

A study of sales promotion techniques of cooperative milk producers

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ABSTRACT

In India, the dairy business is rapidly expanding and growing, catering to consumers' changing wants for milk and milk products. This sector also provides countless job possibilities, which contribute to the country's economic growth. The National Cooperative Dairy Federation of India (NCDFI) is the apex body, offering a platform for milk producer associations throughout the country. In this study, we questioned 100 consumers in Pune who buy dairy products from cooperative producers to see if their sales promotion techniques have evolved in response to technical improvements, market competition, and other pertinent aspects. Most respondents reported a considerable shift in cooperative dairy producers' sales marketing strategies, which were closely aligned with current practices.

KEYWORDS: Sales promotion, Cooperatives, Dairy producers, Sales promotion techniques

1. INTRODUCTION

India has always been the largest producer (currently estimated at 400 million liters per day) and consumer of milk in the world. However, it remained a dull market mainly because per capita consumption was low and most milk was consumed in basic, liquid form or at best as ghee and some butter. Of the 400 million Liters of milk that India produces per day, producers keep 160 million Liters per day (48 percent) for their own consumption. The surplus milk available for sale is around 240 million Liters per day, of which only 70 million Liters per day is consumed by the organized sector – consisting of cooperatives like Amul, Mother Dairy and Nandini (a brand owned by the Karnataka Cooperative Milk Producers Federation), as well as private sector players such as Nestlé and Danone. More than 170 million Liters of surplus milk continues to go to the unorganized sector, comprising traditional domestics. When marketing a dairy product, the most important aspect of the strategy is to determine the competition and the audience. By establishing these parameters, one can decide what aspect of the dairy business to highlight and where will be the most effective place to advertise to engage your target audience. A thorough understanding of the dairy business and products will help

recognize the strengths and weaknesses of sales promotion. If we believe that all the action in business has been centred around the e-commerce sector, it could not be more wrong. The unlikely category of milk and dairy products has been experiencing some of the most frenetic activity in the last few years. Multinational and Indian corporate giants jumped into the market. Even start-ups have been launched (PixelSutra.com, 2021).

There is an apex body, National Cooperative Dairy Federation of India (NCDFI), which provides a platform for milk producer associations in India. The National Cooperative Dairy Federation of India (NCDFI) got registered on 7 December 1970 under the provisions of Bombay Cooperative Societies Act (VII of 1925) which had jurisdictions to the Union Territory of Delhi with its headquarters at New Delhi. However, it was only in 1984 that it began to function as the supreme body of the cooperative dairy industry. In the month of December 1986, to gain a locational advantage, NCDFI moved its headquarters to Anand from Delhi—the dairy capital of India. In April 1987, the NCDFI's constitution was amended to bring the provisions of the Multi-State Co-operative Societies Act under its purview.

In this article we surveyed Pune-based 100 consumers of cooperative dairy milk producers to find out if their sales promotion techniques have undergone a change in line with changes in technology, competition, and other factors.

2. REVIEW OF LITERATURE

Dabhade and Singh (2019) have written in the context of cooperative dairy producers. In today's dynamic business environment, supporting consumer loyalty enables companies to secure a long-term satisfied position on the market. Brand modernity is the combination of clear thinking and creativity, unique insight and great ideas aimed at unlocking value and growth for your brands and your business. Brands that don't modernize are soon stunned by apathy. They stagnate. And then they die. Brand commitment is essential because it creates shareholder value and keeps the organization competitive. Therefore, in this research authors tried to find out the impact and relationship between brand modernity from the marketer's point of view and brand engagement from the customer's point of view. The study is empirical in nature and data is collected from 100 customers. The chi square test is used to interpret the data. This study on brand loyalty constructs demonstrates the psychology of how a consumer is influenced by their environment (e.g., culture, family, characters, and media) and consumer behaviour in purchasing decisions. This study helps companies and organizations improve their marketing strategies and understand how consumers respond to their brand in a changing environment.

Zirmire and Kulkarni (2019) conducted a study in two states Karnataka and Maharashtra. Nine Cooperative Dairy Unions/Units from the districts of Karnataka and nine dairy processing organizations from districts of Maharashtra involved in processing, procurement, and marketing of milk products and milk were selected. Primary data was obtained through personal interviews of workers and managers of individual sections of dairy operations with the help of a well-structured and comprehensive questionnaire that was exclusively prepared for the study. Twenty-five dairy officials and employees of dairy processing units were involved at various levels, such as five from village dairy cooperatives, five from transportation section, five from cold storage centres, five from processing section and five from the marketing department, were selected randomly as respondents from each one of the selected dairy processing units in Karnataka and Maharashtra. Thus, the total sample size was 450. Constraints faced by the selected dairy processing units at each level were assessed using Garrett's Classification Technique (GRT) and appropriate conclusions were deduced to address the problems faced by cooperative dairy processing units in Karnataka and Maharashtra states in purchasing, processing, and marketing of milk and milk products in Karnataka and Maharashtra.

Coumaran (2021) in their study examine the efficiency of distribution channels from a marketing perspective of a cooperative dairy plant. The study was conducted to improve the efficiency of the distribution channel by identifying the pitfalls of the current system. A descriptive type of research is used, and a questionnaire method was used to collect agent data.

Analysing the collected data, the channels of distribution are comfortable with the service in the organization and insists that the need for further improvement in the delivery services of the distribution channel would surely lead to a better result.

Singh et al. (2022) aimed to investigate and understand the effect of four independent variables related to retail marketing and distribution of dairy products (freezers, promotions, company support and distributor-retailer relationship) and one moderating variable of Covid-19 lockdown of dairy sales during Covid-19 pandemic situation. Personal interviews and door-to-door surveys and promotional tools were designed to disclose and collect data from retailers. Sales data before, during and after the promotional activity were all recorded and evaluated to draw an inferential conclusion. Factor analysis and multiple regression methods were adopted to analyse the collected data. The research shows that four of the five factors examined were found to have a significant impact on dairy retail sales. Promotions contributed the biggest impact on sales, secondly the impact on the freezer, followed by the distributor-retailer relationship during the period under review and finally due to the impact of the Covid-19 lockdown. The study contributes to the body of knowledge in the cold chain distribution process by using the right combination of tools and tactics for effective marketing and distribution of dairy products in developing countries, especially during a pandemic situation.

Bekele (2021) has written that dairy marketing cooperatives operate in the agricultural sector of the Ethiopian economy and are intended to increase the efficiency of the marketing system. This paper aims to study the factors influencing the participation of farm households in milk marketing cooperatives. The research focused on one primary question. What are the possible factors influencing the participation of farm households in milk marketing cooperatives? A survey questionnaire was created, and an interview was conducted using enumerators. A total of 1500 selected households were randomly selected using the probability proportional to size sampling method. Descriptive and inferential statistical analysis (binary logit model) was used for the analysis. The results of the study revealed that among the thirteen explanatory variables hypothesized to influence the participation of dairy farmers in milk marketing cooperatives; twelve were found to be of statistical significance. These findings show that members of dairy cooperatives have a significant advantage over non-members. Both internal and external intervention measures are proposed. Internally, cooperative boards should devise appropriate strategies to attract non-members to improve future participation, and externally, the government, NGOs and other stakeholders need to emphasize methods that increase non-member participation in milk marketing cooperatives.

Sultana et al. (2019) have stated that there are many cooperatives in Bangladesh, but most of the cooperatives do not work for a long time. After the end of the project period, these cooperatives also ended. In this context, this study shows the sustainable conditions of cooperation in the dairy sector in Bangladesh. The study uses a case study to analyse the conditions of dairy farmers in Bangladesh who are members and non-members of an agricultural cooperative. For conducting the study, a random sampling procedure was applied to gather the primary data from the Sirajgonj district, which is northwest of Dhaka, where a primary milk producer cooperative for integrated marketing was established. Descriptive analysis was used to analyse the data in the study. The cooperative has ensured an assured market for farm produce at a reasonable price and provides technical support through training and extension services that lead to higher production and income for farmers. Motivated farmers have shown positive behaviour towards society for a long time. These conditions can help to sustain cooperative society in other sector of agriculture in Bangladesh. Therefore, intervention should be adopted to strengthen and expand sustainable agricultural cooperatives in all sectors of Bangladesh.

Kumar and Mohan (2018) have written that a key characteristic of many, if not all, highly successful organization is a supply chain that is truly connected to their customers. A customer-driven supply chain starts with understanding customer requirements, sensing and quickly responding to demand signals from all partners. The challenge is to successfully implement an organizational structure, systems and processes that address the root causes of supply chain inefficiencies. The importance of customer relationship management (CRM)

within the supply chain is vital. The research paper attempts to find out the factors leading to customer satisfaction in the Indian dairy industry. The study includes factor analysis with the aim of grouping different practices into a smaller set of homogeneous factors. According to the result of the factor analysis performed on the contract continuum of the customer questionnaire, five factors mainly emerged, i.e. customer service, ability to solve customer problems, value for money proposition, product quality and reliability of products and services. The most prominent factor that emerged is customer service, followed by ability to solve customer problems, offering value for money, product quality and the last factor is reliability of products and services. Similar views have been echoed by authors like Sarkar and Dutta (2020), and Koyi and Wakhanju (2018). Research about changes in sales promotion techniques is not seen and hence this study endeavours to fill the research gap.

3. METHODOLOGY

To draw meaningful inferences and conclusions, a minimum sample size of 100 is recommended (Alreck and Settle, 2003). In line with this guidance a sample size of 100 was fixed. Convenience sampling method was followed. Around 200 questionnaires were sent to dairy product consumers from Pune. 100 responses were received over a month, indicating a response rate of around 50%. The name of the respondent was not recorded for ensuring confidentiality. In fact, it was only when the respondents were assured of their confidentiality, they agreed to cooperate. A questionnaire was designed in Google Forms. It was divided into following parts:

- Demographic Profile
- Changes in sales promotion techniques

The questionnaire had following features:

- Responses were sought by way of a selection from a range of options
- In seeking agreement or disagreement on a particular issue, the sequence of responses was designed as under –
 - 0 – No option
 - 1 – Somewhat agree
 - 2 – Completely agree
 - 3 – Somewhat disagree
 - 4 – Completely disagree

“No option” choice was deliberately kept as the 1st response to provide an early exit option to those who either didn't know the answer or didn't want to answer. The questionnaire was tested for reliability, and it returned a Cronbach Alpha score of 0.924 and hence was considered reliable. The questionnaire is given at the end of the article.

The hypothesis set was:

- **H₀:** The sales promotion techniques adopted by cooperative dairy producers have not changed in recent past (five years)
- **H_a:** The sales promotion techniques adopted by cooperative dairy producers have significantly changed in the recent past (five years)

The hypothesis was tested based on the average agreement/disagreement responses to the ten statements in the questionnaire related to changes in sales promotion techniques. The average agreement/disagreement response of the 100 respondents for all the related statements was taken as the sample mean and it was compared with a hypothesized population mean of 50% agreement/disagreement connoting an event by chance and not due to any statistical significance. A t-test was applied at 95% confidence level and based on the p-value the null hypothesis was tested for rejection or non-rejection.

4. DATA ANALYSIS & FINDINGS

45 respondents were male whereas 55 were female. 19 were from the Northern region of Pune, 21 were from the Eastern region, 29 were from the Western region, and 31 were from the Southern region. 18 respondents were from the age-group of <30 years, 42 were from the age-group 30-40 years, and 40 were from the age-group of >40 years. The average agreement responses to the questionnaire were as under.

Table 1: Summary of responses to the questionnaire

Statement	1	2	3	4	5	6	7	8	9	10	Avg
Agreement %	90%	82%	85%	72%	73%	81%	93%	71%	71%	86%	81%

Based on the above summary average sample mean the hypothesis was tested as under:

Table 2: Testing of Hypothesis

Parameter	Value
Sample Mean (\bar{x})	81%
Hypothesized population mean (μ)	50%
SD of sample	0.96153
n (sample size)	100
t-value= $\text{abs}((\bar{x} - \mu) / (s/\sqrt{n}))$	3.17509
p-value = $\text{tdist}(t, (n-1), 1)$	0.00100
Decision	Reject Null

Thus, the null hypothesis, the sales promotion techniques adopted by cooperative dairy producers have not changed in recent past (five years), was rejected in Favor of its alternate, the sales promotion techniques adopted by cooperative dairy producers have significantly changed in the recent past (five years).

5. CONCLUSION

The sales promotion techniques adopted by cooperative dairy producers have significantly changed in the recent past (five years). The organizations have adopted technology in their sales promotion efforts. They are actively using platforms like social media to promote their products. It is heartening to note that despite being from a non-corporate set-up these organizations have kept pace with the changes in technology and are giving a tough challenge to their competitors. It is recommended that the cooperative dairy organizations should take one step further and adopt more advanced techniques like machine learning, big data, artificial intelligence, and others. The apex organization National Cooperative Dairy Federation of India (NCDFI) should come forward and undertake these initiatives.

6. BIBLIOGRAPHY

- Alreck P.L. and Settle R.B (2003). *The Survey Research Handbook*. McGraw-Hill Education. London.
- Bekele, E. T. (2021). Factors Affecting the Participation of Milk Producers in Dairy Marketing Cooperatives: Evidence from Ethiopia. *The Journal of Industrial Distribution & Business*, 12(10), 19-30.
- Brar, V., Kumar, A., & Ramgade, A. (2022). Problems in evaluating the effectiveness of sales promotion activities. *International Journal of Multidisciplinary: Applied Business and Education Research*, 3(7), 1185–1189. <http://dx.doi.org/10.11594/ijmaber.03.07.02>
- Coumaran, M. K. (2021). Effectiveness of distribution channel in a co-operative dairy plant: A marketing perspective. *Shanlax International Journal of Management*, 8(4), 47-53.

- Dabhade, N., & Singh, S. (2019) BRAND MODERNITY AND COMMITMENT: AN EXPLORATORY STUDY OF MADHYA PRADESH STATE COOPERATIVE DAIRY FEDERATION (MPCDF) LIMITED IN BHOPAL VICINITY. *EPRA International Journal of Multidisciplinary Research (IJMR)*, 24 (5). 79-89.
- Gawande, A., & Kumar, A. (2021). *Embracing Change & Transformation- Breakthrough Innovation and Creativity*. Success Publications, Pune. DOI: <https://doi.org/10.5281/zenodo.6665399>
- Gawande, A., Kumar, A., & Purandare, S. (2022). *CASEPEDIA: Volume 2: Case Studies in Management*. Case Development Cell, Dr. D. Y. Patil B-School, Pune, India. DOI: <https://doi.org/10.5281/zenodo.7139136>
- Jadhav, S., Kumar, A., & Brar, V. (2022). Issues impacting sales promotion in international marketing. *International Journal of Multidisciplinary: Applied Business and Education Research*, 3(6), 1159-1163. <http://dx.doi.org/10.11594/ijmaber.03.06.18>
- Jha, G., Gawande, A., & Kumar, A. (2022). Factors affecting sustainable consumption behaviour of the individuals. In N. Saxena, A. Gawande, A. Kumar, M. Paliwal, A. Aljapurkar & G. Jha, *Contemporary issues in Business, Management, and Society* (1st ed., 155-164), Research and Publication Cell, Dr. D. Y. Patil B-School, Pune. DOI: <https://doi.org/10.5281/zenodo.6660025>
- Koyi, N. P., & Wakhungu, J. W. (2018). Marketing framework in the dairy value chain for food security and sustainable development in Bungoma county, Kenya. *Global Journal of Agricultural Research*, 6(3), 40-61.
- Kumar, A., Gawande, A., & Brar, V. (2021). *Marketing Strategy*. Success Publications, Pune. DOI: <https://doi.org/10.5281/zenodo.6662658>
- Kumar, A., Selvi, A. V., Gandhi, A., Vijayalakshmi, R., Madhusudhanan, J., Jayesh, G. S., Krishnaveni, K., Sajith, S., Kumari, V. J., & Shaikh, I. A. K. (2022). Proceedings of Virtual International Conference on Multidisciplinary Research - 2022. Association of Global Academicians and Researchers (AGAR) and Association of Indian Biologists (AIB), Tamil Nadu, India, First Edition. DOI: <https://doi.org/10.5281/zenodo.6958946>
- Kumar, D., & Mohan, A. (2018). Factors leading to customer satisfaction in dairy industry: A study in Indian perspective. *International Journal on Customer Relations*, 6(1). 45-56.
- Patil, S., Kumar, A., & Brar, V. (2021). *Marketing 4.0*. Success Publications, Pune. DOI: <https://doi.org/10.5281/zenodo.6662750>
- PixelSutra.com. (2021). Dairy Industry: Market Analysis and Marketing Strategies. PixelSutra. Retrieved 30 July 2021, from <https://pixelsutra.com/dairy-industry-market-analysis-and-marketing-strategies/>.
- Sarkar, A., & Dutta, A. (2020). CHALLENGES AND OPPORTUNITIES OF DAIRY SECTOR IN INDIA VIS-À-VIS WORLD: A CRITICAL REVIEW. *Exploratory Animal and Medical Research*. 7(4). 50-72.
- Sharma, A. K., Bajpai, B., Adhvaryu, R., Pankajkumar, S. D., Gordhanbhai, P. P., & Kumar, A. (2023). An efficient approach of product recommendation system using NLP technique. *Materials Today: Proceedings*. 80(3), 3730-3743. DOI: <https://doi.org/10.1016/j.matpr.2021.07.371>
- Singh, S., Kotala, S. S. M., Singh, P., & Yamala, K. (2022). The Moderating Effect of COVID-19 on the Promotion, Distribution and Sales of Dairy Products in Western India: An Exploratory Study. *Journal of Distribution Science*, 20(6), 11-19.
- Sultana, M., Ahmed, J. U., & Shiratake, Y. (2020). Sustainable conditions of agriculture cooperative with a case study of dairy cooperative of Sirajgonj District in Bangladesh. *Journal of Co-operative Organization and Management*, 8(1), 100105.
- Zirmire, J. L., & Kulkarni, V. S. (2019). Constraints in procurement, processing and marketing of milk and milk products-A comparative study with special emphasis to co-operative dairy processing units of Karnataka and Maharashtra States. *Asian Journal of Dairy and Food Research*, 38(4), 288-294.

QUESTIONNAIRE		
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PROFILE INFORMATION		
1	Name of the Respondent (optional)	
2	Gender (Male, Female)	
3	Zone (North, East, West, South)	
4	Age (<30 years, 30-40 years, >40 years)	
I. Changes in sales promotion		
Rate the following statements on a scale of Cannot Say, Somewhat Agree, Strongly Agree, Somewhat Disagree, Strongly Disagree		
No.	Statement	Response
1	The organizations have adopted technology in their sales promotion efforts	
2	They are actively using platforms like social media to promote their products	
3	The promotion media has changed from print to electronic	
4	Digitalization is seen in the sales promotion efforts	
5	The organizations have developed attractive websites	
6	They are using things like Search Engine Optimization (SEO)	
7	They are more aggressive in their sales promotion efforts	
8	The sales promotion efforts have become more customer-centric	
9	More budgets are allocated for sales promotion	
10	Efficiency of sales promotion has improved	