International Journal of Advance and Applied Research
www.ijaar.co.in
ISSN – 2347-7075 Impact Factor – 7.328
Peer Reviewed Bi-Monthly
Vol. 11 No. 4 March-April 2024

A Study On Production And Distribution Of Dairy Products With Reference To Aavin Sholinganallur

Sasikeeran E .[1] Dr.N.Jayanthi [2]
[1] MBA Department, School of Management Studies
Vels Institute of Science, Technology & Advanced Studies (VISTAS), Chennai-600 117
[2] Assistant Professor, School of Management Studies
Vels Institute of Science, Technology & Advanced Studies (VISTAS),Chennai-600 117
Corresponding Author:- Sasikeeran E
DOI- 10.5281/zenodo.11071348

Abstract:
The primary focus of the study is on efficiency, quality control, and technical developments in the analysis of Aavin Sholinganallur's dairy production operations. Its objective is to assess how well the current manufacturing techniques guarantee maximum efficiency and uphold superior standards of quality. The study also aims to evaluate how technological innovations are incorporated into industrial processes in order to improve output and product quality. In addition, monitoring customer satisfaction with Aavin dairy products and evaluating the efficacy of distribution channels are additional goals. The investigation of distribution networks is included in the analysis, along with suggestions for enhancement and optimization to guarantee prompt and effective product delivery to customers. The research also examines the labor burden in Aavin production, pointing out possible areas for resource allocation and optimization. In addition, the study intends to assess product waste and devise plans to reduce waste during the manufacturing and delivery phases. By thoroughly addressing these goals, the study hopes to offer insightful information about the distribution and manufacturing of dairy products at Aavin Sholinganallur, enabling the company to make well-informed decisions and pursue on-going improvement projects.

Keywords : Route optimization, Waste redemption, Assess the effectiveness of distribution channels, and customer satisfaction.

Introduction:

A nutrient-dense beverage, milk is a staple diet worldwide, with cows providing the majority of the supply in western nations. Milk, which is high in protein, fat, vitamins, and minerals, is pasteurized, fat separated, and homogenized to assure its safety and shelf life. India is becoming a major force in the dairy industry, with its cheap production costs and increasing export prospects providing enormous possibilities for global enterprises. Multinational companies are scouting India for investment and expansion due to the country's predicted growth, which is being driven by rising urban demand and adherence to WTO norms.

Businesses want to profit from the rising demand for processed dairy products both domestically and globally. They accomplish this by taking advantage of India's competitive milk production costs and government-certified quality requirements. The dairy sector expects to see rapid expansion in the future, propelled by developments in technology, shifting consumer tastes, and the dynamics of international trade.With almost 13% of the world's milk produced, India has the largest dairy herd and produces the most dairy products in terms of volume. This is due to the fact that 75 million dairy farms roughly half of all dairy farms worldwide—are located in India. India has a competitive advantage over many industrialized nations in the milk product market since it has the lowest manufacturing costs worldwide. India's high cost of conversion to dairy products is the only issue. Lack of scale in both manufacturing and processing could be the cause. Even though India is the world's greatest milk producer, it has only managed to take up 1% of the dairy market worldwide. Nonetheless, all dairy products—aside from lactose and lactose syrupare net exports from India. There is also good potential for Indian whey cheeses and casein and milk powders.

Data And Facts About India:

In 2019–2020, India exported 51,421.85 MT of dairy products to the global market, valued at Rs 1,341.03 crores. Major location for exports in 2019–2020 Bhutan, the United Arab Emirates, Egypt, Turkey, and the USA.With 24.64% of the global milk production in the years 2021–2022, India is the leading producer in the world. India's dairy industry has also gained international recognition, with over 68 thousand metric tonnes of dairy products shipped in the fiscal year 2022 at a value of over 22 billion Indian rupees.Table spreads

from the West, such as butter, margarine, and jams, are uncommon in India. In India, only 4% of people use butter margarine. This is also largely represented in urban areas, where penetration is higher at 9%. In remote areas, just 2.1% of families had butter margarine. The penetration of cheese is quite low in urban regions and quite low in rural areas. The per capita consumption of cheese, even among households who eat it, is a meager 2.4 kg annually, as opposed to nearly 20 kg in the US. Unusual eating habits, relatively high product costs, and product non-availability in some parts of the country are the reasons for the low penetration. Most items made from butter, margarine, and cheese are produced by the organized sector.

In contrast, medium-sized towns had the highest rate of ghee penetration (37.2%), followed by all urban areas (31.7%) and all rural areas (21.3%). Ghee is used by 24.1% of persons in India. Compared to other regions, the North and West, which have an excess of milk, have a far larger penetration of ghee. Ghee usage is split as follows: 57% of it is consumed in the North, 23% in the West, and 20% in the East and South together. Milk is used to make ghee in large quantities both at home and in cottage/small businesses. Branded products account for 1% to 2% of the total relative share in this category.

Review Of Literature:

Natalie (1999) looked at a few dairy enterprises in Port Elizabeth, South Africa, to see how the marketing mix affected consumer purchasing decisions. Personal interviews were carried out in several supermarkets to look into consumers' opinions about milk, the brands they buy, and how they use it. According to the study, consumers of milk were highly cost-conscious. Nearly all respondents displayed no brand loyalty. Though most respondents primarily used milk to whiten their tea or coffee, they did acknowledge that consuming milk has health benefits.

The results show how people's negative perceptions of milk are reflected. Some people think of it as a kid's beverage, while others consider it to be unhealthy. A decline in consumption suggests that the dairy business has not made much of an effort or been successful. According to Klaus et al. (2000), there are four main characteristics that define how consumers perceive the quality of dairy products: hedonic, health-related, convenience-related, and process-related quality. Two of these dimensions—health and process-related quality—are related to credibility, or the degree to which customers trust the information they get. Three concerns about the communication on the quality characteristics are examined, drawing on five distinct empirical investigations on consumers' perceptions of the quality of dairy products: supplying reliable information, the influence of customer attitudes, and the processes of inference in judging quality. Products that are functional, organic, or that have undergone genetic change are given as examples. AS PER JAMES C. COX (2002), Assumptions regarding consumer behaviour and preference determination are used in the research of consumer choice.

According to this definition, a customer rates a set of products or services or favors one set over another based on the level of satisfaction or utility they provide. The consumer preferences hypothesis does not account for a customer's income, the cost of a commodity or service, or their capacity to pay for it. The goal of D. Nithyananth and S. Sugappriya's (2002) project, "An overview of consumer behavior of aavin milk with reference to erode district," is to ascertain how customers behave with aavin milk products and what their attitudes are toward using the service. The primary focus of the research is on consumer experience and attitudes on quality, price, and services. Dhaka and Rangasami (2003) Their research sought to compare how dairy plants in Tamilnadu's commercial and cooperative sectors marketed milk and milk products. It was discovered that while the marketing costs for other milk in the cooperative dairy plant were greater, those for toned milk were the same in both dairy plants. With the exception of toned milk, every dairy product in the private dairy plant has higher marketing margins than in the cooperative dairy plant. Thus, cooperative dairy plants' marketing effectiveness for all dairy plants—aside from toned milk is high.

Objective:

To analyse the production processes of dairy products at Aavin Sholinganallur, focusing on efficiency, quality control, and technological advancements.

Secondary Objectives:

1. To Assess the effectiveness of distribution channels, and customer satisfaction.
2. To analyse distribution systems, proposing solutions for optimization and improvement.
3. To analyse the manpower work load in Aavin production.

4. To analyse the wastages of product and to minimize the wastages.

Need For Study: The necessity of assessing the effectiveness, sustainability, and efficiency of dairy operations in the region gives rise to the requirement for an extensive investigation into the manufacturing and distribution of dairy products, with a particular emphasis on Aavin Sholinganallur. It is essential to comprehend Aavin's role in the Sholinganallur dairy product industry as well as consumer preferences and market dynamics in order to spot problems with operations and areas that could need development. Through the revelation of market strategies, distribution channels, and production procedures, this research can help stakeholders optimize dairy operations, boost competitiveness, and guarantee long-term growth and sustainability in a changing dairy sector.

Scope Of The Study: The study's scope includes a thorough examination of Aavin Sholinganallur's dairy production and distribution procedures. To acquire knowledge about operational effectiveness and quality control procedures, it entails looking at a number of stages, including milk collection, processing, pasteurization, packing, and quality control. Aavin Sholinganallur's distribution networks will also be examined in detail, with retail locations, storage facilities, market coverage, and logistics of transportation all being assessed. To guarantee product safety and consistency, compliance with legal standards and quality assurance protocols will also be evaluated. The dairy market in the Sholinganallur region will be examined through market analysis in terms of competitiveness, consumer preferences, and trends. Sustainability measures, such as community involvement and environmental effect minimization, will be closely examined. It is possible to compare Aavin Sholinganallur's performance to industry norms using comparative analysis.

Methodology: A combination of qualitative and quantitative methods, such as surveys, observational studies, and interviews, will be used in the research technique. Aavin Sholinganallur's manufacturing and distribution operations will be evaluated for the integration of sustainable practices through the collection of data from several stakeholders, including as employees, customers, and anagement.

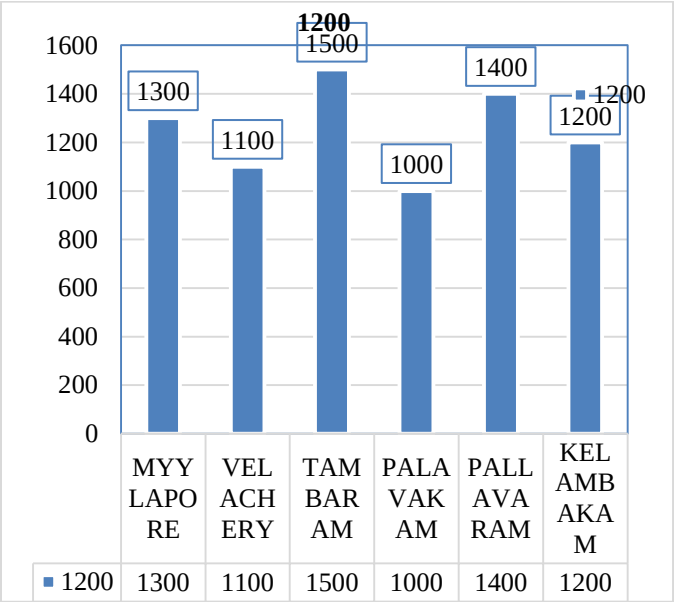
Research Design: A mixed-methods approach will be used in the research design, combining both qualitative and quantitative techniques. While quantitative techniques like surveys and data analysis will be used to identify trends and patterns, qualitative techniques like focus groups and interviews will be utilized to obtain insights into stakeholders' perceptions and experiences.

Desericptive Analysis: Characterizing current processes and identifying important variables like production efficiency, distribution routes, and quality control measures are all part of the descriptive analytics for the study on the production and distribution of dairy products with reference to Aavin Sholinganallur. It focuses on providing answers to the questions "who" (accounting stakeholders), "what" (dairy product kinds produced), "when" (production schedules), "where" (distribution sites), and "how" (production and distribution techniques). Descriptive analytics, by looking at these variables, offers a thorough picture of the dairy production and distribution situation at Aavin Sholinganallur right now, setting the stage for additional research and initiatives for development.

Sampling Technique: Stratified Random Sampling: Using stratified random sampling, a population is split into discrete subgroups or strata according to certain characteristics such as geography, preferred dairy products, frequency of purchases, or socioeconomic standing. Using this method, a representative sample is chosen from each stratum to guarantee that all subgroups in the study are well represented. A more detailed understanding of consumer behaviors and preferences across multiple demographic and consumption-related aspects is made possible by stratified random sampling in the context of examining the production and distribution of dairy products with reference to Aavin Sholinganallur.

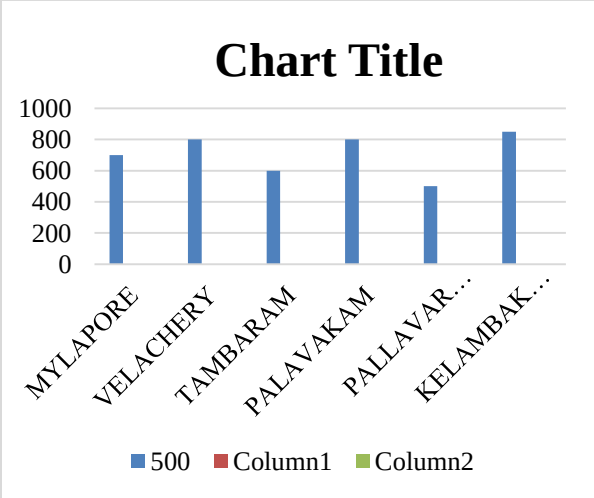
Result And Analysis:Data Analysis Of Route:

S.No	Location	No Of Packets
1	Adyar	1400 P
2	Mylapore	1300 P
3	Velachery	1100 P
4	Tambaram	1500 P
5	Palavakam	1000 P
6	Pallavaram	1400 P
7	Kelambakam	1300 P



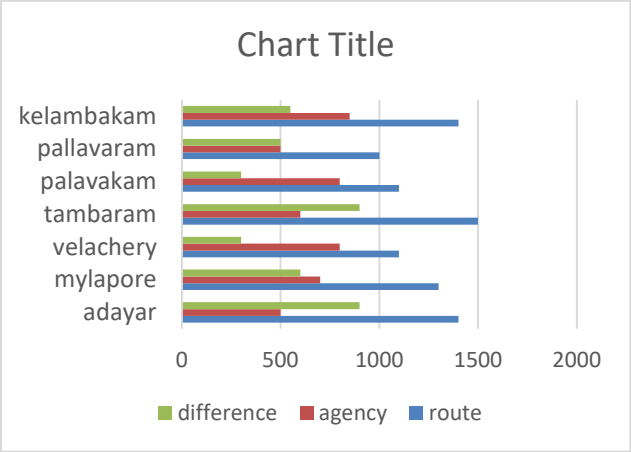
Data Analysis Of Agency:

S.No	Location	No.Of Packets
1	Adyar	500 P
2	Mylapore	700 P
3	Velacery	800 P
4	Tambaram	600 P
5	Palavakam	800 P
6	Pallavaram	500 P
7	Kelambakam	850p



By Comparing The Agency And Route Vehicle.

Route vehicle is more efficiency than agency.



Interpretation:

Due to their specialized infrastructure, reduced procedures, and optimized routing, Aavin route vehicles are usually more efficient than agency vehicles. Agency cars may travel on more variable routes, which might result in inefficiencies like longer journey times and higher fuel consumption, whereas Aavin vehicles follow fixed itineraries meant to reduce distance and time. Aavin vehicles are also more efficient than generic agency vehicles since they have access to resources and technology specifically designed for the transportation of dairy products.

Finding :

1. Operational efficiency is increased through better maintenance work scheduling and tracking.
2. A centralized system reduces administrative overhead by streamlining maintenance activities.
3. Preventing equipment breakdowns reduces unscheduled downtime and related expenses.
4. Overall productivity is increased when predictive analytics is used to improve asset reliability.
5. Extensive feasibility assessments provide well-informed investment decisions about automation.
6. By minimizing risks and optimizing returns, automation expenditures can be justified with feasibility studies.
7. Working closely with automation vendors lowers implementation hurdles and promotes seamless integration.
8. Ensuring vendor cooperation improves automation programs' efficacy and efficiency.
9. Thorough training programs help employees adapt the new system and make a seamless transition.
10. Reducing opposition to system changes and ensuring staff buy-in are two benefits of effective change management.
11. Working with knowledgeable suppliers guarantees the installation of reliable route optimization software catered to particular requirements.
12. Route optimization initiatives are made more effective and efficient by utilizing vendor expertise.
13. Businesses are incentivized financially to pursue recycling and waste reduction, which results in observable cost savings and environmental advantages.
14. By providing incentives, one can encourage stakeholders to take an active role in waste management projects and create a sense of accountability.
15. Thorough training programs give staff members the information and abilities they need to put efficient waste management procedures into place, encouraging a sustainable culture inside the company.
16. Staff members who receive training on the value of recycling develop a sense of accountability and are better equipped to make decisions that will reduce the amount of garbage produced.

Suggestion:

To improve the scheduling and tracking of maintenance operations, implement a computerized maintenance management system (CMMS).

1. To guarantee that decisions are well-informed and to justify investments in automation, conduct feasibility studies.
2. For smooth automation solution implementation and seamless integration, collaborate with seasoned technology providers.
3. Offer thorough training sessions so that staff members may become accustomed to new technology and systems.
4. Provide monetary rewards for recycling and waste reduction initiatives to encourage participation and accountability among staff members.
5. Work together with NGOs and government organizations to solve problems with regulatory compliance and find financing sources.
6. To prevent unplanned downtime and anticipate equipment problems, invest in predictive maintenance systems.
7. Create backup plans in case automation system outages or technological issues occur.
8. To monitor the effects of route optimization initiatives, clearly define performance measures and key performance indicators (KPIs).
9. Encourage innovation and a culture of constant improvement throughout the company to promote sustainability and efficiency.
10. Establish strong communication standards and protocols to guarantee productive working relationships with automation vendors.
11. To find opportunities for improvement, conduct routine audits of waste management procedures and maintenance procedures.
12. To guarantee the success of waste management programs and automation systems, make regular maintenance and upgrade investments.
13. Start public awareness initiatives to inform consumers about the advantages of recycling and promote eco-friendly practices.
14. To support recycling efforts and handle more waste processing capacity, expand the waste management infrastructure.
15. To maximize route optimization efforts, evaluate and improve routing algorithms on a regular basis in response to user input and fresh data.

Conclusion:

In summary, there are numerous opportunities to increase operational efficiency, lower costs, and improve sustainability in waste management and maintenance practices by integrating technology-driven solutions like automation and computerized maintenance management systems (CMMS). In order to maximize returns while lowering risks, ensure informed decision-making, and justify automation expenditures, feasibility studies are essential. Working with seasoned technology providers makes it easier to integrate automation solutions and execute them successfully, which increases their efficacy and efficiency. In-depth training programs are necessary to promote an innovative and continuous improvement culture within the company and to facilitate the seamless adoption of new systems and technology.

Employee engagement and accountability are encouraged by financial incentives for waste reduction efforts, and financing opportunities and regulatory compliance challenges are addressed through collaborations with NGOs and government organizations. The long-term viability of automation systems and waste management initiatives depends on careful observation, assessment, and upkeep as well as frequent improvements. Campaigns to raise public awareness are essential for encouraging sustainable behaviours like recycling, and infrastructure development helps to handle more waste and facilitate recycling. In general, organizations can make notable enhancements in their operational efficiency and environmental impact by putting these methods into practice and cultivating a sustainable and efficient culture.

Reference:

1. ARIES SUSANTY 2017, “The empirical model of trust loyalty and business performance of the daily milk supply chain
2. Rama Prasad M.V. (2006), “A study on the customer and dealer preferences of milk products
3. Government of Tamilnadu (11 March 2008). "Press Release Notes" (PDF). Retrieved 16 July 2010. 9.
4. https://aavin.tn.gov.in/sholinganallur-dairy
5. https://www.justdial.com/Chennai/Aavin-Hi-Tech-Parlour-Sholinganallur/044PXX44-XX44-190719215031-J3R4_BZDET
6. https://www.mappls.com/a86qg6
7. https://aavin.tn.gov.in/tcmpf
8. https://aavin.tn.gov.in/federation-units