knowledge gap and make an effort to understand the considered course concerning value chain implementation and performance, the farmers' cooperative consequently becomes essential for this study. As an outcome, the principal aim of the research to assess the implementation of the value chain and cooperative performance in Twongere umusaruro wa kawa cooperative Kayonza district in Rwanda.

Theoretical Framework

Value Chain Theory

Michael Porter first proposed the concept of the value chain in 1985 to show how purchaser price is created through a sequence of tactics that bring about a finished services or products. The inner movements that a employer takes to create, produce, sell, deliver, and support its product are referred to by Porter as value chains. Porter goes on to say that a company's value chain and how it conducts specific operations is a reflection of its history, its strategy, how that plan is put into practice, and the economics behind those businesses. Porter lists Core Businesses and Supporting Businesses as the two main business categories. The transformation of inputs into outputs is a direct function of primary activities. Organizations' staff performs support activities, including those that support core activities and additional support activities.

Human Capital Theory

This study was developed using the human capital idea, which was proposed to enhance human potential through educational opportunities (Materu, 2007). It was stated that training or capacity building increases an employee's ability to produce through better knowledge and abilities for potential future income-generating activities. Furthermore, due to the vast human workforce that may be a human asset, the human capital theory is best applicable in nations with substantial population growth. Therefore, via education and the provision of healthcare, human resources can be transformed into human capital. In truth, governments have the power to promote the expansion of human resources as well as promote economic development.

Conceptual Framework

The conceptual framework is a set of schematic tools used by researchers to assist them to grasp the situation they are studying and communicating information. It is used to show how different variables relate to one another (Selhausen, 2015).

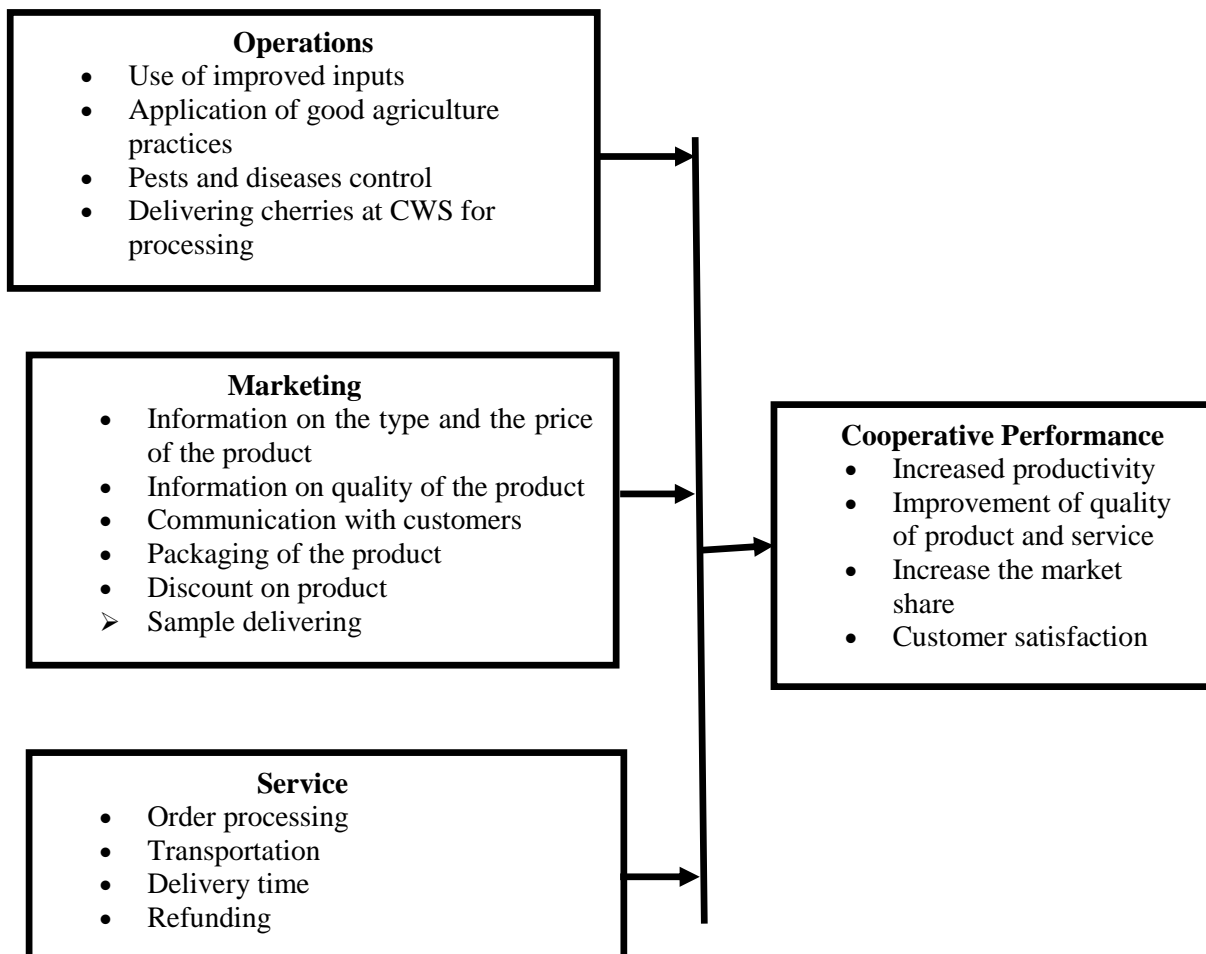
Independent Variables

Figure 1: Conceptual Framework

Source: Primary Data (2022)

Intervention tactics used by the cooperative to support value chain implementation are independent variables. Operations, marketing, and service will be used to quantify this, and the cooperative performance indicators will be the dependent variables. It will be assessed through improved customer happiness, higher market share, improved quality of products and service, and increased productivity.

Governmental regulations, NGOs, and the private sector make up the moderating factors. To link the independent and dependent variables to accomplish cooperative aims, moderating variables are considered having direct relationship with the dependent variables.

METHODOLOGY

To allow the investigator to collect data from selected individuals at a given time, the cross-sectional research design was adopted in this research Crewel (2013). In addition, this research model allows use of qualitative and quantitative approaches. A cross-sectional research design is crucial for determining the impact significance of the dimension of the regression correlation because it is versatile when using a mixed strategy. In addition, it makes efficient and quick use of scarce financial, transportation, and time resources (Cooper & Schindler, 2011). This study used the cooperative Twongere umusaruro wa kawa in the Rukara sector of Kayonza

district as a case study to analyze the impact of value chain implementation and performance. Data collection for this purpose included both quantitative and qualitative elements.

According to Blaxter et al. (2010), the design is a technique for acquiring data from a sampled population using an interview guide or questionnaire survey. The primary function of research survey designs is to use questionnaires to define particular characteristics of a sizeable group of people or an object (Bryman, 2012). It uses a case study as its research method.

Target Population

A group of people who serve as a source of inquiry for the study is known as the study population. It was made up of a group of individuals and things with similar characteristics. Bryman (2012) as a group of individuals or other entities that share more common characteristics and serves as the universe's target population described the population. 163 coffee producers who are Twongere umusaruro wa kawa members were the subject of this study (159 women and 4 men).

Sample Size

A sample is chosen from that universe and serves as representative sample of the total population. In this regard, Slovene's formula is used to determine the sample size for this study. The sample was created by application of the following formula:

$$n = N / (1 + N(e)^2)$$

Where:

n: Sample Size

N= Population Size

(e): Margin Error=5%=0.05

So, if the population is 170,

$$\begin{aligned} \text{The sample size was } & 170 / (1 + 170(0.05)^2) = 170 / (1 + 170(0.0025)) = 170 / (1 + 0.425) \\ & = 170 / 1.425 = 119 \end{aligned}$$

Therefore, the sample size was 119 members of Twongere umusaruro wa kawa Cooperative.

Table 1: Target Population and Sample Size

| Projects | Target population | Sample size |
|--|-------------------|-------------|
| Beneficiaries of agricultural credits | 54 | 39 |
| Beneficiaries of training delivery in different fields | 83 | 59 |
| Beneficiaries of marketing service | 33 | 21 |
| Total | 170 | 119 |

Source: Primary Data (2022)

Data Collection Methods

Data collection is the act of assembling and obtaining data on study variables, questions, and objectives in a set-up systematic model that allows one to give answers and evaluate their results. As primary information collection instruments for the study and secondary data sources were documentation and questionnaires.

Data Collection Instruments

Raw data for this research were gathered exploitation both qualitative and quantitative methods. Smith (1981) suggested that using different methodologies gives the researcher a greater chance to respond to research questions and allows for a better evaluation of research findings that can be relied upon and conclusions drawn from them. A questionnaire with four components was employed; Section A dealt with demographic data, section B with operations, section C with marketing, and Section D with service, while Section E dealt with performance. The interview method was employed in this study to solicit fresh perspectives from the employees and members of the Twongere umusaruro wa kawa cooperative. The researcher was able to move beyond the particular problems thanks to the use of unstructured observation. Textbooks, publications, journals, and websites served as the primary sources for the secondary material, which was then used for documentary analysis.

Administration of Data Collection Instruments

Participants in this study gave their consent after being informed of its goals. The researcher gathered data from participants after obtaining permission to do so from Twongere Umusaruro wa Kawa cooperative and Mount Kenya University. Information from the respondents was held in strict confidence, and they were warned not to include their names on questionnaires.

Pilot Study

Pilot research is conducted to evaluate the feasibility of conducting the study, its reliability and validity, and its logistical issues (Jackson, 2010). The Kopakaki Dutegure, which shares similarities with the Twongere umusaruro wa kawa cooperative, served as the site of this project's pilot trial. For the pilot study, a sample size of eight respondents was used. The study discovered that the implementation of the value chain allows the cooperative's management team to higher manage cost drivers than competitors, thereby accomplishing above-average overall performance in terms of operational efficiency, profitability, market share, customer satisfaction, communication, quality, and resource utilization.

FINDINGS AND RESULTS

Inferential Statistics

H₀: There is no statistically significant association between cooperative performance and operations

However, p-value regarding operations, χ^2 (df=3, n=119) =2.577, p=0.462, and the outcome, cooperative performance did not reveal a significant association, since p-value was above 0.05 level of significance. We, therefore, conclude that there is no significant relationship between cooperative performance and operations. In his analysis of the Kenya Meat Commission's value chain practices and management, Muhoro (2014) concluded that effective value chain management improved organizational performance. All members of the Twongere umusaruro wa kawa cooperative who felt marketing was implemented to a medium extent thought cooperative performance was adhered to, to a very large extent. A whopping 91.8% and 78.1% of farmers who fell under "very large extent" and "Large extent" when asked about marketing and sales stated cooperative performance to a very large extent (Table 8).

The null is defined as follows:

H₀: There is no statistically significant association between cooperative performance and marketing

As portrayed in Table 8, chi-square statistic for the test of association between marketing and the outcome variable was χ^2 (df=2, n=119) =4.224, p=0.122. Since the p-value exceeded a 5% degree of significance, we do not reject the null hypothesis and conclude that the data provide sufficient evidence to conclude that there is no significant relationship between marketing and sales and cooperative performance. In the study conducted by Prinka et al (2019) at the impact of marketing strategies at the organizational performance of Nigeria Bottling Company, to decide to what volume marketing strategy influences the sales volume of Nigeria Bottling Company in Kaduna State. With a calculated result ($r = 0.716$; $p = 0.05$), the null hypothesis turned into customary and the alternative hypothesis become rejected. Nigeria Bottling Corporation, Kaduna's marketing tactics (products, promotions, pricing, and localization strategies) do not play a significant role and do not have a significant impact on the company's performance. In essence, marketing techniques of Nigeria Bottling Company, Kaduna (product strategies, promotion, pricing, and positioning) are not effective ways to guarantee its survival and growth.

When asked about service at the cooperative, all farmers who identified with a moderate extent and large extent of adherence also reported observances of cooperative performance implementations largely. Of those who reported service implementation largely, 80.3% reported cooperative performance implementation largely.

Ho: There is no statistically enormous association between cooperative performance and service

The chi-square statistic for the test of association between service and the outcome variable was χ^2 (df=2, n=119) =15.707, $p < 0.05$. If p-value is less than the 0.05 degree of significance, null hypothesis is to be rejected. We do not reject null hypothesis seeing p-value was less than the 5% threshold significance, and we conclude that the data are sufficient to show a significant association between service and cooperative performance.

Tan (1999) suggested that a company with better service would typically exhibit more remarkable organizational performance. Excellent service quality, according to Rust & Oliver (2000), is the main driving force of an enterprise's ability to improve organizational performance in a globalized market. In other words, an organization's competitive advantages came from offering high-quality service, because service might both increase organizational profitability and produce outstanding organizational performance (Lin & Lee, 2005). Service quality was therefore a crucial aspect of the performance of the organization (Sheng & Chen, 2010).

SUMMARY, CONCLUSION AND RECOMMENDATION

Determine the Relationship between Operations and Cooperative Performance

The results revealed that many respondents use better inputs, manage pests and diseases, deliver cherries to CWS for processing, and use good agricultural practices, but additionally showed there may be no great correlation between operations and the overall performance of the cooperative because the calculated p-value was above the threshold of significance. This suggests that even if there were a relationship between these variables, there would not be enough statistical support to assert that it existed. To achieve extra effect of organizational performance than of internal value chain activities alone, the cooperative should consider pursuing all operations activities and put more effort into coordination, monitoring of these

activities, synergizing cooperative members' relationships with internal value chain activities, and customer relationship initiatives.

Examine the Relationship between Marketing and Cooperative Performance

Findings indicate that marketing techniques (such as information on product kind and price, information on product quality, customer communication, product packaging, product discounts, and sample delivery) have little bearing on the performance of the Twongere umusaruro wa kawa cooperative. In summary, utilized marketing methods are not effective tools for communal existence. Given that p value was greater, study demonstrated that there was no correlation between cooperative performance and marketing and sales, we cannot reject null hypothesis and come to end that there is no evident correlation between commercialization and the performance of the cooperative.

Find out the Association between Service and Cooperative Performance

The p-value for this study's findings did not exceed the level of significance, indicating a meaningful association between service and cooperative performance. To meet market demands and provide service of the highest caliber, the cooperative must keep up with the most recent information, negotiate with internal and external stakeholders, and adapt to the changing needs of its customers. For instance, by observing market dynamics or keeping an eye on innovative service quality and meeting consumer needs, the cooperative could inadvertently learn about the genuine market demand. Additionally, the cooperative should continue to create more distinctive and innovative goods and service to maintain its service strategies. To do this, it should prioritize forging strong bonds with its members and customers before selling any products and letting them see how they are made. The cooperative must maintain and optimize the approval chain, partner suppliers to hold supply stability and coordinate with customers to ensure product ordering, order processing, reimbursement, transportation, and service delivery. business performance.

Suggestions for Further Study

This study aimed to assess the relationship between Twongere umusaruro wa kawa Cooperative's operations, marketing, and service, three independent factors, and its performance. Although this study has a limited number of variables, cooperative evaluations, and geographical coverage, it is still challenging to generalize from it and draw conclusions about the entire region. Therefore, future research may conduct a thorough analysis in this area by taking into account many independent factors in different districts of the country or the region to clearly show how value chain activities affect cooperative performance. To examine the impact of such changes, research should also invest in collecting data from several cooperatives and various cooperative types. Since multiple linear regression models were not feasible, research can be expanded to include more complex regression models.

REFERENCES

- African Union Commission/OECD (2022), “Strengthening regional value chains in the African Continental Free Trade Area”, in *Africa's Development Dynamics 2022*.
- Asheq, A. A. & Hossain, M. U. (2019). SME performance: Impact of market, customer and brand orientation. *Academy of Marketing Studies Journal*, 23(1), 1-9. Retrieved from <https://www.abacademies.org/articles/sme-performance-impact-of-market1customer-and-rand-orientation-7824.html>
- Eddy, S., & Djoko, W. (2017). *Organizational performance analysis: organizational commitment, competence, and organizational culture*. *International Journal of Recent Scientific Research* Vol.8, Issue, 4, pp.16732.
- FAO. (2011). A value chain approach to animal diseases risks management – technical foundations and practical framework for field application, *Animal Production and Health Guidelines*, No. 4. Rome.
- Fearne, A. Marian .G. M, & Benjamin D. (2012). *Dimensions of Sustainable Value Chains: Implications for Value Chain Analysis*.
- Nauhria, Y., Kulkarni, M. S., & Pandey, S. (2018). Development of strategic value chain framework for Indian car manufacturing industry. *Global Journal of Flexible Systems Management*, 19(1), 21- 40. DOI: 10.1007/s40171-017-0179-z
- Petrillo, F., Spritzer, A. S., Freitas, C. M. D. S., & Pimenta, M. S. (2011, October). Interactive analysis of Likert scale data using a multi-chart visualization tool. In *IHC+ CLIHC* (pp. 358-365).
- Prasetyo, P. E. & Dzak, F. Z. (2020). Institutional performance and new product development value chain for entrepreneurial competitive advantage. *Uncertain Supply Chain Management*, 8, 753-760. DOI: 10.5267/j.uscm.2020.7.004
- Shantanu, K. Dubey., Rajeev. S., Swatantra .P. S., Abhishek. M. (2020). A brief Study on Value Chain and Supply Chain
- Sidek, S., Rosli, M. M., Khadri, N. A. M., Hasbolah, H., Manshar, M., & Abidin, N. M. F. N. Z. (2020). Fortifying small business performance sustainability in the era of IR 4.0: E-marketing as a catalyst of competitive advantages and business performance. *Journal of Critical Reviews*, 7(13), 2143-2155. Retrieved from <https://www.academia.edu/43810492>