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## **A PROJECT REPORT ON DISTRIBUTION CHANNEL EFFICIENCY IN SRINIDHI MILK DAIRY**

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### **ABSTRACT :**

This study examines the efficiency of the distribution system of Srinidhi Milk Dairy, focusing on how effectively milk and dairy products reach consumers from the point of production. In the dairy sector, timely delivery, product freshness, cost control, and retailer satisfaction are essential for maintaining customer loyalty and profitability. The research reviews the existing distribution structure, including procurement, storage, transportation, intermediary participation, and last-mile delivery. Key performance indicators such as delivery lead time, transportation cost, inventory turnover, wastage levels, and coordination among channel partners were analysed using both primary data from distributors and retailers and secondary data from company records and industry sources.

The findings reveal operational challenges such as demand variability, cold chain management gaps, route inefficiencies, and communication issues within the distribution network. To address these concerns, the study proposes practical measures including route optimization, improved cold storage practices, accurate demand forecasting, and stronger coordination among channel members. These recommendations aim to enhance supply chain efficiency, reduce costs, improve service levels, and ensure consistent product quality. Overall, the research highlights how an efficient distribution network can strengthen competitive advantage and expand market reach in the dairy industry.

### **KEYWORDS:**

Distribution Channel, Channel Efficiency, Dairy Industry, Supply Chain Management, Logistics, Cold Chain Management.

### **INTRODUCTION:**

Distribution channel plays a crucial role in the marketing and delivery of products from producers to end consumers. A distribution channel refers to the path or route through which goods and services move from the manufacturer to the final user. It includes various intermediaries such as wholesalers, distributors, retailers, and agents who help in making products available at the right place, at the right time, and in the required quantity. Effective management of distribution channels ensures smooth flow of goods, strengthens relationships between channel members, and enhances overall organizational performance. Therefore, understanding distribution channels is vital for businesses to achieve sustainable growth and operational efficiency.

With advancements in technology, such as digital tracking systems, data analytics, and integrated supply chain management, companies now have greater opportunities to monitor and enhance the performance of their distribution channels. Evaluating distribution channel efficiency enables organizations to identify bottlenecks, eliminate redundancies, and select the most suitable channel structure for their products and target markets. Therefore, understanding distribution channel efficiency is essential for effective supply chain management and long-term business success.

### **OBJECTIVES OF THE STUDY:**

1. To study the existing distribution channel.
2. To identify challenges and bottlenecks.
3. To analyse the role of intermediaries.
4. To suggest measures for improving distribution channel efficiency.

### SCOPE OF THE STUDY:

This study focuses on evaluating the efficiency of the distribution channel of Srinidhi Milk Dairy, covering the movement of milk and dairy products from production units to the final consumers. The scope includes an examination of procurement processes, storage facilities, cold chain management, transportation systems, wholesaler and retailer involvement, and last-mile delivery practices. It aims to assess how effectively the existing distribution structure ensures timely delivery, maintains product freshness, and controls operational costs.

The research further analyses key performance indicators such as delivery lead time, transportation expenses, inventory turnover, wastage levels, and coordination among channel partners. The study is limited to the current distribution network and selected distributors and retailers associated with the company. It does not cover production efficiency or marketing strategies in detail, except where they directly influence distribution performance. The findings are intended to provide practical recommendations to improve channel efficiency, reduce losses, enhance service quality, and strengthen overall supply chain performance.

### LIMITATIONS OF THE STUDY:

1. **Limited Sample Size:** The study is based on feedback from a selected group of distributors, retailers, and company representatives, which may not fully represent the entire distribution network.
2. **Time Constraints:** The research was conducted within a limited time period, restricting the depth of data collection and long-term performance analysis.
3. **Data Accuracy:** Some information provided by respondents may be based on personal judgment or estimates, which could affect the precision of the findings.
4. **Geographical Coverage:** The study focuses only on specific operational areas of Srinidhi Milk Dairy and does not cover all markets served by the company.
5. **External Factors:** Market fluctuations, seasonal demand changes, and unforeseen logistical challenges were not examined in detail, although they may influence distribution efficiency.

### REVIEW OF LITERATURE:

1. **Chakrabarti & Debopam** (16-Feb-2022):

Supply chain efficiency of different distribution channels for vegetables a study of select regions in Telangana  
Guide: Kavitha Desai

2. **Terina Grazy, L** (29-Apr-2024) :

Efficiency of Distribution Channels of Life Insurance Businesses in Sivaganga District  
Guide: Parimalarani, G

3. **Bijapurkar, Ashoke** (1-Oct-2024):

Effectiveness of the public distribution channel the case of controlled cloth distribution  
Guide: Mote, V. L. Sengupta, Subroto and Bhandari, Labdhi R.

4. **Dubey A.K.** (1-Apr-2020) :

Impact of Motivational Factors of Channel Members on Channel Performance A study of Telecom Service Providers  
Guide: Sudipta Majumdar

5. **Rajesh.Vemula** (26-Apr-2022) :

Role of Distribution Channels in the Marketing of Handlooms in Andhra Pradesh  
Guide: Rajeshwari .Panigrahi

6. **T. BALAKRISHNAN** (17-Jul-2023):

Production and channels of distribution of coconut in Theni district of Tamil nadu

Guide: R. HARIDOSS

7. **Johari,Suchi** (21-Aug-2024) :

Channel Switching and Time slot Techniques for TDMA MAC in VAN

Guide: M. Bala Krishna

8. **Jeyaraj, I** (2-Feb-2017):

An economic study of production utilisation and channels of distribution of milk in Madurai district Tamil Nadu

Guide: Haridoss, R

### **RESEARCH METHODOLOGY:**

Research is an orderly process of investigation of facts, theories, and relationships for the purpose of creating new knowledge. Research involves a methodical and organized process of investigating some different facts, theories, and relationships to ultimately yield some new knowledge that enhances our knowledge in regard to a specific topic or subject. Research can be classified into different types, such as qualitative, quantitative, exploratory, and descriptive research. Methodology is a term that includes the entire process, specific method, and methodical approach employed by researchers to conduct their research activities. Methodology includes data collection method, research design, sampling, and analysis method. The adherence to a clear methodology ensures dependability and accuracy of research data. Surveys, experiments, case studies, and interviews are basic and essential research techniques that are commonly applied in most fields of study.

The methodology to be applied is determined based on the purpose of the study, type of data, and resources available. The incorporation of a well-defined methodology along with wide-ranging research is a critical ingredient in rendering the process of formulating meaningful conclusions as well as solving real-life problems effectively. Good planning, accuracy, and ethics guarantee proper research is carried out. Research is the process of systematic and in- depth study of any Particular Topic, subject or any are of investigation backed by collection, compilation, presentation and interpretation relevant data's in detail.

### **RESEARCH PROCESS:**

The research process followed in this study is systematic and structured to analyze the efficiency of the distribution channel of Srinidhi Milk Dairy. The process consists of clearly defined stages to ensure accuracy, reliability, and validity of the findings.

### **PRIMARY DATA INCLUDES:**

Primary data refers to first-hand information collected directly from respondents.

#### **Sources of Primary Data**

- Distributors
- Retailers
- Sales Executives
- Logistics Staff
- Company Official

#### **Structured Questionnaire:**

Questionnaires were prepared to collect quantitative data regarding:

- Delivery timeliness
- Order fulfillment

- Stock Availability
- Margin Satisfaction
- Communication Efficiency
- Payment Cycle

### **Personal Interviews:**

Interviews were conducted with management and key channel members to gain in-depth understanding about the distribution channel.

- Distribution Policies
- Route Planning
- Cost Structure
- Performance Evaluation Methods

### **Observation:**

Direct observation of dispatch operations, transportation system, cold chain maintenance and delivery process.

### **SECONDARY DATA INCLUDES:**

Secondary data refers to information already available and collected from existing sources.

### **Sources of Secondary Data**

- Company reports and records
- Sales data and distribution statements
- Delivery schedules
- Internal performance reports
- Academic journals and textbooks
- Industry publications

### **Purpose of Secondary Data**

- To understand past performance
- To compare efficiency trends
- To support primary data findings
- To build theoretical foundation

### **PROJECT PLANNING:**

Project planning is the systematic process of organizing and structuring all activities required to complete a research study effectively and within the specified time frame. It involves identifying the research problem, setting clear objectives, defining the scope of the study, selecting an appropriate research design, planning methods of data collection, allocating necessary resources, and preparing a time schedule for each stage of the work. In the study of distribution channel efficiency at Srinidhi Milk Dairy, project planning ensured that data was collected, analysed, and interpreted in an organized and efficient manner, while also anticipating possible challenges and maintaining accuracy and reliability throughout the research process.

### **1. Problem Identification:**

The first step is to clearly define the issue that needs to be studied. In this case, it involves identifying concerns related to distribution channel efficiency at Srinidhi Milk Dairy.

## 2. Setting Objectives:

After identifying the problem, specific and achievable objectives are framed to guide the direction of the research.

## 3. Defining Scope:

This step determines the boundaries of the study, including what aspects will be covered and what will be excluded.

## 4. Selecting Research Design:

An appropriate research approach, such as descriptive research, is chosen to systematically examine the existing system.

## 5. Planning Data Collection:

Methods for gathering primary and secondary data are decided, including tools like questionnaires, interviews, and company records.

## 6. Sampling Plan:

The researcher selects the target respondents and determines the sample size to ensure meaningful results.

## 7. Resource Allocation:

Necessary resources such as finance, manpower, and technical tools are identified.

## 8. Data Analysis Planning:

Suitable statistical techniques and tools are selected to interpret the collected data accurately.

## 9. Monitoring and Review:

Progress is regularly checked to ensure the project stays on schedule and meets its objectives.

### SAMPLE SIZE:

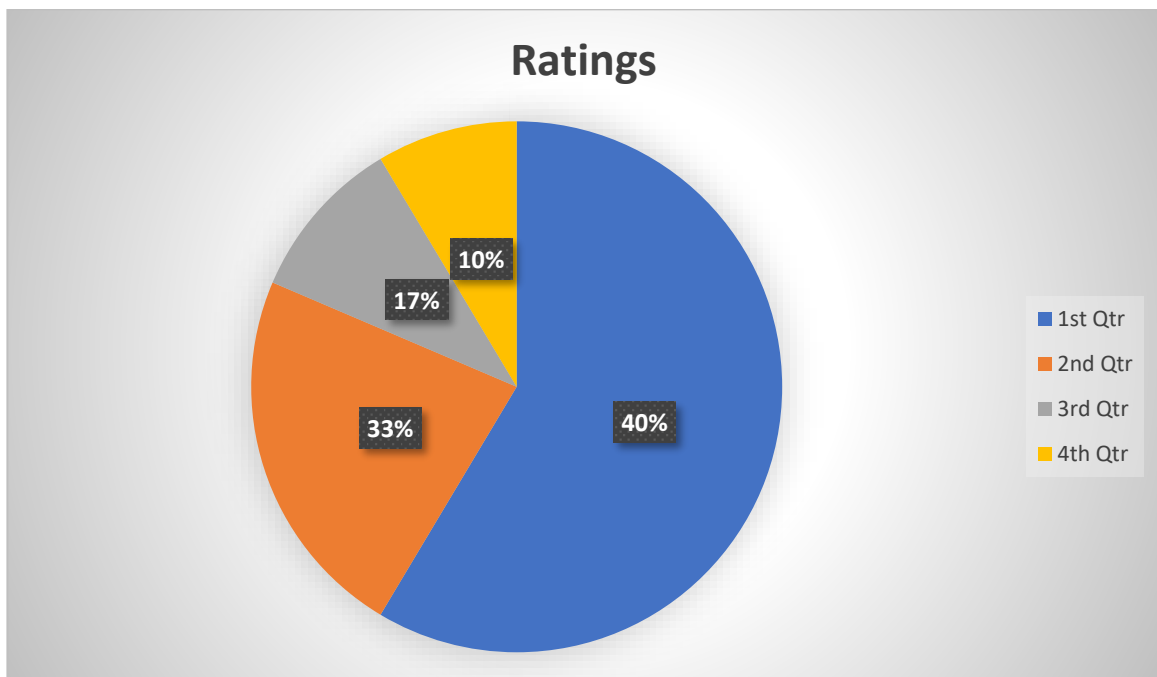
**SAMPLING TECHNIQUE:** Random sampling.

### DATA ANALYSIS

#### 1. How do you rate the timeliness of product delivery from Srinidhi Milk Dairy?

Rating	Number of Respondents	Percentage (%)
Excellent	12	40%
Good	10	33%

Rating	Number of Respondents	Percentage (%)
Average	5	17%
Poor	3	10%
<b>Total</b>	<b>30</b>	<b>100%</b>



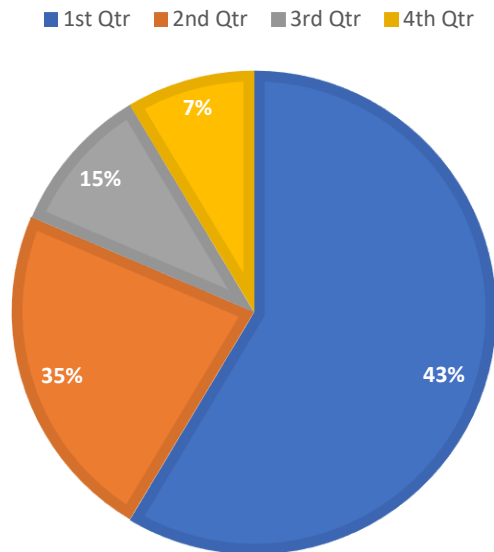
**Interpretation:**

The above table shows that 40% of respondents rated delivery timeliness as excellent, while 33% rated it as good. A smaller percentage (17%) felt the delivery performance was average, and only 10% rated it as poor. This indicates that the majority of retailers are satisfied with the delivery speed, suggesting that the distribution system is functioning efficiently. However, the responses categorized as average and poor highlight areas where improvements in scheduling and coordination may be required.

**2. How do you rate the condition of products upon delivery?**

Ratings	Respondents	Percentage
Very Satisfied	40	43%
Satisfied	35	35%
Neutral	15	15%
Dissatisfied	7	7%
<b>Total</b>	<b>100</b>	<b>100%</b>

### RATINGS



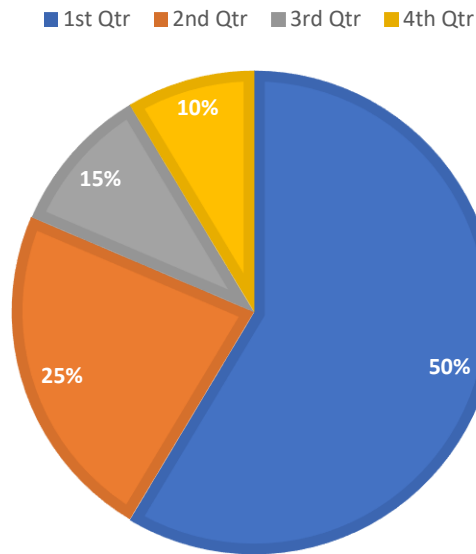
#### Interpretation:

Most respondents (75%) are satisfied or very satisfied with the timely delivery of products, indicating that Srinidhi Milk Dairy maintains a reliable delivery schedule. A small portion (10%) reported dissatisfaction, suggesting minor delays that can be improved.

#### 3. How would you rate the overall communication and coordination of the distribution team?

Ratings	Respondents	Percentage
Excellent	25	25%
Good	50	50%
Average	15	15%
Poor	7	10%
<b>Total</b>	<b>100</b>	<b>100%</b>

### RATINGS

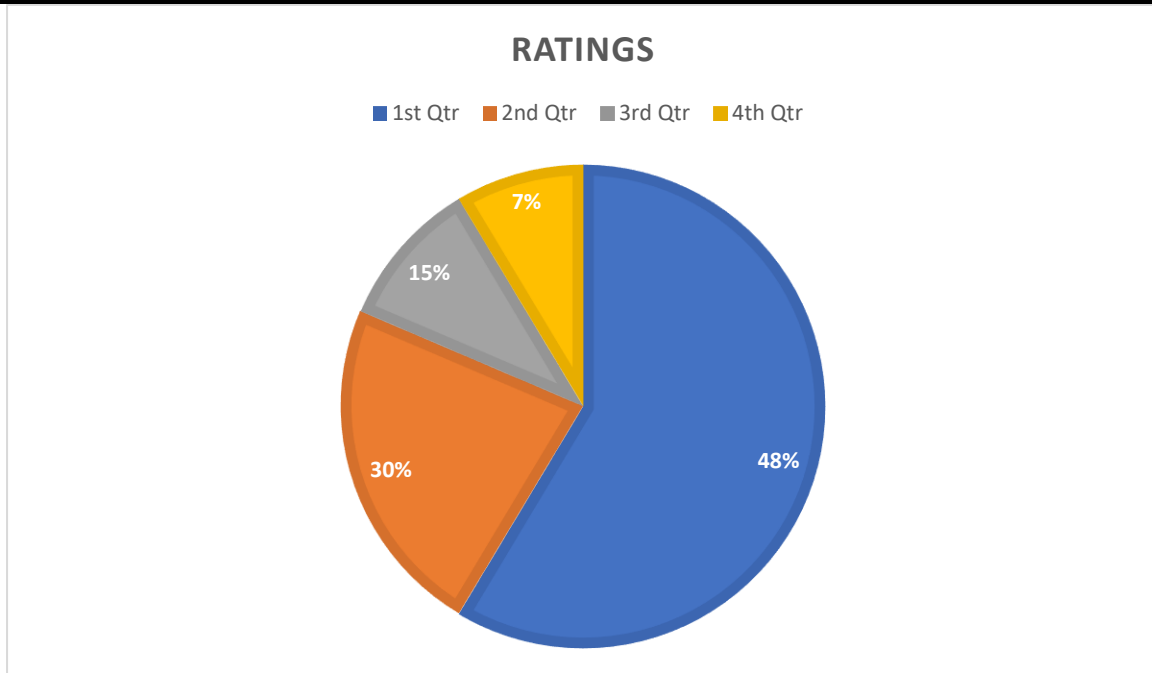


#### Interpretation:

Most respondents (75%) rated communication and coordination of the distribution team positively, showing effective interaction with retailers. Around 10% were dissatisfied, suggesting room for improving communication and tracking processes.

#### 4. How would you rate the responsiveness of the dairy in handling complaints or issues?

Ratings	Respondents	Percentage
Excellent	30	30%
Good	45	48%
Average	15	15%
Poor	7	7%
<b>Total</b>	<b>100</b>	<b>100%</b>

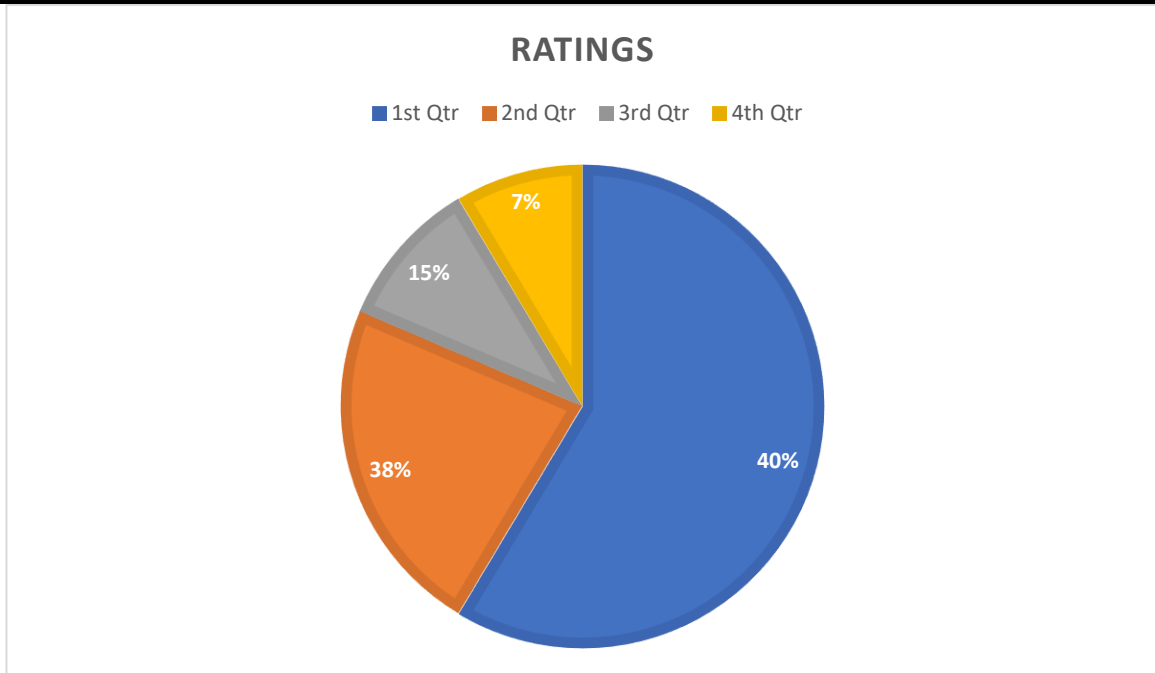


**Interpretation:**

75% of respondents rated the dairy’s responsiveness as good or excellent, showing that issues are handled effectively. Around 10% were dissatisfied, indicating a need to further improve complaint resolution processes.

**5. How would you rate the availability of products at your retail point?**

Ratings	Respondents	Percentage
Excellent	35	38%
Good	40	40%
Average	15	15%
Poor	7	7%
<b>Total</b>	<b>100</b>	<b>100%</b>



### Interpretation:

75% of respondents rated product availability as good or excellent, showing effective inventory management and consistent supply. Around 10% reported poor availability, indicating occasional stock shortages that can be addressed.

### RESEARCH FINDINGS:

#### 1. Structure of the Distribution Channel:

The study found that Srinidhi Milk Dairy follows a **multi-tier distribution system**, typically structured as:

**Company → Distributor → Retailer → Consumer**

In semi-urban and rural areas, the company sometimes uses a **direct retailer model**, reducing one intermediary to ensure faster delivery and better product control. This hybrid structure allows flexibility but creates variation in efficiency across regions.

#### 2. Delivery Timeliness and Product Freshness:

Since milk and dairy products are highly perishable, delivery timing is critical. The research observed:

- Urban distributors maintain strict early-morning delivery schedules.
- Rural routes face occasional delays due to transportation limitations.
- Retailers receiving products before 7:00 AM reported higher daily sales turnover.

Timely delivery was directly associated with higher retailer satisfaction and lower product returns.

#### 3. Inventory Management Efficiency:

The study identified that:

- Most distributors follow a demand-based ordering system rather than predictive forecasting.
- Retailers typically maintain only one-day buffer stock due to perishability.
- Unsold products are either returned or discounted, affecting distributor margins.

Inefficiencies arise mainly due to:

- Lack of advanced demand forecasting tools.
- Dependence on manual record-keeping in some regions.

#### **4. Transportation and Logistics Performance:**

Transportation plays a crucial role in maintaining cold chain integrity.

Key findings include:

- Refrigerated vehicles are used for bulk movement.
- Smaller routes sometimes depend on insulated containers instead of full refrigeration.
- Fuel costs and route planning significantly influence distribution expenses.

Optimized routing was found to reduce delivery time and operational cost.

#### **5. Channel Partner Satisfaction:**

Interviews with distributors and retailers revealed:

- Distributors are generally satisfied with product demand and brand recognition.
- Retailers prefer companies that offer flexible credit terms.
- Margins are considered moderate but stable.

However, distributors suggested:

- Better digital order systems.
- More promotional support in competitive markets.

#### **6. Return and Damage Handling:**

The research found that:

- Product returns are primarily due to overstocking or low demand forecasting.
- Leakage and spoilage during transport are minimal but present.
- Clear return policies improve trust between company and distributors.

#### **7. Cost Efficiency of the Distribution Channel:**

The major cost components identified were:

- Transportation costs
- Cold storage maintenance
- Distributor commissions
- Retailer margins

The company maintains competitive pricing by controlling logistics costs and maintaining high sales volume.

### **8. Impact of Distribution Efficiency on Sales Performance:**

The study concluded that:

- Regions with faster and more reliable distribution showed higher market penetration.
- Efficient channel coordination led to increased retailer loyalty.
- Distribution efficiency directly influenced customer satisfaction and repeat purchase behavior.

### **9. Challenges Identified:**

Some operational challenges include:

- Demand fluctuations during seasonal changes
- Rising fuel and transportation costs
- Limited digital integration
- Competition from local dairy brands

### **10. Overall Evaluation of Distribution Channel Efficiency:**

The overall distribution channel of Srinidhi Milk Dairy is moderately efficient, with strong last-mile reach and stable channel relationships. However, there is scope for improvement in:

- Route optimization
- Demand forecasting
- Digital order management systems
- Cold chain enhancement in rural areas

## **SUGGESTIONS:**

### **1. Implementation of a Digital Order and Tracking System:**

The company can introduce a centralized digital platform for distributors and retailers to place orders and track deliveries in real time. This would reduce manual errors, improve demand visibility, and enhance coordination between channel partners. A mobile-based application could further simplify communication and minimize delays in order processing.

### **2. Adoption of Data-Driven Demand Forecasting:**

To reduce product returns and wastage, the company should implement data-based demand forecasting methods. By analysing historical sales data, seasonal trends, and regional consumption patterns, Srinidhi Milk Dairy can improve production planning and inventory allocation. This will help balance supply with actual market demand and increase overall channel efficiency.

### **3. Route Optimization and Logistics Planning:**

Transportation costs form a major component of distribution expenses. The company can improve efficiency by redesigning delivery routes using route optimization techniques. Cluster-based delivery planning and fuel-efficient scheduling can reduce travel time, lower operational costs, and ensure timely product delivery, especially in rural areas.

#### 4. Strengthening Cold Chain Infrastructure:

Since dairy products are highly perishable, enhancing cold chain management is essential. The company may invest in improved refrigeration systems for smaller distribution routes and provide insulated storage units to retailers where necessary. This will help maintain product quality, reduce spoilage, and improve customer satisfaction.

#### 5. Channel Partner Training and Incentive Programs:

Regular training programs for distributors and retailers can improve handling practices, stock management, and sales performance. Additionally, introducing performance-based incentive schemes can motivate channel partners to achieve higher sales targets and maintain better service standards. Stronger relationships within the distribution network will contribute to long-term efficiency and market growth.

#### CONCLUSION:

The study on distribution channel efficiency at Srinidhi Milk Dairy concludes that an effective and well-coordinated distribution system plays a vital role in maintaining product freshness, ensuring timely delivery, and achieving customer satisfaction in the dairy sector. The company operates through a structured multi-tier channel that supports strong market coverage and stable relationships with distributors and retailers. While the existing system is functional and moderately efficient, certain challenges such as limited demand forecasting practices, transportation constraints in rural areas, and partial reliance on manual processes slightly impact operational performance. The findings suggest that adopting digital tools, improving route planning, and strengthening cold chain management can further enhance overall efficiency, reduce wastage, and increase profitability. Therefore, continuous improvement in distribution practices will enable the company to strengthen its competitive position and sustain long-term growth in the market.

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