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Research Paper

INVENTORY MANAGEMENT AT SANGAM DAIRY LTD.

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ABSTRACT

Inventory Management System is software, which is helpful for the businesses operate hardware stores, where storeowner keeps the records of sales and purchase. Mismanaged inventory means disappointed customers, too much cash tied up in warehouses and slower sales. This project eliminates the paper work, human faults, manual delay and speed up process. Inventory Management System will have the ability to track sales and available inventory, tells a storeowner when it is time to reorder and how much to purchase. Inventory Management System is a windows application developed for Windows operating systems, which focused in the area of Inventory control and generates the various required reports.

1.1 INTRODUCTION TO THE STUDY

Inventory management systems are the rule for such enterprises, but smaller businesses and vendors use them, too. The systems ensure customers always have enough of what they want and balance that goal against a retailer's financial need to maintain as little stock as possible. Mismanaged inventory means disappointed customers, too much cash tied up in warehouses and slower sales. Factors such as quicker production cycles, a proliferation of products, multi- national production contracts and the nature of the big-box store make them a necessity.

Modern inventory management systems must have the ability to track sales and available inventory, communicate with suppliers in near real-time and receive and incorporate other data, such as seasonal demand. They also must be flexible, allowing for a merchant's intuition. And, they must tell a storeowner when it's time to reorder and how much to purchase.

To achieve this, inventory management systems pull together several technologies into one cohesive approach. Read on to learn about the history of inventory management systems and how modern systems work.

The couplet beautifully sums up the predicament of all those who are connected with the stock (inventory). What is this inventory? What are its functions? What can be done to minimize this inventory these and other relevant issues have been discussed in this chapter.

In a complex industry like **Sangam** Dairy company the study has shown clearly how the thing are being performed and what is the real impact of these on industry and how effectively the inventory is utilized is interested to be known by researcher because of its great significance in the research.

VED Analysis

VED Analysis can be defined as the classification of inventory in to V
Items – Items of vital importance,
E Items – Items of essential importance, D
Items – Items of desirable importance.

This classification is usually applied for spare parts to be stocked for maintenance of machines and

equipments based on the criticality of the spare parts. The stocking policy is based on the criticality of the items.

1.2 NEED OF THE STUDY

Decisions Relating to Inventories are taken primarily by executives in productions, purchasing, and marketing departments.

Usually, raw material policies are shaped by purchasing and production executives, work-in- process inventory is influenced by the decisions of production executives, and finished goods inventory policy is evolved by production and marketing executives.

Every industry on average spends 70% on raw materials (inventory). Therefore there is a need to know the raw material cost and also there is great importance to understand the inventory management system of this industry.

1.3 SCOPE OF STUDY

The scope of study is limited to collecting the financial data published in the annual reports of the company with reference to the objectives stated above and an analysis of the data with a view to suggest favorable solutions to the various problems related to Inventory Management.

This particular topic is selected to the Inventory Management is recent years. The study is conducted to evaluate the performance of the company with reference to Inventory Management. The project is aimed at studying by means of developing effective _Inventory Management ‘

Period of study

This study covers a period of five years from 2017-18 to 2021-22. The accounting year commenced from May and ending with July of the 2022 year.

1.4 OBJECTIVES OF THE STUDY

- To study the inventory management of the **Sangam Dairy Limited**,for the past fewyears.
- To analyze this Inventory management with the help of Inventory Analysis as a principal tool.
- To evaluate the performance of the company on the basis of these Analysis.
- To find the trends in figures for the past years.

1.5 RESEARCH METHODOLOGY

The study is based on both primary and secondary data.

The primary data has been collected through structured questionnaire reflecting inventory management practices of Sangam India Limited.

The collected data is tabulated and suitable interpretation had been made by considering the data collection through secondary data like annual reports purchase registers, storage records of the organization.

1. Primary Data: The data of this project is collected by the information gathered from integrated materials management.

2. Secondary Data: The secondary data is collected in this project is from the various department of IMM and various manuals of the company with prescribed format have also been made use of collection of data and analysis. The financial data relating to the organizations has been collected for the year‘s 2018 to 2022 and analyzed by using the technique of inventoryanalysis.

Sample Methodology:

For analysis purpose I am used following techniques

1. Ratio Analysis
2. EOQ Method etc

The primary data has been collected through structured questionnaire reflecting inventory management practices of **Sangam (India) Limited**. The collected data is tabulated and suitable

interpretation had been made by considering the data collection through secondary data like annual reports purchase registers, storage records of the organization.

Sample Size: last 5 years data 2018 to 2022

RESEARCH HYPOTHESIS

H1: firms with high levels of inventory management practices will have high levels of competitive advantage

1.6 LIMITATIONS OF THE STUDY

1. **Sangam (India) Limited** is a manufacturing company and producesThree types of products namely
   _ DAIRY _RETAIL
2 **Sangam (India) Limited** has also international markets and hence huge tons shouldBe stored in advance.
3. Because of this they purchase raw materials monthly depending upon Demand
4. It charges high cost when we make orders monthly, in means of transport cost. Storage cost, ordering cost, inventory charges, and other expenditures.
5. My conclusion is to make orders annually to avoid UN Necessary Expenditure.

REVIEW OF LITERATURE

Retail Environment in India

The current retail scenario in India seems to be driven more by elation of modern formats evidenced by the fact that new expansions are adaptations of western formats and are fetching moderate to lukewarm success. But the trademark of Indian retailing — the small shops with a high level of service – are holding shoppers back to traditional ways of shopping. It is not only in small cities or rural areas, but also in the Tier 1 cities, that, many people believe that the new formats in organized retailing do not add value to the whole shopping process except for giving novelty (Sinha, Banerjee &Uniyal 2021).

Shopping malls are still making surprise appearances in some Tier 2 cities. They are still very new for the rural India, where the surroundings are occupied with wheat and paddy farms (Marketing White book 2013-2014). Although Indian retail has seen a tremendous growth and penetration, especially in small cities, big brands are not scrawled on walls and billboards. But they are active players in the small towns of India today, powering the growth of several new product categories. Population growth combined with an increase in disposable incomes is providing the impetus to this boom. There has been a notable change in the spending patterns of Indian consumers due to the growing size of the middle class, rising GDP, and disposable incomes. At present, more than 40 per cent of the consumers‘ spend is on food items. But this percentage is expected to decline while spending on non-discretionary items is expected to rise (McKinsey Global Institute 2020).

For example the grooming industry in India is witnessing an unprecedented boom, to the extent that beauty parlors have entered every nook and corner of the country. This reflects that Indian customers are changing. Keeping a track of demand, there has been a growth in the economic stability and the also changes in the demographic profiles of the consumers of India (Sinha &Kar 2019).Educational qualifications have increased, women have started working and nuclear families have begun to replace the traditional joint family system. The increased awareness about the global shopping patterns and the new global brands has brought liberalization in the media also (Rao 2018). All these factors have contributed to the growth and modernization of retail. What has come out of this flux of development is a heterogeneous, huge, and relatively affluent consumer base comprising people from small towns, upper class and ambitious middle and lower middle classes.

The Indian retail environment consists of organized and unorganized retail. Retailing in India has shown an exponential growth in past years and has attracted large investments from global retail players. The worth of Indian retail industry is expected to grow by $175–200 billion by 2018 (Sathish&Raju 2021). As Indian retail environment has shown tremendous shift, this has also affected the customers in India.

INDUSTRY PROFILE AND COMPANY PROFILE

3.1 INDUSTRY PROFILE

India is the largest milk producer.

India is currently ranked as the largest milk producer. Where, dairy is the single largest agricultural commodity contributing 5% of the national economy, witnessing 6.4% (CAGR) in the past 5 years. Indian dairy industry is expected to grow by 9-11% in FY22. Dairy is the single largest agricultural commodity contributing 5 per cent of the national economy and employing more than 8 crore farmers directly.

The top 5 milk-producing states are: Uttar Pradesh (16.3%, 30.52 MMT), Rajasthan (12.6%, 23.69 MMT), Madhya Pradesh (8.5%, 15.91 MMT), Andhra Pradesh (8%, 15.04 MMT) and Gujarat (7.7%, 14.49 MMT).

The Government of India in association with the Department of Animal Husbandry and Dairying in June 2020 announced a $ 2.1 Bn infrastructure development fund with an interest subsidy scheme to promote investment by private players and MSMEs in dairy, meat processing and animal feed plants which in return is expected to create 3.5 million jobs.

The Ministry of Food Processing Industries (MoFPI) has issued detailed operational scheme guidelines and has launched an online portal for _Production Linked Incentive Scheme for Food Processing Industry (PLISFPI) with an outlay of $ 1.4 Bn to support the creation of global food manufacturing champions commensurate with India‘s natural resource endowment and support Indian brands of food products in the international markets.

Dairy Processing and Infrastructure Development Fund

The scheme aims to provide subsidized loan @6.5% to capital stressed milk cooperatives for primarily replacing their decades-old chilling and processing plants and addition of value-added product plants.

Animal Husbandry infrastructure development fund

This scheme aims to help to increase of meat processing capacity and product diversification thereby providing greater access for unorganized Dairy producers to organized the Dairy market.

National Programme for Dairy development

The objective of the scheme is to create and strengthen dairy infrastructure for procurement, processing and marketing of milk and milk products by the State Implementing Agencies (SIAs)

i.e. State Cooperative Dairy Federations/ District Cooperative Milk Producers‘ Union.

Pradhan MantriKisanSampadaYojana

PM Kisan SAMPADA Yojana is a comprehensive package which will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.

i. Cold Storage Scheme: The scheme aims to provide integrated cold chain, preservation and value addition infrastructure facilities without any break.

3.2 COMPANY PROFILE

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The evolution of Guntur District Milk producers cooperative Union Limited started with the generous donation of milk producers of Krishna, Guntur, and West Godavari districts for the purchase of 34.46 acres of land at a cost of Rs. 1.5 lakhs during 1973-
74. The Guntur District Milk producer cooperative union Limited was registered under the AP cooperative society act 1964 in 23-2- 1977 and the management o9f the dairy was handed over to the elected representatives of the Union 1-08-1978 with two milk chilling centres at Narasaraopet and Gurazala by the APDDC limited.

People from all walks of life, the young and the old women, men and the children of all categories joined in and a movement had begun. The main thrust was not in j;ust producing milk but also giving opportunity to improve the quality of rural life in all angles.

Milk producers Co-operative societies were established in the village of facilitating people to mobilize themselves and interact productive

Societies and now it has 544 member societies and 432 collection centres in the district. The Guntur milk producers cooperative Union Limited has also entered in a challenging task of cooperative societies act 1995 and got registered on 1-2-12997 under the name of Guntur district milk producer‘s mutually Aided.

Cooperative Union Limited, in 1997 the union established a new chilling centre at Bhattiprolu and another at Vinukonda in 1998.

The Union now procuring 2.57 lakh litres per day on an average and a higher of 2.77 lakh litres during flash and producing milk products like table butter, white butter, salted butter, cooking butter, skim milk powder, wahole milk powder, Ghee, Dhoodhpeda, lassie, sterilized flavored milk, Mango drink in spite of selling toned milk. Whole milk and standardized milk in all the urban areas of the district and other states of the country through its renowned brand SANGAM. The union expanded its processing capacity from 1 lakh litres to 2.5 lakh litres during operation flood-II and started aseptic packing stationin the dairy premises and cattle feed plant in the Vadlamudi itself.

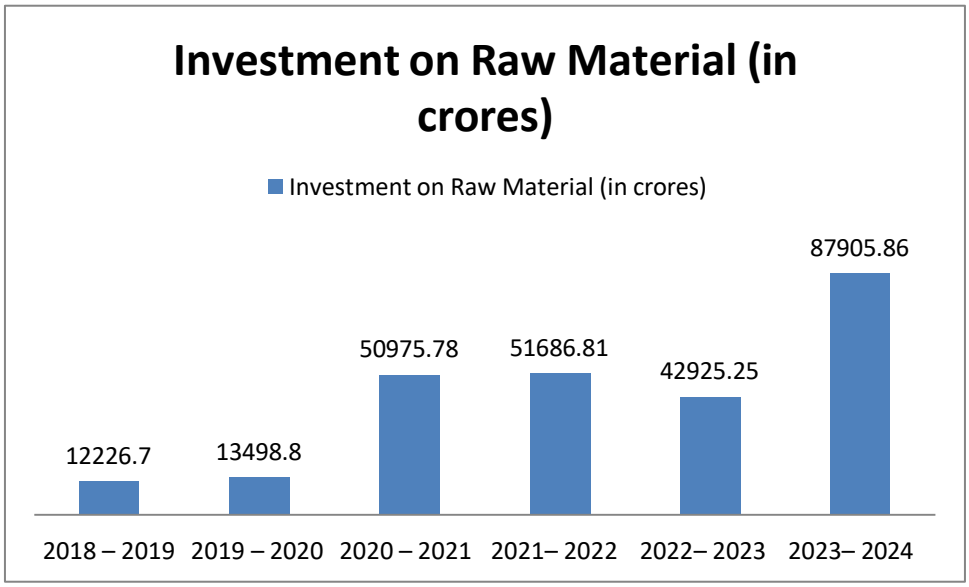
The Union stated its own marketinginthe towns like Hyderabad, Vijayawada, Tirupati and Chennai besides supplying milk to distant places like Nagpur Kohlapur, and Pune.

DATA ANALYSIS AND INTERPRETATION

The investment on raw materials over a period of 5 years from 2019 to 2024 is presented in the following table.

1. Investment on Raw Materials:

Year	Investment on Raw Material (in crores)
2018 – 2019	12226.70
2019 – 2020	13498.80
2020 – 2021	50975.78
2021– 2022	51686.81
2022– 2023	42925.25
2023– 2024	87905.86



Interpretation:

1) From the above table it can be understood that the inventory of SangamIndia Limited was recordedat 12226.70 during the year 2018-19 and it is increased to 87905.86 during the year 2023-24.
2) It shows that there is on increase in the inventory to the more extent of 87905.86.
3) The average inventory of SangamIndia Limited was recorded at Rs52454.75
4) The highest investment in inventory was recorded in the years 2023-24

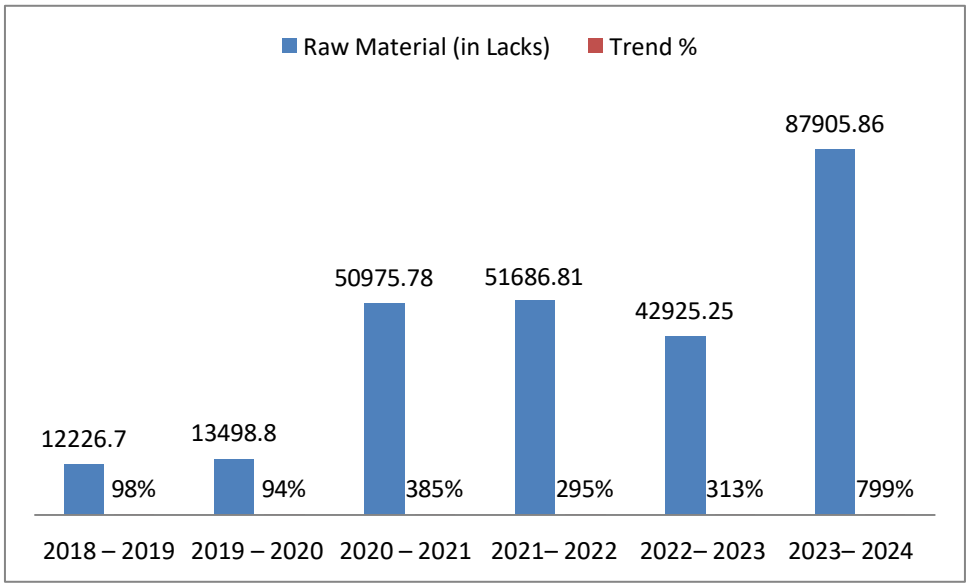
2. Trend Analysis:

Trend analysis technique is applied to know the growth rate in investment of raw material

of SangamIndia Limited over the review period which is shown in the following table.

Trend Analysis:

Year	Raw Material (in Lacks)	Trend %
2018 – 2019	12226.70	98%
2019 – 2020	13498.80	94%
2020 – 2021	50975.78	385%
2021– 2022	51686.81	295%
2022– 2023	42925.25	313%
2023– 2024	87905.86	799%



Interpretation:

1) The investment on investment has increased in the year 2023-24 . And the lost year investment has declared continuously. The percentage in 2016-17was 295% as compared to years 2020– 21 to 2023-24
2) The trends in inventories show that inventory have been more in the year 2023-24 and then it has shown a downward trend and again it increased to some extent.
3) The investment in inventories has shown fluctuating trend is initial years and then it raised to 799% and again showing fluctuating trend.

FINDINGS

- **Research Findings:**

The study of inventory management at Sangam India Limited is conducted to know the various techniques followed by company to control the inventory management of the company.

- ✓ In the company the total inventory conversion period for the year 2023-2024 which is 208 days
- ✓ Inventory turnover ratio in the year 2022-2023 (7.95 times) is high.

- ✓ Raw material turnover ratio is lowest in 2019-2020 since last five years i.e. 30 times,
- ✓ Work in process turnover ratio is very high in 2019-2020 which is 224 times.
- ✓ Finished goods turnover ratio is very high in 2018-2019 which is 42 times

SUGGESTIONS

1) Over all the inventory of SANGAM INDIA LIMITEDs is up to the mark.
2) The production of clinker and FOODS during 2020 – 2023 was 6,74,634 and 6,87,092 respectively which is higher as compared to 2023– 2024 which is 5,97,374 and 6,57,756.
3) Investment on raw material is 95605.89 lakhs which very high as compared to 2023– 24 which is only 560700.56 lakhs.
4) The inventory turnover ratio shows that the stock has been converted into sales is only 1.02 times.
5) In the year 2020 – 21the stock was cleared within 27 days whereas it took 230 days in the year 2019 – 2020 which took more days for clearing stock.
6) Year 2020 – 21 is not showing sample profits. This is because of Foods prices have been continuously under pressure due to persistent mismatch between supply and demand.
7) The quantity of dairy in the year 2023– 24 is 8,98,240 and its value is12,94,24,815 but whereas in the year 2020 –21 the quantity was 8,92,560 and the value is 12,10,71,545.
8) In purchase department for want of any item it should go through several processes. This may include receiving indents, floating enquiries, preparation of order processing form, preparation of purchase order and order follow up inform the supplier. Most of the time was spent in accounts payable.
9) In this type of process, it requires more number of employees and supplier should also wait for until the accounts are matched.
10) This process takes an input, adds value to it and provides an output to an internal or external customer.

CONCLUSIONS

1) Though the production is higher is the year 2020 – 21 and the sales were very highi.e., as per inventory conversion period it took 270 days. This shows that there is demand for Foods and the funds unnecessarily tied up. So, proper demand forecasting should be done and according to that it may be manufactured.
2) The investment on raw material should be made as per the requirement. Unnecessary investment may block up the funds.
3) Neither too high nor too low inventory turnover ratios may reduce profit and liquidity position of the industry. So, proper balance should be made to increase profits and to ensure liquidity.
4) The raw material should be acquired from the right source at right quality and at right cost.
5) The process that was being used by SangamIndia Limited with the purchasing department should undergo changes, so that, it seeks enhance the celerity of the delivery of a product without compromising its quality by improving the utilization of materials, labour and equipment.
6) To reduce the work, the purchasing department may enter the purchasing order into database and did not send a copy to anyone. When the merchandise arrived, the receiving clerk would enter the database and determine whether the order agreed with the electronic purchase order.

If it did, payment was authorized to be made at the appropriate time. If it didn‘t match, the order would be returned until if it is agreed by the SangamIndia Limited. If it institutes ―Invoice less purchasing‖ where the supplier did not need to send an invoice to be paid.