

# Supplier Relationship Strategies and Performance of Dairy Cooperative Societies in Kenya

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**Abstract:** Business environment has become so competitive and Business organizations worldwide are applying all available means of improving performance. Therefore, companies have to adopt suitable competitive strategies to boost organizational performance. Milk industry is not spared of the hostile environment. There is stiff competition among various milk-processing firms and cooperatives in Kenya which has led to collapse of some of dairy firms and co-operative societies. While some Co-operative societies have done well, others are struggling and some have even closed shop. In efforts to compete and increasing profitability, some co-operatives have adopted various strategies. This study sought to establish the influence of raw milk suppliers' relationship strategies on performance of dairy cooperatives in Kenya in terms of amount of milk they collect from farmers for either processing or selling to private processors or state processor (KCC). This study adopted a survey, descriptive and co-relational research designs with an aim of obtaining complete and accurate information giving precise precision in achieving the objective of the study. The study was confined to the 21 dairy cooperatives in Meru County, Kenya. The total population was 85 respondents which comprised those in the position of general managers, assistant managers, procurement managers. Stratified random sampling technique was used to select the sample. Semi structured questionnaire was used to collect data from the respondents. Multiple regression analysis was used to determine the effect of the seven variables on performance of the co-operative societies. Regression analysis results indicated that supplier relationship strategies involving provision of credit facilities (inputs and household items), presence of farmers Sacco, provision of extension services, milk collection time schedules, ICT optimization, price and milk, have positive and significant effect on the performance of dairy co-operative societies. The mediating role of outsourcing of transportation of raw milk was positive and significant (Coef.= 1.123, p-value =0.041). Based on the findings, it is necessary for dairy co-operative societies to adopt those strategies in order to improve their performance in terms of the amount of milk collected ready for processing or selling to other processors.

**Keywords:** Performance, Supplier relationship strategies, Dairy Cooperatives

## 1. INTRODUCTION

Dairy industry in Kenya was liberalized in 1992, from when private sector started participating in milk processing and marketing. Currently the country has thirty-one milk processing firms. Dairy co-operative societies in Kenya are promoted by the Kenyan government with the hope of increasing efficiency in production and marketing milk. Cooperative Societies play a very important role in the dairy industry, which include; milk collection, grading, bulk building and cooling of milk, value addition, and enhancement of access to dairy production support services like breeding, feeds, extension and credit provision among others Nabiswa, Wakhungu, Siamba & Wanyama (2016). There are one hundred and sixty-four dairy co-operatives in Kenya. This big number contributes to the GDP of the country and development of the rural area (DFID, 2014). Despite the huge contribution and potential of the dairy sector to the economy, dairy co-operative societies are constricted by fluctuation in quality and quantity of dairy feeds, poor management practices, poor market infrastructure, poor service delivery and failure to develop and implement marketing strategies and policies to drive the products in the market and deal with intense competition (Sang, Kiiru & Wambugu, 2021)

There is need for organizations to cultivate good relationships within the supply chain, this is in regard to performance to upstream and downstream activities in the supply chain (Aluoch, 2014).

Upstream activities has to do with supply of raw materials and other services, while upstream activities has to do with the distribution of the manufactured products (Aluoch, 2014). Efficiency in performance of those activities is key if the firms are to achieve competitive advantage(Barney, 2016;Glover,& Dainty, (2014).According to Stoelzle (2021), supplier relationship management (SRM) is the systematic approach where vendors supplying goods are evaluated as they supply materials and services to an organization. It involves determination of each supplier's contribution to success and developing strategies to improve their performance. SRM plays an important role in the reduction of costs and optimization of performance of enterprises (Mettler & Rohner, 2009). Despite recognition of this importance in relationship management theory, there is not much research done on relationship management strategies focused on direct suppliers to the dairy co-operatives in Kenya. Sang et al (2021) focused on market penetration strategies. Marketing strategies are in the upstream activities in the supply chain. Other studies have focused on dairy farming practices in the rural areas (Wangu, 2021), while Kwamboka et al (2022) focused on transforming Kenya's dairy industry not necessarily through direct suppliers' relationship management strategies. This is despite the fact that, direct suppliers to the dairy co-operative societies are found in the rural areas, and are operating in small scale. This makes direct suppliers support and motivational strategies very important if co-operative societies are to improve their performance in terms of the amount of raw milk received and processed for the market.

### 2. PROBLEM STATEMENT

Out of 164 dairy co-operative societies registered in Kenya, Githunguri dairy co-operative society is the most successful (Koyi, 2020). This is because after liberalization of the milk processing industry, it was able to enjoy good management since it had freedom to hire qualified personnel, It was also able to attract credit facilities and look for market outside KCC. This co-operative society has been able to carry out all value addition initiatives such as chilling of milk and/or processing into specialized products like UHT milk, cheese, butter and instant milk powder. A few other dairy cooperative societies have undertaken those initiatives partially, while others (Koyi, 2020). For example, Kitinda Dairy Cooperative Society processes only Yoghurt, Mala and Cheese and pasteurizes and sells fresh milk manually. Naitiri and Kaptama Dairy Cooperative Societies and twelve others carries out chilling and storage of fresh milk for onward transmission to processors. As plans to undertake value addition takes root, co-operatives need to increase the amount of milk delivered, thus the need for proper strategies to improve the relationship with farmers and providers of inbound logistic services.

### 3. PURPOSE OF THE STUDY

This paper focuses on the supplier relationship strategies and performance of the direct suppliers in dairy co-operative societies in Kenya.

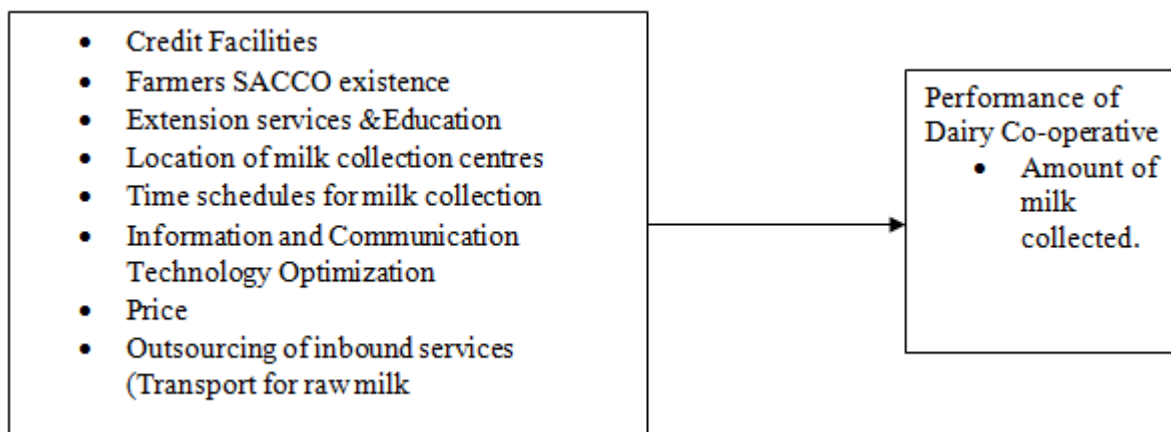
### 4. SPECIFIC OBJECTIVES

- a. To determine whether dairy farmers support strategies inform of credit facilities (inputs and home supplies) influences milk production and delivery to dairy co-operative societies in Kenya
- b. To investigate whether dairy farmers support strategies in form of membership to farmers' savings and credit societies (SACCO) influences milk delivery to dairy co-operative societies in Kenya
- c. To determine whether dairy farmers support strategies in form of provision of farming education and extension services influences milk delivery to dairy co-operative societies in Kenya
- d. To establish whether farmers support strategies in form strategic location of milk collection centers influence milk delivery to dairy co-operative societies in Kenya
- e. To establish whether time schedules for milk collection from buying centers influence milk delivery to dairy co-operative societies in Kenya

- f. To determine whether information and communication technology optimization strategies influences milk delivery to dairy co-operative societies in Kenya
- g. To determine whether the price offered to suppliers influenced the amount of milk delivered to the dairy co-operative societies in Kenya
- h. To determine whether outsourcing of inbound services (Transport for raw milk) has a significant effect on the amount of milk delivered to the dairy co-operative societies in Kenya.

**5. THEORETICAL LITERATURE**

The paper was anchored on the Social Exchange Theory was developed by Sociologist George Homans who defined social exchange as the exchange of activity, tangible or intangible, and more or less rewarding or costly, between at least two persons. Other theorists also significantly contributed to the development of this theory more so within sociology (Jones, 2006). The theory is based on a social psychological and sociological perspective that explains social change and stability as a process of negotiated exchanges between parties (Ritzer, 2014). The social reciprocity theory is the action of rewarding an affirmative action for another positive action. This involves relationship that brings about obligations to give back. It is a social exchange where employers bestow benefits to employees that creates a feeling of mutual obligations between the employer and employee. It is rewarding kind actions and punishing unkind actions. It is cognizant that people evaluate the kind actions by consequences and the underlying intentions (Ritzer, 2014). In relation to direct supplier relationship strategies and amount of milk received by co-operative societies, the social exchange theory views milk supplier relationship as consisting of social or economic exchanges. Economic exchange relationships involve the exchange of some benefits in return for suppliers’ efforts and are often dependent on formal contracts which are legally enforceable. On the other hand, social exchanges are ‘voluntary actions’ which may be initiated by an organization’s treatment of its direct suppliers with the expectation that the suppliers will be obligated to reciprocate the good deeds of the organization by continually supplying all their milk to the co-operative societies. This theory is relevant in this study as it suggests that suppliers respond to perceived favourable offerings by dairy co-operative societies, and equally, suppliers retaliate against dissatisfying conditions by engaging in negative activities such as diverting all or part of their milk to other buyer’s/processing firms.



**Figure1. Conceptual Frame Work**

**6. METHODOLOGY**

Data was collected from 21 co-operative societies distributed throughout the country, data that was obtained using close-ended questions from 86 personnel in management of those co-operative societies and it was analyzed quantitatively in order to address the objectives. Correlation analysis was done before running multiple regression presented below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \epsilon$$

where:

$\beta_0$  = constant (coefficient of intercept)

Y= Performance of dairy cooperatives (Amount of milk delivered)

X<sub>1</sub> = Price offered to the farmers

X<sub>2</sub> = Credit factors

X<sub>3</sub> = Sacco membership

X<sub>4</sub> = Dairy farming Education and other extension services

X<sub>5</sub> = Schedules for milk collection

X<sub>6</sub> = Information and technology optimization

X<sub>7</sub> = Outsourcing of inbound services (transport of milk bought from farmers)

ε = Error. Term. B<sub>1</sub>, ..., B<sub>7</sub>= regression coefficients of seven variables. This model was appropriate because the dependent variable (co-operative society performance was measured in terms of milk delivered from the farmers) was a continuous variable. Significance of the coefficients was determined at 0.05 significance level.

**7. RESULTS**

**Table1. Correlation Analysis**

	1	2	3	4	5	6	7	8
1. Performance	1							
2. Credit Facilities for Input & Household Items	0.557 0.000	1						
3. Farmers SACCO	0.677 0.001	0.496 0.000	1					
4. Extension services	0.734 0.000	0.513 0.012	0.625 0.000	1				
5. Milk collection centers location	0.315 0.000	0.112 0.014	0.713 0.000	0.725 0.020	1			
6 Milk collection time schedules	0.351 0.002	0.583 0.000	0.429 0.013	0.882 0.000	0.334 0.132	1		
7. ICT Optimization	0.712 0.000	0.512 0.013	0.615 0.000	0.415 0.015	0.615 0.013	0.639 0.000	1	
8. Price	0.513 0.000	0.613 0.000	0.414 0.142	0.602 0.000	0.113 0.025	0.752 0.000	0.645 0.00	1
9. Outsourcing of transportation of raw milk	0.645 0.015	0.345 0.000	0.278 0.246	0.498 0.000	0.567 0.000	0.456 0.012	0.367 0.021	0.438 0.000

The Pearson correlation results shows the relationship between the variables, and only the relationship between time of milk collection centers and credit facilities for inputs and household items and it significant r=0.112, p=0140; Between outsourcing transport for raw milk and farmers Sacco (r=0.278, p= 0.246. Higher correlation was between milk collection centres and milk collection schedules (r=0.882, p-value=0.000).

**Table2. ANOVA Results**

Indicator	Sum of Squares	Df	Mean square	F	Sig.
Regression	10.464	5	3.462	10.983	0.000
Residual	21.558	80	0.342		
Total	32.022	85			

Results of the ANOVA indicated that the overall ANOVA model was significant, meaning that the independent variables were significantly joined.

**Table3.** Regression Model Results

Variable	Coeff.	Standard Error	t	Sign.
Constant	1.436	0.416	3.258	0.001**
Credit Facilities (inputs & household items)	0.259	0.069	3.754	0.042**
Farmers SACCO	0.276	0.171	1.614	0.049**
Extension Services	0.294	0.655	0.4489	0.042**
Milk Collection location center (Near)	0.345	0.165	2.380	0.000
Milk Collection Time schedules				
ICT Optimization	0.345	0.145	2.091	0.003**
Price				
Outsourcing of transportation of raw milk	1.278	0.639	2.000	0.012**
	1.345	0.789	1.705	0.015**
	1.123	0.734	1.530	0.041**

\*\* p value is significant at 0.05

Results indicated that, availability of credit in form of inputs and household items had significant effect positive and significant effect (Coef = 0.259, p-value = 0.042). Farmers Membership to the farmers SACCOs had a positive significant effect on the amount of milk delivered to the dairy co-operative society. The same applied to provision of extension services (Coef = 0.294, p-value = 0.042), location of milk collection centres (Near) (Coef.= 0.345, P-value = 0.000) and milk collection schedules (Coef. =0.345, p-value 0.003). ICT optimization and price (Coef.= 1.278, p-value= 0.012) and (Coef. =1.345, p-value=0.015) respectively. The mediating role of outsourcing of transportation of raw milk was positive and significant (Coef.= 1.123,p-value =0.041).

## 8. CONCLUSION AND RECOMMENDATIONS

The eight explanatory variables explain the performance of dairy co-operative societies in terms of the amount of milk collected. For this reason, dairy co-operatives societies in Kenya interested in improving performance by increasing the amount collected from farmers must embrace those aspects. By so doing dairy co-operatives will be able to play their roles effectively, and as a result contribute to economic development of the country.

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