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## Performance Of Dairy Industry In India: Challenges And Opportunities

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### Abstract:

*This paper analyses the overall performance of dairy industry in India: issues and challenges. The importance of dairying in our country hardly needs emphasizing. The vast resources (more than 50 percent of the world's buffalos and 20 percent of its cattle) of livestock in the country play an important role in the national economy as well as in the socio-economic development of millions of rural households. Despite the drastic growth of service and industrial sector in India, still majority of the people nearly 70 percent living in rural areas. Thus Higher growth of economy is impossible unless and until the rural areas developed well in all aspects. Under these circumstances the governments have introduced many schemes and programmes for rural development. But it failed to succeed in achieving its targets. Livestock sector arised as major sub-sector in agriculture by providing major source of income to the majority of the people in rural areas, especially in dry land and drought prone areas. The marginal and small farmers are the major beneficiaries of the dairy industry in rural areas. It providing employment to the nearly 18 million people, more importantly 60 to 70 percent are women. Dairy farming plays a significant role in sustaining the rural livelihoods, although the phenomenons of farmer's suicides, migration are widely prevalent in rural India.*

### KEYWORDS:

Dairy industry, Milk products, Rural livelihoods, Livestock sector, Economic Developmet.

### INTRODUCTION:

Dairy industry play a key role in the Indian economy through providing employment opportunities to 18 million people (especially for marginal and small farmers and land less labour), for 27.6 million people as a major source of income and providing cheap nutritious food in the form of milk and milk products. India is the highest milk producer in the entire globe accounting more than 13% of world's total milk production and also it is the world largest consumer of dairy products, consuming almost 100% of its own milk. Anyone might want to capitalize on the largest and fastest growing milk and mil products' market. The dairy industry in India has been witnessing rapid growth. The liberalized economy provides more opportunities for MNCs and foreign investors to release the full potential of this industry. The main aim of the Indian dairy industry is only to better manage the national resources to enhance milk production and upgrade milk processing using innovative technologies Potential for investment in dairy industry. The progress in this sector will result in a more balanced development of the rural economy. Indian economy is an agro-based economy where more than 70 percent of population is depending directly and indirectly. The share of livestock product is estimated at 21% of total agriculture sector. The fact that dairy sector could play a more constructive role in promoting rural welfare and reducing poverty is increasingly being recognized. Milk production alone involves more than 70 million producers, each raising one or two cows/buffaloes primarily for milk production. India is a land of opportunity for those who are looking for

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new and expanding markets. Some areas of Indian dairy industry can be toned up by the evocation of differentiated technologies and equipment from overseas. These include:

- 1.Raw milk handling: The raw milk handling needs to be elevated in terms of physicochemical and microbiological properties of the milk in a combined manner. The use of clarification and bactofugation in raw milk processing can aid better the quality of the milk products.
- 2.Milk processing: Better operational ratios are required to amend the yields and abridge wastage, lessen fat/protein losses during processing, control production costs, save energy and broaden shelf life. The adoption of GMP (Good Manufacturing Practices) and HACCP (Hazard Analysis Critical Control Points) would help produce milk products adapting to the international standards.
- 3.Packaging: Another area that can be improved is the range of packing machines for the manufacture of butter, cheese and alike. Better packaging can assist in retaining the nutritive value of products packed and thus broaden the shelf life. A cold chain distribution system is required for proper storage and transfer of dairy products.
- 4.Value-added products: There's vast scope for value-added products like desserts, puddings, custards, sauces, mousse, stirred yoghurt, nectars and sherbets to capture the dairy market in India.

The Indian dairy industry has aimed at better management of the national resources to enhance milk production and upgrade milk processing involving new innovative technologies. Multinational dairy giants can also make their foray in the Indian dairy market in this challenging scenario and create a win-win situation for both.

#### INDIA'S MILK PRODUCT MIX

Fluid Milk	46.0%
Ghee	27.5%
Butter	6.5%
Curd	7.0%
Khoa (Partially Dehydrated Condensed Milk)	6.5%
Milk Powders, including IMF	3.5%
Paneer & Chhana (Cottage Cheese)	2.0%
Others, including Cream, Ice Cream	1.0%

#### OVERVIEW OF THE INDIAN DAIRY SECTOR

The country is the largest milk producer all over the world, around 100 million MT  
 Value of output amounted to ` 1179 billion (in 2004-05) (Approximately equals combined output of paddy and wheat!!)  
 1/5th of the world bovine population  
 Milch animals (45% indigenous cattle, 55 % buffaloes, and 10% cross bred cows)  
 Immensely low productivity, around 1000 kg/year (world average 2038 kg/year)  
 Large no. of unproductive animals, low genetic potency, poor nutrition and lack of services are the main factors for the low productivity  
 There are different regions – developed, average, below average (eastern states of Orissa, Bihar and NE region) in the dairy industry.

## CONSUMPTION AND MARKETING OF MILK

The huge volume of milk produced in India is consumed almost entirely by the Indian population itself both the urban and rural population equally. Day by day the demand for the milk and milk products is increasing continuously. Among those important consumers of dairy industry are fast-food chains and food and non-food industries using dairy ingredients in a wide range of products. In spite of having largest milk production, India is a very minor player in the world market. Most of the demand-supply gaps of liquid milk requirements for urban consumers were met by importing by anhydrous milk fat / butter and dry milk powders. But with the onset of operation flood programme, the scenario dramatically changed and commercial imports of dairy products came to a halt except occasional imports of very small quantities.

## IMPORTANCE OF DAIRY INDUSTRY

Dairy industry emerged as a tool to tackle the problems of Indian economy such as poverty and unemployment especially in the rural areas where nearly 70 percent of population living. In drought prone areas and rain-fed areas the livestock sector is the major source of income especially for marginal and small farmers who account for three-quarters of these owning livestock, "Milk production is likely to reach about 190 million tonnes in 2015 from current level of about 123 million tonnes," the ASSOCHAM study, titled, 'Indian Dairy Industry: The Way Ahead', said. India -- the world's largest milk producer -- accounts for around 20 per cent of global milk production, with most of it consumed domestically, it added. In India, about 60 per cent of milk is consumed in liquid form, while the remaining 40 per cent is used in the form of butter, clarified butter (desi ghee), cheese, curd, paneer, ice cream, dairy whiteners and traditional sweets. "Growing at about 10 per cent annually, the Indian dairy industry is predominantly controlled by the unorganized sector, which accounts for nearly 85 per cent," ASSOCHAM Secretary General D S Rawat said in a statement. About eight crore rural families across India are engaged in dairy production and the rural market consumes over half of the total milk produced, he added. According to the study, an upward spiral in prices, the lack of proper infrastructure like cold storages and absence of a transparent milk pricing system are affecting retail consumption of milk and leading to escalating milk prices in the domestic market. The lack of fodder, resulting in low yield from cattle, is another problem affecting the sector, it added. Despite overall food inflation easing marginally to 10.63 per cent for the week ended November 5, milk prices grew at a faster pace of 10.74 per cent during the period. The private sector can play a pivotal role in reducing the cost of milk production by employing advanced techniques to enhance productivity, providing breeding facilities for cattle and by developing processing and marketing infrastructure, Rawat said. Andhra Pradesh, Bihar, Haryana, Gujarat, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh are the leading milk producing states in the country.

The main thrust of proposals is on the improvement of animal health and adoption of sanitary and phyto-sanitary specifications (SPS) for dairy products. Towards this end, the Technology Mission on Dairy Development (TMDD) has initiated a wide-ranging program.

Milk Utilization Pattern in India, 1943-2004			
Year	1943*	1956	2004
Milk Production (million tones)	23.5	17.8	91
Mil Utilisation (Percentage)	100	100	100
Liquid Milk	28.0%	39.2%	46.0%
Traditional Products	72.0%	60.8%	50.0%
Ghee/Makhan (clarified butter)	58.7%	46.0%	33.0%
Dahi (Yogurt-like)	5.2%	8.8%	7.0%
Khoya (Partially desiccated Milk)	5.0%	4.4%	7.0%
Chhana and Paneer (unprocessed cottage cheese)	3.1%	1.6%	3.0%
Western Products: Milk Powder, etc	Neg	Neg	4.0%
*Includes Pakistan and Bangladesh			
Source: Handbook on Technology of Indian Milk Products			

The upsurge in milk production has thrown up challenges in milk marketing. The country is blessed with an enormous domestic market because of the following factors: Large population and its continuous growth, low level of per capita milk consumption and hence large size of potential, but latent demand, increasing purchasing power, which is already in evidence, will transform the huge latent demand into real demand. The groups of dairy products offering exciting marketing opportunities are liquid milk itself, which accounts for a sizeable part of the milk consumption products, in which our dairy industry already has demonstrated considerable expertise, like milk powders, butter and ghee. The ability to manufacture the relatively new and sophisticated products like cheese and ice cream alongside the traditional products like paneer, khoya and milk-based sweets are now being manufactured on a large scale.

#### Utilization pattern

Projected demand for major milk products in the organized sector, 1988-2009/ metric tone		
Product	Demand 1988	Project demand 2009
Ghee	100,000	200,000
Cheese	4,200	15,000
Paneer	1,000	16,000
Shrikhand	3,000	5,650
Rasgolla	1,600	6,000
Gulabjamun	3,000	5,850

As shown in the table, of the total milk produced in the country, nearly 46 per cent is consumed as liquid milk and the balance converted into various dairy products, such as ghee, butter, milk powder, ice cream, cheese, condensed milk and for making various kinds of sweetmeats having distinct regional preferences. Dairy products an estimated 54 per cent of India's milk production is converted into products, both traditional and Western. In this, the share of traditional products is about 50 per cent, accounting in 2001 for a little over 42 million tonne of milk, which yields over 10 million tonne of mithais and other related products per year. The growth projections for their demand in the organized sector are presented in Table above.

#### KEY CONCERNS IN DAIRY INDUSTRY

##### 1. Competitiveness

The major destinations for Indian dairy products are Bangladesh (23.1), UAE (15.4%), US (15.6%) and Philippines (8.9%). Export figures clearly demonstrate that the Indian dairy export is still in its infancy and the surpluses are occasional. Therefore efforts should be need to make India in top position in dairy industry.

##### 2. Production and productivity of animals

The demand for quality dairy products is rising and production is also increasing in many developing countries. The countries which are expected to benefit most from any increase in world demand for dairy products are those which have low cost of production. Therefore there is need of reducing cost of production. Increasing productivity animals, better health care and breeding facilities and management of dairy animals can reduce the cost of milk production.

##### 3. Processing and marketing infrastructure

In order to make India as emerging country in milk product, it is imperative that we should develop



proper production, processing and marketing infrastructure, which is capable of meeting international quality requirements. For this achievement a comprehensive strategy for producing quality and safe dairy products should be formulated with suitable legal backup.

#### 4. Exports and imports

With effect of trade liberalization policies since reform period, despite the attempts of Indian companies to develop their product range, it could well be that in the future, more value-added products will be imported and lower value products will be exported. Thus the dairy industry should be in a position to prepare themselves to meet the challenges.

#### NEW CHALLENGES

Globalization had put new challenges before Indian dairy industry. It led to the changes in dairy sector in many segments. The percentage of milk dairy units handled by the cooperatives just little over 7%. Since liberalization of dairy sector in 1991, a very large number of private sector companies/firms have, despite MMPO, established dairy factories in the country. The share of total milk processing capacity by private sector is 44% of total installed capacity of 73 MLPD (Million Liters Per Day) in the country. Therefore the share of organized sector, both cooperatives as well as the private sector is barely 12%. Demand for milk, at current rate of income growth is estimated to grow at 7 % per annum. Interestingly, demand for milk is expected to grow steadily over the next two decades as the low income rural and urban families who have higher expenditure elasticity would also increase their income due to new economic environment.

#### CONCLUSION

Livestock sector played multiple roles in sustenance of rural economy by acting as sources of milk, draft, manure, capital and most importantly as powerful instrument of insurance against crop loss, reducing the vulnerability and poverty. Further improvement in the overall productivity of the farming systems through technological interventions with the help of technological interventions. Introducing of liberalization policies in India since 1991 made significant changes in the structure of economy; it has strong impact on every sector. An endless discussions going on the advantages and disadvantages of globalization. The dairy industry is no exception from it. The dairy industry which includes dairy products faces both an opportunity for growth as well as a threat for its growth. Due to entering of private organizations in the dairy field significant changes has been taken place. Therefore there is need of special provisions and policies towards dairy industry in India to tackle the major economic problems of poverty and unemployment.

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