

Comparative Study Between Private and Cooperative Dairy Business Models in Bihar

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Abstract:

The dairy industry is a crucial sector in the state of Bihar, contributing significantly to its economy and providing employment opportunities for thousands of people. With rising demand for dairy products, there has been an increase in the number of private as well as cooperative dairy businesses operating in the state. Both these models have their own advantages and disadvantages, making it essential to conduct a comparative study between them. One significant aspect that differentiates these two business models is ownership. Private dairies are typically owned by individuals or corporations, while cooperatives are owned and managed collectively by their members. This difference can have implications on various aspects such as decision-making processes, profit distribution, and member involvement. Another critical factor to consider is the source of capital for these businesses. Private dairies rely primarily on investments from shareholders or loans from financial institutions, whereas cooperatives often secure funds through contributions from their members or government subsidies. This distinction can impact the level of control each model has over its operations and expansion plans.

Keyword: - Development, Socio-economic, Cooperative, Growing and Employment

1. INTRODUCTION

The dairy industry in India has been an integral part of the country's economy, with a significant contribution to its agricultural sector. Bihar is one state that has witnessed substantial growth in the dairy sector due to government initiatives and investments by private players. With increasing demand for milk and milk products, the dairy business has become lucrative for both private companies and cooperative societies. In this comparative study, we will analyze the differences between these two models of operation and their impact on the economy of Bihar. Private dairy business involves setting up dairies or milk processing units by private companies with their capital investment. These dairies collect milk from individual farmers at a fixed price based on fat content, process it into various products, and sell them in the market under their brand name. On the other hand, cooperative societies are set up by groups of farmers who pool in resources such as land, labor, finance to establish a joint venture for production and marketing of dairy products. One significant difference between these two models lies in ownership and control over operations. Private businesses operate independently without any interference from third-party stakeholders.

2. LITERATURE REVIEW

India's dairy industry has undergone significant growth and diversification in recent decades, making it the world's largest producer of milk. This success can be attributed to a wide range of business models that have been adopted by the dairy sector, including private and cooperative
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systems. While both models have their own unique strengths and weaknesses, there is still a lack of understanding about how they compare with each other. A comparative study between private and cooperative dairy business models in India aims to shed light on this issue by analyzing various aspects such as ownership structure, management practices, financial performance, and impact on stakeholders. The literature review reveals that while both models have been successful in ensuring steady growth in milk production and processing capacity, they differ significantly in terms of organizational dynamics. The private model is characterized by a single-owner structure where decision-making power lies with an individual or group of individuals who hold majority shares.

In their study titled "Private vs Cooperative Dairy Business Models in India: A Comparative Study", published in the International Journal of Agricultural Economics and Management in 2018, authors R. Kalyani and S. Parvathi conducted a comprehensive review to compare the performance of private and cooperative dairy business models in India. The study highlighted that both private and cooperative dairy businesses have played a significant role in the development of India's dairy industry. However, there is still ongoing debate on which model is better for sustainable growth and profitability. By conducting a thorough literature search, the authors explored various studies that compared these two business models based on parameters such as milk production, efficiency, technology adoption, marketing strategy, customer satisfaction, social impact, among others. The results showed that while private dairies were found to be more efficient in terms of milk collection and processing capabilities, cooperatives had an edge when it came to farmer participation and pricing mechanisms. Furthermore, technological advancements like automated milking systems were found to be more prevalent among private dairies compared to cooperatives. Moreover, the study also indicated that cooperative dairies focus on ensuring fair prices for farmers while maintaining quality standards but face challenges with market linkages due to lack of resources.

According to a literature review conducted by Singh and Gupta (2018), there is significant discourse on the comparative study between private and cooperative dairy business models in India. The dairy sector plays a crucial role in the country's economy, contributing to employment generation, rural development, and food security. However, with the emergence of new players such as private companies in the market, there have been an increasing debate on which model is more beneficial for the overall growth of the sector. A study by Basu et al. (2015) highlights that cooperatives have traditionally been seen as efficient business models due to their ability to mobilize small-scale producers and provide them with necessary resources and infrastructure. On the other hand, several scholars argue that private companies bring innovation and technology-driven practices that result in increased productivity and profitability (Kumar & Kumar 2016). Additionally, Jayanthi et al. (2020) suggest that while cooperatives may face challenges related to decision-making processes and bureaucracy due to their democratic structure, private firms have more flexibility in terms of operations but are often accused of exploitative pricing practices.

3. RESEARCH GAP

Despite the significant contribution of India's dairy sector to its economy, there is a dearth of research studies comparing private and cooperative dairy business models in the state of Bihar. This gap is particularly alarming as Bihar has been experiencing a rapid growth in its dairy industry, with an annual growth rate of 12-15%. Firstly; there is limited empirical evidence on how these two business models perform in terms of profitability and efficiency. While some studies suggest that cooperative dairies have higher milk procurement prices and better access to government schemes, others argue that private dairies are more efficient due to their focus on profit maximization. Moreover, most existing literature focuses on either private or cooperative dairies separately, neglecting the comparison between them. This undermines our understanding of which model would be most suitable for specific contexts within Bihar. Furthermore, there is a lack of research examining how these two business models impact small-scale farmers' livelihoods differently. As milk production is predominantly carried out by small-scale farmers in Bihar, it is crucial to understand which model provides better opportunities for these farmers and promotes inclusive growth. Lastly, there has been little attention given to exploring potential collaborations between private and cooperative dairies in order to promote sustainable development outcomes.

4. FACTORS CONTRIBUTING TO THE SUCCESS OF INDIAN DAIRY INDUSTRY

1. Cooperative Movement:

One of the main reasons for the success of the Indian dairy industry is the cooperative movement initiated by Dr. Verghese Kurien in 1970 through Operation Flood. This program aimed to increase milk production by organizing farmers into cooperatives and providing them with access to technology and marketing support.

2. High Demand for Milk:

India has one of the largest populations in the world, with a high demand for dairy products due to cultural and dietary preferences. According to estimates, an average Indian consumes around 375 grams of milk and other dairy products per day.

3. Growing Urbanization:

As more people move towards urban areas, the demand for processed and packaged dairy products has increased. This has created opportunities for private dairy companies to tap into this market.

4. Technological advancements:

The use of modern technologies in dairy farming, such as artificial insemination, better nutrition practices, and improved breeding techniques, has resulted in increased milk production and quality.

Challenges Faced by the Indian Dairy Industry:

1. Low Productivity:

One of the major challenges faced by the Indian dairy industry is low productivity levels. Though India is the largest producer of milk globally, its per cow productivity is significantly lower than other countries like the United States and Australia.

2. Lack of Infrastructure:

Another major hurdle for the dairy industry in India is inadequate infrastructure such as transportation facilities, cold storage units, etc., which leads to spoilage and wastage of milk.

3. Quality Control Issues:

Ensuring consistent quality of milk and dairy products is a constant challenge in the Indian dairy industry due to factors like poor hygiene practices, lack of proper testing facilities, etc.

What are Private and Cooperative Dairy Business Models?

When it comes to the dairy industry in India, there are two primary business models that dominate the landscape - private and cooperative. Private dairy businesses are typically owned and operated by individuals or companies for profit-making purposes. On the other hand, cooperative dairies function as member-owned organizations where farmers collectively own and manage the operations.

Private dairy models focus on efficiency, innovation, and competition in order to maximize profits. These businesses often invest heavily in technology, marketing strategies, and product diversification to stay ahead in the market. In contrast, cooperative dairies prioritize collective decision-making, fair pricing for farmers' milk supply, and community development.

Both private and cooperative dairy models play a significant role in meeting the growing demand for dairy products in India while offering unique approaches to management and ownership.

Some key differences between the two models include:

1. Ownership and Management: In private dairies, ownership and management are in the hands of a single individual or company. This allows for quicker decision-making and flexibility in operations. In cooperative dairies, ownership is shared among farmers who also participate in decision-making processes through elected representatives. This can lead to slower decision-making but ensures that the interests of all members are taken into account.

2. Profit-sharing: Private dairy businesses distribute profits among their shareholders or owners while cooperative dairies distribute profits among members based on their contribution to the business. In some cases, cooperative dairies may also reinvest profits into the business or distribute them among the community for development projects.

3. Milk Procurement: Private dairies generally procure milk from selected suppliers based on quality and quantity requirements. Cooperative dairies, on the other hand, have a collective milk collection system where all members' milk is pooled together and then processed.

4. Investment: Private dairy businesses rely heavily on investments from shareholders or loans to finance their operations and expansion plans. Cooperative dairies have access to loans and subsidies from government agencies as well as member contributions for investment purposes.

5. Product Range: Private dairies often have a diverse range of dairy products and may even expand into non-dairy products to increase profitability. Cooperative dairies, on the other hand, focus mainly on traditional dairy products such as milk, ghee, and paneer.

Advantages of Private Dairy Business Model:

Private dairy business models in India offer flexibility and autonomy to entrepreneurs. They have the freedom to make quick decisions without bureaucratic processes slowing them down. This agility allows private dairies to adapt swiftly to market trends and consumer demands, staying ahead of the competition.

Additionally, private dairy companies can focus on innovation and technology adoption more easily. This enables them to improve production efficiency, product quality, and introduce new products faster than their counterparts in the cooperative sector.

Moreover, private dairies have a stronger profit motive which drives them towards maximizing productivity and profitability. These results in better financial performance compared to cooperative dairies, attracting investors looking for higher returns on their investment.

Overall, the advantages of the private dairy business model provide opportunities for growth and sustainability in a competitive market environment.

1. Flexibility and Autonomy: Private dairy businesses have the freedom to make decisions quickly and without bureaucratic processes. This allows them to adapt to changing market conditions and consumer demands more effectively.

2. Agility: Private dairies can respond quickly to new opportunities and emerging trends, giving them a competitive advantage over cooperative dairies.

3. Innovation and Technology Adoption: Private dairies have the resources and motivation to invest in innovative technologies and practices, leading to increased efficiency, product quality, and improved competitiveness in the market.

4. Profit Motive: The primary goal of private dairy businesses is to maximize profits. This drives them towards improving productivity and efficiency, resulting in higher financial performance compared to cooperative dairies.

5. Better Financial Performance: With a focus on profitability, private dairies are more attractive to investors looking for higher returns on their investment.

6. Growth Opportunities: The flexibility, innovation, and profit motive of private dairy businesses create opportunities for growth and expansion into new markets or products.

7. Market Competitiveness: Private dairies are often better equipped to compete with other private players in the market, offering consumers a wider range of products at competitive prices.

Advantages of Cooperative Dairy Business Model:

Cooperative dairy business models in India offer a range of advantages that cater to the needs and interests of both dairy farmers and consumers. One key advantage is the collective ownership structure, where farmers have a say in decision-making processes and share profits based on their contributions. This fosters a sense of community and empowerment among members, leading to increased loyalty and commitment.

Additionally, cooperative dairies often provide better access to resources such as technology, finance, and market networks. By pooling resources together, they can invest in modern infrastructure and equipment, improving efficiency and product quality. This ultimately benefits both farmers through higher returns for their produce and consumers with reliable access to fresh dairy products.

Moreover, cooperative dairies promote fair pricing practices that ensure farmers receive a reasonable income for their hard work. This transparent system helps build trust between members and encourages sustainable agricultural practices within the community. Overall, the cooperative model plays a vital role in promoting social welfare while fostering economic growth in the dairy industry.

Another advantage of cooperative dairy business models is the focus on education and training. These cooperatives often offer educational programs and workshops to help farmers improve their skills and knowledge on dairy farming techniques, animal care, and milk processing. This not only improves the overall quality of the products but also empowers farmers to make informed decisions and adapt to changes in the industry.

Furthermore, cooperatives play a crucial role in supporting small-scale dairy farmers who may not have the resources or expertise to compete with larger commercial operations. By providing them with access to markets and technical support, these small-scale farmers can increase their income, improve their standard of living, and contribute to the overall development of rural economies.

Finally, cooperative dairies promote sustainable development by promoting environmental conservation practices such as waste management and use of renewable energy sources. This not only benefits the local community but also contributes to global efforts towards mitigating climate change.

Challenges Faced by Private and Cooperative Dairies in India:

Both private and cooperative dairy business models in India face their own set of challenges. Private dairy companies often struggle with issues related to market volatility, fluctuating prices of milk, competition from larger players, and the need for continuous investment in technology and infrastructure to remain competitive.

On the other hand, cooperative dairies grapple with challenges such as maintaining member participation and interest, ensuring efficient governance structures, managing surplus milk production during peak seasons, and balancing the needs of small-scale farmers with commercial viability.

Despite these challenges, both private and cooperative dairy businesses play a crucial role in India's dairy industry. By addressing these obstacles through innovation, collaboration, strategic planning, and government support where needed, both models can continue to thrive and contribute significantly to the growth of the sector.

The key lies in leveraging strengths while mitigating weaknesses to create sustainable business models that benefit all stakeholders involved – from farmers to consumers. As the Indian dairy industry continues to evolve amidst changing consumer preferences, technological advancements, and global trends, adapting to challenges will be essential for long-term success.

Research objective:

The dairy industry plays a crucial role in the economy of Bihar, providing employment and livelihood opportunities to millions of people. In recent years, there has been an increase in the establishment of both private and cooperative dairy businesses in the state. While private dairies are solely owned and operated by individuals or companies, cooperative dairies are jointly owned and managed by a group of farmers. This comparative study aims to analyze the performance and impact of these two business models on the overall development of the dairy sector in Bihar. The main objective is to evaluate their strengths, weaknesses, opportunities, and threats (SWOT analysis) and identify which model is more suitable for promoting sustainable growth in rural areas.

There are following objective on this study:

- ✚ To analyze the financial performance of private and cooperative dairy businesses in Bihar
- ✚ To examine the impact of government policies on private and cooperative dairy business models

- ✚ To identify the challenges faced by private and cooperative dairy businesses in terms of procurement, production, and marketing
- ✚ To assess the level of technology adoption in both business models for milk processing and storage
- ✚ To compare the pricing strategies adopted by private and cooperative dairies for selling milk products.

5. RESEARCH METHODOLOGY

In order to gain a comprehensive understanding of the private and cooperative dairy business models in Bihar, a comparative research study was conducted using both primary and secondary data sources. The state of Bihar was chosen due to its significant contribution to India's overall milk production and its presence of various private and cooperative dairy businesses. The primary data for this study were collected through interviews with key stakeholders including farmers, managers, and owners of selected private and cooperative dairy businesses. In addition, surveys were also conducted among a sample group consisting of both types of businesses in different regions within Bihar. To supplement the primary data, secondary data were gathered from published reports, articles, academic journals related to the topic, as well as statistical information from government agencies such as the Ministry of Agriculture and Farmer Welfare. The research methodology followed for this comparative study included descriptive analysis which involved identifying similarities and differences between the two models based on their organizational structure, management practices, production techniques, marketing strategies, profitability measures etc.

6. RESEARCH QUESTIONS

- What is the difference between private and cooperative dairy business models in terms of ownership and management structure?
- How do private and cooperative dairy businesses differ in their approach towards production, distribution, and marketing?
- What are the main challenges faced by private and cooperative dairy businesses in Bihar?
- How do private and cooperative dairy businesses ensure quality control measures for milk products?
- What role does government policy play in regulating both types of dairy business models in Bihar?

7. FINDINGS

The state of Bihar in India has a huge potential for the dairy industry, with a large bovine population and vast tracts of fertile land. However, due to limited resources and infrastructure, the dairy sector has not been able to reach its full potential in this region. In order to tap into this lucrative market, both private and cooperative dairy business models have emerged as major players. A comparative study between these two models was conducted to understand their

operations and impact on the dairy industry in Bihar. It was found that while private dairies focused mainly on profit taking and modern technology usage, cooperative dairies were more concerned about empowering small-scale farmers and promoting equitable distribution of profits. Private dairies had an upper hand when it came to techniques such as artificial insemination, feed management systems and milk processing facilities which resulted in higher productivity levels.

There are following finding on this study:

- Private dairy businesses have a higher level of efficiency compared to cooperative models in Bihar.
- Cooperative dairy businesses tend to have a more democratic decision-making process, with members having a say in major business decisions.
- However, this democratic structure can also lead to conflicts and delays in decision making within cooperatives.
- Private dairies are able to invest more capital into their operations, resulting in better infrastructure and milk processing facilities.
- The limited resources available to cooperatives often restrict their growth potential.
- Cooperatives rely heavily on government subsidies for financial support, while private dairies are self-sufficient and do not require external funding.
- In terms of milk procurement, private dairies typically pay farmers higher prices than cooperatives due to their strong bargaining power.
- This has led many small-scale farmers to prefer selling their milk directly to private dairies rather than joining a cooperative.
- Private dairies also provide technical assistance and training to farmers for improving the quality and quantity of milk production.
- Cooperatives lack the resources or expertise to offer similar services, leading to lower productivity among member farmers.

Suggestions:

The dairy industry plays a crucial role in the development of any economy, and Bihar is no exception. With an increasing demand for milk and other dairy products, the focus on research and innovation in this sector has gained significant importance. This calls for a thorough comparative study between private and cooperative dairy business models to understand their impact on the growth of the industry in Bihar. Private dairies are characterized by ownership of land, animals, machinery, processing units, and distribution channels by individual or corporate entities.

There are following suggestion on this study:

- ❖ Conduct a comprehensive analysis of the regulatory framework governing private and cooperative dairy business models in Bihar.

- ❖ Evaluate the legal structure, ownership, management, and funding sources of private and cooperative dairy businesses in Bihar.
- ❖ Compare the cost structures of both models including investment required, operational costs, labor expenses, etc.
- ❖ Assess the milk procurement methods employed by private and cooperative dairies and their impact on farmer incomes.
- ❖ Study the pricing strategies followed by both models for selling milk to consumers and analyze their effect on market competitiveness.
- ❖ Examine the technology used in production processes by private dairies as compared to cooperatives and its influence on efficiency levels.
- ❖ Explore the training programs offered to farmers by private vs. cooperative dairies for animal husbandry practices, fodder management, etc., and evaluate their effectiveness.
- ❖ Analyze how risks such as market fluctuations or natural disasters are managed differently by private versus cooperative dairy businesses.
- ❖ Investigate factors affecting product quality standards in each model such as milk collection process, sanitation measures taken at production facilities, etc.
- ❖ Compare access to financing options available for small-scale farmers through private vs cooperative dairy networks in Bihar.

CONCLUSION

In conclusion, after conducting a comparative study between private and cooperative dairy business models in Bihar, it can be seen that both models have their own strengths and weaknesses. Private dairy businesses offer higher potential for profits and efficiency, but can also lead to exploitation of farmers by middlemen. On the other hand, cooperative dairy models prioritize the welfare of farmers and promote collective decision-making, but may face challenges with effective management and marketing strategies. Therefore, it is crucial for policymakers to strike a balance between these two models while formulating policies for the growth of the dairy sector in Bihar. It is important to ensure fair prices for milk producers while also encouraging private investment in modernization and expansion of dairy facilities. Additionally, efforts should be made to improve the managerial skills of cooperatives through training programs. Furthermore, both private and cooperative dairy businesses must work towards creating a transparent supply chain that prioritizes quality standards as well as ethical practices towards their stakeholders. Collaboration between these different types of dairies can lead to mutual benefits such as improved technology adoption by small-scale farmers through partnerships with large private players.

LIMITATIONS OF STUDY

One of the main limitations of this study is the restricted geographical scope, as it focuses only on dairy business models in Bihar. This means that the results cannot be generalized to other regions or states in India. Additionally, due to time and resource constraints, the study may not

cover a wide range of private and cooperative business models, leading to potential biases in the findings. Moreover, data collection for this study heavily relies on secondary sources such as government reports and published articles, which may contain inaccuracies or outdated information. This could potentially affect the reliability and validity of our results. Another limitation is that this study does not analyze factors such as market conditions and consumer preferences which play a crucial role in shaping these business models. These external factors are dynamic in nature and can significantly impact their performance over time. Furthermore, there may be variations within each type of business model based on size, management practices, and location, which were not taken into consideration due to data unavailability. Such differences can greatly influence their success rates but have been overlooked in this comparative analysis. In conclusion, while this study provides valuable insights into private and cooperative dairy business models in Bihar, it also has certain limitations that need to be considered when interpreting its findings.

FURTHER RESEARCH

In recent years, there has been a growing trend towards privatization in the dairy sector in India. Many private players have entered the market, offering various products and services to consumers. In contrast, cooperative dairy business models, which are owned and managed by farmers themselves, have also been prevalent in some states like Bihar. The crucial question that arises is whether these two different models can coexist peacefully or if one model poses a threat to the other's sustainability. This question becomes even more critical when considering a state like Bihar, which has seen significant growth and development in its dairy sector over the years. To understand this scenario better, comparative studies between private and cooperative dairy business models need to be conducted. Such studies would help analyze their strengths and weaknesses, determine potential areas of collaboration or competition between them, and provide insights into policy interventions required to sustain both models. One aspect that needs thorough examination is how these different business models impact smallholder dairy farmers' livelihoods.

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