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Private milk processing organisations in India

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Abstract

India's dairy industry has expanded significantly over the years. By producing 209.96 million tonnes of milk annually in 2020-21 (Provisional), up from 198.44 million tonnes in 2019-20, India leads all other countries in the world that produce milk, reflecting a growth rate of 5.80%. The objective of this research study is to study the procurement, operations, marketing and growth of private milk processing plants in India and to analyse the Organisation Structure of the Private Dairies. For the above research study, total four leading Private milk processing plants of India namely Parag Dairy private limited, Dodla Dairy, Heritage Foods Limited and Nestle were selected. The relevant information for the research study were collected from secondary sources which included annual reports, websites, research articles, and other published information. The information was collected and summarized in a meaningful manner and analysed in light of the research objectives and suitable inferences and conclusions were drawn. From the findings of the study it could be concluded that Private Dairy is profit-oriented, and its expansion strategy also varies depending on aims, Cooperative's primary goal is to serve milk producers. Private dairy's management is governed by the rules and regulations of Companies act. Private Dairy has different Procurement methods, Geographic markets, different Processing facilities and different focus hence each dairy develops a customized structure to optimize operations and increase efficiency for this reason, the organizational structures of Parag Foods, Dodla Dairy, Heritage Food, Nestle are showing differences.

Keywords: Private dairy, organizational structure, Parag dairy Pvt Ltd., Dodla dairy, heritage foods ltd

1. Introduction

India's dairy industry has expanded significantly over the years. By producing 209.96 million tonnes of milk annually in 2020-21 (Provisional), up from 198.44 million tonnes in 2019-20, India leads all other countries in the world that produce milk, reflecting a growth rate of 5.80%. For millions of rural households, dairying has emerged as a significant secondary source of income, and it now plays a crucial role in supplying employment and money-generating opportunities, particularly for women and marginal farmers. In the years 2020-21, milk availability per person has increased to a level of 427 grammes per day.

In India, population growth, urbanisation, and rising per capita income are the main drivers of milk consumption. Due to changing eating and lifestyle patterns, rising purchasing power, and demographic changes, milk consumption has been increasing. According to Consumer Expenditure Survey (CES, 2011-12) ^[18] of NSSO, about 78% and 85% of rural and urban population respectively reported consumption of milk in the country. The growth in above factors indicates that the demand for milk & milk products will rise consistently in future.

About 46% of the milk produced in India is either consumed by farmers directly or sold to non-farmers in rural areas, leaving 54% of the milk accessible for sale to both organised and unorganised players. A fair and transparent system of milk collection is offered year-round at the village level by the organised sector, which is made up of the government, producers' owned institutions (milk cooperatives and producer companies), and private entities. Local milkmen, dudhias, contractors, and other individuals who work in the unorganised or informal sector are frequently seen to be opportunistic because there is no set price for milk that producers are paid; instead, it varies depending on the circumstance.

2. Objective of the study

Recent studies indicate that there are greater opportunities for participation in contemporary private sector channels exist for larger farmers. In the case of the contemporary private sector, age and education also play a significant role in determining the marketing channel choice. Farmers who are younger and more educated have a better chance of being included in the

contemporary private sector channel. Farmers' marketing decisions are found to be significantly influenced by market infrastructure such as roads, the availability of veterinary services, distance from milk collection centres, markets, pricing risks, etc.

The objective of this research study is to

- a) To study the procurement, operations, marketing and growth of private milk processing plants in India.
- b) To analyse the Organisation Structure of the Private Dairies.

3. Research Methodology

For the above research study, total four leading Private milk processing plants of India namely Parag Dairy private limited, Dodla Dairy, Heritage Foods Limited and Nestle were selected. The relevant information for the research study were collected from secondary sources which included annual reports, websites, research articles, and other published information.

The information was collected and summarized in a meaningful manner and analysed in light of the research objectives and suitable inferences and conclusions were drawn.

4. Result and Discussion

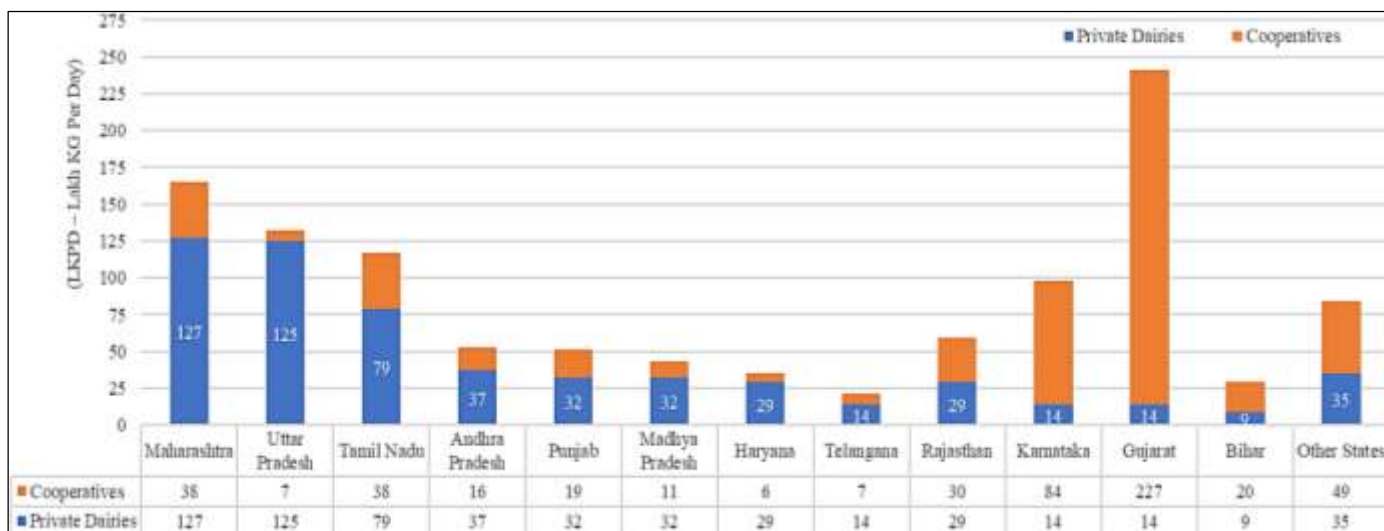
The following section provides the analyses of secondary data collected for the study.

4.1 Growth of Private Dairies

Under the largest integrated dairy development initiative in the world, Operation Flood, which was carried out in three phases, dairy development in India has been recognised as one of the most successful development programmes. The

delicensing of the dairy industry in 1991 led to a bigger influx of money into the industry. As a result, numerous new private dairy facilities have sprouted up in our nation, improving the system's effectiveness and fostering healthy competition. 72,744 cooperative organisations in 170 milksheds had a combined membership of 9.31 million individuals by the conclusion of Operation Flood's third phase (Gupta, 1997, p. 21) [5]. Within a year of the new policy's implementation, over 100 new dairy processing factories were created, representing a 20% increase (Gupta, 1997, p. 14) [5]. The private sector enterprises have made an amazing increase in constructing capabilities for processing milk and milk products since 1991, when the era of reform in industrial licencing began. They made significant investments in the dairy industry, resulting in capacities that were greater than the sum of the capacities of the government dairies and dairy cooperatives over the previous 20 years. other of these private businesses have a lot more potential for expansion and are currently much bigger than other cooperative dairies. However, the expansion of the private sector gives many farmers access to the market. Today in India, the total number of private dairies is 44, with a capacity of 901.6 LLPD (Fssai, 2019) [19]. The major players are Hatsun Agro Product Ltd. with a capacity of 37.5 LLPD, Lactalis India (16.2 LLPD), Heritage Food Ltd. (13.2 LLPD), Parag Dairy (12.7 LLPD), Dodla Dairy (12.2 LLPD), Nestle India (8.3 LLPD) and others. The milk procurement capacity of private dairy is 23.67 MT more than that of cooperative dairy (DAHD, 2022) [20].

Private Players have a strong foothold in 8 of the top 12 milk-producing states in India. Top 12 states account for 88% of India's milk production as of 2019-20. Fig 1 shows the capacity of plants of private dairy and co-operative dairy in India till year 2020-2021.



Source: CRISIL Research Report on Milk Procurement by Private Dairies in India, 2020-21

Fig 1: Milk Procurement Scenario in Organised dairy Sector (2020-21)

The milk production is estimated to reach about 30 crore tonnes by 2030 as per NITI Aayog report. Therefore, strengthening of dairy processing infrastructure is required for catering to the growing dairy market in the country. Animal Husbandry Infrastructure Development Fund (AHIDF) and National Programme for Dairy Development (NPDD) schemes were initiated by government to create and strengthen infrastructure for quality milk including cold chain infrastructure linking the farmer to the consumer.

4.2 Organizational Structure

Organizational structure is the formal arrangement of job within an organization. Organizational structure is important because it orders your organization to deliver value to a market. Robbins define organization structure as “The set of inter-personal relationships which operates in the context of position, procedure, process, technology and social environment comprises what is known as organisation structure”. Organizations are structured according to a

different central principle; The organisation is then created to perform a different task. Typically, an organisational chart or a pyramid of jobs and tasks will depict the structure of an organisation. By illustrating who reports to whom, it illustrates the authority and responsibility linkages among various positions inside the organisation. Better communication, clear reporting relationships, growth and expansion, efficient task completion, fitting organisations' needs, etc. can all be sorted out by organisational structure. In dairy, mainly three types of organisational structure are followed: the first is functional structure (according to function), the second is divisional structure (made up of separate, semiautonomous units or divisions), and the third is matrix structure (a dual chain of command). Every organisation has its own structure as per its requirements. Here I review the operation and organizational structure of some of the private dairies in India.

4.2.1 Operation and Organization Structure of Parag Milk Food Limited

Parag Milk Foods Ltd, founded in 1992 at Maharashtra, It is one of India's elite private sector dairy company, with a diverse portfolio in over 15 consumer centric product categories. They are well known for providing the best quality of milk and milk product to the global. Not only in India but also in International markets their brands received good recognition. They export into the Middle East, Southeast Asia, Africa and the Indian subcontinent. They market their products under our renowned brands-Gowardhan, Go, Pride of Cows and Avvatar. Gowardhan is their flagship brand under which they offer traditional dairy products comprising milk, ghee, butter, paneer, curd and more which fulfils more than 80% of daily dairy nutrition requirements. Go brand offers an array of convenience and comfort-focused products such as cheese slices, spreads, grab-and-go beverages such as milkshakes, buttermilk, lassi and more for those leading a busy lifestyle. Our niche brand, Pride of Cows, offers farm-to-home single-origin milk and milk products catering to premium consumers who are looking for unadulterated and safe dairy nutritious products. Avvatar is the first of its kind 100% milk-based vegetarian fresh whey protein, catering to fitness enthusiasts and health-conscious customers.

4.2.2 Procurement of Parag Milk Food Limited

For procurement they use three tier structure which leads

good quality of milk. To make better quality and products they focus on farmers very precisely, they never say no to milk that why during pandemic time they procure 30 % more milk than average which helped them to increase market availability of value-added products such as ghee, cheese and panner which boost their revenue. The objective is to build good relationship with farmer they also provide cattle feed at subsidiary rate, mobile veterinary service, Free cattle vaccination, improving productivity of cows., etc service were provided by Parag Dairy.

4.2.3 Manufacturing Parag milk food limited

They have fully automated, state-of-the-art technology for the production of milk and milk products. Currently, their cutting-edge manufacturing facilities are available in Manchar, Palamaner and Sonipat. For their brand, Pride of Cow, they have their own highly automated farm named "Bhagyalaxmi Dairy Farm". The milking of 3,000 cows is fully automated.

4.2.4 Marketing Parag Milk Food Limited

They have a market presence all over India with a large distribution channel. In the year 2022, they will have 3.5 lakh retail touch points, 3000+ distributors and 140+ super stockists. Parag Dairy supplies not only B2C but also B2B dairy products. Their B2B partners are prominent burger chains, major FMCG companies, leading pizza chains (Pizza Hut, Domino's), hotels, restaurants and food chains. With a 35% market share in India, Parag dairy with the GO brand is the dominant cheese player.

4.2.5 Organization Structure of Parag Parag Milk Food Limited

- The organizational structure of Parag Food Private Limited is designed in such a way that it focuses on coordination, communication and controlling of multiple location, multiple products and multiple market segment. It is a combination of functional (Finance, IT, Procurement, etc.) as well as divisional (Marketing-General & Modern).
- The parent corporation typically acts as an external supervisor to coordinate and control the various division, and it often provides support service such as financial and legal services. This organization's structure is concentrated and has a narrower span of control, which makes it easier to manage large organizations.

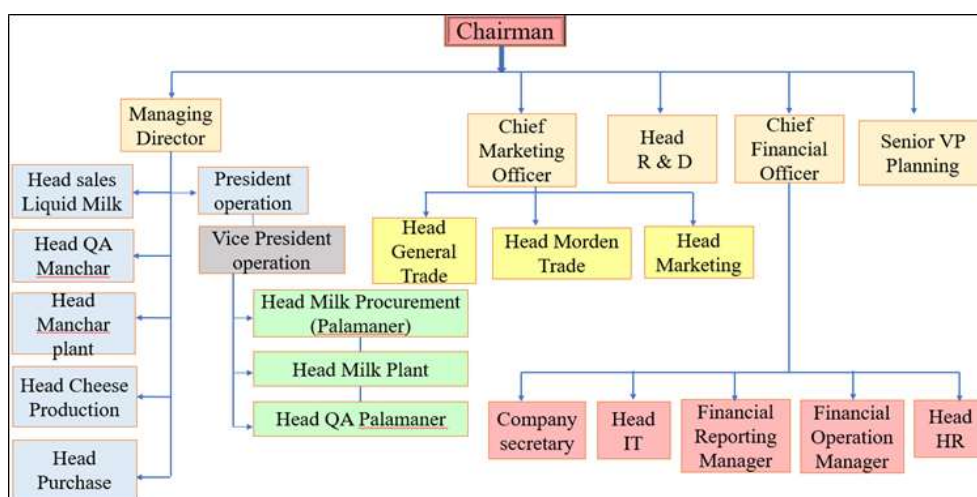


Fig 2: Organization Structure of Parag Parag Milk Food Limited

4.3 Operations and Organization structure of DODLA DAIRY

Established in 1995, Dodla Dairy Limited is a leading company having its Head Quarters at Hyderabad City of Telangana State in India. The Company procures, process and sells milk and milk products across 10 states in India from its 13 state-of-the-art processing plants in India. The Company offers wide range of milk products comprising of fresh milk, curd, ice cream, butter, ghee, paneer, flavoured milk and doodh peda.

Dodla has an integrated business model consisting of procurement, processing, distribution & marketing operations. Its procurement operations are spread across Andhra Pradesh, Telangana, Tamil Nadu, Karnataka and Maharashtra with average procurement of 1.03 million litre per day (MLPD) from ~1.09 lakh farmers through 6,771 village level collection centres (VLCCs) and third-party suppliers. The processing operations are spread across 13 processing plants in south India with aggregate installed capacity of 1.70 MLPD. DDL sell products under the “Dodla” and “Dodla Dairy” brand in India. Its distribution network consists of 40 sales offices, 3,285 distribution agents, 861 milk distributors and 544 milk product distributors. Its products are also available through 393 “Dodla Retail Parlours” that are operated on a franchise model in abovementioned states. Dairy Top products are marked across Uganda & Kenya.

4.3.1 Procurement of DODLA DAIRY

The company is third highest in terms of milk procurement with average procurement of 1.03 million litre of raw milk per day among private dairy players with a significant presence in southern India. Dodla also works with regional banks and facilitates sanctioning of loans to farmers for investment in their cattle. DDL has also diversified into an ingredient input providing business by supplying upfront cattle feed under the “Orga” brand, manufactured by its subsidiary Orgafeed Pvt Ltd.

Dodla’s tech-enabled processing of milk into dairy products increases operational efficiency by reducing waste and maintaining uniform quality across products. As a result of Dodla’s highly efficient model, spoilage rates for Dodla farmers are less than 1% year round, much lower than the national average, which can reach 30% during the hot season.

4.3.2 Processing of DODLA DAIRY

For its processing operations, it is identifying various strategic initiatives to improve its operational efficiencies and reduce operating costs. Further, it continues to invest in modern technology and equipment to address changing customer preferences as well as to improve operational efficiencies. Fully automated plants leading to improved operational

efficiencies and reduce operating costs. DDL’s processing operations are spread across 13 processing plants (12 of which are owned and one is leased) located in the states of Andhra Pradesh, Telangana, Karnataka and Tamil Nadu in India with an aggregate installed capacity of 1.70 MLPD, excluding two SMP plants in Nellore and Vedasandur which have an aggregate installed capacity of 15,000 and 10,000 kgs per day respectively. It has introduced fully automated processing lines, along with semi-automated processing lines, which has led to efficiencies in its processing operations. Its processing infrastructure, with fully automated processing lines, is designed in a manner to ensure efficient operations and high product quality standards.

As part of expanding its presence in emerging overseas markets, in Fiscal 2015, the Company incorporated Lakeside Dairy Ltd in Uganda and its plant is located at Mbarara in Uganda. The plant currently manufactures liquid milk yoghurt with different flavors, Ghee, Paneer, Cheese & ESL milk under the brand name Dairy Top. Dairy Top products are marked across Uganda & Kenya.

4.3.3 Marketing of DODLA DAIRY

For large dairy companies like Dodla, Merger and Acquisition (M&A) is a key strategy to drive sales growth in the desired markets. The company processes and sells milk (full cream, standardised, toned and double toned) and produces dairy based value added products such as curd, ultra-high temperature processed milk, ghee, butter, flavoured milk and ice cream among others. It also manufactures and sells cattle feed to farmers through their procurement network. Their Indian operations are under brands “Dodla Dairy”, “Dodla” and “KC+”. Their overseas operations are under brands like “Dodla Dairy”, “Dairy Top” and “Dodla +”. Revenue from value added products (VAP) excluding fat & fat-based products was at rs. 1,399 mn contributed 27.8% to the overall dairy revenue during q1fy22 (Annual Report 2021-2022, Dodla Dairy) [2].

4.3.4 Organization Structure of DODLA DAIRY

- Dodla Dairy has its main operations in Southern part of India and it caters to markets in 12 states. It also has overseas operations in Africa where it has its own procurement and processing facilities.
- Organizational structure of Dodla Dairy is completely Functional, in which the chairman of the organization has complete decision-making power. There are 8 Board of Directors involve in their management. While distributing authority and the chain of command, consideration is given to the operation of the organization. The CEO of Dodla Dairy is in-charge of their foreign activities.

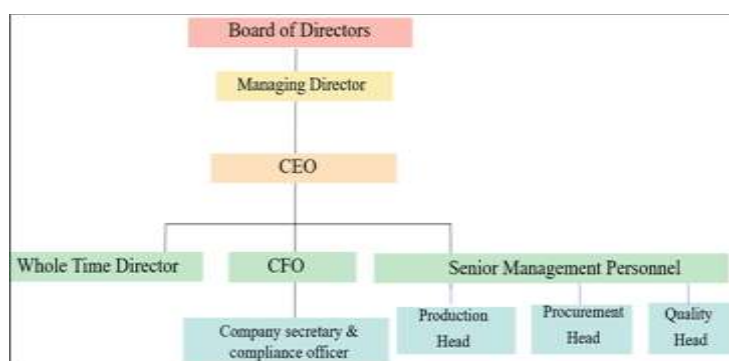


Fig 3: Organization Structure of Organization Structure of Dodla Dairy

4.4 Operations and Organization structure of heritage foods limited

The Heritage Foods Limited was founded by Mr. Nara Chandrababu Naidu in the year 1992, which is one of the fastest growing Public Listed Companies in India, with two business divisions-Dairy and Renewable Energy. The annual turnover of Heritage Foods stood at INR 26,429 million in the financial year 2021-22. They have 30 years of legacy and domain expertise in dairy industry serving +1.5 million households in 11 states with diverse and strong product portfolio. The Company has a robust R&D policy, advanced technology for manufacturing and processing, top tier quality control, a highly qualified team to oversee its operations. It has 18 processing plants, 187 bulk coolers, mini chilling and chilling centres to ensure availability of fresh and high-quality products. Heritage Novandie Foods Private Limited (HNFPL) is a 50:50 Joint Venture between Heritage Foods Ltd. and Novandie, a subsidiary of Andros, France. With a combined legacy of close to nine decades from its parent companies, HNFPL aims at bringing the Deliciously French experience with the brand Mamie Yova to India. The brand Mamie Yova depicts Frenchness, guilt-free indulgence and pleasure with surprises that are full of nourishment and fulfilment.

4.4.1 Procurement of Heritage Foods Limited

Heritage Foods Limited collected 1.3 mlpd milk from 11,334 Milk procurement representatives from 8 states of south India (AR). For stringent quality check and to maintain Supply chain in Milk Procurement they established digitally automated procurement systems which sends mail alerts to the Procurement & Inputs team about quality & quantity, tanker acknowledgments and farmer payments.

Growth and welfare of the farmer community is at the core of the Company's operations. The Company is on a continual quest to empower the farmers by procuring milk at mutually beneficial costs, encouraging best practices around the quality and quantity of milk and providing support services to help them improve their milk yields by organising free veterinary check-ups and vaccination drives for the cattle. Extending farm loans and cattle insurance and providing nutritional livestock feed at subsidised rates are other significant steps adopted by the Company. All these interventions have enabled it to forge strong relationships with farmers.

4.4.2 Processing of Heritage Foods Limited

The Company carries a wide range of products like, fresh milk, curd, paneer, ghee, buttermilk, UHT milk, lassi, flavoured milk, ice-cream/frozen dessert and other dairy-

based products. Currently its products are present in 11 states. Heritage Food Limited have Total 8 state-of-the art plants with 2.65 MLPD processing capacity and 1.66 MLPD packaging capacity. They have been closely associated with farmers to provide them the support they need. They constantly engage with farmers to provide the technical knowledge through their knowledge building activities. Heritage Nutrivet Ltd. (wholly owned subsidiary) is a leading livestock, feed and feed supplement manufacturer in South India. With their state of art technology, they serve 0.3 million farmers across Andhra Pradesh, Telangana, Tamil Nadu, Karnataka and Maharashtra.

4.4.3 Marketing of Heritage Foods Limited

The Heritage Food Limited is gradually targeting to grow contribution of value-added products to consolidate top line. In their portfolio curd will continue to remain the largest component of value-added product segment, contributing to over 79% share to the value-added segment. Other products constitute buttermilk, flavored milk, lassi, paneer and ice creams/frozen dessert. They have exclusive franchise-based stores selling the whole Heritage product line, including Heritage milk, milk products, ice cream/frozen dessert, and other Heritage products. As on March 31, 2022, the Company had 6,464 agents/distributors in general trade, 859 Heritage parlours and 65 Heritage distribution centres in 11 states across India. Heritage products are available in all modern retail stores and e-commerce channels. Heritage Parlours play an important role in ensuring that Heritage products are available to consumers at their doorstep, with a well-established network in Hyderabad, Visakhapatnam, Rajamahendravaram, Vijayawada, Tirupati, and Chennai. The revenue for the year 2021-2022 is 26,429 million.

4.4.4 Organization Structure of Heritage Food Limited

- Heritage Foods is a south India based company and deals in various sectors such as-Diary, Agri, bakery, Retail, etc. It has procurement of 13 LLPD and has 8 processing plants. It has two brand-Heritage & Dairy Pure.
- The organizational structure of Heritage Foods Limited is mostly centralized divisional type. So that each division has limited autonomy. In this type of structure main focus is on results so that division manager are responsible for what happens to their products and service. Further, in a division, authority is assigned based on function for further management. The duplication of resources in these arrangements makes it expensive.

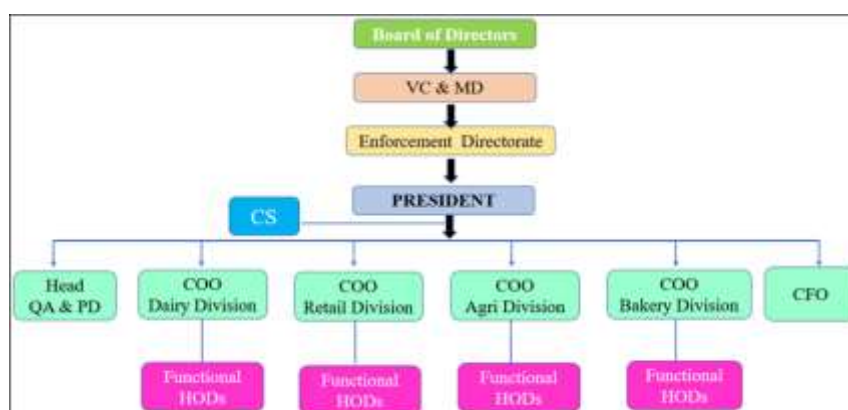


Fig 4: Organization Structure of Organization Structure of Heritage Food Limited

4.5 Nestle

Nestle is recognized as one of the largest and most powerful food producers worldwide with more than 2000 brands which ranging from global icons to local favorites. Currently, Nestle is operating in 191 countries. Nestle believes that by offering quality products, the company will be able to remain firmly in its leading position in the face of competition. Second, while Nestle seeks to diversify its portfolio through acquisitions, it makes sure that it is expanding into fields where the company has expertise after careful consideration. Third, due to its international presence, Nestle adopts a decentralised management structure. A minimum policy standard is reinforced to ensure requisite uniformity. By decentralising its operational responsibility, Nestle could better adapt to the different needs in different regions and thus making its

practices more flexible.

4.5.1 Organization Structure of Nestle

Nestle has a Board of Directors, led by Chairman. There are 14 members of the Board of Directors. The day-to-day management of the Nestle business is over watched by the Executive Board members. The 13 designated Board Members manage diverse parts of the global business, which could show in Figure w. The Nestle Group is managed by geographies (Zones Europe, Americas and Asia/Oceania/Africa) for most of the food and beverage business, with the exceptions of Nestle Waters, Nestle Nutrition, Nestle Purina Petcare, Nespresso, Nestle Professional and Nestle Health Science which are managed on a global basis-which are presented as the Globally Managed Businesses.

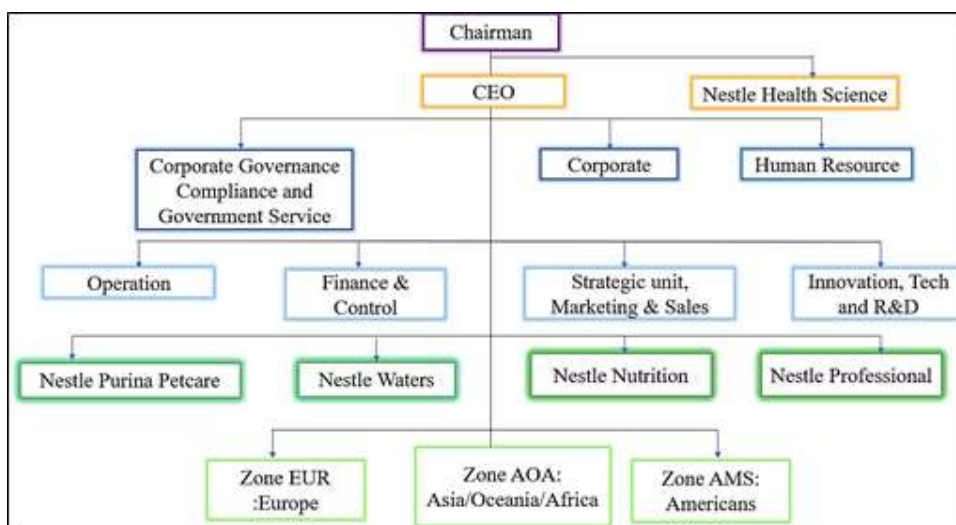


Fig 5: Organization Structure of Organization Structure of Nestle

5. Conclusion

a) Summary of findings with respect to growth of private dairies in India

Sr. No.	Parameters	Parag Dairy	Dodla Dairy	Heritage Food Ltd	Nestle India
1.	Establishment Year	1992	1995	1992	1959
2.	Head Office	Maharashtra	Tamil Nadu	Hyderabad	Gurgaon, Haryana
3.	Procurement (LLD)	12.5	12.09	13.0	8.2
4.	Total number of processing plants	12	14	8	Third party plants (3)
5.	Processing Capacity (million LD)	2.9	2	2.65	-
6.	Product Range	Value added dairy products	Value added dairy Products	Value added dairy Products	Dairy + Non-Dairy
7.	Target Market	B2B+B2C	B2C	B2C	B2C
8.	Geographical Market	Pan India	North, South and Western part of India	South and North part of India	Pan India
9.	Revenue for Yr 2021 (₹ in Millions)	20718	19440	26413	74908

b) Summary of findings with respect organization structures of private dairies

Sr. No.	Parameters	Parag Dairy	Dodla Dairy	Heritage Food Ltd	Nestle India
1.	Multi location Plants	India	India+ Uganda	India	191 Countries
2.	Location	Maharashtra	Tamil Nadu	Hyderabad	Gurgaon, Haryana
3.	Size of Organization	Large	Large	Large	Large
4.	Overseas Presence	Yes	Yes	No	Yes
5.	Growth Strategy	6 C	Merger and Acquisition	Penetrating into new space	Products ranges are available global icons to local favorites.
6.	Type of Organization structure adopted by the Dairy	Matrix	Functional	Divisional	Mix

From the above discussion it can be concluded that

- a) Private Dairy is profit-oriented and its expansion strategy also varies depending on aims, Cooperative's primary goal is to serve milk producers. Private dairy is organized in accordance with The Companies Act, whereas Cooperative Dairy is organized in accordance with the Cooperative Act. Hence, a private dairy's management is governed by the rules and regulations of Companies act.
- b) It can be seen that as each Private Dairy has different Procurement methods, Geographic markets, different Processing facilities and different focus hence each dairy develops a customized structure to optimize operations and increase efficiency; for this reason, the organizational structures of Parag Foods, Dodla Dairy, Heritage Food, nestle are showing differences.
- c) Till recent past-there were no major government scheme focused on promotion of Private sector in Dairy. However, the launch of AHIDF (Rs. 15,000 crore), under Atma Nirbhar Bharat will boost Private sector in India.

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