

Decrease in Cost of Logistics for Frozen Food Manufacturing Companies: A Case Study



Abstract

This case study examines the implementation of strategic measures to decrease the cost of logistics for frozen food manufacturing companies. The focus is optimizing transportation, storage, and distribution processes while maintaining product quality and meeting customer demands. The study analyses a fictional frozen food manufacturing company, Frosty Delights, and highlights the successful strategies employed to reduce logistics costs and improve overall operational efficiency.

Frozen food manufacturing companies face unique logistical challenges due to the perishable nature of their products. The case study explores how Frosty Delights tackled these challenges with the help of analysis done by DBMR and achieved cost reduction while ensuring product integrity and customer satisfaction with the strategies provided by DBMR.



Client Interest

Frosty Delights is a medium-sized frozen food manufacturer that supplies a wide range of frozen food products to retailers nationwide. The company's logistics costs were becoming a significant burden, affecting profitability and competitive pricing. Thus, the client wanted to understand various strategies to reduce logistics costs in the frozen food supply chain.

Analysis and Challenges Identified by DBMR

The initial analysis identified the following challenges affecting Frosty Delights' logistics costs:



Inefficient transportation routes and load optimization



Inadequate storage facilities and suboptimal inventory management



Lack of real-time visibility and coordination in the supply chain



Inconsistent demand forecasting leading to inventory imbalances

Strategies Suggested by DBMR

To address the challenges and reduce logistics costs, DBMR has provided the following strategies:

Route Optimization: Collaboration with a logistics optimization software provider to analyze delivery routes, considering factors such as distance, traffic, and load capacity. This will result in streamlined routes and improved delivery efficiency, reducing fuel consumption and transportation costs.

- Inefficient routing leads to excessive mileage and fuel consumption
- Suboptimal load utilization results in underutilized capacity and increased transportation costs.
- Limited visibility into real-time traffic conditions, weather, and road closures affecting delivery schedules.
- Complex network of distribution centers and retail locations requiring careful coordination



- **Route Optimization Software:** The company can adopt advanced route optimization software capable of considering multiple variables such as delivery locations, time windows, traffic patterns, and vehicle capacities. The software generates optimized routes, considering the shortest distance, time constraints, and load optimization
- **Real-time Tracking and Communication:** Frosty Delights can equip its delivery vehicles with GPS tracking systems and implement real-time communication channels with drivers. This allowed them to monitor the progress of deliveries, receive real-time updates on traffic conditions, and promptly address any unforeseen issues
- **Collaboration with Retailers:** Frosty Delights can collaborate closely with their retail partners to synchronize delivery schedules and align order quantities with transportation capacities. By establishing effective communication channels, they optimize delivery routes, reduce empty return trips, and increase load utilization
- **Driver Training and Incentives:** Frosty Delights can train its drivers on efficient route execution, fuel-efficient driving techniques, and customer service. They can also provide performance-based incentives to encourage adherence to optimized routes and on-time deliveries
- **Warehouse Optimization:** Frosty Delights should invest in advanced warehousing management systems to enhance inventory visibility and optimize storage space. By implementing automated inventory tracking and efficient picking processes, they can minimize inventory-holding costs and reduce product wastage.
- **Collaborative Partnerships:** The company can collaborate with key suppliers, distributors, and retailers. By sharing real-time information and coordinating order fulfillment, they can reduce lead times, eliminate stock-outs, and optimize product flow, resulting in lower logistics costs.
- **Demand Forecasting:** Frosty Delights can track the consumption data provided below. Accurate forecasts will enable them to optimize production schedules, minimize excess inventory, and avoid costly rush orders.



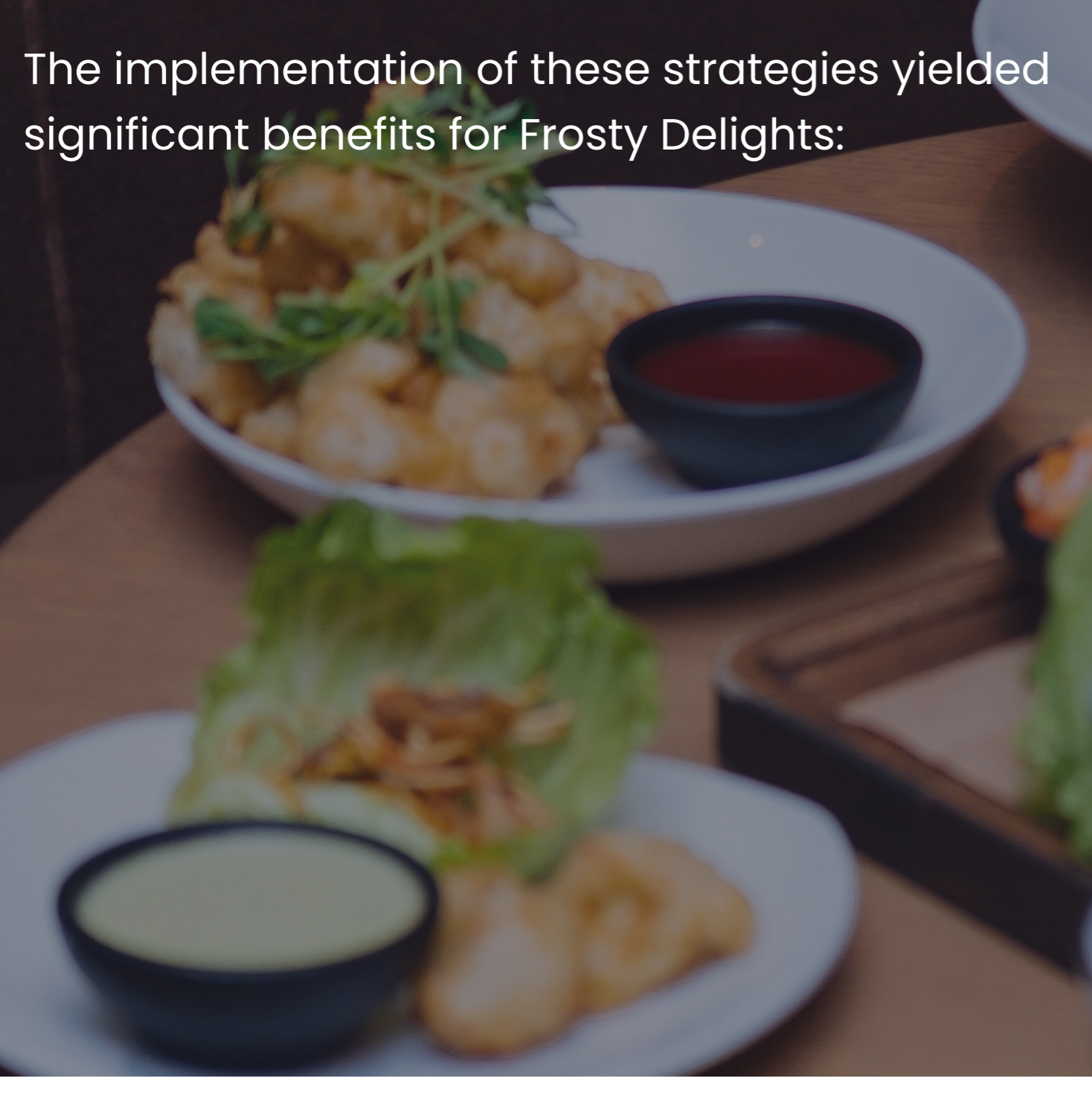
As per the DBMR analysis, the global frozen food market size is expected to reach USD 278.47 billion by 2030.

The market for frozen foods in India was valued at USD 310 million in 2017; by 2023, it is expected to increase at a CAGR of more than 16% to reach 754 million USD. Rising expansion is caused by urbanization, rising demand from middle-class consumers with more disposable means, rising refrigeration facilities in small retail establishments and rural families, and expanding cold chain sector. The different segments of the frozen processed food business include fisheries, meat and poultry processing, dairy, fruits and vegetable processing, packaged meals, packaged drinks, and packaged drinking water.

Results and Benefits

The implementation of these strategies yielded significant benefits for Frosty Delights:

- Reduced transportation costs by 15% through optimized routes and improved load utilization
- Decreased warehousing costs by 20% through enhanced inventory management and optimized storage space
- Improved customer satisfaction with on-time deliveries and reduced stock-outs
- Enhanced operational efficiency and flexibility in responding to changing market demands



Conclusion

This case study demonstrates that strategic measures focused on route optimization, warehouse management, collaborative partnerships, and accurate demand forecasting can reduce logistics costs for frozen food manufacturing companies. Frosty Delights successfully decreased logistics costs while maintaining product quality and meeting customer expectations, improving profitability and competitiveness.

Recommendations

Other frozen food manufacturing companies can benefit from Frosty Delights' strategies by thoroughly analyzing their logistics operations, implementing technology-driven solutions, and fostering collaborative partnerships across the supply chain. Regular monitoring and adjustment of strategies will ensure sustained cost reduction and operational efficiency.