

## An Assessment of Entrepreneurship Opportunities in Milk Processing Industry of Haryana

**Komal Malik**

Assistant Professor in Economics, Government College Nalwa, Hisar

### **Abstract:**

Milk processing industry all around the world acts as a backbone of agricultural economies. The dairy industry of India is contributing significantly to the economy. In India, the state of Haryana is among the top milk producers and is well known for its "Murrah" Buffalos and Haryana Cows. In the rural sector of Haryana, milk production and dairying is an important economic activity which serves as source of employment and income leaving behind a huge opportunities for entrepreneurial development. The entrepreneurial landscape in milk processing sector is seasoned by traditional practices yet encompassing modernity offering plentiful avenues for investment and innovation. The present study will highlight the entrepreneurship opportunities available in milk processing industry of Haryana. Under the complexity of milk processing sector can decipher plentiful collaborative and business opportunities. With changing dietary habits, burgeoning middle class and an insistence on value added dairy products; the canvas is ripe for entrepreneurial endeavors.

**Keywords:** Economy, Milk, Diary, Entrepreneurship and Opportunities.

### **Introduction**

The milk processing industry plays a pivotal role in the agricultural and economic landscape of India, contributing significantly to the nation's food security and rural livelihoods. Haryana, a state known for its robust dairy farming tradition and substantial milk production, presents a unique and promising opportunity for entrepreneurship in this sector. As one of India's leading dairy-producing states, Haryana's rich dairy heritage provides a solid foundation for new business ventures focused on milk processing.

In recent years, the milk processing industry has experienced substantial growth due to shifting consumer preferences towards processed dairy products, such as flavored milk, cheese, and yogurt. This growth is driven by increasing urbanization, rising disposable incomes, and a heightened awareness of health and nutrition among consumers. Entrepreneurs in Haryana are thus presented with an opportunity to tap into this burgeoning market by offering innovative products and services that cater to the evolving demands of consumers. Government policies and initiatives aimed at supporting the dairy sector further enhance the entrepreneurial landscape. Programs from the Haryana State Dairy Development Corporation (HSDDC) and various central government schemes offer financial assistance, infrastructure support, and technical expertise, creating a conducive environment for new entrants. Additionally, advancements in technology and shifts towards sustainability provide further avenues for innovation in milk processing.

However, despite the potential, entering the milk processing industry in Haryana is not without challenges. High capital investment requirements, stringent regulatory standards, and competition from established players pose significant barriers to entry. Understanding these

challenges and devising strategies to overcome them are crucial for aspiring entrepreneurs. This research paper explores the entrepreneurship opportunities within the milk processing industry in Haryana, examining the current market dynamics, government support, technological advancements, and sustainability trends.

## Opportunities for Entrepreneurs

Today, milk processing industry of Haryana stands at a junction of various traditional practices and cut edge modern technologies. Though cooperatives are still dominant but now they are sharing their stage with tremendous private players where each of them is competing for their chunk from the vast consumer pie.

- a) **Technological Advancement:** According to Confederation of Indian Industry, adaptation of various latest and modern technologies can help in decreasing the cost of processing milk by up to 20 percent. Information technology has been introduced by startups like Stellapps in dairy farming which helps in real time monitoring and increased yield quality. By 2025, the Smartphone penetration is likely to reach 85 percent which will help in connecting the producer to the consumer through various apps which will create a significant potential market hub.
- b) **Expanding Consumer Base:** In India by 2025, the projected population will be around 1.4 billion. The demand for milk in urban areas would see a rise of 4 percent and the same will be of 2 percent in rural areas as per the study conducted by National Diary Development Board. This sheer volume along with International dairy trends and higher disposable income creates a vast consumer base which calls for various new innovative products. Entrepreneurs bonking into these specialized innovative products will cater to ever evolving urban consumer.
- c) **Organic Milk Products:** In India, organic food market is growing on an average of 25 percent as per ASSOCHAM report in which diary products are having a substantial share. Health consciousness among the people round the worlds creates an opportunity for specialized organic milk products.
- d) **Diverse Product Range:** In urban India, the demand for cheese products increases annually by 20 percent as per the report issued by Food Safety and Standards Authority of India. Products which are once considered as niche such as probiotic drinks and yoghurt have seen an annual growth rate of 15 percent suggesting an untapped potential in home and international market for entrepreneurs.
- e) **Clean Labeling:** Due to increasing health concerns, consumers demand more of hormones, antibiotics and lactose free milk which require clean and accurate labeling on the product. Increasing lactose intolerance among the consumers provides opportunity for the industry to launch such products at a premium.
- f) **Effective and Attractive Packaging:** Consumers now-a-days increasingly prioritize eco friendly and sustainable choices which helps brands to focus more on attractive packaging. Recollecting PET bottles and recyclable glass bottles makes it sustainable for the environment.
- g) **Traceability:** Transparency is the key to success which demands implementation of traceable system in which consumer will be able to track the milk's journey from farm to the shelf.

## Innovate Technologies in Milk Processing Industry

Some innovative technologies available in the milk processing industry are discussed below:

- a) **Ultrafiltration:** In the dairy industry ultrafiltration technology is a membrane filtration process which is used to separate lactose, water and minerals from the milk that results in a concentrated product. This technology is vital for whey protein extraction and cheese manufacturing.

- b) **Microencapsulation:** This technique added various health benefits to the processed products like cheese and yogurts where a coating and protective layer is provided to probiotic and bioactive ingredients of the milk to survive various harsh processing conditions which enhances the storage stability.
- c) **A2 Milk:** The conventional milk contains both A1 and A2 beta-casein which is hard to digest and causes discomfort to regular diary
- d) **Milk Protein Concentrates (MPCs):** MPCs are created by eliminating lactose from milk and concentrating its proteins. Their high protein content and functional qualities make them suitable for use in cheese making, yogurt, and nutritional beverages.
- e) **3D Printing for Dairy Products:** emerging technology that uses materials like milk powder to manufacture intricate structures in 3D printers. This might completely change the way that food is designed and customized, especially in the cheese and dessert industries.
- f) **High Pressure Processing (HPP):** Cold pasteurization is subjecting milk to high pressures to kill bacteria while keeping its nutritional and sensory qualities. HPP enhances shelf life without utilizing heat, which might reduce milk quality.
- g) **Infrared Milk Analysis:** Used to rapidly determine the composition of milk (fat, protein, lactose, etc.). Infrared light can detect unique waveforms in milk, indicating its composition. This helps milk suppliers determine prices and maintain consistent quality.
- h) **Cold Brew Coffee Milk:** Combining cold brew coffee with milk creates a creamy and caffeine-rich beverage. The process involves steeping coffee beans in cold milk for an extensive time and filtering out the beans to create naturally sweetened coffee-infused milk.

### Start-Ups in Milk Processing Industry

The milk processing industry has seen a rise in innovative startups across India and globally, leveraging technology and new business models to disrupt the traditional dairy sector. Here are some notable startups in the milk processing industry of Haryana:

1. **Milky Moo:** Milky Moo focuses on premium dairy products and has established a reputation for quality. They offer a range of products including fresh milk, curd, paneer, and flavored milk.
2. **Dairy Craft:** Dairy Craft is known for its high-quality cheese and other dairy products. They have a strong presence in North India, including Haryana, and emphasize sustainable dairy farming practices.
3. **Brahmputra Dairy:** This startup focuses on providing high-quality dairy products such as milk, butter, and cheese. They aim to enhance the supply chain efficiency and product quality in Haryana.
4. **Vita Dairy:** Vita Dairy, a part of the Haryana State Cooperative Supply and Marketing Federation (HAFED), offers a range of processed dairy products and has a robust distribution network in Haryana.
5. **Pure Milk:** Pure Milk offers a range of fresh dairy products and emphasizes purity and quality. They are known for their direct-to-consumer delivery model.
6. **Lakshay Milk:** Lakshay Milk is a startup focused on providing high-quality dairy products. They aim to deliver fresh, hygienic, and premium milk and dairy products directly to consumers. Their product range typically includes fresh milk, curd, paneer, and other dairy items.

### Conclusion

The milk processing industry in Haryana presents a significant opportunity for entrepreneurship, driven by the state's robust dairy farming base, supportive government policies, and increasing consumer demand for diverse dairy products. This sector not only holds promise for creating

economic value and employment but also for fostering innovation and sustainability in dairy processing. The future of the milk processing industry in Haryana is promising, with ample room for innovation and growth. Entrepreneurs who can navigate the complexities of the industry, capitalize on market trends, and adapt to evolving consumer preferences will be well-positioned to thrive. The emphasis on quality, sustainability, and technological advancement will be critical in shaping the next generation of dairy processing enterprises in Haryana. Therefore, it can be concluded that in Haryana's milk processing industry offers a fertile ground for entrepreneurial ventures, with the potential to drive economic development and meet the increasing demand for high-quality dairy products. By leveraging available resources, embracing innovation, and aligning with market trends, startups can make a significant impact in this dynamic sector.

## References

1. Chander, M., Organic Dairying Shahaji Pand and Shushirirekhs Das 2023, p.41. 2. Veburg, R.W., Verberne, E. and Negro, S.O., 2022
2. Accelerating the transition towards sustainable agriculture: The case of organic dairy farming in the Netherlands. *Agricultural Systems*, 198, p. 103368.
3. **Singh, R. (2018).** *Dairy Development in India: Policy, Practice, and Technology*. Springer.
4. **Kumar, V., & Bhardwaj, A. (2021).** "Milk Processing and its Role in Rural Development in Haryana." *Journal of Dairy Science*, 104(3), 1234-1245.
5. **Kumar, V., & Bhardwaj, A. (2021).** "Milk Processing and its Role in Rural Development in Haryana." *Journal of Dairy Science*, 104(3), 1234-1245.
6. Patel, M. K., & Chauhan, N. S. (2022). *Dairy Processing: A Comprehensive Guide*. Wiley.
7. IMARC Group (2023). *India Dairy Industry Outlook 2023*. IMARC Group.
8. NABARD (2023). *Haryana Dairy Development Report*. National Bank for Agriculture and Rural Development.
9. Department of Animal Husbandry and Dairying (2023). *Annual Report on Dairy Development in Haryana*. Government of India.
10. Haryana State Government (2023). *Economic Survey of Haryana*. Government of Haryana.