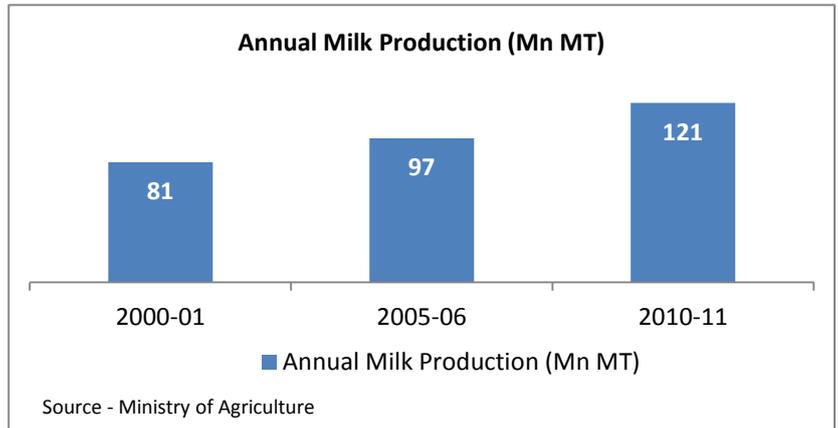


‘Milking’ the Opportunities in Indian Dairy Sector

We all would have learnt in our childhood that “the cow gives us milk”- and it was true to a large extent as, in the past, the milkman was the sole middleman between our homes and the cow¹. What most of us do not know is that today, this is the most simplistic explanation of a complex industry – we are unaware of the journey our daily glass of milk makes, the various stages of processing it undergoes, and the challenges it overcomes to reach us in the different forms it is consumed.

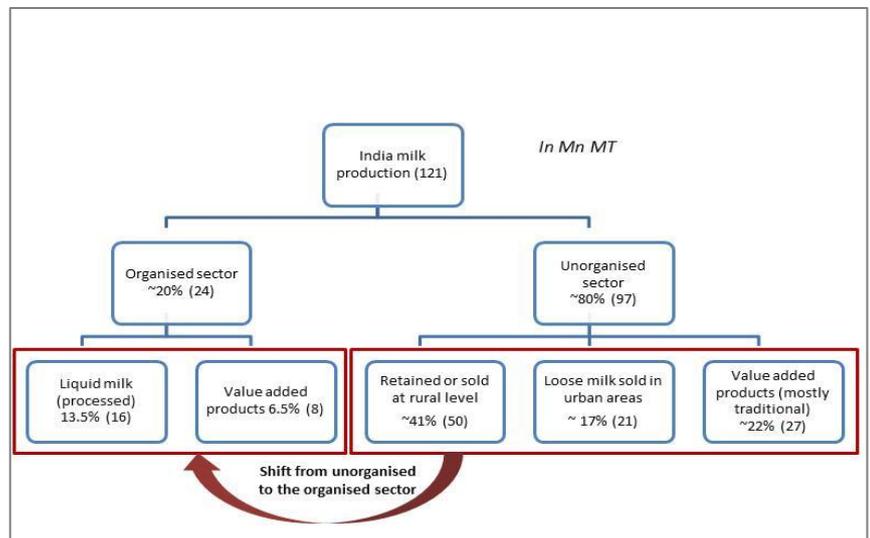
In the past five decades, the traditional “milk” business has witnessed a turnaround and now acts as a pillar for Indian agricultural growth. Liquid milk production in India has come a long way from 17 million metric tons, or MT, in 1951 to 121 million MT in 2010-11. Today, India is the world’s largest liquid milk producer and accounts for nearly 17% of the total milk production of the world, almost all of which gets consumed domestically. As per the Ministry of Agriculture estimates, India will register an annual milk production of 127 million MT for 2011-12 while the Indian milk demand is estimated to touch 180-200 million MT by 2020.



However, while per capita milk availability in India has grown steadily and is currently at 101 kg/year (i.e. comparable to the world average); it is much lower than that for developed nations. Milk availability is also not evenly distributed in the country - India has both milk surplus and milk deficient regions. The top 10 milk producing states together contribute 80% of the total production, while the eastern part of the country is the most milk deficient region on per capita basis.

Structure of Indian Dairy Industry -2011

A key feature of the Indian dairy industry is that it is still predominantly unorganized. Out of the total milk produced in India, only 20% is channeled through the organized segment. Analyzing the unorganized segment, it can be stated that modern processing infrastructure has still not made inroads in India. However, the good news is that there is a clear shift towards organized sector which is evident from the statistics available; the 13% share of the organized segment in 2005 increased to 20% in 2011. This is driven by an increasing demand for packaged milk and value-added products. On the supply side as well, farmers prefer organized channels due to higher price realization.

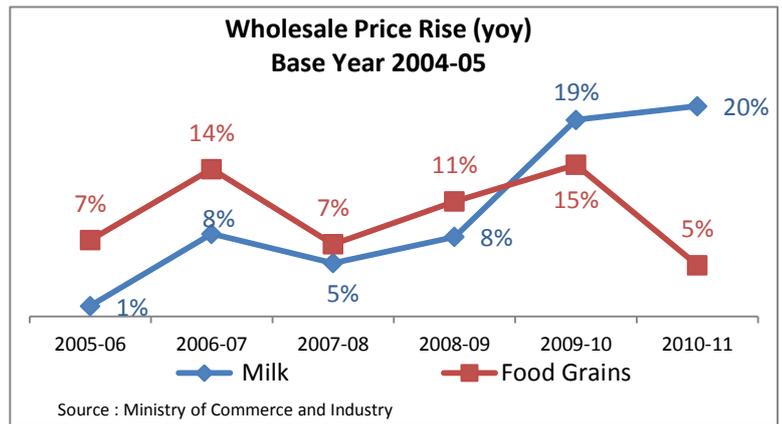


Source – Ministry of Agriculture, Economic Survey of India, Rabobank and Technopak analysis

¹ ~55% of India’s milk production comes from buffaloes and in this case “cow” implies both animals

Consumption trends

The most important consumption feature with respect to milk is that it is a staple diet in India and has always held health-related, cultural and religious connotations for the vast majority of Indians. Nearly half the Indian population still follows Vegetarianism and dairy products remain the major source of protein and other essential nutrients. Due to their high nutritional value and easy availability, dairy products have successfully managed to secure a footing as a staple in a typical Indian diet. The demand for milk is also relatively price inelastic since it is a primary source of nutrition for children. Thus, despite the steep increase in price over the past 2 years, the demand for milk is increasing faster than production.



Another trend being witnessed by the dairy sector is that health and safety concerns have added to the increased consumption of packaged milk and allied products. India as a country has been consuming dairy products in loose form - especially milk and curd, from time immemorial. However, increasing safety concerns have propelled the penetration of packaged milk in the market and consequently, the consumption of packaged liquid milk has increased from 21% to 28% of the total liquid milk in the past 5 years.

The third important consumption trend is that with increasing awareness, health consciousness and changing lifestyles, there is a consumption shift towards newer categories of value-added products. The changing consumer lifestyles, needs, and convenience-seeking behavior has motivated dairy companies to introduce innovative offerings. Products such as *dahi* which were predominantly "made at home" earlier are getting branded now. Variants such as *Lassi*, *Raita*, flavored or low fat *Dahi* are further additions to the product line and consumers are accepting them for an array of reasons like health benefits, convenience and time poverty.

Apart from the branding of commoditized product spaces, marketers are also making continuous efforts to educate consumers about other value-added products. For example, in the past decade the cheese market has undergone a paradigm shift beyond blocks and slices. Now urban consumers understand the difference between Mozzarella and Gouda and are adopting cheese preparations beyond pizzas and pastas.

The health consciousness indices have pushed the acceptance of margarine & pro-biotics and the modern taste buds are only satisfied through flavors other than the standard vanilla or chocolate. Changing consumer preferences and growing competition has pushed even traditional cooperative players such as GCMMF (Amul), KMF (Nandini), etc. to expand their portfolio to include cheese packs, *paneer*, *dahi*, *lassi*, flavored milk drinks, probiotics, spread tubs, etc.

Beyond new product introductions, processing & packaging technology innovations are pushing away the perishability of dairy products, enabling convenience and availability. For instance, UHT milk is gaining popularity primarily because of the convenience it offers to retailers, transporters & consumers. While urban consumers adopt it for convenience, it is witnessing high growth in northeastern India and hilly areas where fresh milk is not easily available.

The increasing consumption is also resulting in the entrance of major global dairy players in India. Apart from new entrants, domestic players have also received private equity investments to take advantage of the untapped market opportunity.

Major Challenges for Organized Players

Despite the favorable consumption dynamics, the dairy sector is still faced with many challenges.

Sourcing

Sourcing is the backbone of any dairy venture. We need to understand that dairy as a product is not manufacturing-based, it is production-based (remember the cow we mentioned earlier!) and so milk sourcing becomes the most crucial element for any dairy player in any given region. As per industry benchmarks, it is not feasible to transport/procure raw/processed milk beyond 200-225 km radius. The perishability and associated transportation costs force processors to have multiple sourcing, processing and distribution points.

For large national players, local brands and government cooperatives are the major competition, as the latter are better positioned to procure milk from last mile village centers. India has a very fragmented sourcing -with only a few animals per farmer which becomes a challenge for players in terms of direct sourcing. This also gives rise to malpractices at village level. Overcoming these challenges, coupled with a transparent farmer payment mechanism with well-established infrastructure, can be the key to success.

Low productivity

India is characterized by a low input-low output system. While production costs are among the lowest in the world due to the inexpensive maintenance and feeding costs, yields are also below international averages. The productivity of New Zealand is more than three times the current Indian average and presents a clear opportunity for productivity improvement. Fodder accounts for the majority of dairy farm cost and the quality of fodder is directly proportional to the milk productivity. Value-added fodder at affordable pricing is one of the urgent needs to increase farm level productivity.

Lack of cold chain and supply chain infrastructure

Milk is a perishable product and highly dependent on temperature-regulated storage and transportation. The current cold chain setup in India is dominated by single facility storage units provided by unorganized players. There has been significant growth with the entry of organized players in the market; however there is much more growth needed to ensure demand fulfillment. The lack of cold chain and supply chain infrastructure presents significant opportunities for international and Indian companies primarily for setting up transportation and storage facilities. Proper cold chain infrastructure will reduce wastage levels and will add to the quality of milk. Establishment of village-level BMC (Bulk Milk Cooling) will enable collection at the village level and will also encourage cattle rearing at the farm level

Conclusion

The Indian dairy sector is a promising consumption-led growth story though there are challenges which require attention. With a huge consumer base of over a billion people, demand will never be a challenge for manufacturers and retailers. It is the supply side of the equation which needs attention. It is time for brands, manufacturers, retailers and the government to look at ways to addressing the challenges and 'milk' the vast opportunity this country presents. Though the cow remains the center of our dairy world, clearly dairy is much more than just about the cow today!

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