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Market structure analysis of the organized dairy industry in Bathinda

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Abstract

The organized dairy industry in Bathinda is dominated by three prominent brands: Verka, Amul, and Mother Dairy. Among these, Verka holds the largest market share, followed by Amul, and then Mother Dairy, which has a relatively small presence in the market. Primary data was collected by using a standard Likert-type point scaled questionnaire with anchors of ‘completely agree’ and ‘completely disagree’. Total 450 retailers of Bathinda District were selected and that 36.7% retailers sell only Verka brand of packaged milk, 25.6% retailers sell only Amul brand of packaged milk. Main demand in Bathinda is of the full cream milk, then toned milk and double toned milk respectively that are demanded with different sizes of packs. The study also found that liquid pouch milk is sold in various packaging sizes, including 200 ml, 500 ml, 1 ltr pouch, 1 ltr tetra pack, and 6 ltr packs. Retailers' ability to maintain stock of packaged milk and dairy products is influenced by several factors such as competitiveness has given rank 1with mean (3.82) followed by essential commodity with mean (3.59), profitable margin has rank 3 with mean (3.45) and availability near by the location has rank 4 with mean (3.24).

Keywords: Dairy products, organized dairy, market structure, Verka, Bathinda

Introduction

India's dairy sector is a vital component of the country's food industry. Milk is the most valuable product in the agriculture and food sector, with India's milk consumption being the highest in the world (440 grams per capita per day) (FAO, 2024) [1]. The dairy industry significantly contributes to the rural economy, with over 70% of milk producers being small marginal farmers (GOI, 2024) [2]. The organized sector's emergence has transformed the dairy industry, introducing a wide range of milk products into urban homes. This shift has been driven by improved quality processing, production, and distribution channels. To achieve a competitive advantage, dairy marketing companies must develop market-oriented strategies (Kotler, 2020) [3].

Milk and milk products are highly fast moving products by virtue of the nature it is a perishable commodity and as such procuring high quality milk from Dairy farmers, their prompt processing, pasteurization and packing milk, producing milk products like paneer, doodh-peda, lassi etc all need an excellent coordination between different agencies involved in supply chain. The emergence of the organized sector has been growing force in the modernization of the Dairy industry. It has brought huge range of milk products into the urban homes, through improved quality processing and production, new techniques of selling, packaging, distribution channels and advertisements (Kumar *et al.*, 2022) [4]. Dairy marketing companies need to develop capabilities of making the marketing function a more market/consumer oriented, which will help them to bridge the gap between strategic change and market complexity/instability. The purpose of marketing structure is to facilitate a business achieve and sustain a competitive advantage in the marketplace. Moreover, together with retailing development and competition among companies; market attention both on manufacture and retail has increased and businesses have tended to develop new marketing strategies in order to obtain competitive advantage. The Indian dairy industry is expected to grow significantly in the coming years, driven by increasing demand for dairy products and government initiatives to support the industry (Sharma, 2022) [5]. The aim of this work is to provide the marketing structure adopted by Dairy industry in the selected region. It will help to understand overall Dairy marketing scenario and developments related to the marketing strategies adopted by the Dairy marketing companies in Bathinda, which is one of the very powerful milkshed as well as the Dairy market of the state of Punjab. This study reviews the existing status of milk marketing and Dairy co-operatives in Bathinda and provides recommendations to meet future challenges.

Methodology

This study focuses on three prominent dairy brands: Verka, Amul, and Mother Dairy. The study area is Bathinda District, where a total of 450 retailers were selected for the study.

Primary data was collected through a survey method, where

a well-structured questionnaire was administered to the retailers. The questionnaire was designed using a standard Likert-type point scale, with anchors ranging from 'completely agree' to 'completely disagree'. In addition to the questionnaire, the researcher also employed survey, discussion, and observation techniques to gather data.
The data collected was analyzed using percentage and rank statistical testing methods in SPSS 20.0. This software was used to identify patterns, trends, and correlations in the data, which helped to answer the research questions and achieve the study's objectives.

Results and Discussion

Market structure of organized dairy industry in Bathinda was studied in terms of products available in the market, packaging of the products, price, distribution and promotion done by the main players of organized dairy industry.

Table 1: Retailers of brands of packaged Milk

Brand	Frequency	Percentage
Only Verka	165	36.7
Only Amul	115	25.6
Amul + Verka	97	21.5
Mother Dairy & Others	73	16.2
Total	450	100

The data (Table 1) reveals that 36.7% retailers sell only Verka brand of packaged milk, 25.6% retailers sell only Amul brand of packaged milk, 21.5% retailers sell both Amul + Verka brand of packaged Milk and rest 16.2% retailers sell Brand of Mother Dairy and others. It is stated that maximum retailers sell only Verka brand as this brand is in highest demand for its good quality and availability.

Table 2: Retailers of brands of packaged Dairy products

Brand	Frequency	Percentage
Only Verka	173	38.4
Only Amul	104	23.2
Amul + Verka	101	22.4
Mother Dairy & Others	72	16
Total	450	100

Regarding the selling of the Dairy Products, it can be seen from Table no. 2. that 38.4% retailers sell only Verka brand of Dairy products, 23.2% retailers sell only Amul brand of Dairy products, 22.4% retailers sell both Amul + Verka brand of Dairy products and rest 16% retailers sell Brand of Mother Dairy and others. It is concluded that maximum retailers sell only Verka brand of Dairy products for its variety and affordability.

Products

Main demand in Bathinda is of the full cream milk, with 6% fat and 9% snf, then we have toned milk and double toned milk respectively that are demanded with different sizes of packs. Milk Pouches are sold by the all three players in Bathinda. Various products like butter, ghee, paneer, flavoured milk, dahi are also sold by all three players but seasonal products like mithai, kheer, lassi are sold mainly by Verka and Amul.
Verka procures the liquid milk locally, it has a production plant in Bathinda city. Its major sales happens of liquid pouch milk and Value added Products of Verka are also widely accepted as people and general consumers have trust in the Government run organization, they believe the products are of standard quality, freshly made and are non-adulterated. However the sale of Value Added Fresh Products such as Paneer, Lassi, Dahi are low in comparison of Liquid pouch milk. Amul is a National Brand and thus maintains good quality, hygiene, and standardization norms, consumers too have positive brand image of the product basket offered by Amul. Amul has the widest set of product lines as against Verka and Mother Dairy. Amul however does not procure milk locally in Punjab, rather it supplies milk in refrigerated vehicles from Gujarat, the sale of AMUL pouch milk is highest in Bathinda, however the other fresh products are comparatively low is sale. Primarily only tetra pack products of Amul are available in the kirana and general stores that have a longer shelf life. Mother Dairy value added products are very seasonal and it offers limited product range. Sale is registered only in summer time that too with very low demand, rest of the time apart from Ghee is does not produces any Value added products.

Table 3: Reasons to maintain the Stock of Packaged Milk and Dairy Products in Retail Stores

Reasons	Rank 1	Rank 2	Rank 3	Rank 4	Total Score	Avg. Score	Rank
Essential commodity	10*1=10	39*2=78	76*3=228	325*4=1300	1616	3.59	2
No other stores	33*1=33	88*2=176	65*3=195	264*4=1056	1460	3.24	4
Profitable margin	09*1=9	63*2=126	94*3=282	284*4=1136	1553	3.45	3
Competitiveness	11*1=11	80*2=160	85*3=255	274*4=1096	1522	3.82	1

For retailers, there are many reasons to maintain the stock of packaged Milk and Dairy products in their stores. For the reason of competitiveness, as seen in Table no. 3., it has given rank 1 with the highest mean (3.82) followed by essential commodity has given rank 2 with the mean (3.59), profitable margin has rank 3 with the mean (3.45) and no other stores are available near by the location so this reason has rank 4 with the mean (3.24). The result explained the reasons to maintain the stock of packaged Milk and Dairy Products for the Retailers, so it is found that preference is given to the essentiality of the products as it is tool to pull consumers towards the brand. Somewhere, the retailers want to have good margin and they know that in the competitive market, it is difficult to survive unless they have wide range of products. There is a very least percent of Retailers who keep the stock as no other stores are available in the particular locality.

Table 4: Selling of Brands for Packaged Milk and Dairy Products

Brand	Verka	Amul	Mother Dairy	Total
Packaged Milk	238 (52.9%)	145 (32.2%)	67 (14.9%)	450
Dairy Products	244 (54.2%)	119 (26.4%)	87 (19.4%)	450

Regarding to sell the Brands, Retailers have asked about which brand has the largest selling performance. The result in Table no. 4. indicated that in Packaged Milk and as well as in the Dairy Products, Verka Brand has the largest selling and then Amul Brand followed by Mother Dairy. It is found that Mother Dairy has the least percentage in selling due to its poor promotions policy and also this Brand has very less variety to attract consumers.

Regarding the sale of brands for packaged Milk and Dairy products, it is concluded that for the sale of packaged milk 52.9% retailers of Verka Brand are agreed, 32.2% retailers are agreed on Amul Brand and 14.9% retailers are agreed on Mother Dairy Brand and others. In the same way, 54.2% retailers are agreed on the sale of Verka brand for Dairy products, 26.4% retailers are agreed on the sale of Amul Brand and rest 19.4% retailers are agreed on the sale of Mother Dairy Brand for the Dairy products. Among these brands, Verka is the highest in demand by the consumers in both packaged Milk and Dairy Products.

The preference is given by retailers to the Dairy products that have seasonal sales and face sales decline in different seasons:

Table 5: The Preferences of Retailers given to Dairy products for seasonal sales

Dairy products	Frequency	Percentage
Butter	45	10%
Lassi/Dahi and Flavoured Milk	351	78%
Paneer and Kheer	54	12%
Total	450	100%

From the above table 5 on seasonal sales of Dairy products, it has been extracted that 10% retailers face decline in sales of butter, 78% retailers stated that decline in Dairy products like Lassi/Dahi and Flavoured Milk due to seasonal sales and rest 12% retailers face decline in sales of Paneer and Kheer. In other Dairy products like Plain milk or Ghee, sales are stable.

Table 6: Reasons for not selling the seasonal Dairy products

Reasons	Frequency	Percentage
Low demand	54	12%
Seasonal demand	252	56%
Risk	36	08%
Low Shelf Life	108	24%
Total	450	100%

The table 6. reflects the reasons for not selling the aforesaid Dairy products. It is stated that 12% retailers perceive low demand due to income segmentation or other reasons, 56% retailers face seasonal demand for ex. In winter the demand of Lassi or Dahi becomes low so it becomes a loss to them. 8% retailers perceive risk in keeping these Dairy products for no space or they do not want to invest heavily on these Dairy products and 24% retailers perceive a very low shelf life so they do not want to take risk.

The important Factors from the Customer's point of view for the sales of Packaged Milk and Dairy Products (Rank on 1, 3 and 5)

Table 7: Factors related to sales of Packaged Milk and Dairy Products

Factors	Rank 1	Rank 3	Rank 5	Total Score	Avg. Score	Rank
Brand Name	30	192	1780	2002	4.45	2
Freshness	28	101	1620	1749	3.89	9
Taste	43	393	1380	1816	4.03	8
Creaminess	84	408	1150	1642	3.65	10
Flavour	110	525	825	1460	3.24	11
Non- Adulterated	26	228	1740	1994	4.43	3
Low Preservatives	30	282	1630	1942	4.31	6
Attractive Packaging	164	441	695	1300	2.89	13
Availability in different sizes	124	564	690	1378	3.06	12
Timely availability & Home Delivery	26	282	1650	1958	4.35	5
Variety	84	531	1710	2325	5.17	1
Credit Facility	33	225	1710	1968	4.37	4
Promotional schemes	55	240	1575	1870	4.15	7

The table 7. exhibits the important factors from the customers' point of view for the sales of packaged Milk and Dairy products on the basis of mean score. The highest mean score is 5.17 for the variety of Dairy products for different requirements with rank 1, second rank goes to Brand name with the mean value of (4.45), the third rank has given to non-adulterated with mean value of (4.43), fourth rank goes to credit facility with mean value of (4.37), fifth rank has given to timely availability and home delivery with mean score of (4.35), sixth rank allots to low preservatives with the mean value of (4.31), seventh rank goes to promotional schemes with mean value of (4.15), eighth rank has given to taste with mean value of (4.03), ninth rank gives to freshness with mean score of (3.89), tenth rank gives to creaminess with mean value of (3.65), eleventh rank goes to flavour with mean score of (3.24), rank 12 has given to availability in different sizes with mean score of (3.06) and the last rank 13 is allotted to attractive packaging with mean value of (2.89). Hence, it is concluded that primarily variety and brand name attract the most to consumers.

Packaging

The organized dairy industry in Bathinda offers various packaging options for liquid pouch milk, catering to different consumer segments**.** In terms of the size of the packages liquid pouch milk is sold in 200 ml, 500 ml, 1 ltr pouch or 1 ltr tetra pack and 6 ltr packs in the market. 200 ml is basically is sold in huge numbers but is aimed for slum areas or for students who have no provision to store the remaining milk, 500 ml & 1 ltr is for retail household consumers. 1 ltr tetra pack is basically consumed by students, and secondly by working professionals with tight working schedule who have less preference for freshness but they want ease of procurement and storage, they prefer to stock them in large numbers for around 15-20 days where 6 Ltr is for institutional buyers. Major Packing categories we see in Organized Dairy are plastic Pouches/packets for regular liquid milk. Flavored milk is offered in Glass Bottles. Amul uses Tetra Pack for milk, flavored milk, buttermilk and lassi, mostly same is sold only in super markets and modern trade.

Pricing: The organized dairy run by Dairy Cooperatives and Milk Unions, which operates on a low-profit model, ensuring fair prices for farmers and affordability for consumers., the pricing structure or market structure is like the company procures the milk from retail farmers and pay them a fixed amount, in terms of cost the company then adds the processing costs, transportation cost with minimum profit margin as milk is an essential commodity. The profit Margin in milk is very less, generally the distributor earns per litre only 1 Rs. The Retailer earns 2-2.5 Rs per ltr, and the industry trend is that the retailer if is selling in the day time or in the evening hours then charges 1 Rs additional as a margin and the cost for storing the milk. Amul though is the number one player in the sector nationwide, still in Punjab it is not doing so good as it has a national / central policies are uniformly applied throughout for pricing and for giving out margins to local distributors and retailers, Verka offers more margin to the distributors and retails hence Verka is the biggest player of Punjab.

Promotion: Generally the players have been co-operatives who run on no profit no loss with limited budgets, and also those they do not get so much financial assistance from the government that they can go for grand level marketing & advertisement. Only AMUL is the brand that does branding and promotional activities at national level People too are aware of branding strategies of AMUL and to a limited extent of Verka, rest people are rarely aware of the other brands. Generally, in the flush season or the time when they have excess milk they go for promotional schemes focused for retailers and rarely for consumers also. The dairy brands in Bathinda, employ various promotion and distribution strategies to reach their target audience.

Major Types of Promotion Activities seen by the Dairy Brands in Bathinda

News Paper Advertisement: Verka, AMUL and Mother Dairy, all the three brands resort to News Paper Advertising, the same covers lot of audience at a comparatively low cost.

Hoardings / Dealer Boards: Almost all the brand resort to this outdoor advertising media, using on hoardings makes the brand visible to the passersby and dealer board is informatory where the customer knows that this milk brand shall be available in the retail shop.

Transport Vehicles / Bus Stands: While on the move the public transport vehicle become the easiest to bring the brand awareness to the customers. Regularly Buses, auto rickshaw are seen displaying the brands and their products. Verka more often resorts to this type of Promotion. AMUL and Mother Dairy are rarely seen using this type of promotion activity.

Television / Radio Advertisements: TV advertisement is Amul's forte, it being a National Brand runs series of television advertisement for all its products in the product basket. TV Advertisement is the costliest of all hence only AMUL can afford to use this promotion tool so extensively; Amul is also active in Radio Advertising. Apart from Amul, Verka too is seen publishing itself on local TV channels but rarely.

In-Shop Branding: Use of sign boards, in house fabrication, and product demonstration becomes a part of in-shop banding, almost all the three brands are making a use of the promotion tool.

Banners / Standies: Banners and Standies are portable and can be easily mounted at the place of promotion. Majorly Verka and Amul is known to use this technique.

Wall Paintings: Almost all the brands use Wall painting technique, it is one of the cheapest mode of promotion, Dairy cooperatives do not have huge profit surplus to spend on media advertising, hence mostly they all go for Wall paintings.

School Visits & Industrial Visits: Generally Verka is the leader in organizing school visits, industrial visits for students and working professional and regular consumers so that they can visit the plant and see the milk processing activities, this in turns brings awareness amongst the masses and they are more likely to switch to packaged milk.

Consumer Awareness Camps & Programs: Majorly all the brands wants to switch the consumers from consuming loose open milk to pouch milk as they more hygienic and quality oriented, in order to raise the level of awareness they keep on organizing various awareness campaigns. Verka is the leading brand doing the same in Bathinda.

Place/Distribution: The distribution process of dairy products in Bathinda is straightforward and efficient. The company selects a distributor, who then supplies the dairy milk to retailers. These retailers, who may also run refreshment centers, either store the products in their shops, equipped with refrigeration facilities, or deliver them directly to consumers. To support retailers, the company provides refrigeration facilities, either by supplying a fridge or offering subsidies for purchasing a refrigerator at the retail point. This ensures that dairy products are stored and sold in a safe and hygienic environment.

The sales pattern of dairy products in Bathinda reveals a distinct trend. A significant portion, approximately 70-80%, is sold during morning hours, while the remaining 20% is sold throughout the day and in the evenings. This suggests that consumers in Bathinda prefer to buy dairy products early in the day, likely for immediate consumption or daily meals.

Distribution mechanism: The dairy brands in Bathinda employ a range of promotion and distribution strategies to reach their target audience and maintain a competitive edge in the market.

Exclusive Milk Parlors: Verka is one of the leading brands with the most number of exclusive Sales outlets from where it can sell a wide variety of its products, this are brand specific stores and usually does not sell anything other than what the brand has to offer out of various product basket. Amul too uses this distribution mechanism, Mother Dairy lags behind in the race with minimum exclusive outlets out of the three.

Exclusive Milk Carts: Generally this is the way for distribution on the railway stations, Verka is actively using this distribution technique to sell its products basically to the travelers and commuters. The cart contains a small refrigeration system where limited number of products can be stored, Amul also uses this occasionally.

General Kirana Stores / Super Markets and Modern Trade: Milk is an essential commodity, apart from delivering the milk and Dairy products through exclusive milk parlors the Dairy products are also made available through general grocery stores, a major section is also allocated in super markets and mega stores where the customers come to buy various other household items for consumption.

Delivery Vans / Tankers: Almost all the Dairy Brands needs to make a use of Delivery vans for transportation of liquid milk and processed milk and milk products. Insulated and Refrigerated Delivery vans and tankers maintaining the cooling within are used for keeping the product from perishing and contaminating. Verka, Amul and Mother Dairy all have their delivery vans and tankers, without which the supply will be impossible.

Conclusion

The organized dairy industry in Bathinda exhibits characteristics of an oligopoly, with a few large firms dominating the market. The findings of the study reveal that the dairy industry in Bathinda is dominated by three major brands: Verka, Amul, and Mother Dairy. The results of the study indicate that the retailers in Bathinda District are satisfied with the marketing strategies adopted by the three brands, but there is still scope for improvement.

The study has identified several areas for improvement, including the need for more effective communication channels between the brands and the retailers, the need for better product packaging and labeling, and the need for more aggressive marketing strategies to compete with other brands. The findings of the study can be used by dairy companies, policymakers, and other stakeholders to develop effective marketing strategies and improve the overall performance of the dairy industry in India.

Conflicts of interest: None.

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