AMANA FOODS
SUPPLY CHAIN PERFORMANCE ANALYSIS REPORT

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Introduction

- Amana Foods is an **FMCG manufacturer** headquartered in **Gujarat, India.**
- They are currently operational in three cities **Surat, Ahmedabad and Vadodara** and are looking forward to **expand** the business in the future
- But they are currently facing a problem where a few key customers **did not extend their annual contracts** due to **service issues.**
- This data analysis project is aimed at **analyzing the service levels** received by the customers of Amana Foods in order to **improve them and regain the Market Share.**
- The Data analysis and Visualization was done using **Power BI.**

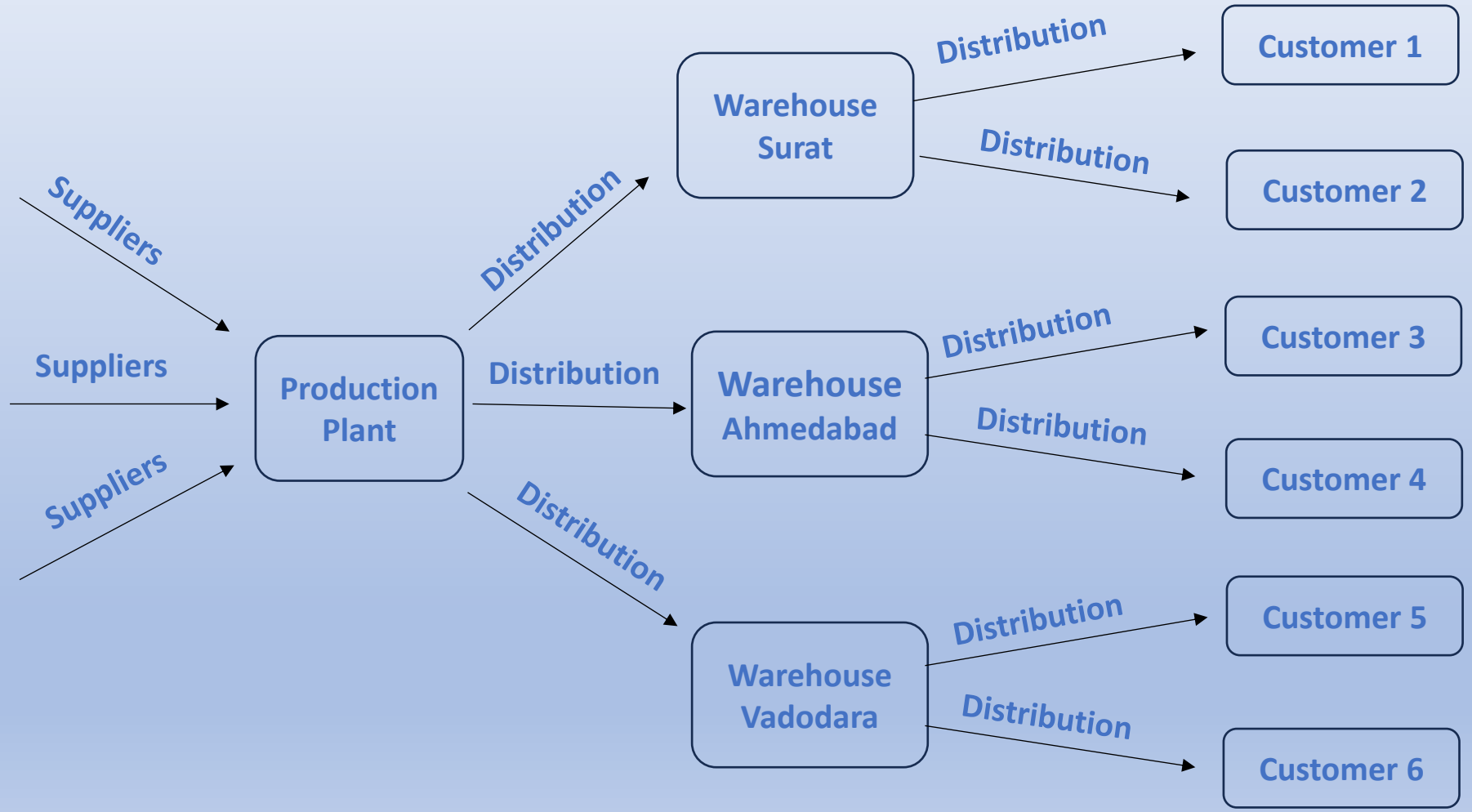
Key Metrics

- The key Metrics used to track service levels are
- **On-time delivery (OT) %**
- **In-full delivery (IF) %**
- **On Time in full (OTIF) %.**
- **Line Fill Rate (LIFR) %**
- **Volume Fill Rate (VFR)%**

- In supply chain it is very important to maintain high service levels to **sustain the customer relationships.**

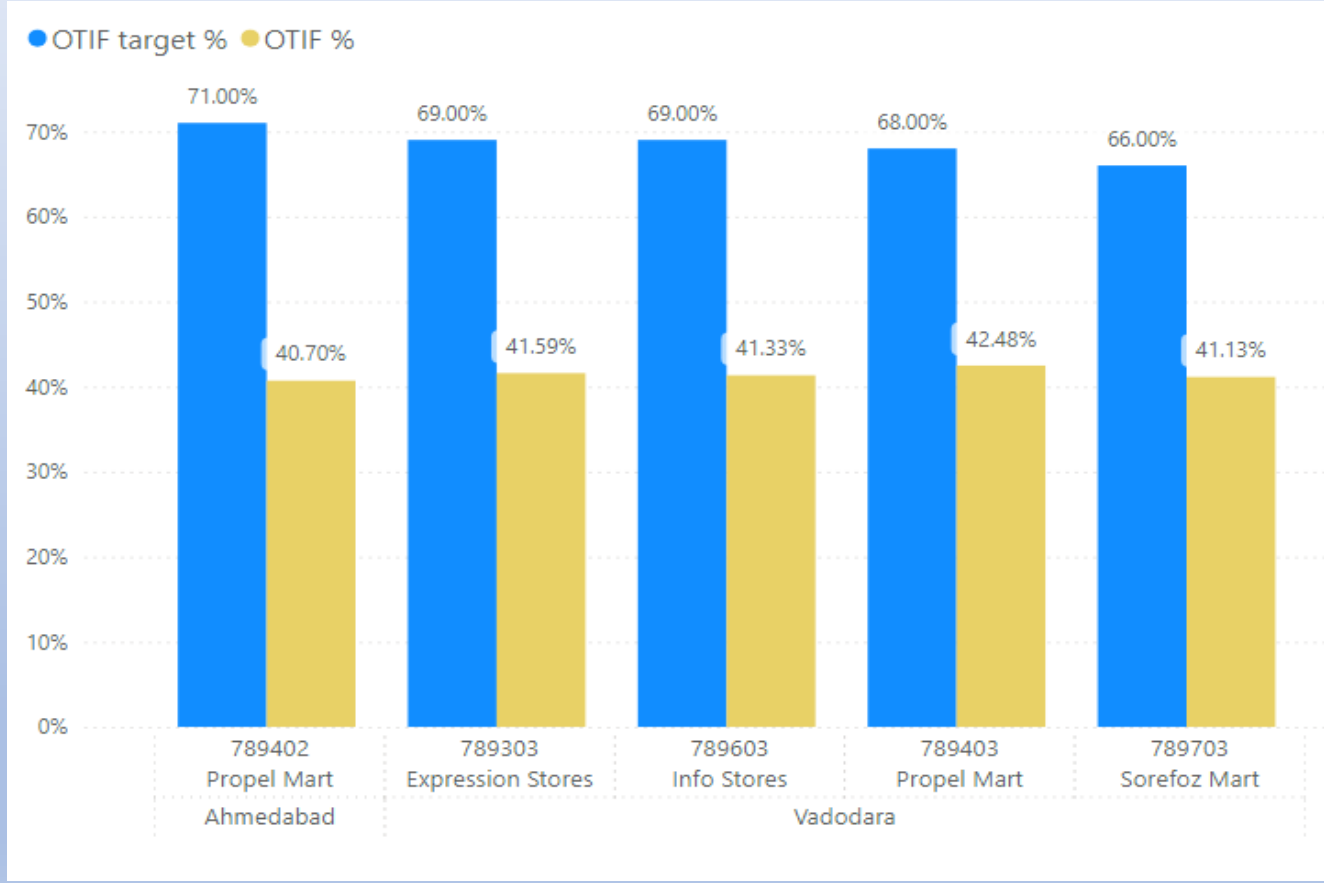
- Falling back in the services quality makes a company **less reliable** and leads to decreased customer satisfaction and lost sales.

Supply Chain Network of Amana Foods



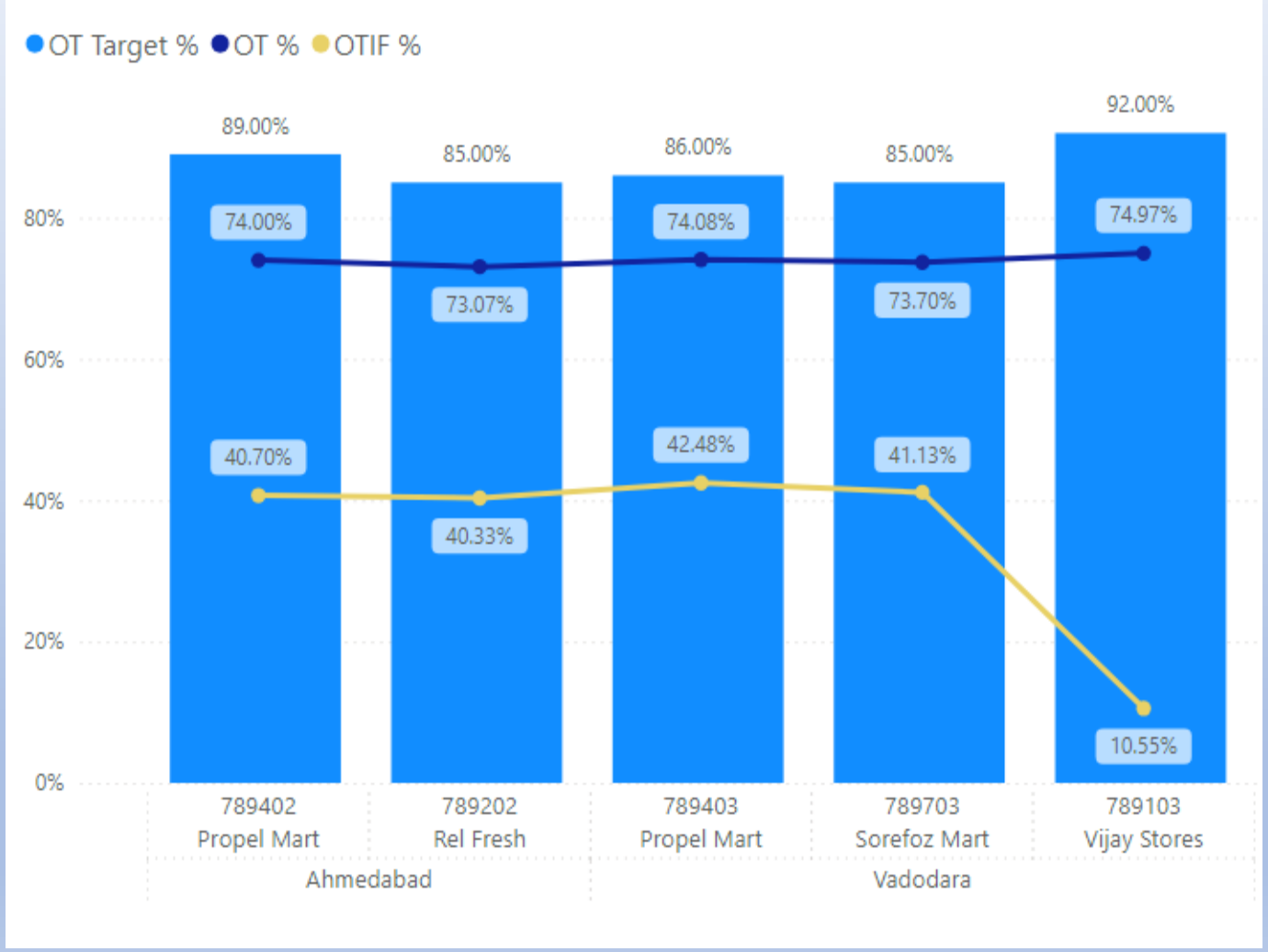
The customers that received the best service level

- The customers that received the most orders on time as well as in full.
- Understand our best practices and bench mark them.
- Even our best services falls well below the targets



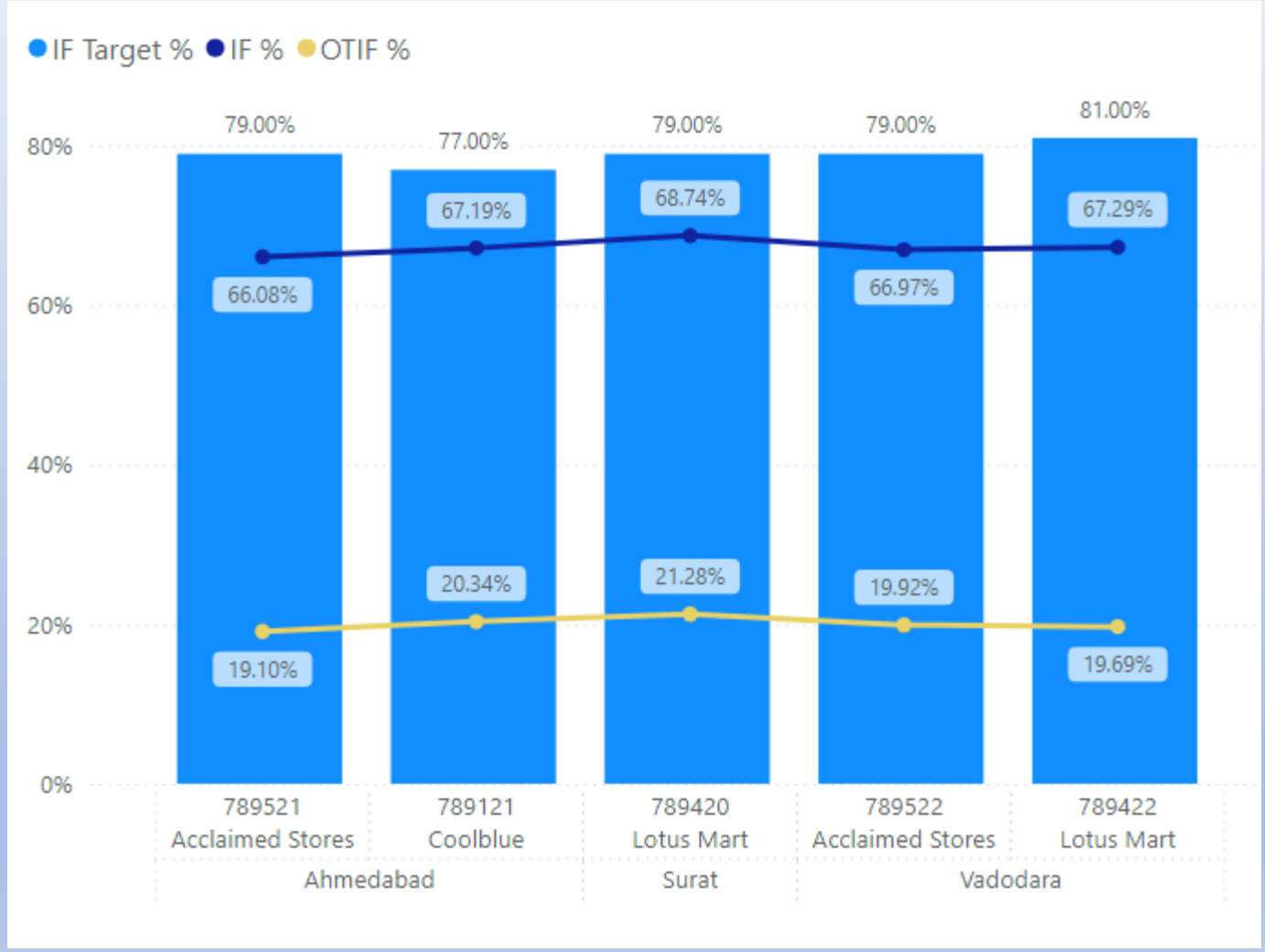
The customers that received the delivery most on the promised date.

- Even the best service levels do not meet the Targets.



The customers that received the most complete deliveries.

- Even the best service levels do not meet the Targets.



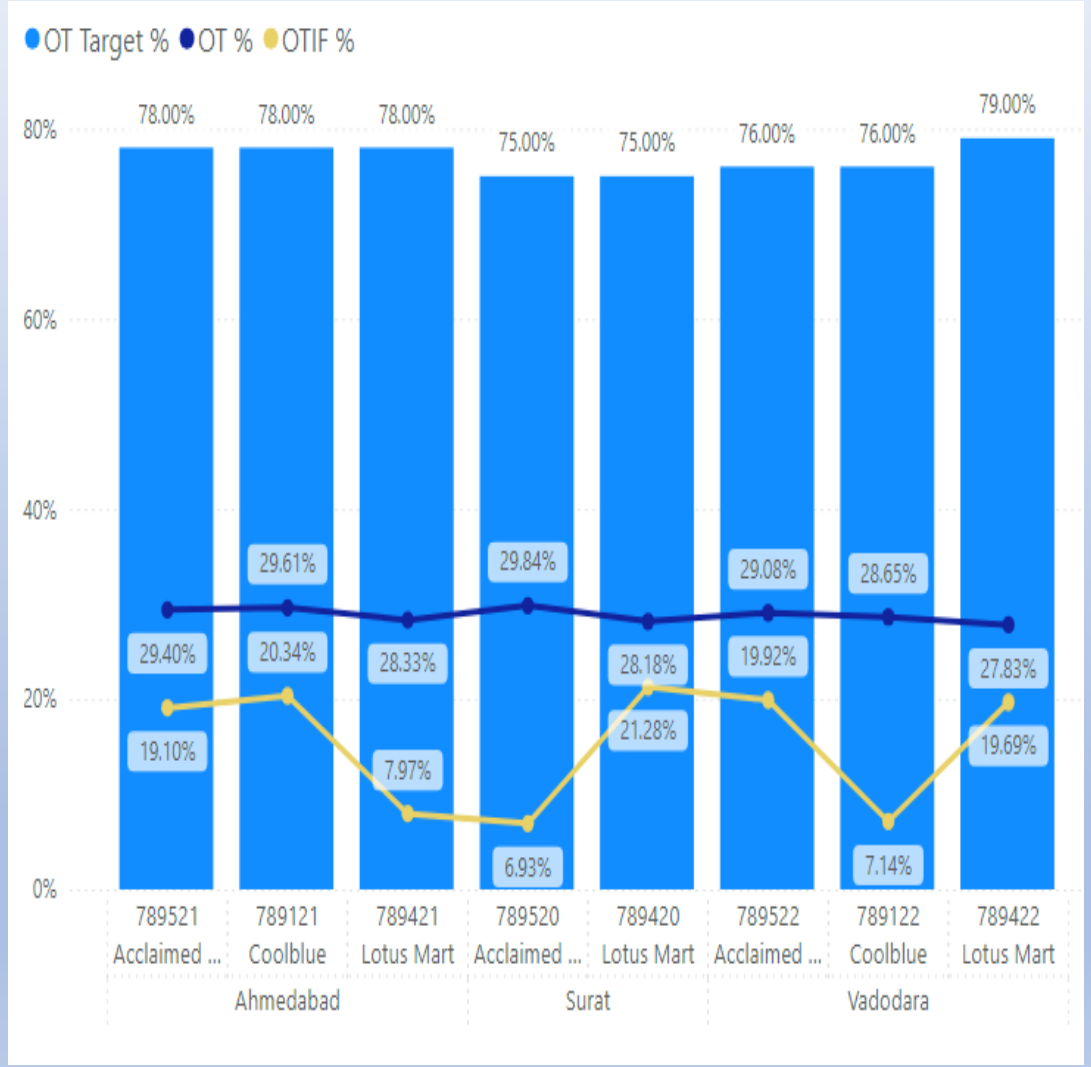
The outliers in on-time delivery

- **Exception** - These stores show a **significantly lower OT% (less than 30%)**

Compared to other customers **(Avg. of more than 70%)** in their respective cities.

- Indicating the anomalies in the distribution link from warehouse to customers

And not in warehouse operations.



Possible reasons

- **Geographical locations** - Remote or harder-to-reach areas -salesmen would skip these low volume deliveries to serve high volume deliveries on easy routes.
- **Route Optimization-** Delivery might be Scheduled for end of the delivery run- missing the schedule due to late deliveries

- **Suggestions**
- Allocate specific days/time for low-volume deliveries to remote areas
- Optimize the routes that allocates enough time to accommodate remote/hard to Deliver customers
- Investing in smaller vehicles to reach high traffic/hard to reach areas.

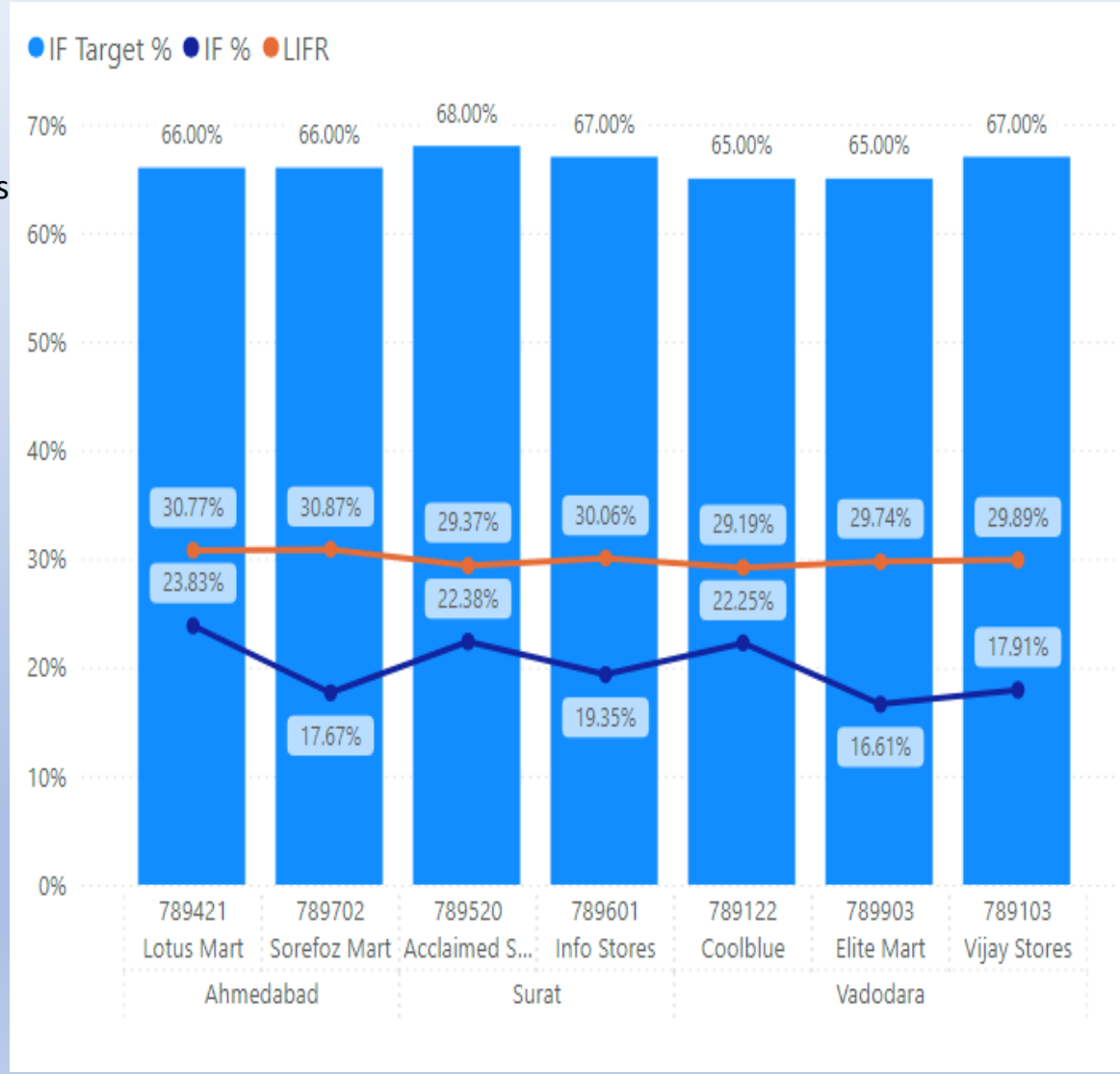
The exceptions in In Full delivery

- Exception - These stores show a **significantly lower IF%**

(less than 25%) and **LIFR % (around 30%)**, and also lower **VFR%** compared to than other customers (**Avg IF% is around 60%**) in their respective cities.

- Indicating the anomalies in the distribution link from warehouse to customers

And not in warehouse operations.



Possible reasons

- **Customer Prioritization**- Due to lower priority assigned by distributors who reserves stock differently for more important customers.
- **Lack of transportation capacity and Route optimization –**

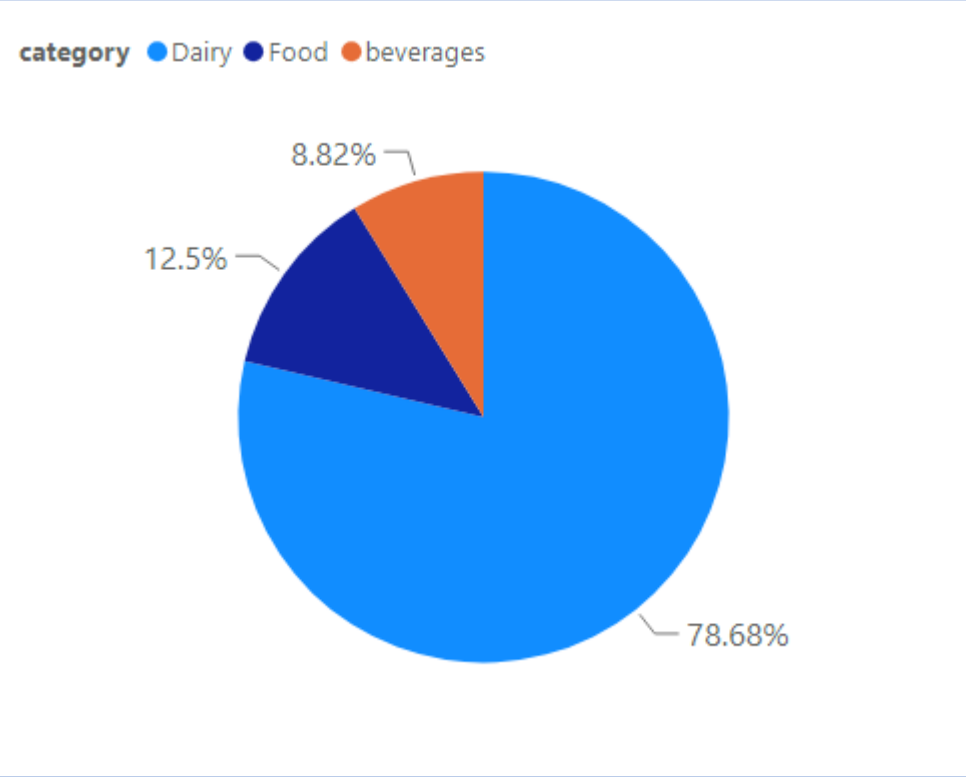
Deliveries scheduled towards the end of the delivery shift, runs short of products to fulfill the necessary orders.

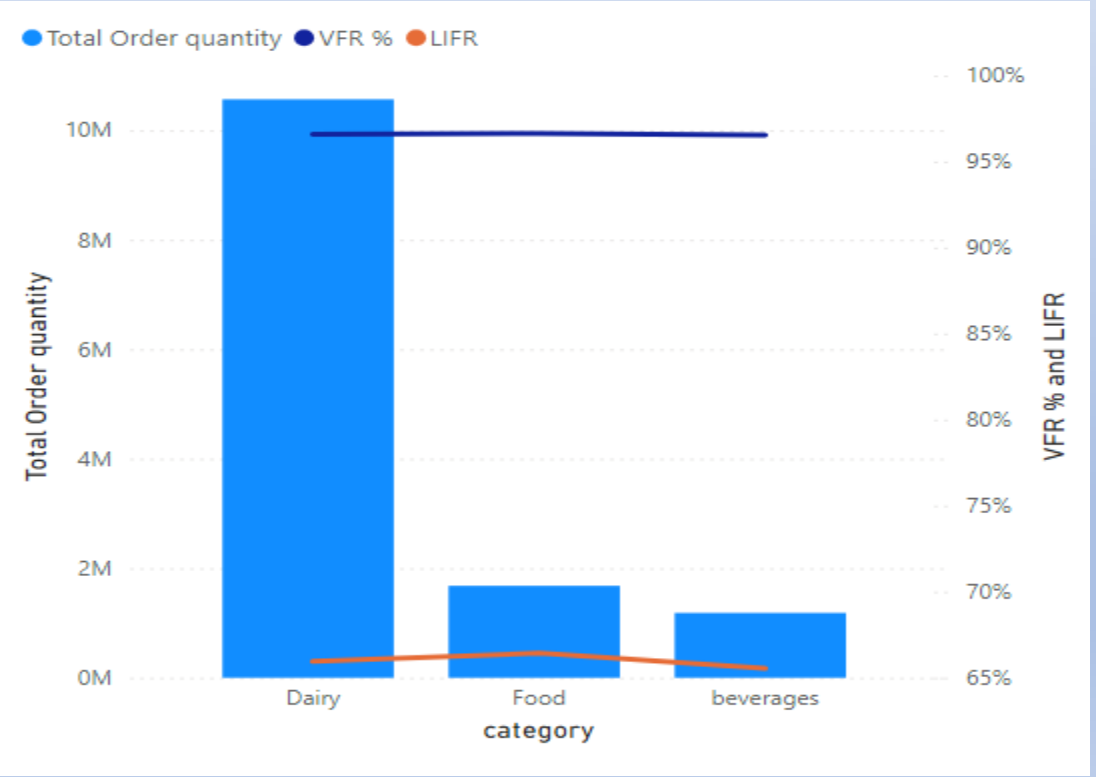
Suggestions

- Alternatively change the beginning and ending of delivery routes to serve both the ends of the route equally may work until the transportation capacity increased.

The Market Share of Food Categories

- Dairy products are in most demand across all the cities followed by Food Items and then Beverages.





General Performance of the Services – Key Findings

- In general, the average **OT% is only 59%** and the average **OTIF% is only 29%**.
- Our service levels are well below the targets and is appaling.
- This could be resulting from **bottlenecks in warehousing** resulting in inefficient operations , **transportation delays, or misalignment between demand forecasting and supply** leading to late deliveries.

- Fulfilments Rates
- The average **IN FULL % is only 53%** (well below the target)
- The average **line fill rate is only 66 % but** the average **volume fill rate** of any product is a good **97%**.
- Indicates **the supply chain has the capacity to handle large volumes, but struggles to meet the specific product demands** of customers resulting in partial order fulfilment.
- This may be due to **poor inventory management leading to inventory shortages like poor demand forecasting or other supply chain bottlenecks.**
- It could also be due to **lack of capacity of the transportation**

General Performance of the Services - Suggestions

- **<u>Suggestions for improvement</u>**
- **Demand forecasting** : Focus on improving **forecasting accuracy and maintaining optimal stock levels, especially for high-demand products.**
- **Transportation and logistics**: **Enhance the coordination** between Production, transportation, warehousing, and scheduling to boost the on-time delivery rate.
- Improve other bottlenecks to improve efficiency of operations – including **investing in latest supply chain technologies**

THANK YOU FOR WATCHING