



CHALLENGES OF INDIAN DAIRY INDUSTRY (In the aspects of cattle farms)

Ravi Jadawala

Pursuing M.Phil in Rural Management, Faculty of Management and Technology at Gujarat Vidhyapith

Dr. Satish Patel

Asst Professor, Dept. of Rural Management, Faculty of Management and Technology at Gujarat Vidhyapith

ABSTRACT India is undoubtedly the largest milk producing country of world. India has highest population of cow and buffalo. Since Indian independence dairy industry is showing steady and robust growth rate of 3 percent. Sector has seen huge improvement in supply chain and milk processing facilities. Despite of robust growth, cattle farms has not adopted modernization and cattle farms are facing multiple challenges. In this article we have discuss different challenges of Indian dairy industry and we have tried to analyze challenges through frameworks like SWOT analysis and Porter five force model.

KEYWORDS : Challenges of Indian Dairy farm, Cattle farm, SWOT analysis of Indian dairy farm, Porter five force model for Indian dairy farm

Introduction of India dairy industry

Indian dairy industry is one of the important industries for India. India is world's largest milk producer. India dominates about 13% of world milk production and India consume about its 100% of production. Milk is a cheap source of protein for large vegetarian population living in India.¹

According to Dr. N.G. Hegde of BAIF Development Research Foundation Indian dairy industry has loosen the low cost production advantage. As some countries like Denmark, New Zealand etc. has reduce their milk production cost this and increase the import of milk and its allied product in India. This has directly affected Indian cattle farmer in terms of lower sale price. Dr. N. G Hegde has told that Indian dairy industry has following main challenges.

Challenges of Indian dairy farm

• High cost of milk production

Indian milk producers have to reduce the cost of milk production. The main reason of the high cost of milk production is due to average milk yield of Indian cattle is much less i.e. 987 kg/year compare to 6273 kg/year in Denmark, 5289 kg/year in France, 5938 kg/year in Canada, 5462 kg/year in United Kingdom, 7038 kg/year in USA and 11000 kg/year in Israel. So farmer of other countries have to spend much times less in compare to Indian farmers. Reason behind high production of milk is not climate. Israel has climate of 47C – 45C in summer and in winter it as 4C- 5C. So this high yield has been achieved through proper feed, water management and housing, apart from superior quality germplasm. Israel cows have archive this much high milk yield by giving up high fat content. Then also per capita fat production of Israel is higher than India.

• High cost in milk handling and marketing

In India dairy penetration is much less. Majority of milk is collected by private players and either sold to private dairies or to other member of channel. Milk passes through several level till it reach to pasteurization facility in dairy. After milk reaches to daily milk also passes through several distribution channel this also increase cost of milk. Whole process has double the milk price. In Gujarat cooperative dairy purchases one litre of milk from farmers at the rate of 25 to 28 Rs/litre. End consumer due to high milk handling cost these dairies sell milk at the rate of 48 to 52 Rs/litre. However there is good scope for reducing the number of agencies handling the milk to reduce the cost of handling and we can significantly reduce the retail price of milk.

• Poor quality milk due to unhygienic milk handling

Main reason of poor quantity of milk is due to unhygienic and poor condition of animal farms and dairies. Even due to high demand in foreign country we cannot export such poor quality of milk product. Many times Indian milk products get rejected in foreign nations due to unhygienic milking milk contains high number of microbial count.

Reasons behind the quality affected in India are due to poor health of animal, polluted water and food and Unclean surrounding in farm. So it is necessary to consider all this challenges in improving milk production.

Currently most of the milking animals are not screened on regular interval of time. So there is lots of chances that some diseases can transmitted to human beings. Farmers use antibiotics and chemical drugs to increase the production of milk this will also affect the quality of milk. These issues can be avoided by regular screening of animals in animal husbandry and also maintaining history records of health, feed etc. Quality of feed should be checked regularly. There must be pollution control in the feed and water used in cattle farms.

SWOT analysis of Indian dairy industry²

• Strengths

- Large number of livestock population is vital asset for Indian dairy industry. Sustainable re-production can assure future supply and will continue to propel industry growth.
- Indian milk animal has very low milk productivity; there is a huge scope of improvement in terms of milk productivity of animals.
- With continues growth in economy there is a growth in the income of middle class population this result in to high purchasing power.
- In India milk consumption is a part of people's daily dietary habit this assure steady growth in milk demand
- Cheap labor availability of low cost fodder in form of farm residual keeps the cost of milk production low
- India has well developed cooperatives structure and large number of milk cooperatives help farmer in getting proper milk price.

• Weaknesses

- Penetration of cross breeds and high yielding animal are limited and Indian dairy farms have large number of low milk yielding animals.
- Lack of road connectivity and poor infrastructure are major challenge for dairy farms in terms of supplying their raw milk to processing facility.
- Majority of dairy farms are unaware about modern scientific dairy farming techniques, clean milk production and integrated supply chain.
- Low growth rate, low returns on investment, lack of research, lack of reliable milk production data are reason that investor are not willing to invest in dairy farming

• Threats

- Urbanization, Industrialization and excessive grazing have put pressure on grazing lands. Result into complete degradation of grazing land.
- Crossbreeds have created threat many valuable indigenous cattle breeds.

- Adulteration, Synthetic milk etc. has decreased milk buyer's confidence. Eventually milk consumers can shift to other options.
 - Substitutes like soya milk; coconut milk etc. can replace farm cattle milk.
 - Middleman are still controlling majority of milk procurements. Serious steps should be taken to reduce that.
 - There is a gross lack of awareness among farmers about the quality parameters, including microbiological and chemical contaminants as well as residual antibiotics.
- **Opportunities**
 - With opening up of Indian economy milk producer has huge opportunity to sell products in global market
 - High economy growth has created opportunity to invest in dairy farms.
 - Forward integration with milk cooperatives can improve the productively and profitability of dairy farms
 - Cooperative animal rearing and animal hostels can unlock the potential
 - Dairy farm can adopt new technologies that can improve productivity, operations and profitability

Porter's five force model for Indian dairy farms

- **Competition in the industry**
- Many countries like Israel, Denmark and New Zealand has started low cost milk production and low cost milk and milk product exports this has created pressure on milk prices in India
- A cattle rearing is common profession in India, majority of farmers has adopted cattle rearing as there secondary profession. This is a main cause of cut throat competition and stagnancy in milk prices.
- Many religions organization has started dairy farms (Gavu Shala). This has intensified the competition.

Conclusion: Indian dairy farms have always seen cut throat competitions.

Opportunity: By adopting modern technology and good governance dairy farm can reducing cost of milk production. This will help them to position themselves ahead of their competitors.

- **Potential of new entrants into the industry**
- With the increase in milk prices in urban India MNC and corporate start cattle farms with huge capital investments.
- Milk processing units can do backward integration by developing own cattle farms.

Conclusion: Thus there is high potential of new entrance in Indian dairy farm business.

Opportunity: Milk producer can form own cooperatives and integrate themselves with milk processing companies to reduce the threat from new entrance.

- **Power of Suppliers**
- Dairy farms usually grow fodder in their own farms.
- Dairy farms can easily get veterinary facility from milk cooperatives and governments institutes

Conclusion: Indian dairy farms have high bargaining power over their suppliers.

Opportunity: As bargaining power of supplier is limited dairy farms can leverage their procurement and relies on external supplier to increase milk production.

- **Power of Customers**
- Milk has very short life span so milk producer has to sell milk at the rate given by milk buyers.
- Operation cost of running animal husbandry is very high so milk producers sell milk immediately in order to avoid cash crunch.
- Cost of holding milk in milk chillers is very high and it is not affordable for small farmers so they have to sell milk immediately.

Conclusion: Dairy Farms have very less bargaining power over their customers.

Opportunity: Dairy farms can do forward integration with milk buys or they can from their own cooperatives to hold and sell milk. So by forward integration they can reduce bargaining power of customers.

- **Threat of Substitutes**
- Milk from Soya and coconut can be threat to Indian dairy farms. With help of modern technology manufactures has started producing cottage cheese, paneer and other milk products form Soya milk.
- Other substitute product like low cost vegetable ghee is a potential substitute of Ghee.

Conclusion: New research and developments has increase the threat of milk substitutes.

Opportunity: Low cost production, Organic dairy farming, retaining high nutrients value in milk and adopting modernizing dairy farms can reduce the threat of substitute products

Conclusion

Indian is one of the highest milk producing country then also per capita milk production in Indian is much low compare to other milk producing county. India is not able to meet its local milk demand. The average milk production per cow and buffalo per year in India is too low. The cost of milk in India is too high. Indian cattle farm is working on very low efficiency.

Due to lack of knowledge, lack of proper medical history the mortality of cattle is too high. Cattle farmer also face problem in maintaining vaccination and health history of his livestock. Other major challenges of dairy industry are inefficient supply chain and traditional way of rearing cattle.

For the revival of industry now it become necessary to adopt modernization in cattle farms, Increase the use of technology and shifting towards organized way of cattle rearing.

REFERENCES

- [1] Dr. K.G. Karmakar & Dr G.D. Banerjee. (2016, September 09). Opportunities And Challenges in The Indian Dairy Industry. Retrieved May 16, 2017, from Dairy News of India:
- [2] Dairy farm guide. (2017). SWOT Analysis of Dairy Farming Business. Retrieved April 02, 2017, from Dairy farm guide: <http://www.dairyfarmguide.com/swot-analysis-of-dairy-0103.html>
- [3] (Dr K. G. Karmakar & Dr G.D. Banerjee, 2016)
- [4] (Dairy farm guide, 2017)
- [5] Ravi Jadawala, Pursuing M.Phil in Rural Management, Faculty of Management and Technology at Gujarat Vidhyapith.
- [6] Dr. Satish Patel, Asst Professor, Dept. of Rural Management, Faculty of Management and Technology at Gujarat Vidhyapith.