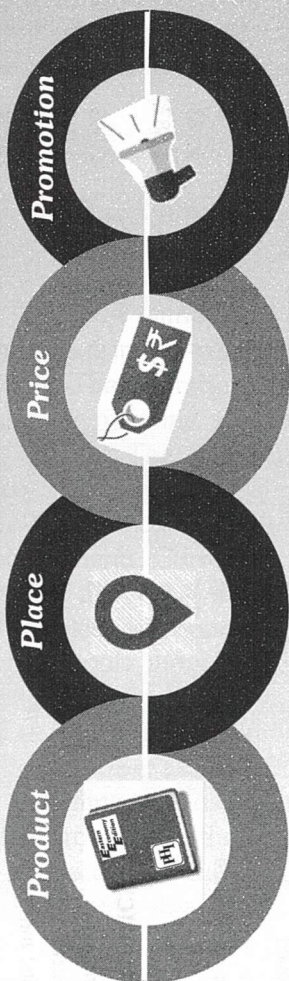


CASE

2

OILSEEDS GROWERS COOPERATIVE SOCIETY

MARKETING



INTRODUCTION

Oilseeds occupy an important position in the Indian economy, next only to food grains. They account for more than 10% of the value of all agricultural products and around 5% of GNP. Oilseeds form the raw material base for the edible oil producing industry, which has a large employment potential. India has a highly developed oil based industry providing employment to more than 15 million persons. This industry is essentially food-oil oriented, accounting for as much as 83% of the total supply of vegetable oil in the country.

Indian agriculture has attained a good degree of commercialisation marked with manifold increase in production and sustainable surpluses. Agricultural marketing system plays a crucial role in economic and social development, not only by providing production incentives but also distributing the benefits of growth. The marketing system, by providing a coordinating and catalytic mechanism, can have a multiplier effect and contribute to development. This can, according to the degree of efficiency, accelerate or hinder the growth of the economy. The problems such as seasonal glut of the agricultural produce and consequent slump in prices at the time of harvest, scarcity during lean period, low productivity

coupled with erratic rainfall, scarcity of seed and non-implementation of production technology by the farmers, which is accentuated by the hoarding and speculation on the part of the middlemen and consequent rise in prices and exploitation of producers and consumers, arises out of lack of orderly marketing of agricultural produce in India.

We are therefore forced to look at the extensive network of cooperative societies in the field of marketing and distribution of agricultural produce. Marketing cooperatives appear to be a major institutional agency to overcome the problem of marketing and to some extent production aspects of oilseeds.

In view of this, the Government of Karnataka approved the implementation of the NDDDB project—Restructuring Edible Oil and Oilseeds Production and Marketing in Karnataka—during 1984. The Karnataka Cooperative Oilseed Growers' Federation Ltd. was entrusted with the implementation of the project under the Karnataka Cooperative Societies Act. The project was designed to create an integrated cooperative system of production, procurement, and processing of oilseeds and marketing of oil and by-products.

At present the structure rests on the foundation of oilseeds growers' cooperative societies at the village level and regional unions at district level. The unions arrange for the supply of inputs to the member growers through oilseed growers cooperative societies and also organise demonstrations and give technical advice to the growers.

Procurement of the farmers' produce is done through the Oilseed Growers' Cooperative Society (OGCS) on payment of a remunerative price. Thereafter, the oilseeds are processed in the Unions' own processing point and the final products are marketed by the federation. Thus, the system is involved in all the stages from marketing to distribution of oil.

To know the impact of oilseed growers' cooperative society towards oilseed growers, evaluation of the following aspects are required:

- Production and productivity of oilseeds
- Procurement of oilseeds of the farmers at their doorstep
- Agricultural extension activity undertaken for the benefit of member growers
- Technical inputs provided to member growers

For evaluating the above objectives, an opinion survey of a total of 16 grower respondents was conducted by convenient sampling from Kora Oilseed Growers' Cooperative Society in Tumkur District of union II of Karnataka Oilseed Growers' Federation (KOGF) Ltd.

Demographic information, imparting of production and protection technology of oilseed by subject specialists of the institution, procurement procedure, conducting of demonstration trials to educate farmers to adopt latest production technology, technical inputs to member growers and the data on opinions about the performance of the society and the benefits accruing to beneficiaries from the society were collected in the prescribed schedule prepared for the purpose, the data collected was tabulated and regressed. Appropriate statistical analysis and statistical tools were used.

INFLUENCE OF TRAINING PROGRAMMES ON YIELD

Table 1 shows the impact of training programmes on yield. From the table we can conclude that there is no difference in the yields of groundnut between the farmers who have undergone training and those who have not. The data indicates that though farmers have undergone the training programme, they have not adopted the improved production technology in the cultivation of groundnut crop.

TABLE 1 Impact of Training Programmes on Yield

	Training received	Training not received
Per cent of farmers	50	50
Mean yield (kg/ha)	1567.5	1530.8

INFLUENCE OF RECOMMENDATIONS REGARDING FERTILISER REQUIREMENTS

From the data collected about the amount of di-ammonium phosphate (18% N₂, 46% P₂O₅), Muriate of potash (60% of K) and gypsum (15% S, 18% Ca) used, the amount of nitrogen, phosphorus, potassium, sulphur and calcium used were calculated. These were compared with the optimal values, and the results were tabulated in Table 2.

TABLE 2 The Percentage of Farmers Who have Used Optimal Values of Nutrients

	Nitrogen	Phosphorus	Potassium	Sulphur	Calcium
Package followed (%)	25	18.75	31.25		
Average yield (kg/ha)	1755.5	1789	2000		
Package not followed (%)	75	81.25	68.75	100	100
Average yield (kg/ha)	1479.5	1493	1600		

Optimal value (in kg/ha): N: 25; P: 75; K: 38; S: 75; Ca: 90

Multiple linear regression analysis was carried out with yield (y_{ij}) as the dependent variable and the application of nutrients nitrogen (x_{11}), phosphorus (x_{12}), potassium (x_{13}), calcium (x_{14}) and sulphur (x_{15}) as independent variables. The correlation matrix obtained is shown in Table 3.

$$y_{ij} = a + b_{11}x_{11} + b_{12}x_{12} + b_{13}x_{13} + b_{14}x_{14} + b_{15}x_{15}$$

The results indicate that there is no significant relationship between the application of nutrients—nitrogen, phosphorus, sulphur and calcium towards yield. There is a positive significant relationship between the application of potash with the yield due to the effect of potassium already available in the soil.

TABLE 3 Correlation between Yield and Extension Activities

	Nitrogen	Phosphorus	Potassium	Calcium	Sulphur	Yield
Nitrogen	1	—	—	—	—	—
Phosphorus	1	1	—	—	—	—
Potassium	0.870	0.870	1	—	—	—
Calcium	0.647	0.647	0.560	1	—	—
Sulphur	0.673	0.673	0.593	0.957	1	—
Yield	0.166	0.166	0.511	0.267	0.310	1

$$R^2 = 0.649 \quad R = 0.805$$

Multiple linear regression was applied to know about the effect of training programme (x_{11}), technical advice (x_{12}), plant protection measures (x_{13}) and source of seed (x_{14}) on yield (y_{ij}). The correlation matrix obtained is shown in Table 4. The results reveal that there is no significant relationship of the variables under study towards yield. However, a higher value, 0.467 is present between the yield and oilseeds supplied by OGCS, showing that there is a positive relationship, but this was also not found significant on the application of *t*-test.

TABLE 4 Correlation between Yield and Training Programme

	Training	Technical advice	Plant protection	Seeds	Yields
Training	1				
Technical advice	0.258	1			
Plant protection	0.258	0.333	1		
Seeds	0	0	0.276	1	
Yields	0	0.169	0.056	0.467	1

$$R^2 = 0.267 \quad R = 0.517$$

ANOVA was conducted to know the impact of adoption of technology with reference to yield due to education levels of the farmers. The relationship between the yield and education levels shown in Table 5. The *F*-test revealed that there is no significant difference between the education levels of farmers towards the adoption of recommended cultivation practices. This can be due to the following of traditional methods, irrespective of the information available.

PROCUREMENT OF OILSEEDS

The study reveals that OGCS has stopped the procurement of oilseeds.

TABLE 5 ANOVA: Yield to Education Levels

H_0 : There is no difference between education levels and yield obtained.

H_1 : There is a difference between education levels and yield obtained.

ANOVA

	DF	SS	MSS	F-CAL
Education level	2	842,349.4	421,174.74	1.41
Within column	13	3,889,353.95	299,181.07	
TOTAL	15	4,731,703.44		

(DF: Degrees of freedom; SS: Sum of squares; MSS: Mean sum of squares; F-CAL: Calculated F-value)

Education level	Average yield (kg/ha)
Middle school	1670
High school	1152
College	1696

F-Table value = 3.81; H_0 cannot be rejected

SATISFACTION LEVEL OF THE FARMERS

All the farmers rated the function of OGCS as satisfactory on a scale from -2 to +2, which on further investigation revealed that they are not satisfied with the closing down of the procurement operations by OGCS.

ISSUES FOR DISCUSSION

1. From the case, how would you assess the impact of OGCS?
2. Does the case point out that OGCS is functioning oblivious of its market domain?
3. Are the samples considered for the study adequate? What is your opinion on the reliability of the results?
4. From the case, what suggestions can be given for improvement of OGCS?