

International Journal of Agriculture Extension and Social Development

Volume 9; Issue 6; June 2026; Page No. 960-966

Received: 19-04-2026
Accepted: 23-05-2026

Indexed Journal
Peer Reviewed Journal

A comparative study on consumer buying behavior and market conversion from loose milk to AMUL pouch milk in Lunawada Region

¹Patel Mehul, ⁴AK Makwana, ²MD Gurjar, ²KC Kamani and ³MC Prajapati

¹PG Student MBA (Dairy and Food Business Management), SMC College of Dairy Science, Kamdhenu University, Anand, Gujarat, India

²Professor, SMC College of Dairy Science, Kamdhenu University, Anand, Gujarat, India

³Assistant Professor, SMC College of Dairy Science, Kamdhenu University, Anand, Gujarat, India

⁴Professor, G.N. Patel College of Dairy Science, Kamdhenu University, Sardarkrushinagar, Gujarat, India

DOI: <https://www.doi.org/10.33545/26180723.2026.v9.i6l.3800>

Corresponding Author: Patel Mehul

Abstract

This study investigates consumer awareness, preference, purchase barriers, and willingness to switch towards AMUL pouch milk among households consuming loose milk in Lunawada, a semi-urban market within the Panchmahal District Co-operative Milk Producers' Union catchment area in Gujarat. Despite India's position as the world's largest milk producer, a substantial segment of semi-urban consumers continues to rely on unorganised loose milk sources, exposing themselves to adulteration risks and inconsistent quality. The study was conducted using a structured questionnaire administered to 390 households across multiple residential societies and localities in Lunawada. Data were analysed using frequency distribution and percentage analysis to identify consumer preferences and purchase motivations. Findings reveal that while 56.4% of households consume AMUL pouch milk daily, 36.9% still depend on loose milk primarily because of taste preference (92.9%), easy availability (60.6%), and lower price (32.9%). Among pouch milk consumers, brand trust (95.1%) and hygiene (41.5%) are the dominant drivers of preference. Quality emerged as the most important purchase factor (96.4%), followed by price (59.2%) and hygiene (48.5%). Home delivery and lower price were identified as the top factors encouraging conversion among willing switchers. A significant awareness-to-adoption gap was observed — many consumers acknowledged quality advantages of pouch milk but remained unconvinced due to convenience and habitual barriers. The study concludes with strategic recommendations for distribution redesign, targeted awareness campaigns, retailer engagement, and product pricing, offering actionable insights for the Panchmahal Milk Union and AMUL brand managers operating in semi-urban dairy markets.

Keywords: Consumer buying behaviour, loose milk, AMUL pouch milk, market conversion, dairy marketing, Lunawada, purchase barriers, milk quality awareness, Panchmahal milk union.

1. Introduction

India continues to solidify its position as the world's largest producer and consumer of milk, contributing approximately 25% of global milk output, with annual production reaching roughly 248 million metric tonnes as of 2024–25. The dairy industry remains a critical pillar of the national economy, contributing about 5% to India's overall GDP and supporting the livelihoods of over 80 million rural households, making it a cornerstone of agribusiness. Within this massive sector, a persistent structural duality remains between the organised packaged milk segment and the unorganised loose milk trade. Despite the growth of cooperative networks and branded dairy products, nearly two-thirds of the marketable milk surplus continues to move through informal, unregulated channels. This heavy reliance on informal networks, especially in semi-urban and rural areas, presents ongoing risks related to hygiene failure, localized adulteration, and nutritional inconsistency, even as national safety regulators work to expand digital testing and cold-chain compliance across the country.

India has witnessed remarkable growth in milk production during the last two decades, supported by cooperative dairy development, technological advancements, and increasing consumer demand. Gujarat has consistently remained one of the leading dairy-producing states, contributing significantly to national milk production and strengthening the organized dairy sector through cooperative institutions and branded dairy products (Modi *et al.*, 2025) ^[14]. This growth has increased the importance of understanding consumer behaviour and market conversion from unorganized loose milk channels to organized dairy products.

The Lunawada region, located in Mahisagar district of Gujarat, typifies this duality. Served by the Panchmahal District Co-operative Milk Producers' Union Ltd, a member organisation of the Gujarat Co-operative Milk Marketing Federation (GCMMF) operating under the iconic AMUL brand. The region has access to standardised, hygienic, and nutritionally assured AMUL pouch milk. Yet, a substantial segment of Lunawada's households continues to purchase loose milk from local milkmen and informal milk centres,

driven by deeply entrenched consumption habits, taste perceptions, price sensitivity, and the unmatched convenience of doorstep delivery offered by traditional vendors. Understanding the behavioural, perceptual, and structural factors that sustain loose milk preference and identifying actionable triggers that can shift consumers towards packaged alternatives is a commercially significant problem for co-operative dairy marketing. While considerable literature exists on general dairy consumer behaviour in India, there is a notable absence of micro-level, market-specific research examining conversion dynamics in semi-urban co-operative dairy catchments. This study addresses this gap by presenting empirical findings from a structured household survey of 390 respondents in Lunawada, supplemented by field-level conversion campaign data. The collected data were analysed using tabular analysis and percentage analysis, which enabled a clear and systematic interpretation of consumer preferences, purchase patterns, and factors influencing conversion from loose milk to AMUL pouch milk.

2. Review of literature

2.1 Consumer Behaviour towards Milk and Dairy Products

Consumer behaviour plays an important role in determining the success of dairy products in the market. Consumers evaluate milk products based on several factors such as quality, taste, price, availability, nutritional value, and brand image. Srivastava, Das and Giri (2021)^[17] conducted a study on consumer buying behaviour towards dairy products in India. The study revealed that quality, taste, brand image, and price significantly influence consumer purchasing decisions. The authors also found that demographic factors such as age, income, education, and family size affect dairy consumption patterns. The study concluded that consumers generally prefer dairy brands that consistently provide quality products and satisfy customer expectations. This finding is relevant to the present study as AMUL pouch milk competes with loose milk on the basis of quality assurance and brand trust. Saranya and Subaharini (2021)^[13] examined consumer preference towards branded and non-branded milk. The study found that while many consumers continue purchasing loose milk due to perceived freshness and affordability, branded milk is preferred because of hygiene, safety, and convenience. The authors concluded that increasing awareness regarding quality and food safety encourages consumers to shift towards packaged milk. This finding is directly relevant to understanding the conversion potential of loose milk consumers towards AMUL pouch milk. Santhosha, Gaddi and Yadava (2022) studied consumer preference for milk and milk products marketed by Shivamogga Milk Union. The study revealed that health benefits, quality, and price were the major factors influencing milk purchases. Consumers preferred trusted brands that provided consistent quality and easy availability. The findings indicate that organized dairy brands can attract consumers by emphasizing quality and health benefits. Mohanraj, Manavalan and Balamurugan (2024) investigated customer preference towards milk products in Namakkal District. The study found that customers mainly preferred milk products because of their nutritional benefits, quality, taste, and value for money. The researchers also observed

that changing lifestyles and increasing health consciousness significantly affect milk purchasing decisions.

2.2 Consumer Preference towards Branded Milk

The organized dairy sector has witnessed significant growth due to increasing consumer awareness regarding hygiene, food safety, and nutritional quality. Siddiqui, Ahmed and Choudhry (2013) reported that consumer preference is gradually shifting from loose milk to packed milk because consumers perceive packaged milk as safer and more hygienic. The study highlighted that although loose milk remains popular among certain consumer groups, concerns regarding adulteration and contamination have strengthened the demand for packaged milk. Goyal, Banga, Kumar and Chahal (2010) found that milk consumers consider packed milk more reliable because it undergoes quality testing and standardization processes. The study also reported that income level, education, and family composition significantly influence the preference for branded milk products. Consumers with higher income and education levels were more likely to choose packaged milk over loose milk. Parasuraman *et al.* (2021) reviewed factors influencing consumer preferences toward dairy products and found that freshness, quality, taste, packaging, and nutritional value were among the most important determinants of purchase decisions. The study also indicated that consumer's associate branded dairy products with better quality assurance and safety standards.

2.3 Consumer Behaviour towards AMUL Products

AMUL is one of India's most recognized dairy brands and enjoys a strong reputation for quality and reliability. Various studies conducted in Gujarat have reported that quality, price, availability, and brand trust are the key factors influencing consumer preference towards AMUL products. Consumers perceive AMUL products as hygienic, nutritious, and trustworthy. The cooperative structure of AMUL also strengthens consumer confidence and loyalty. Consumer perception studies conducted in Anand and Vadodara indicated that consumers prefer AMUL products due to their consistent quality, reasonable pricing, wide availability, and strong brand image. The studies concluded that AMUL's reputation plays a significant role in influencing consumer purchase decisions. The findings suggest that AMUL has strong potential to convert loose milk consumers into pouch milk consumers if awareness regarding quality, hygiene, and nutritional benefits is effectively communicated.

2.4 Milk Adulteration and Food Safety Awareness

Food safety concerns have become increasingly important in the dairy sector. Consumers are becoming more aware of the risks associated with milk adulteration and contamination. The Food Safety and Standards Authority of India (FSSAI) conducted a national milk survey and reported that a significant proportion of loose milk samples failed to meet quality standards. Common adulterants included water, starch, detergents, glucose, and urea. The survey highlighted the need for greater consumer awareness regarding milk quality and safety. Patel, Shah and Desai (2013)^[11] examined milk adulteration practices in Gujarat and found that loose milk sold through informal channels

showed higher levels of quality non-compliance compared to packaged milk. The study concluded that quality monitoring and consumer education are essential for improving food safety standards. These findings support the importance of creating awareness regarding milk quality and hygiene among loose milk consumers, which is one of the key objectives of the present study.

2.5 Purchase Barriers towards Packaged Milk

Although packaged milk offers several advantages, many consumers continue purchasing loose milk due to certain barriers. Singh and Choudhary (2014) ^[15] found that convenience and home delivery services provided by local milk vendors are major reasons why consumers continue purchasing loose milk. Consumers often value personal relationships with local vendors and the ease of doorstep delivery. Panda (2013) ^[10] observed that product availability and distribution efficiency are critical factors affecting consumer adoption of FMCG products in semi-urban markets. The study concluded that strong distribution networks are essential for market penetration. Nagle and Holden (2002) ^[7] suggested that consumers are willing to pay higher prices when they perceive additional value in terms of quality, safety, and convenience. This indicates that consumers may accept the price difference between loose milk and AMUL pouch milk if the benefits are effectively communicated.

Modi *et al.* (2025) ^[14] analysed milk production trends in Gujarat and India and reported substantial expansion of the dairy sector over the last two decades. The study highlighted the increasing role of dairy cooperatives in improving milk availability, strengthening supply chains, and promoting organized dairy marketing systems. The findings suggest that while milk production and organized dairy distribution have expanded considerably, understanding consumer preferences and purchasing behaviour remains critical for increasing the adoption of branded dairy products in semi-urban and rural markets.

2.6 Research Gap

The review of literature indicates that several studies have examined consumer behaviour towards dairy products, branded milk, food safety, and milk adulteration. Researchers have identified quality, taste, price, brand image, and availability as important factors influencing milk purchase decisions. However, very limited research has been conducted on consumer awareness, preference, and purchase barriers towards AMUL pouch milk among loose milk consumers in the Lunawada region. Existing studies focus primarily on general dairy consumption behaviour and do not specifically examine the factors preventing consumers from shifting from loose milk to packaged milk. Therefore, the present study attempts to fill this gap by analysing consumer awareness, preference, and purchase barriers towards AMUL pouch milk among loose milk consumers in Lunawada and identifying the key factors that can encourage consumer conversion.

3. Objectives of the study

1. To analyze consumer behaviour and patterns related to milk consumption in the Lunawada market
2. To identify the key factors influencing consumer

preference, including taste, price, trust, and convenience

3. To evaluate the market potential for increasing the adoption of pouch milk among households
4. To design and implement a consumer awareness and quality comparison drive through field activities and milk testing
5. To assess the effectiveness of awareness initiatives in influencing consumer perception and willingness to switch for Amul pouch milk

4. Need of the Study

The dairy sector plays a significant role in the Indian economy, yet a large proportion of consumers in semi-urban and rural areas continue to depend on loose milk supplied through unorganized channels. Despite the availability of hygienic and quality-assured packaged milk, many households still prefer loose milk due to factors such as taste preference, convenience, home delivery, and long-term relationships with local milk vendors. This situation creates challenges for organized dairy brands like AMUL in expanding their market share and ensuring the consumption of safe and standardized milk.

In the Lunawada region, both loose milk and AMUL pouch milk are widely available. However, there is limited information regarding the factors influencing consumer preferences, purchase behavior, and willingness to shift from loose milk to packaged milk. Understanding these factors is essential for developing effective marketing strategies and conversion programs.

The study is needed to

1. Understand the existing milk consumption patterns of consumers in the Lunawada region.
2. Identify the factors influencing consumer preference for loose milk and AMUL pouch milk.
3. Examine consumer awareness regarding milk quality, hygiene, adulteration, and food safety.
4. Analyze the barriers preventing consumers from switching from loose milk to AMUL pouch milk.
5. Evaluate the effectiveness of awareness campaigns and milk quality testing activities in influencing consumer perceptions.
6. Provide practical recommendations to Panchmahal District Co-operative Milk Producers' Union Ltd. and AMUL for increasing market penetration and consumer conversion.
7. Contribute to the existing literature on consumer buying behavior in the dairy sector, particularly in semi-urban markets. The research gap identified in the paper highlights the lack of market-specific studies on conversion dynamics in Lunawada.

5. Scope of the Study

The scope of the study is confined to the analysis of consumer buying behavior and market conversion from loose milk to AMUL pouch milk in the Lunawada region of Mahisagar District, Gujarat. The study focuses on understanding consumer preferences, awareness levels, purchasing patterns, and factors affecting the adoption of packaged milk.

The study covers the following aspects

1. Analysis of milk consumption patterns among households in the Lunawada region.
2. Examination of consumer preferences towards loose milk and AMUL pouch milk.
3. Assessment of factors influencing milk purchase decisions, including quality, taste, price, hygiene, availability, convenience, and brand trust.
4. Evaluation of consumer awareness regarding milk adulteration, food safety, and hygienic milk consumption.
5. Identification of barriers that discourage consumers from switching to AMUL pouch milk.
6. Assessment of consumers' willingness to switch from loose milk to packaged milk and the factors that can encourage conversion.
7. Evaluation of the impact of awareness programs, milk testing demonstrations, and promotional activities conducted during the study period.
8. Development of strategic recommendations for improving distribution systems, home delivery services, consumer awareness, and market penetration of AMUL pouch milk.

The geographical scope of the study is limited to selected residential societies and localities of Lunawada. The study is based on primary data collected from 390 households through a structured questionnaire during March–May 2026. Therefore, the findings may not be generalized to all regions of Gujarat or India but provide valuable insights into consumer behavior in semi-urban dairy markets.

6. Research Methodology

A descriptive and analytical research approach was utilised for this study to assess consumer knowledge, preference, purchasing behaviour, and barriers towards AMUL pouch milk among households in the Lunawada region of Mahisagar district, Gujarat. A cross-sectional survey method was adopted, with primary data collected over the summer internship period from March to May 2026. The study region contained numerous residential societies and locations in Lunawada, selected on the basis of their heavy dependence on loose milk as found by initial field observation and digital pre-screening. The study universe consisted of all homes in Lunawada purchasing milk from any source, with special attention on those purchasing loose milk.

A selective sample strategy was applied to target residential areas with considerable loose milk consumption. A systematic questionnaire comprising 15 questions across three sections was delivered to 390 families through direct house-to-house interviews and Google Forms. Section A reviewed baseline consumption patterns; Section B analysed purchase preferences and core influencing forces; and Section C assessed market conversion potential and reaction to awareness activities. The questionnaire was pre-tested with 20 respondents to verify clarity and completeness before final implementation.

For data analysis, frequency distribution and percentage analysis were employed to describe demographic and consumption variables, identify factors influencing milk purchase decisions, and determine the priority order of

conversion triggers. The study admits geographical constraint to Lunawada, restriction of sample to reachable families, and potential social desirability bias in self-reported switching intentions.

7. Data Analysis and Interpretation**7.1 Milk Consumption Pattern — Type and Quantity**

Table 1 illustrates the baseline consumption profile of the 390 surveyed families. An astonishing 99.7% of respondents indicated daily milk intake, establishing milk as an essential daily commodity across all demographic segments in Lunawada. Among these homes, 56.4% drink AMUL pouch milk entirely as their daily milk supply, while 36.9% continue to rely mainly on loose milk and 6.7% use both types, suggesting partial adoption. This distribution shows that while the organised dairy sector has attained majority penetration, more than four in ten families remain partially or entirely unconverted - a commercially significant market opportunity.

In terms of daily consumption volume, 67.9% of households use between 500 ml and 1 litre per day, while 26.9% consume between 1 and 2 litres. The dominance of the 500 ml–1 litre consumption band is closely linked with AMUL's standard 500 ml pouch the most accessible and extensively distributed packaged milk format suggesting outstanding structural fit between the most-consumed volume and the standard packaged product size.

Table 1: Milk Consumption Profile of Respondents

Variable	Category	Frequency (n=390)	Percentage (%)
Milk Type Consumed	Pouch Milk (AMUL)	220	56.4
	Loose Milk	144	36.9
	Both	26	6.7
Daily Volume	Less than 500 ml	4	1.0
	500 ml – 1 litre	265	67.9
	1 litre – 2 litres	105	26.9
	More than 2 litres	16	4.1
Purchase Timing	Morning	367	94.1
	Evening	17	4.4
	Both / Other	6	1.5

(Source: Primary Data, 2026, n=390)

7.2 Purchase Source and Price Behaviour

The milk purchase source study demonstrates a near-total dependence on established distribution channels. Milk centres are the principal purchasing point for 52.1% of respondents, followed by local milkmen (39.7%) and kirana shops (5.1%). The combined 91.8% share of milk centres and local milkmen highlights the highly ingrained significance of informal distribution in the Lunawada milk market. These channels are distinguished by face-to-face connections, credit facilities, flexible purchase amounts, and — significantly — home delivery, benefits that AMUL's present retail-based distribution model does not replicate at scale.

Among the 170 loose milk customers, price sensitivity is pronounced. The majority (52.4%) purchase loose milk for ₹60 per litre, while 24.7% pay ₹70 and 14.1% spend ₹80. This substantial concentration at the ₹60 price point implies that a price-driven group regards loose milk as the most economically logical choice, particularly when it is supplied through trusted personal relationships.

Table 2: Milk Purchase Source Distribution

Purchase Source	Frequency	% of Total (n=390)
Milk Centre	203	52.1
Local Milkman	155	39.7
Kirana Store	20	5.1
Own Household / Other	12	3.1

(Source: Primary Data, 2026, n=390)

Table 3: Loose Milk Purchase Price Distribution

Price per Litre (Loose Milk)	Frequency (n=170 loose users)	Percentage (%)
₹60 per litre	89	52.4
₹70 per litre	42	24.7
₹80 per litre	24	14.1
More than ₹80 per litre	3	1.8
Not specified	12	7.1

(Source: Primary Data, 2026, n=170)

7.3 Consumer Preference – Loose Milk vs. AMUL Pouch Milk

Table 4 offers consumer-stated reasons for preferring loose milk, gathered from 170 respondents who consume loose milk entirely or in combination with pouch milk. Taste emerges massively as the major preference driver (92.9%), demonstrating the broad consumer view that loose milk (predominantly buffalo milk) bought from local vendors possesses higher flavour, richness, and creaminess compared to standardised packaged alternatives. The most important driver of loose milk loyalty is availability (60.6%), with low price only ranking third (32.9%), highlighting the dominance of taste and convenience over price.

Among the 246 pouch milk users, brand trust (95.1%) is the distinguishing attribute of preference – an amazing endorsement of the AMUL brand's acquired institutional legitimacy. Hygiene (41.5%) and convenience (32.1%) represent secondary factors, while availability (25.6%) represents contentment with current distribution reach among converted consumers. This disparity between the taste-and-convenience driven preference of loose milk users and the trust-and-hygiene driven preference of pouch milk users exposes unique consumer psychology across the two groups, with crucial implications for focused marketing strategy.

Table 4: Reasons for Preferring loose milk

Reason for Preference	Frequency	% of Loose Milk Users (n=170)
Taste / Better Flavour	158	92.9
Easy Availability	103	60.6
Cheaper / Lower Price	56	32.9
Pure Buffalo Milk	3	1.8
Home Delivery and Credit	2	1.2

(Source: Primary Data, 2026, n=170; Multiple Responses)

Table 5: Reasons for Preferring AMUL Pouch Milk

Reason for Preference	Frequency	% of Pouch Milk Users (n=246)
Brand Trust (AMUL)	234	95.1
Hygiene / Food Safety	102	41.5
Convenience	79	32.1
Availability	63	25.6

(Source: Primary Data, 2026, n=246; Multiple Responses)

7.4 Most Important Milk Purchase Factors (n=390)

Table 6 illustrates the frequency distribution of the most important criteria indicated by all 390 respondents while purchasing milk, from which respondents were requested to select up to two. Quality dominates with a near-universal citation rate of 96.4%, demonstrating that customers identify quality as their foremost purchase concern regardless of whether they already purchase loose or packaged milk. Price follows at 59.2%, indicating the cost-consciousness common across the sample, while hygiene (48.5%) and availability (27.4%) complete the factor hierarchy. The juxtaposition of near-universal quality priority (96.4%) with large loose milk intake (36.9%) highlights a critical behavioural conundrum. Consumers that claim quality as their most essential purchase factor simultaneously purchase from unregulated sources. This difference between stated priority and actual buying behaviour is best explained by the operationalisation of "quality" as taste-based richness rather than food-safety characteristics — a definitional misalignment that focused quality awareness efforts may effectively address.

Table 6: Most Important Milk Purchase Factors

Purchase Factor	Frequency (n=390)	Percentage (%)	Rank
Quality	376	96.4	I
Price / Affordability	231	59.2	II
Hygiene	189	48.5	III
Availability	107	27.4	IV

(Source: Primary Data, 2026, n=390; Select up to 2)

7.5 Consumer Switch Willingness and Conversion Barriers

Table 8 displays the switch willingness distribution among the 170 loose milk consumers. A sizable 63.5% answered they would not contemplate switching to AMUL pouch milk in the foreseeable future, showing the depth of habitual and relational opposition in the target market. However, 27.6% exhibited willingness to switching, responding "Maybe," and 3.5% replied affirmatively, producing a combined conversion-willing section of 31.1% among loose milk users. This category — representing around 53 households in the survey sample — constitutes the most immediately accessible conversion target. Qualitative reasons stated by non-switching respondents (n=108) suggest that long-standing confidence in personal milkmen, contentment with the taste of loose buffalo milk, and the unavailability of AMUL home delivery are the three primary barriers. In contrast, among those prepared to switch, home delivery was the most mentioned encouragement (60.0% of 60 answering), followed by lower price (20.0%). The result that 9.5% of total respondents showed willingness to subscribe to a regular supply service if AMUL pouch milk were not freely available (Q14) further shows latent demand for last-mile delivery.

Table 8: Switch Willingness among Loose Milk Consumers

Switch Willingness	Frequency (n=170)	Percentage (%)
No — will not switch from loose milk	108	63.5
Maybe — open to switching in the future	47	27.6
Yes — willing to switch	6	3.5
No response / Unclear	9	5.3

(Source: Primary Data, 2026, n=170)

8. Findings

Five significant findings arise from the data analysis. First, a large conversion opportunity exists despite strong habitual resistance: whereas 56.4% of surveyed families already consume AMUL pouch milk, 36.9% continue to rely on loose milk, and a combined 31.1% of loose milk users reported some willingness to switching. This openness offers a commercially important and instantly actionable conversion target, particularly given that the conversion effort undertaken in parallel with the poll converted 40.7% of 145 specifically targeted households over a three-month period.

Second, taste perception is the dominating barrier and must be addressed by product-level and communication strategies: the 92.9% citation of taste as the key reason for loose milk preference demonstrates a deep-seated sensory attachment to buffalo milk richness. Since standardised AMUL Tazza Milk (3.0% fat) cannot match the 6-8% fat profile of loose buffalo milk, reframing higher-fat AMUL variants — notably AMUL Buffalo Milk and AMUL Gold — as the directly equivalent alternative is important. This finding is congruent with Pallathadka *et al.* (2022) ^[9], who found that flavour drives traditional dairy product loyalty.

Third, home delivery is the decisive conversion trigger: among loose milk consumers willing to switch, 60.0% cited home delivery as the primary enabler, with lower price (20.0%) as the second most mentioned factor. This aligns with Singh and Choudhary (2014) ^[15] and Panda (2013) ^[10], who highlighted last-mile convenience as the major factor of organised dairy market penetration in semi-urban India. The practical implication is unambiguous: conversion initiatives that are not complemented by a systematic home delivery method will provide only limited and unsustainable outcomes.

Fourth, brand trust is the distinguishing strength of pouch milk preference: the 95.1% citation of brand trust among AMUL pouch milk users demonstrates that once the habitual and convenience obstacles are overcome, the AMUL brand delivers outstanding post-trial retention power. This is consistent with Chaudhuri and Holbrook (2001) ^[3] on the relationship between brand trust and loyalty. The difficulty is therefore pre-trial, not post-trial — getting consumers to sample the product is more crucial than encouraging them to stick with it. Fifth, the quality conundrum necessitates reinterpretation of quality in consumer communications: the near-universal prioritisation of quality (96.4%) coexisting with widespread loose milk consumption demonstrates that consumers define quality through taste and richness rather than food safety. The mobile milk testing van activity — which revealed SNF levels, fat percentages, and water adulteration signs through live Milko Tester readings — was beneficial in modifying this definitional frame for a portion of customers. However, the effect was mostly on awareness rather than instant conversion, demonstrating that quality redefinition is a necessary but not sufficient condition for conversion; it must be accompanied with service delivery improvements.

9. Recommendations

Based on the empirical data, the following

recommendations are made for the Panchmahal District Co-operative Milk Producers' Union Ltd. and AMUL brand management. First and most urgently, the Union should establish a structured last-mile home delivery network for AMUL pouch milk across Lunawada's residential areas, replicating and scaling the retailer home delivery initiative piloted during the study (which connected 73 households across five retailers delivering 96 litres per day). Consumer feedback unambiguously indicates home delivery as the conversion investment with the highest priority. The convenience benefits of local milkmen would be directly replicated by a subscription-based business with set morning delivery schedules, order change via WhatsApp, and simple cancellation.

Second, as AMUL Gold and AMUL Buffalo Milk are directly identical to loose buffalo milk, they ought to be aggressively marketed in the Lunawada market. In order to directly target the taste perception barrier (92.9%), marketing messaging should highlight fat instead of standardisation. Experiential evidence of comparable taste with higher hygienic guarantee can be produced by live taste comparisons and household sampling programs, especially in high-resistance societies like Nurani Colony and Shantinagar.

Third, rather than being a one-time intervention, the mobile milk testing van activity ought to be established as a quarterly awareness program. The best single-session method for changing consumer perceptions of quality was live presentations of Milko Tester readings, which displayed the water content, SNF levels, and fat percentages of customers' own loose milk samples. It would be more effective to turn awareness into a trial if these demonstrations were combined with the prompt distribution of trial pouches and a follow-up home delivery trial offer. Fourth, incentive programs including higher margins for pouch milk sales, display bonuses, and priority supply allocation for retailers taking part in home delivery should be used to increase store and parlour engagement. The distribution infrastructure required to expand conversion outcomes would be provided by a specialised network of 15–20 Lunawada-area shopkeepers who have been trained as AMUL milk delivery partners. These retailers would have branded insulated delivery boxes and customer subscription registers.

Fifth, in order to reduce the perceived financial barrier to first-time adoption, introductory offers such as trial packs of AMUL Tazza (500 ml), bundled promotions with Panchamrut Buttermilk or Lassi, and 30-day subscription discounts should be directed towards price-sensitive households (those buying loose milk at ₹60 per litre). Without ongoing price incentives, AMUL's brand trust strength (95.1%) is likely to maintain retention after conversion.

10. Conclusion

This study measures the awareness, preference, and conversion dynamics between loose milk and AMUL pouch milk among 390 families and experimentally constructs the consumer behaviour landscape driving milk purchasing in Lunawada. It demonstrates that although AMUL pouch milk has been widely adopted (56.4%), a commercially significant loose milk segment (36.9%) still exists,

supported by price sensitivity (32.9%), availability convenience (60.6%), and flavour preference (92.9%). The two most prominent conversion triggers identified through percentage analysis are home delivery (cited by 60.0% of willing switchers) and lower price (20.0%). This indicates that the conversion challenge is primarily a distribution and pricing issue rather than a failure in brand awareness or product quality.

The three main contributions of the study are: (i) the first systematic tabular and percentage-based analysis of conversion triggers for AMUL pouch milk in a semi-urban Gujarat cooperative dairy market; (ii) the empirical identification of the quality paradox, which is the coexistence of persistent loose milk consumption and nearly universal stated quality priority (96.4%), which can be explained by operationalising quality as taste, rather than food safety; and (iii) field-level conversion campaign data showing that a three-month targeted awareness and delivery initiative can achieve a 40.7% conversion rate among households with loose milk that are specifically targeted, offering a quantifiable proof-of-concept for the suggested recommendations. The Panchmahal Milk Union can achieve sustainable market conversion in Lunawada through the implementation of the home delivery network, taste-comparative marketing for premium AMUL varieties, regularisation of mobile milk testing, and organised merchant participation.

References

1. Bahety PK, Sarkar S, De T, Kumar V, Mittal A. Exploring the factors influencing consumer preference toward dairy products: empirical research. *Vilakshan – XIMB Journal of Management*. 2024;21(1):15–32. <https://doi.org/10.1108/XJM-03-2022-0062>
2. Bhavyabhanu S, Pandian A. Analysing the consumer preference for dairy products in Trivandrum City, India. 2017. <https://www.researchgate.net/publication/316037336>
3. Chaudhuri A, Holbrook MB. The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of Marketing*. 2001;65(2):81–93.
4. Food Safety and Standards Authority of India. National survey on milk adulteration. New Delhi: Ministry of Health and Family Welfare, Government of India; 2011.
5. Khanna V. Consumer behaviour and perception towards selected dairy products in selected cities of Gujarat. *IRACST International Journal of Commerce, Business and Management*. 2015;4(1).
6. Merlino VM, Mosca O, Blanc S, Sparacino A, Massaglia S, Borra D, *et al*. The role of socio-demographic characteristics and buying behaviours in shaping milk customers' preferences and choices. *Frontiers in Nutrition*. 2023;10:1072208.
7. Nagle TT, Holden RK. The strategy and tactics of pricing: a guide to growing more profitably. 3rd ed. Upper Saddle River (NJ): Prentice Hall; 2002.
8. National Dairy Development Board. Annual report 2023–24. Anand (Gujarat): National Dairy Development Board; 2024.
9. Pallathadka LK, Pallathadka H, Devi MS. Consumer perception towards dairy products in India: an empirical study. *Integrated Journal for Research in Arts and Humanities*. 2022;2(5):175–181. <https://doi.org/10.55544/ijrah.2.5.27>
10. Panda TK. Marketing management: text and cases. 2nd ed. New Delhi: Excel Books; 2013.
11. Patel R, Shah N, Desai K. Adulteration in loose milk in Gujarat: a systematic survey. *Gujarat Journal of Agricultural Sciences*. 2013;9(2):112–121.
12. Rekha R, Maruthamuthu K. What factors drive consumer preference of dairy products? *International Review of Management and Marketing*. 2024;14(4).
13. Saranya W, Subaharini S. A study on customer preference towards branded and non-branded milk. *International Journal of All Research Education and Scientific Methods*. 2021;9(5):993–999.
14. Modi Z, Gurjar MD, Don PU. Milk production trends in Gujarat and India: a comparative analysis of the last two decades. *Journal of Scientific Research and Reports*. 2025;31(4):445–457.
15. Singh P, Choudhary A. Role of home delivery in consumer preference for loose milk in peri-urban markets: evidence from Rajasthan. *Indian Journal of Agricultural Marketing*. 2014;28(1):57–69.
16. Srinivasan R, Abinaya K, Santhi A. A study on customer preference on dairy products in Madurai District. *International Journal for Advance Research and Development*. 2018;3(8):142–146.
17. Srivastava A, Das P, Giri A. Consumer buying behaviour towards dairy goods in India. *International Journal of Research and Analytical Reviews*. 2021;8(2):450–458.
18. Consumer opinion of Amul fresh milk products—Anand and Vidyanagar. 2024. <https://www.researchgate.net/publication/383208470>