



**RESEARCH ARTICLE**

**EFFECTS OF LIBERALIZATION ON DAIRY COOPERATIVES IN WESTERN PROVINCE,  
KENYA**

**Limo K, Samson\* and Moses Popoi**

University of Nairobi, Department of Extra- Mural Studies, Kenya

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**ABSTRACT**

The study sought to establish the effects of liberalization on performance of the dairy cooperatives in Western Province of Kenya. It sought to find out if there were any dairy cooperatives that collapsed due to liberalization, registered drop in its membership, or reduced milk volumes handled. Primary data was obtained from dairy cooperative officials, KDB and MOCDM officers. All the 27 dairy cooperatives in Western province, Kenya formed the population to provide data for this research. To collect data, questionnaires were administered at the sampled dairy cooperative societies' officials and an interview schedule for the KDB and MOCDM officers. The instruments were administered face to face. The study was limited to dairy cooperative societies in Western Province of Kenya for the period between 1992 and 2008. The instruments were given to three experts from University of Nairobi for validation. A pilot study was also carried out in Moi's Bridge dairy cooperative in Rift Valley province. The researcher employed statistical methods such as percentages, measures of central tendency, measures of dispersion or variability – variance, standards deviation and split-half technique were used to determine reliability of the instruments. All dairy cooperatives operating in Western Province were selected to ensure high degree of representation of population characteristics. Non- probability sampling was used to select the three officials of the cooperatives (chairperson, manager, secretary), the KDB official and District Cooperative officers in the area where the dairy cooperatives fall. The relevant statistical methods such as percentages, measures of central tendency- mean, median and measures of dispersion or variability – variance, standards deviation were used to analyze data. The data was presented in both descriptive and quantitative forms using percentages, frequency distribution tables and graphs. The research findings indicated that liberalization had adverse effects on dairy cooperatives in Western Province, Kenya and have not been able to recover to the levels reached before onset of liberalization. Between the years 1992 and 2008, all the sampled cooperatives indicated that at one time the cooperative had ceased operating, registered drop in milk volumes, membership and turnover. There was also gender imbalance in the managements of cooperatives with dominance of male above the age of 56 years. Based on the findings of the study it was recommended that the government departments and relevant stakeholders play a more active role in capacity building of dairy cooperatives and enforcement of regulations. The cooperatives also required financial assistance to acquire means for transporting milk from farms and also to the market and further assistance to revive the stalled coolers and purchase equipment. The research also identified areas that still required further research, these included studies to examine other factors that could have led to decline of dairy cooperatives after 1992, role of stakeholders in the dairy cooperatives and the rate of adoption of various technologies by the cooperatives.

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**INTRODUCTION**

Liberalization set in with the introduction of Structural Adjustment Programs by the International Monetary Fund (IMF) and the World Bank. Structural adjustment programs are policy changes implemented by the International Monetary Fund (IMF) and the World Bank (the Bretton Woods Institutions) in developing countries. These CTpolicy changes

are conditions (Conditionalities) for getting new loans from the IMF or World Bank, or for obtaining lower interest rates on existing loans. SAPs generally require countries to devalue their currencies against the dollar; lift import and export restrictions; balance their budgets and not overspend; and remove price controls and state subsidies. As a result, SAPs often result in deep cuts in programs like education, health and social care, and the removal of subsidies designed to control

\*Corresponding author: [samlimo9@yahoo.com](mailto:samlimo9@yahoo.com); [wesangulamp@yahoo.com](mailto:wesangulamp@yahoo.com)

the price of basics such as food and milk. So SAPs hurt the poor most, because they depend heavily on these services and subsidies (Stiglitz, 2002). The Kenya's dairy industry is regulated by the Kenya Dairy Board (KDB) through the Dairy Industry Act Cap. 336 of the laws of Kenya. The law was enacted in 1958 and it mandated Kenya Dairy Board to develop, regulate and promote the dairy industry. The marketing in dairy products up to 1992 was nearly a monopoly of Kenya Cooperative Creameries (KCC). Prior to 1993 the government had licensed two small scale cooperative rural dairies namely Meru Central Farmers Cooperative Union (MCFCU) and Kitinda Dairy Cooperative Society. These cooperatives were to receive process and distribute milk and milk products for their members. The surplus milk was supplied to KCC. During this period any licence to process and distribute milk and milk products in Kenya was issued on agency of Kenya Cooperative Creameries (KCC). This is to say that any party issued with a licence had to undertake business as an agent and member of KCC, (Mbogoh, 1995). According to Wanyama (2007) the cooperatives in Africa have traversed two main eras; the era of state control and that of liberalization. The cooperatives under state control saw the start and substantial growth. This growth originated from government policy and directives rather than peoples' own initiatives, motivation and common interests.

State control over cooperative movement ended in 1997 following the introduction of liberalization measures. The measures were intended to create commercially autonomous cooperatives which are professionally managed, self-regulating and self reliant. Specific policy actions included price decontrols, liberalization of marketing divestiture and privatization of dairy support services such as artificial insemination and veterinary services in many parts of the country. KCC was opened up to competition by allowing private sector entrepreneurs to participate in milk processing and marketing. The research intended to find out if the dairy cooperatives survived the competition of the market, and what effects these liberalization changes have had on the output and membership of the dairy cooperatives in the Western Province of Kenya. Mburu, Wakhungu and Gitu (2007) observed that there is an increased role of cooperatives in information dissemination in a liberalized milk market. Farmers marketing their milk through the cooperatives were likely to be more knowledgeable than other farmers using other marketing channels. Therefore, the farmer cooperatives movement needs to be revamped and their mandate expanded and enhanced to provide access to inputs, provision of reliable breeding services and improved market access. Western Kenya, comprising Western and Nyanza Provinces, is home to Kenya's poorest people (Mburu *et al.*, 2007). According to Engel's Law, households that allocate a large share of their income to food are considered poor (Ritson, 1977). Using this criterion, rural Nyanza is the most poverty-stricken area in Kenya, with 78% of the expenditure per adult equivalent allocated to food, followed by rural Western Province at 75% (Government of Kenya 2003). Birchall (2004), sited cooperatives as the most suitable form of organization for poverty alleviation. The potential of dairy production for poverty reduction has also been demonstrated. The study will identify the positive and negative impacts of liberalization on dairy cooperatives to be used in future to revamp this sector

which has been identified as one of the entry to poverty alleviation in Western province.

## MATERIALS AND METHODS

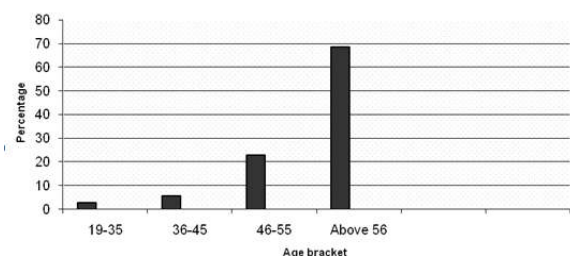
A descriptive survey was used in this study, both qualitative and quantitative type of research designs and it involved administration of questionnaires and interviewing of target sample subjects to allow for comprehensive descriptions of activities of the cooperatives. The study targeted officials of the 27 dairy cooperatives in Western Province of Kenya. It also targeted the District Cooperative Officers and Kenya Dairy Board (KDB) staff of the relevant districts where the sampled dairy cooperatives were located. The study was carried out on the entire population of 27 dairy cooperatives in Western Province of Kenya. The cooperative society officials were selected and this included the chairperson, the secretary, the manager and the treasurer and in the event that any of them was unavailable then their respective assistants were asked to provide the required information in the questionnaire. The primary data was obtained using a questionnaire which was administered on the dairy cooperative officials by the researcher. An interview was also administered by the researcher on the MOCD and KDB officials. Secondary data was also obtained from MOCDM offices, KDB records, books, internet and reports. The instruments were validated through carrying out a pilot study in Moi's Bridge dairy cooperative society in Rift Valley. The research also used the relevant statistical methods to determine reliability of the instrument; variance, standard deviation and split-half technique. The split-half technique was administered to the appropriate group and the scores divided into groups randomly (odd and even numbered items), these scores are correlated and correction factor applied to reflect the reliability of the whole instrument. Data analysis techniques included: frequency and percentages, measures of central tendency, measures of dispersion; variance and standard deviation.

## RESULTS AND DISCUSSION

Table 1 indicates that a large ratio in the dairy cooperative managements were male (85.7%). All the chairpersons of these cooperatives were also found to be male. All MOCDM and KDB respondents were also males.

**Table 1. Gender of the cooperative officials**

Gender	Frequency	Percentage
Male	26	85.7%
Female	9	14.4%
Total	35	100%



**Fig. 1: Age bracket of respondents**

According to figure 1 the management is largely comprised of officials aged above 56 years (68.6%) and those below 36 years was only found in one cooperative out of the population of 10 dairy cooperatives.

**Table 2. Education level**

Level of education	Frequency	Percentage
Secondary	26	74.3%
Tertiary	9	25.7%
Total	35	100%

Table 2 shows that all the officials of the dairy cooperatives attained education level above primary school with 74.3% having attained secondary school education and the rest (25.7%) achieved tertiary level of education.

**Table 3. Occupation of respondents**

Occupation	Frequency	Percentage
Farmer	27	77.1%
Business person	8	22.9%
Total	35	100%

The officials were either farmers or business persons according to table 3 and none was engaged in any formal employment. The officials indicated that they were available to carry out the duties of the cooperative whenever they were called upon. All the cooperative societies except two were started before 1992. This formed a good background for comparing the pre- liberalization and post- liberalization outputs of these cooperatives (financial, membership, milk volumes, and dairy services among others).

**Table 4. Effects of liberalization on growth of the dairy cooperatives**

KEY: 1-strongly agree 2-agree 3-undecided 4-disagree 5-strongly disagree

EFFECTS	1	2	3	4	5	Total	Median
Reduction of dairy Animals	7	11	3	4	10	35	3
<b>Percentage</b>	20	31	9	11	29	100	
Increased milk prices	3	14	3	10	5	35	3
<b>Percentage</b>	9	40	9	29	14	100	
Increased livestock diseases	10	3	3	7	12	35	3
<b>Percentage</b>	29	9	9	20	33	100	
Improved milk volumes	0	3	0	28	4	35	4
<b>Percentage</b>	0	9	0	80	11	100	
Improved milk quality	11	7	0	14	3	35	4
<b>Percentage</b>	31	20	0	40	9	100	
Better management	3	32	0	0	0	35	2
<b>Percentage</b>	9	91	0	0	0	100	
Adoption of new technologies	11	17	7	0	0	35	2
<b>Percentage</b>	31	49	20	0	0	100	
Increased membership	0	12	0	10	13	35	4
<b>Percentage</b>	0	34	0	29	37	100	

Table 4 shows that the cooperative officials observed that liberalization led to reduction in; dairy animals, milk volumes, milk quality and cooperative membership while there was improvement in milk prices, management and adoption of new technologies. The MOCMD and KDB respondents sited the effects of liberalization on dairy cooperatives as decline in outputs and collapse of a number of dairy cooperatives, high cost of dairy production operations, collapse of cattle dips, drop in quality and quantity of milk handled by cooperatives. Most of the milk coolers in the province were under utilized and some never used at all, broken down and some vandalized in the post- liberalization era. Liberalization and deregulation has been linked to the collapse of cooperative societies by other researchers. The giant KCC collapsed in the post liberalization period. Mbogoh (1995) indicated that prior to 1992 KCC used to handle over 90% of the marketed milk in

Kenya. Bakunda, (2008), in exploring the impact of liberalization in Uganda concluded that the most notable effect of liberalization and deregulation has been the collapse of cooperative movement and systems. However, some cooperatives survived the market forces and are subsequently recording better performance.

**Table 5. Operations of cooperative**

Years	Respondents	Closed	% Closed
1998- 1994	30	0	0
1995- 001	30	26	27.4
2002-2008	35	9	9.5
Total	95	35	36.9

Table 5 shows that no cooperative closed down before 1994 and the largest number of the cooperatives 27.4% closed down between 1995- 2001. The closure of cooperatives reduced drastically after 2002 with only 9.5% having closed.

**Table 6. Causes of cooperatives' stoppage of operations**

KEY: 1-strongly agree 2-agree 3-undecided 4-disagree 5-strongly disagree

Causes	1	2	3	4	5	Median
Low milk prices	7	10	3	7	6	3
Competition	5	14	0	7	7	3
Lack of market	0	0	3	10	20	5
Mismanagement	20	7	6	0	0	2
Low production	15	3	3	4	9	3
Other markets	7	0	8	10	8	3
Total	54	34	23	38	51	-

According to table 6 the cooperatives sited mismanagement as the major cause of the dairy cooperatives close down at one time (Strongly agreed by respondents). The cooperatives however admitted that the above factors; low milk prices, competition, low production and presence of other alternative markets actually had effects on their business. The cooperatives however indicated that lack of market for their milk was not one of the causes of the collapse of the dairy cooperatives over the period. The immediate impact of liberalization on most co-operatives was mainly negative, (Wanyama, 2007). The newly acquired freedom was dangerously abused by elected leaders to the detriment of many cooperative societies. Cases of corruption; gross mismanagement by officials; theft of cooperative resources; split of viable co-operatives into small uneconomic units; failure by employers to surrender members' deposits to co-

operatives (particularly SACCOs); failure to hold elections in co-operatives; favoritism in hiring and dismissal of staff; refusal by co-operative officials to vacate office after being duly voted out; conflict of interest among co-operative officials; endless litigations; unauthorized co-operative investments; and illegal payments to the management committees were increasingly reported in many co-operatives (Manyara, 2004: 42-43).

**Table 7. Dairy services offered by dairy cooperative**

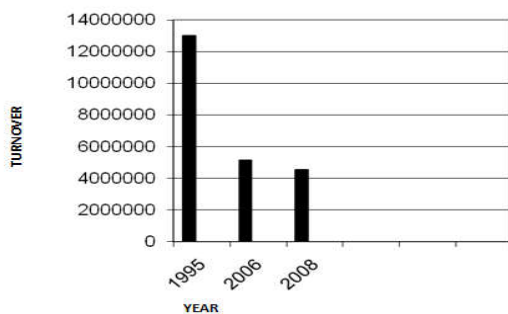
	Artificial insemination	Milk processing	Veterinary services	Input supplies	Milk bulking	Milk cooling
1988- 1994	0	4	0	0	16	12
1995 –2001	0	0	0	0	12	0
2002 –2008	0	4	0	4	20	0

Table 7 indicates that the cooperatives that carried out processing stopped doing so immediately after the onset of liberalization and only resumed after 2006. Milk cooling in all cooperatives stopped in all cooperatives after 1992 and had not resumed by 2008. No dairy cooperative had started offering artificial insemination by 2008. According to Vanhuynegen (2008), the exposure of the state-protected cooperatives to the competition of the market dramatically reduced the market share of these cooperatives and led to their disintegration.

**Table 8. Growth in membership of cooperative**

	Increased		No change		Decreased		Modal response
	f	%	f	%	f	%	
1998- 1995	30	67	0	0	3	11	Increase
1996- 2001	2	4	0	0	18	56	Decrease
2002-08	13	29	10	100	11	34	No change
Total	45	100	10	100	32	100	-

According to table 8 there was general decline in membership of dairy cooperatives after liberalization and only a slight rise was experienced by a few cooperatives after 2006.



**Fig. 2. Turnover**

**Table 9. Ways the dairy services changed after 1992**

	Frequency	Percentage
Increased	9	27.3
No change	2	6.0
Decreased	22	66.7

**Table 10: Areas of improvement in dairy cooperatives after 1992**

**KEY: 1-strongly agree 2-agree 3-undecided 4-disagree 5-strongly disagree**

	1		2		3		4		5		Mode
	F	%	f	%	F	%	f	%	f	%	
Management performance	4	13	11	10	3	19	11	28	4	6	3
Dairy services	0	0	15	14	7	43	4	10	7	11	3
Management structure	6	19	1	1	3	19	6	15	17	26	4
Milk production	1	3	7	6	0	0	8	20	17	26	4
Disease control	7	22	8	7	3	19	4	10	11	16	3
Milk value addition	5	16	24	22	0	0	0	0	4	6	2
Diversification of business	0	0	29	27	0	0	0	0	4	6	2
Milk pricing	8	27	14	13	0	0	7	17	2	3	2
Total	31	100	109	100	16	100	40	100	66	100	-

According to Figure 2 the turnover was highest in 1995 and reduced in 2006 and was at its lowest in 2008. This also applied to the cooperatives' income. The share contributions of the cooperatives never improved after 1993 to 2008. In reference to table 9 above, most of the cooperatives registered decrease in dairy services they offered after 1992. Table 10 indicates that the respondents agreed that there was improvement in the milk value addition, milk pricing and diversification of business in dairy cooperatives after 1992. They however indicated that there was no improvement in the structure of management and milk production (Disagreed with statement). On average response the cooperatives saw no significant improvement in the performance of the cooperative managements, disease control and dairy services over the stated period. According to table 11, the cooperative members are indifferent about selling all their farm produce through their cooperatives. They strongly agreed with all the other roles listed above; adopting efficient production technologies, seeking information on regulations governing cooperatives and also elect officials with integrity. Table 12 above expresses strong agreement of the above listed roles of the cooperative management. These included offering competitive milk prices to the members, organize farmers' trainings, be transparent and accountable on finances, and also seek external assistance for the dairy cooperatives.

The table 13 indicates the strong opposition of the dairy cooperatives for price controls by government. The role of government to control unfair competition, provide cooling facilities and reduce license fees were not some of the key roles according to the dairy cooperatives. They strongly agreed that the government should build the capacity of cooperatives through training officials, extension services and take action against any official defrauding the cooperatives. The MOCMD and KDB respondents suggested that the dairy cooperatives should be facilitated by donors in the dairy industry to acquire means of transporting their milk from the farms to the market or processing plants. Training of farmers on good animal husbandry, value addition and marketing. This is to be carried out by relevant government ministries and other stakeholders supporting the industry. It was also proposed that the cooperative managements being trained on good management practices and governance. It was suggested that the dairy cooperatives to also diversify to other additional income generating activities to cushion themselves during low milk production season and when profitability from milk is low. Examples sited include dairy goat rearing, horticulture, and farm input supplies stores. The officers also proposed that the relevant government ministries be facilitated to ensure regular and more firm enforcement of regulations. The relative better performance of Githunguri Dairy Farmers Cooperative Society in Kiambu after liberalization indicates that some cooperatives

**Table 11: Role of farmers in dairy cooperatives**

The roles of stakeholders in enhancing the performance of dairy cooperatives in the post liberalization era.

KEY: 1-strongly agree 2-agree 3-undecided 4-disagree 5-strongly disagree n- mean m- media

	1		2		3		4		5		mode
	F	%	F	%	f	%	f	%	F	%	
Adopt efficient production technologies	3	11	25	40	0	0	5	16	0	0	2
Sell all their produce through cooperative	0	0	15	23	0	0	16	52	2	18	3
Know regulations governing cooperative	5	19	18	28	0	0	10	32	0	0	2
Elect officials with integrity	18	70	6	9	0	0	0	0	9	82	2
Total	26	100	64	100	0	0	31	100	11	100	-

**Table 12. Role of cooperative societies' management**

	2		3		4		5		Mode		
Offer competitive milk prices	3	12	26	20	0	0	0	0	4	100	2
Quality dairy services	4	17	29	23	0	0	0	0	0	0	2
Organize trainings for farmers	7	29	26	20	0	0	0	0	0	0	2
Transparent and accountable on finances	6	25	18	14	4	100	5	100	0	0	2
Seek external assistance for the coops	4	17	29	23	0	0	0	0	0	0	2
Total	24	100	128	100	4	100	5	100	4	100	-

**Table 13: Role of government in dairy cooperatives**

	1		2		3		4		5		Mode
	F	%	F	%	F	%	f	%	f	%	
Intervene in fraud cases in coops	11	19	11	11	12	32	0	0	0	0	2
Control milk prices	0	0	2	2	0	0	2	6	29	78	5
Offer financial support to cooperatives	0	0	28	28	3	9	0	0	0	0	2
Reduce permit and license fees	13	23	5	5	1	3	10	32	4	11	3
Control unfair competition	2	3	14	14	5	13	8	27	4	11	3
Offer extension services to farmers	10	18	12	12	11	30	0	0	0	0	2
Train cooperative officials	16	27	17	17	0	0	0	0	0	0	2
Provide cooling facilities	6	10	11	11	5	13	11	35	0	0	3
Total	58	10	10	10	37	10	31	10	37	100	-

adjusted positively to reap benefits of these regulations. In 2003, the management committee used the power to borrow and charge the society's property to get a loan of about 70 million Kenya shillings (about US\$. 1,000,000) from OIKO Credit of the Netherlands to put up a modern dairy processing plant, which was completed in 2004. Since then, the cooperative collects and processes about 80,000 liters of milk daily, up from 25,000 liters in 1999. It has eighteen vehicles for transporting milk from 41 collection centers in Githunguri Division of Kiambu district to its plant in Githunguri town. The plant produces four main branded products that are sold in Nairobi namely, packed fresh milk, yoghurt, ghee and butter. Besides this activity, the co-operative also provides productive services to its members. These include artificial insemination; extension services; and animal feeds in its 31 stores that straddle its area of operation, (Wanyama, 2007).

## CONCLUSIONS AND RECOMMENDATIONS

The results indicated gender imbalance in the dairy cooperative managements with dominance of male. All the chairpersons of these cooperatives were also found to be male. All MOCDM and KDB respondents were also males. The youth (18- 35 yrs) have been involved to a very small degree in the management of dairy cooperatives (2.9%). These managements largely comprised of males above the age of 55

years. All the officials in the dairy cooperatives were found to have attained at least secondary level education. The dairy cooperatives that were started before the year 1992 felt the negative effects liberalization and had to close down at one time between the years 1992 and 2008. The effects included reduction of dairy animals, reduction in; milk volumes, membership, turn-over, profitability and dairy services. Cattle dips were closed, milk coolers were broken down and the few that were in good condition were not in use due to low milk volumes. A few coolers returned into use after 2006. No single cooperative had registered higher volumes by 2008 than what they handled before effects of liberalization set in. There were also positive effects associated with liberalization;

1. The Ministry of Livestock Development should empower the farmers in these cooperatives through training in good farming practices, feed preservation. This is to ensure production of more milk of good quality, reduction in diseases due to better hygiene and better utilization of farming waste products. The veterinary department to enlighten farmers on disease control, tick control and breeding of dairy herd. This will ensure high yielding dairy breed that are also free from diseases and ticks.
2. The Ministry of Cooperative Development and Marketing need to take the responsibility of enlightening the cooperative officials on good management practices. Those officials who

misappropriate the cooperative society resources should also be prosecuted accordingly to deter others and improve management in cooperatives.

3. Enforcement of dairy industry regulations is the mandate of Kenya Dairy Board. The board needs to ensure a fair playing ground in the milk market by ensuring only licensed people are allowed to trade in milk. They should also control milk hawking to ensure fair market competition.
4. Training of dairy cooperatives on milk value addition needs to be carried out so that the cooperatives can get better returns from sale of the value added products.
5. Funds should be sought through various government departments; NGO's, Constituency Development Funds (C.D.F) and lobby groups to assist the cooperative acquire means for transporting their milk from the farms and also to the market. The funds should also be used to revive the stalled milk coolers and purchase new equipment.
6. Mechanisms need to be put in place by the government to monitor the operations of cooperatives through regular audits and making it a mandatory requirement for cooperatives to submit their returns at short and regular intervals. This will ensure that cooperatives facing problems can be detected early and salvaged on time before collapse.

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