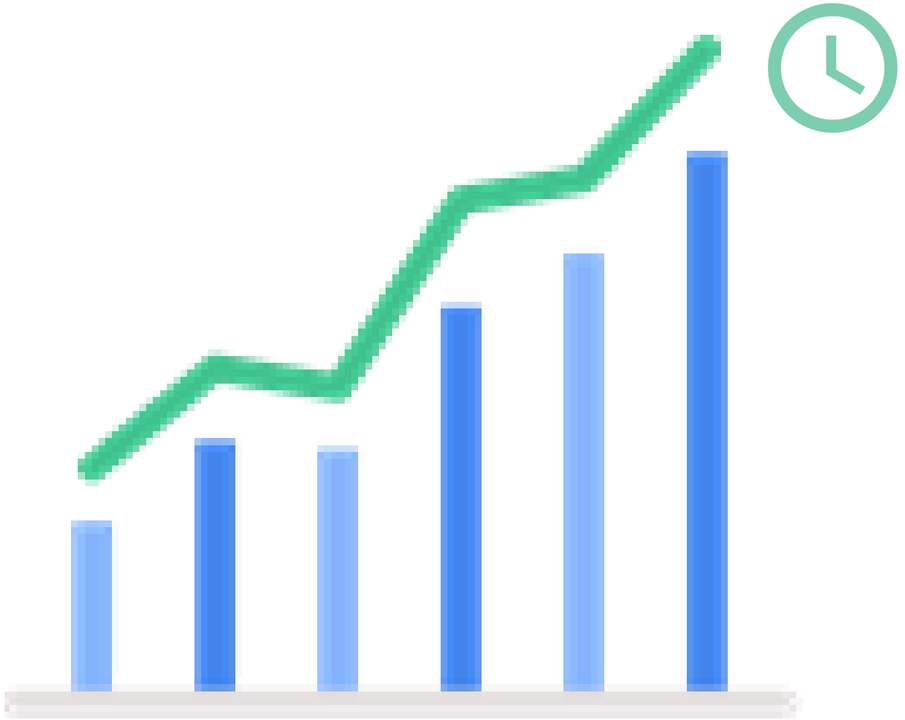
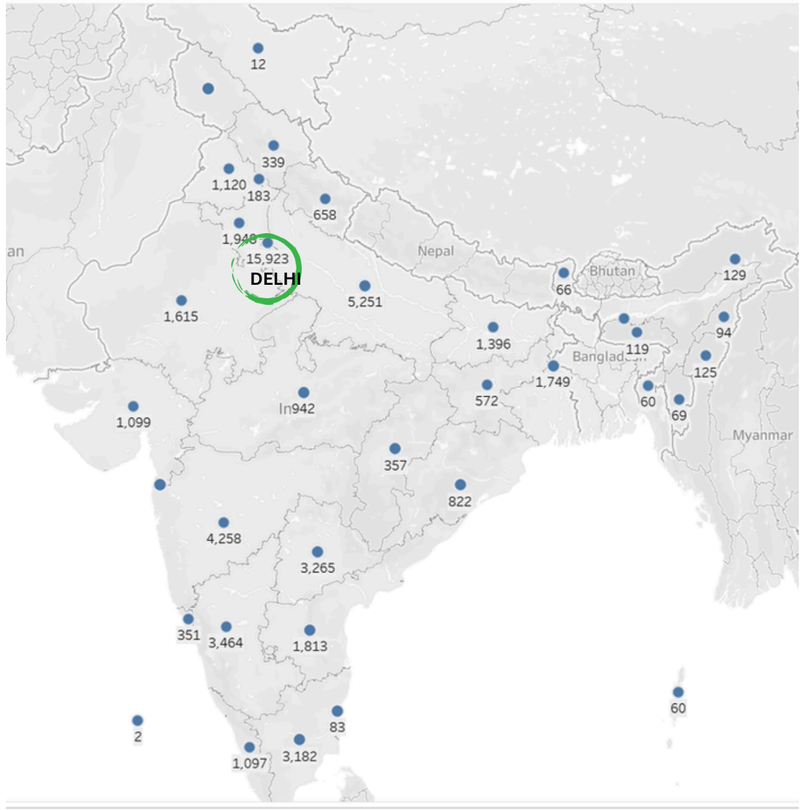
E-commerce sales EDA and Strategic Insights

Amazon

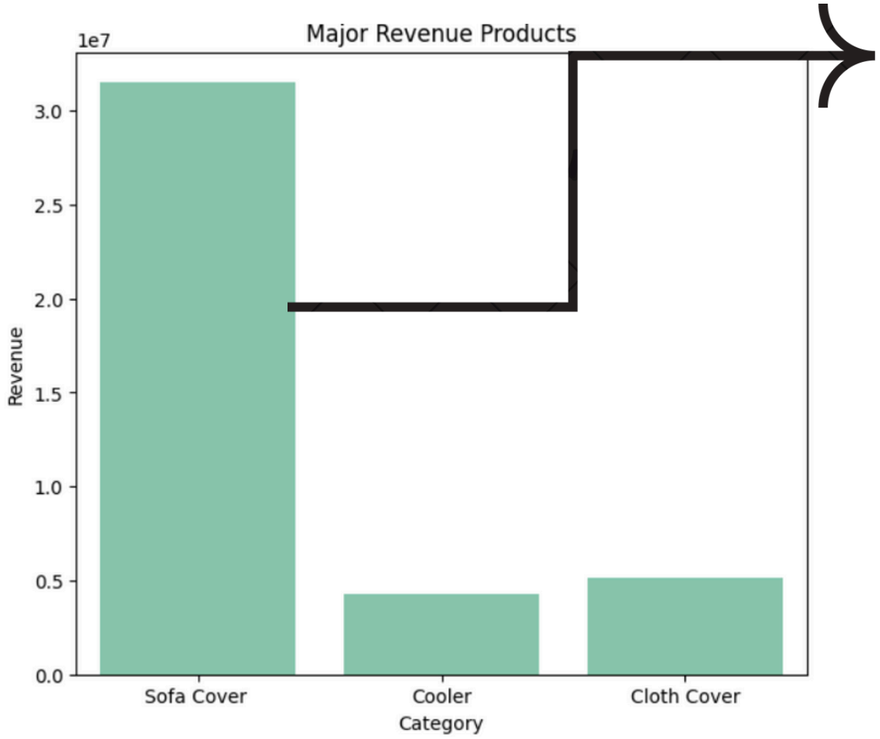


Understanding Demography

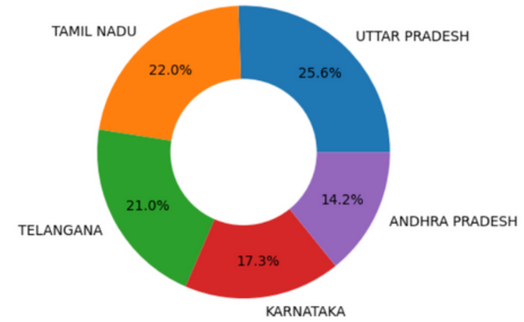
Number of orders in each state



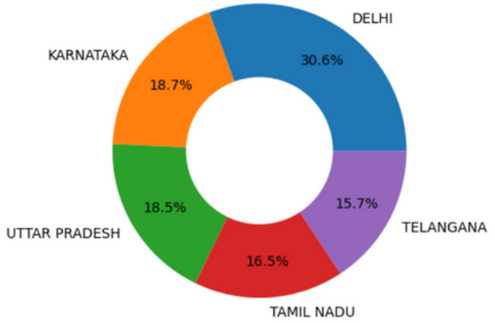
Major Revenue Generating Category



State wise Demand of top Revenue generating category



By Revenue



By Volume

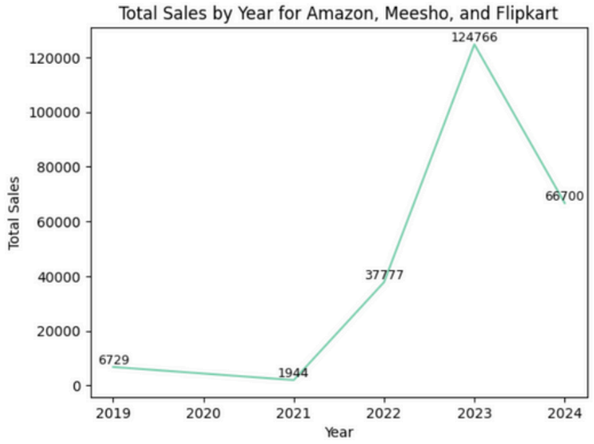
Out of the total quantity sold, **Delhi** leads with **34.1**% of total sales volume , followed by **Uttar Pradesh** at **22.3**%, Karnataka at 16.4% while **Telangana** and **Tamil Nadu** also make up to top 5 states by quantity.

Sofa Covers , cooler , cloth cover are the primary revenue driver, contributing to **69.2%** of total revenue.

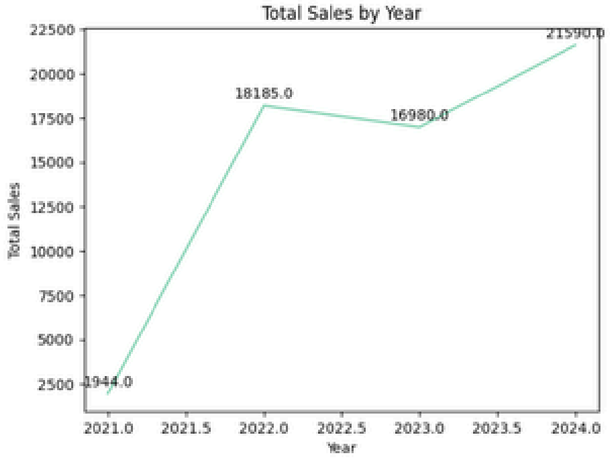
Delhi leads in sofa cover demand by **volume**, while **Uttar Pradesh** tops in **revenue**, reflecting higher-value transactions

Company Achieves 37.36 Times Revenue Growth from FY21 to FY24, Demonstrating Consistent and Exponential Growth.

Volume Trends (FY21-FY24)



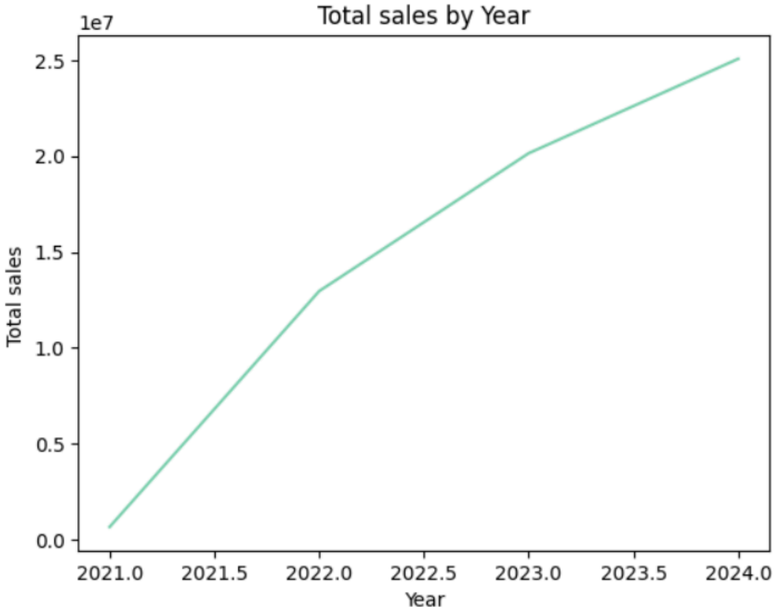
Industry Growth: The e-commerce industry expanded significantly, from $37,777 million in 2022 to $667,700 million in 2024, outpacing Amazon’s sales increases.



Declining Market Share: Amazon's market share fell sharply from 48.2% in 2022 to 32.4% in 2024, despite sales growth

While sales are rising, maintaining competitive positioning is crucial in a rapidly evolving industry

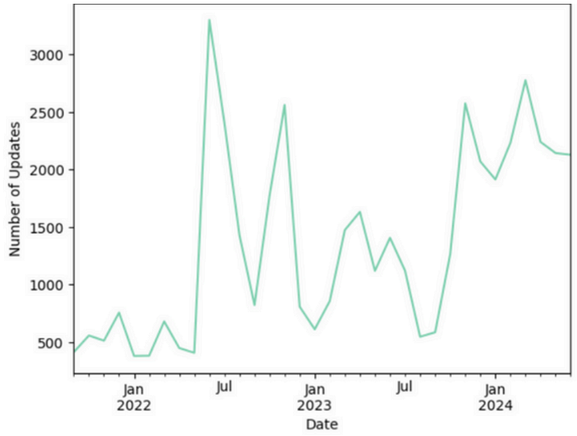
Revenue Trends (FY21-FY24)



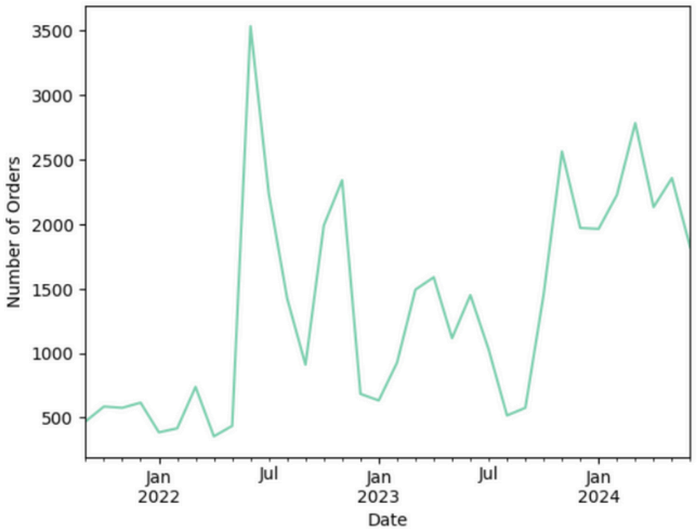
Exponential growth in 2022 , approximately **19.3 times higher** than in 2021 laid the foundation for subsequent years of strong performance

Understanding the Sales Journey: Cancellation Trends Reveal Operational Challenges

Trends in Order Update Dates

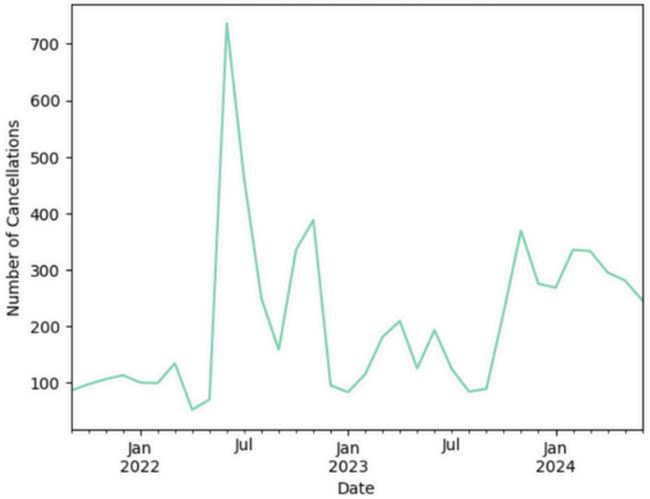


Trends In Purchase Dates



The **order updates** show a significant spike after the **purchase** spike, it indicates delays in order processing or fulfillment, suggesting a need for **operational improvements** during high-sales periods.

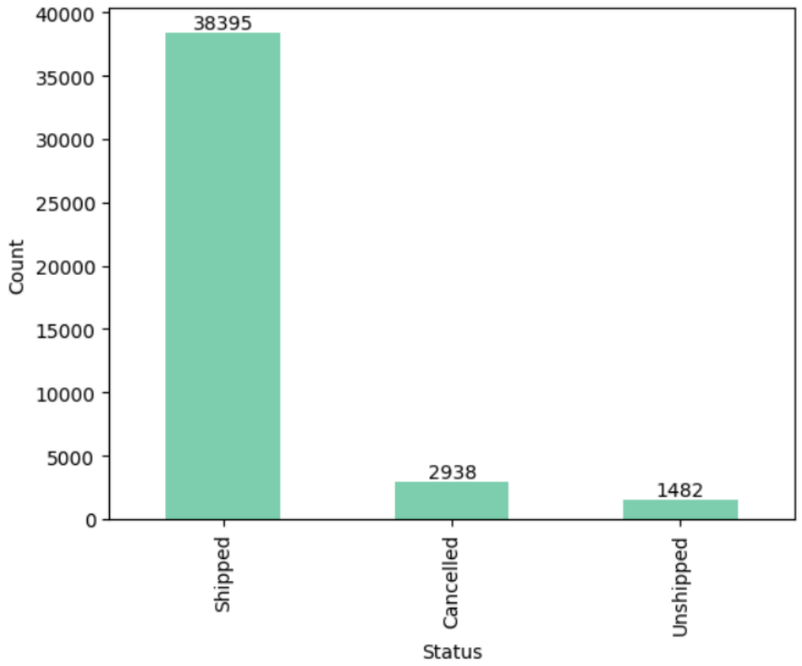
Trends in Cancellation Dates



Shows a significant **spike** in cancellations around July 2022.Overall, the number of cancellations seems to be trending **downwards**,

Supply Chain Efficiency

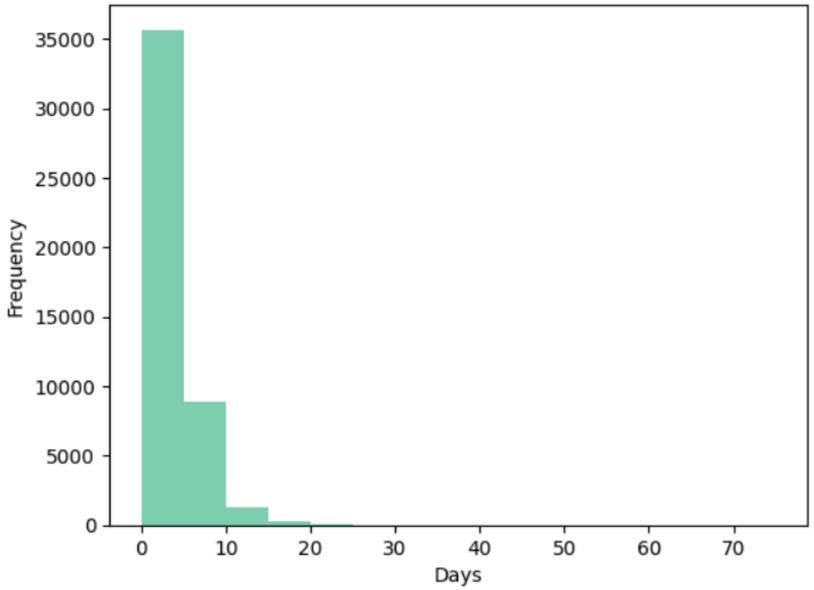
Order Status



Delivery Rate around 89.7%
Cancellation Rate - 6.9%
Pending shipment rate - 3.5%

Amazon's delivery rate is almost 30% higher than Flipkart's, indicating better order fulfillment capabilities.

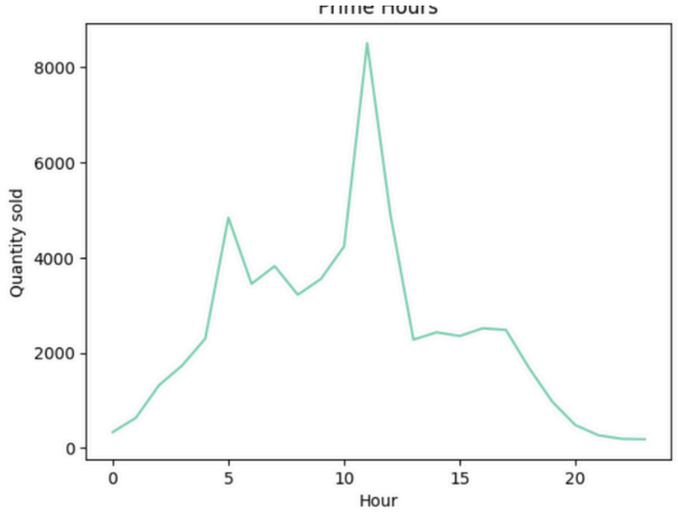
Distribution of Shipping Times (Days)



52.20% of orders are shipped in first 10 days with average of 3 days.

The histogram is likely to be skewed to the left, indicating that most orders are shipped within a short period, **typically within 10-20 days.**

Best Time to Display Ads?

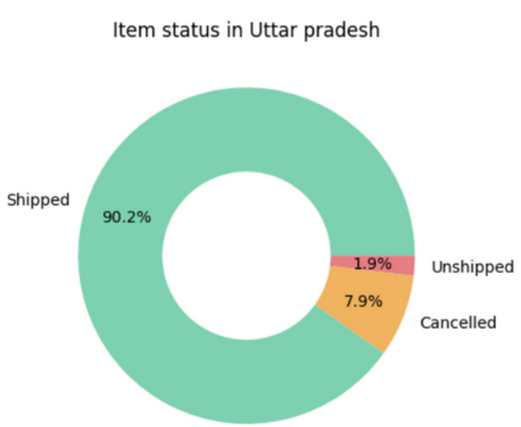


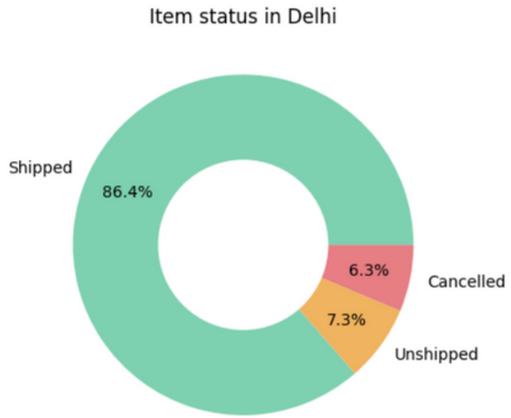
The peak hours for amazon customers is in the **mid-day**

Segmentation Problem Identified

Region with high sales volume like Delhi not generating the expected revenue?

Item status -

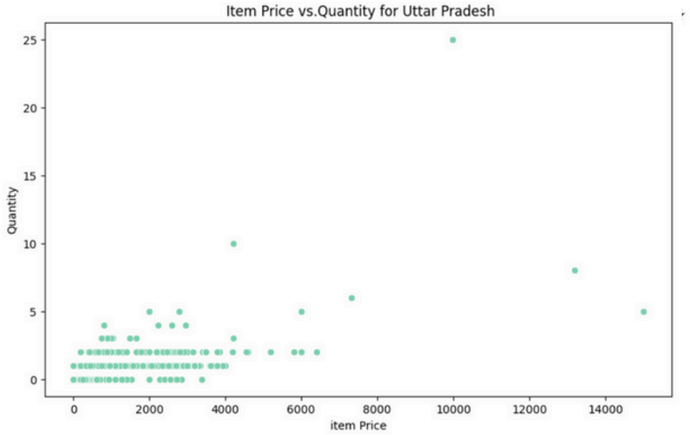


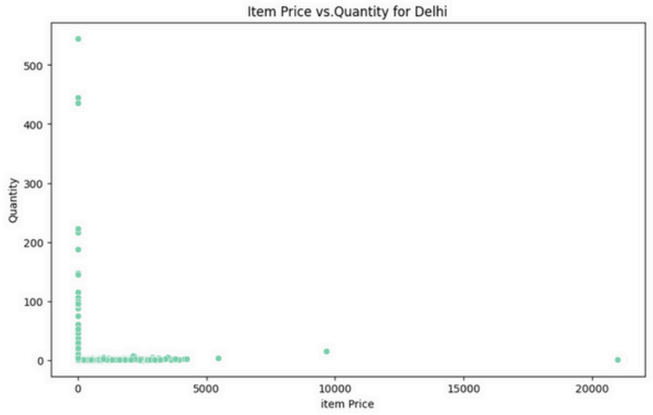


REASON -1
This could be due to the impact of items status distribution like the **cancellation and unship rate is higher for the Delhi** as compared to Uttar Pradesh which could be a reason for lower revenue despite high order quantities

for example a high cancellation rate would reduce the effective revenue even if the initial order quantity was high

Price vs Quantity

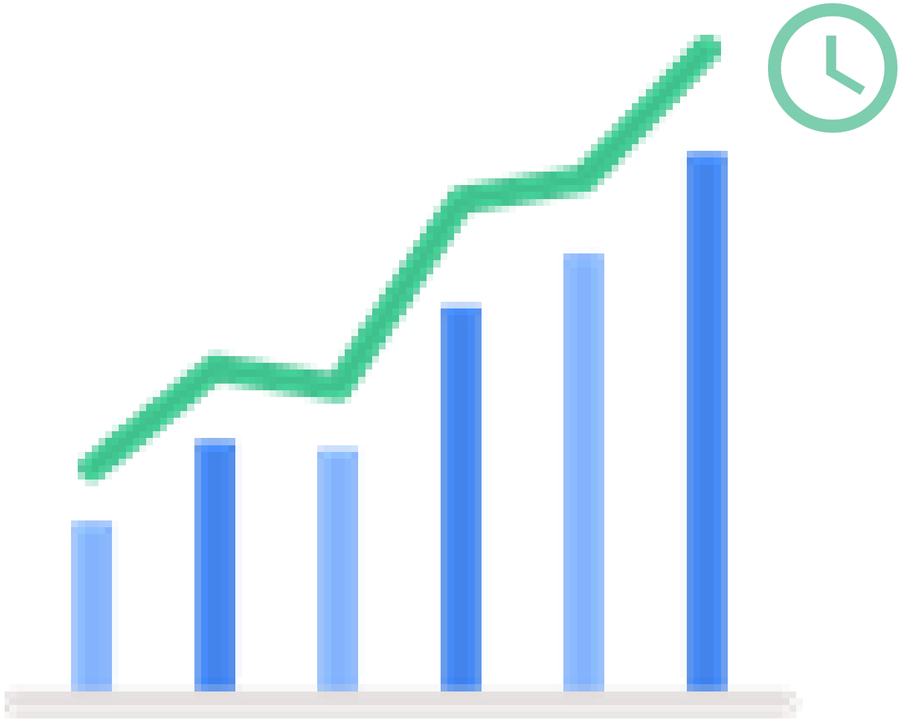




REASON -2
when we see the scatter plot between the item price and quantity reveals that the items with the **lower price** are being purchased in the **higher quantities** especially in Delhi with L-shape graph reflects a **price-sensitive market** in Delhi, where consumers prefer lower-priced products

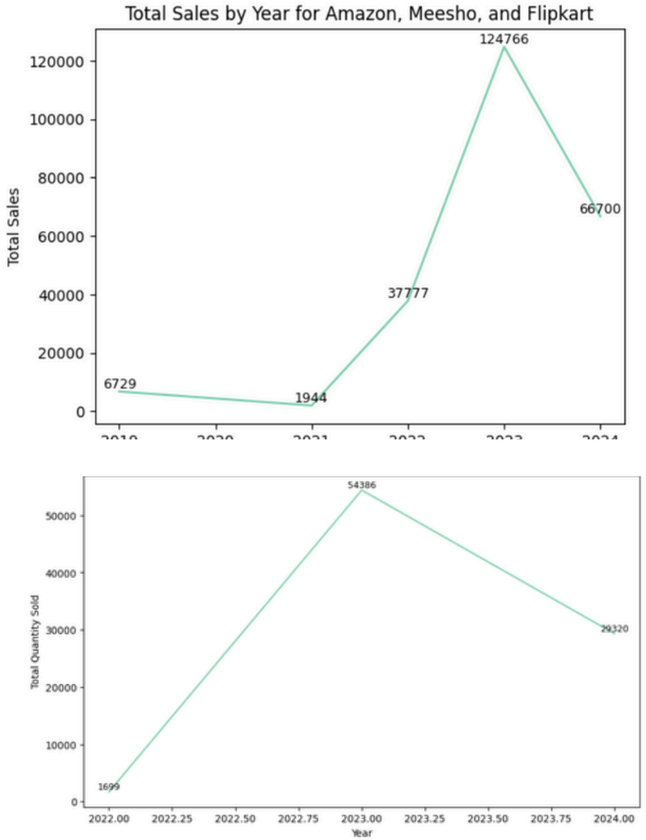
which also supports the earlier point about **low average revenue**

Flipkart



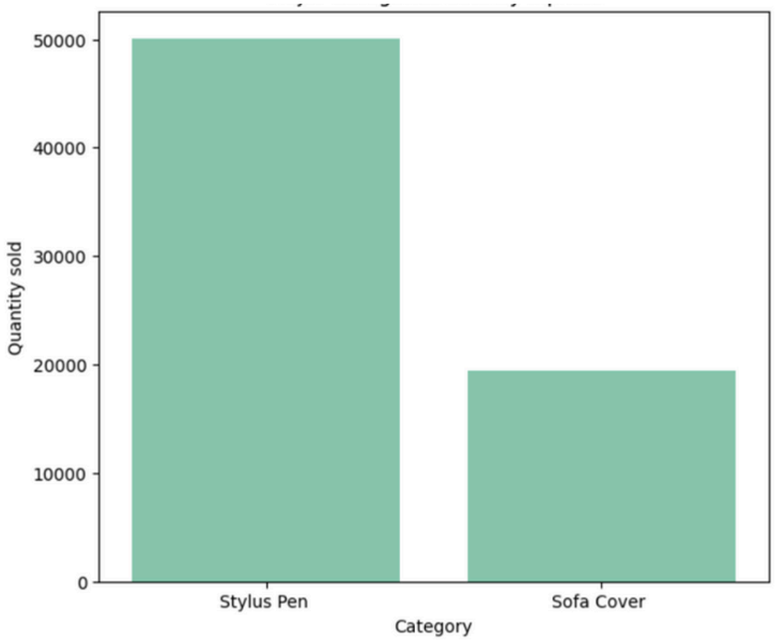
Market Analysis

Quantity of Items Sold Over Time



In 2024, Flipkart's sales decreased to 29,320, despite a stable market share of 43.9%
The drop in sales highlights **increased competition**, particularly from Amazon, which improved its sales during the same period

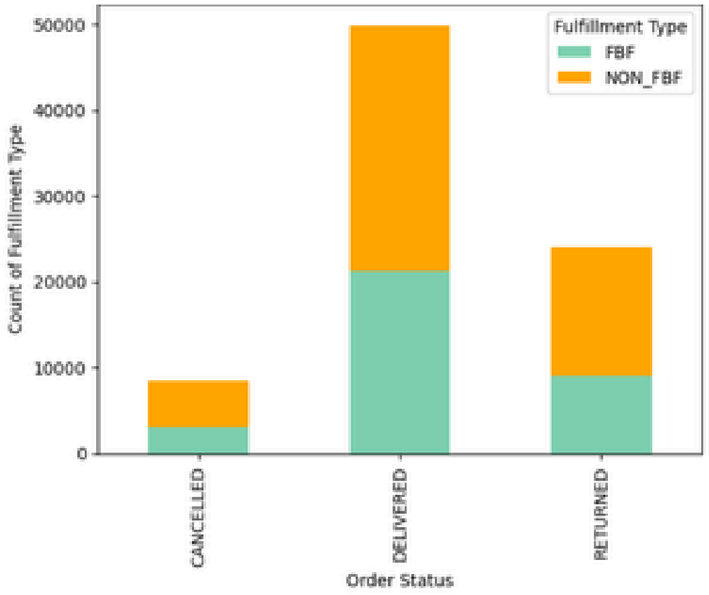
Major Catgory Sold By Flipkart



Stylus pen and sofa covers are the primary revenue driver, contributing to **81.35% of total volume**.

Quantity sold **peaked** in year 2023 , but show a **downward trend** in the later year

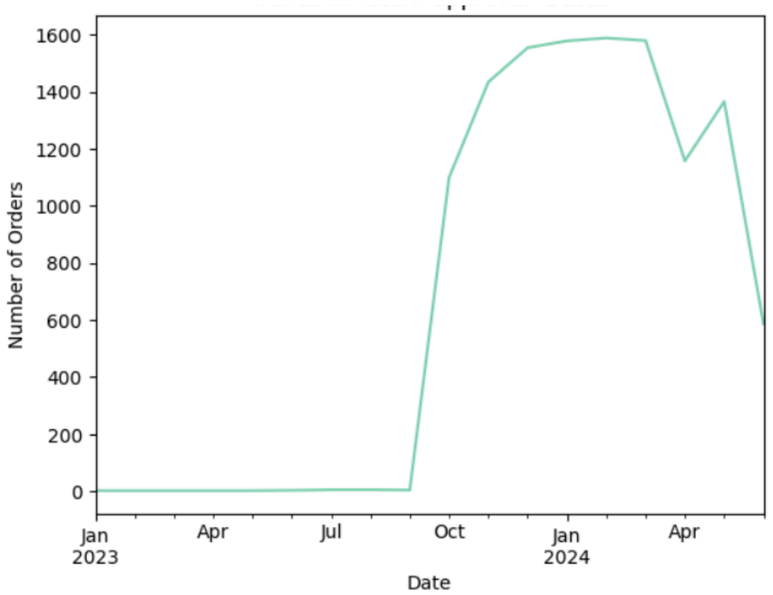
Fullfillment type vs order status



Both **FBF** and **non-FBF** fulfillment methods contribute almost **equally** to Flipkart's overall order distribution which shows Flipkart is **relying equally** on its own logistics network and external sellers to manage customer orders

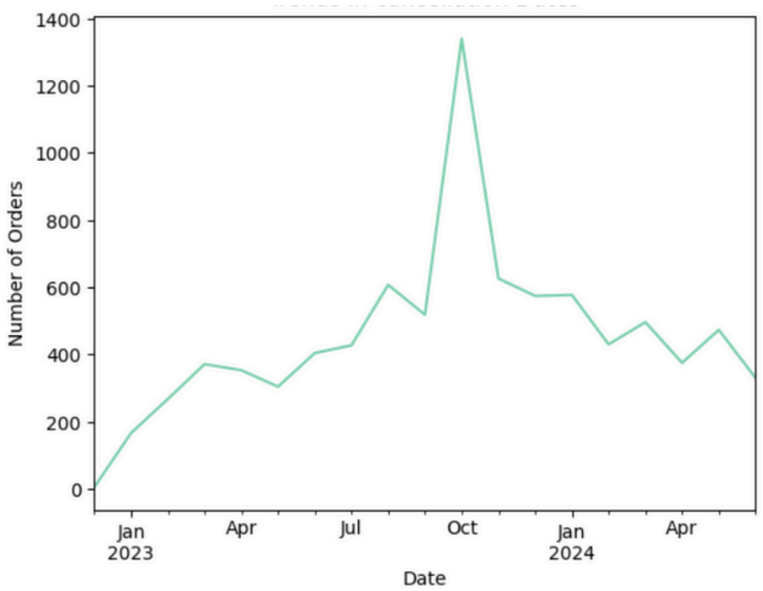
Understanding Sales Journey

Trends In Return Dates



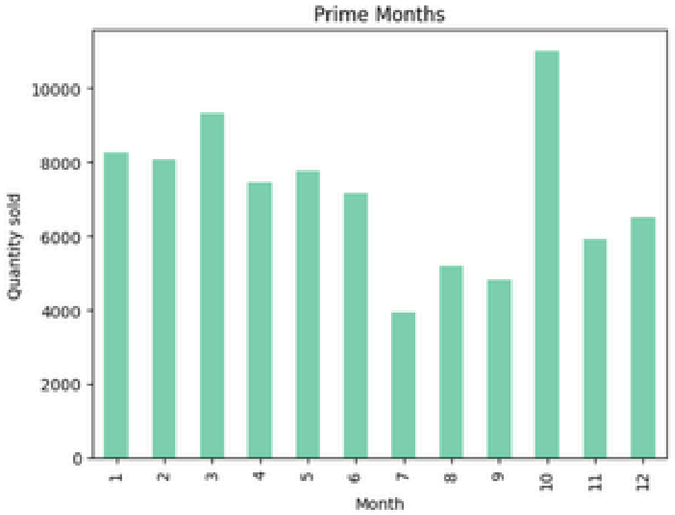
The graph shows a peak in return approvals around **October** and **November**, potentially due to **post-holiday returns**. There's also a possibility of a smaller peak in returns around April and May.

Trends in Cancellation Dates



The graph shows a similar cancellation peak in around **October and November** , could be due to several reasons, such as **pre-holiday order cancellations** or seasonal product returns.

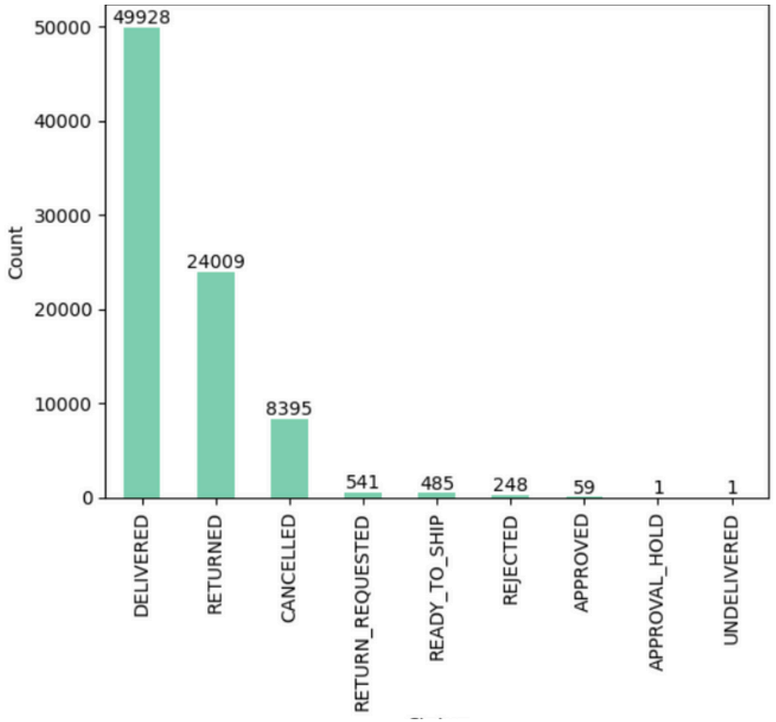
Peak Sales Periods

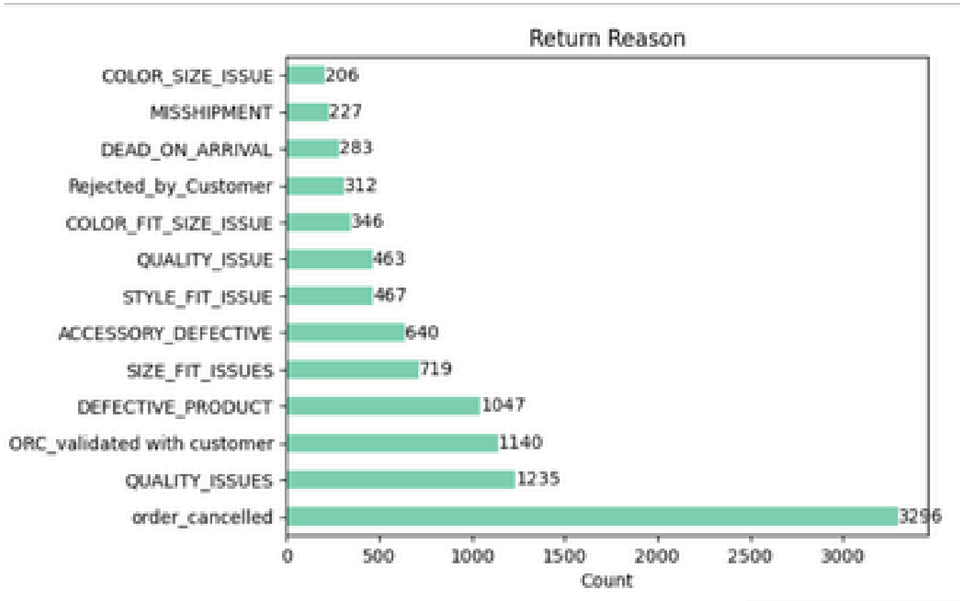


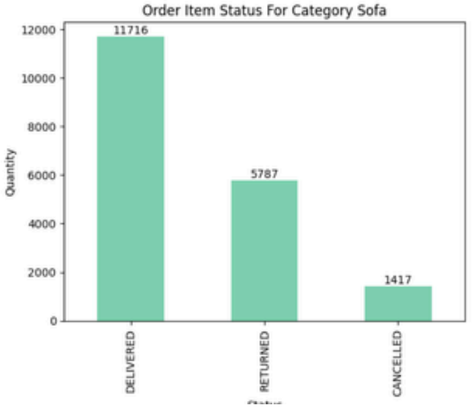
Peak Sales Months: The months with the peak sales periods are **October** , March and may.

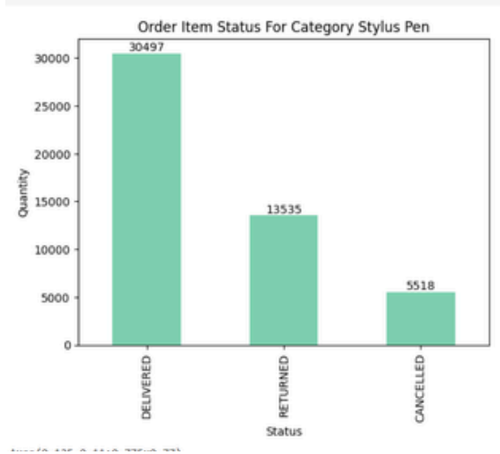
The company should prepare by increasing inventory and marketing efforts during the Peak Months

Segmentation problem identified









Supply Chain Efficiency For Flipkart

Delivery Rate around 59.67%
Cancellation Rate - 10.03%
Return Rate - 28.69%

Flipkart's cancellation rate is nearly **double** that of Amazon, suggesting potential issues in order management or inventory availability.

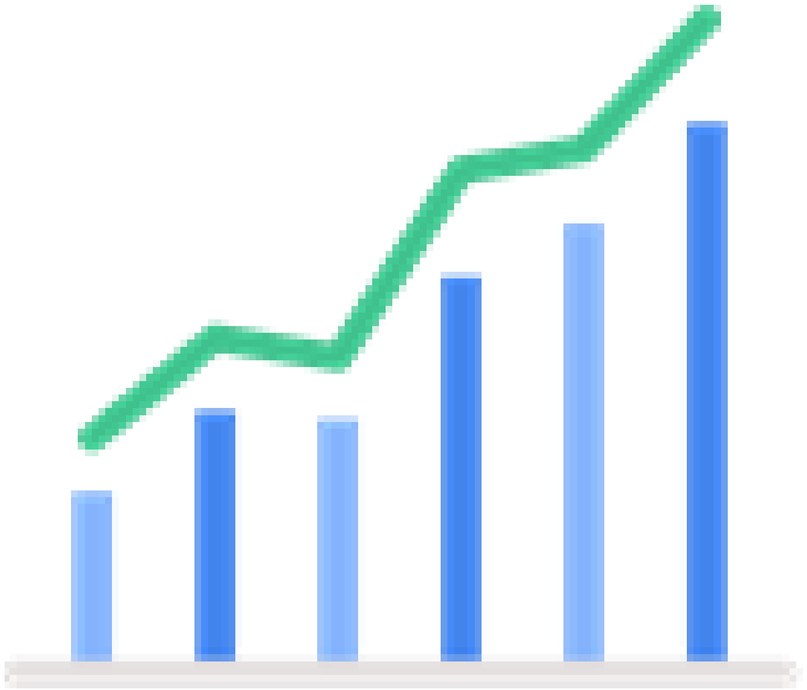
Major reasons for return

Targeting the identified inefficiencies in product categories like sofa covers and stylus pens can significantly improve Flipkart's delivery rates and reduce returns.

Delivery rate for sofa cover is - **50.60**% while for stylus pen is - **55.61**% which indicates majority of orders are being successfully fulfilled,

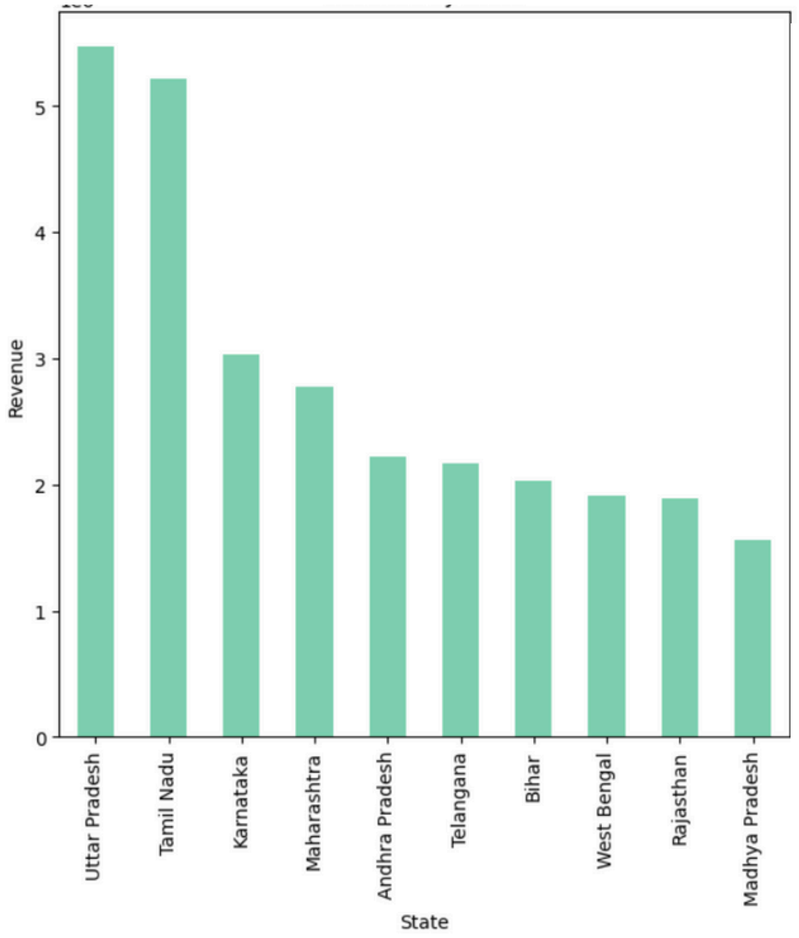
but there is still a significant percentage of orders that are **not reaching customers** as expected.

Meesho

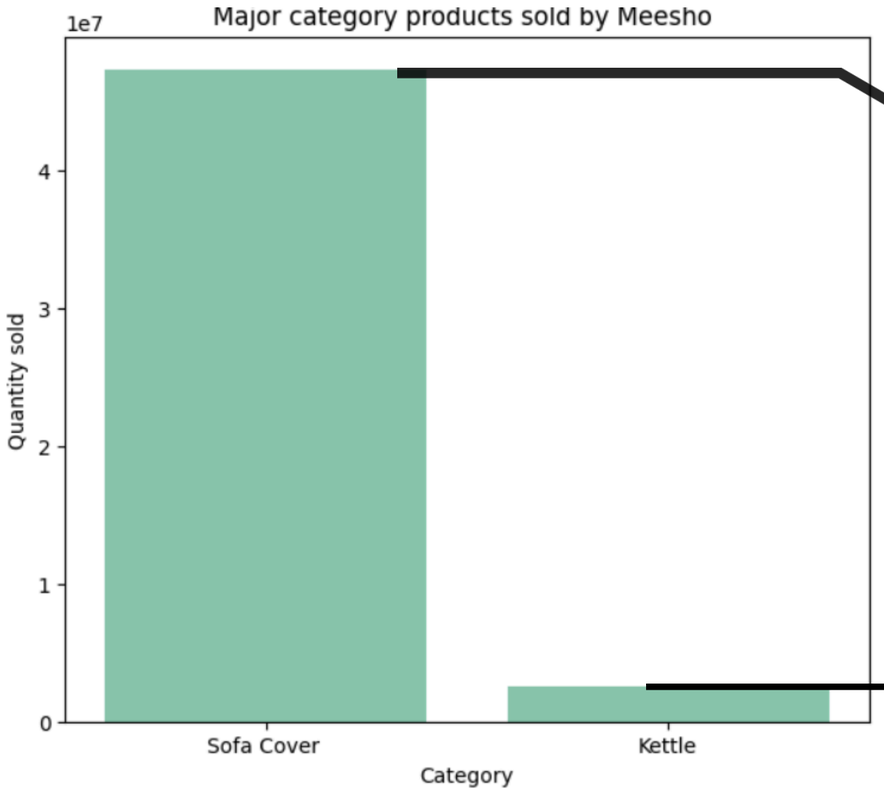


Understanding the Demography

Top 10 States By Sales

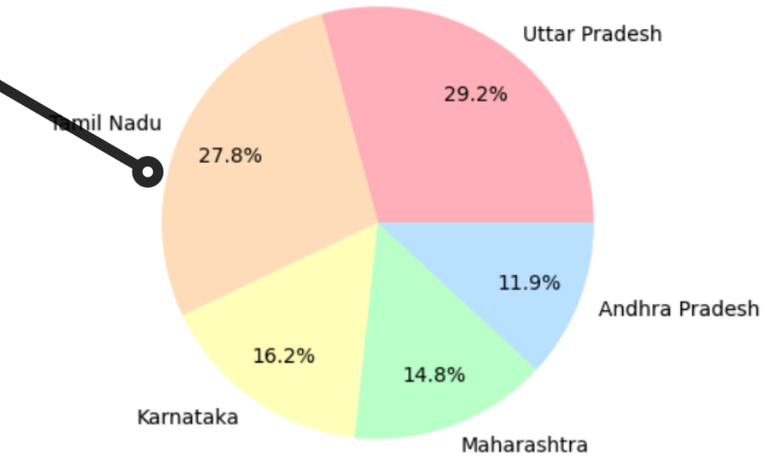


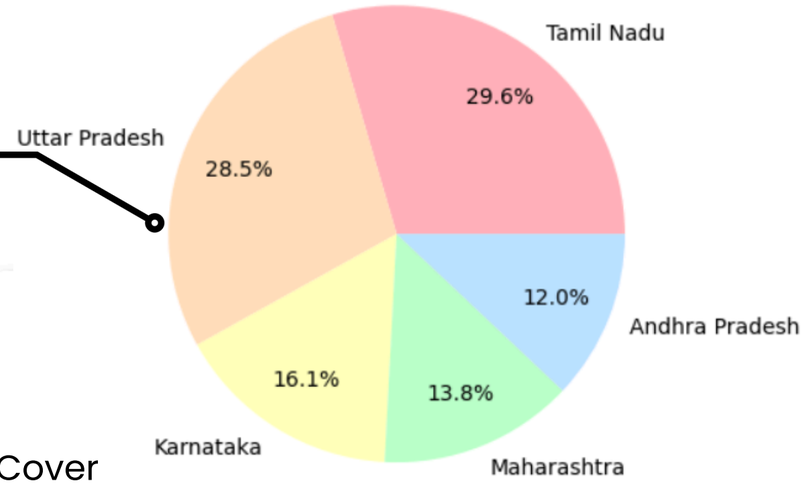
Major Revenue Products



Sofa Covers and Kettle are the dominant revenue generator, contributing to **72.66%** of total revenue.

State Wise Demand (By Sales)

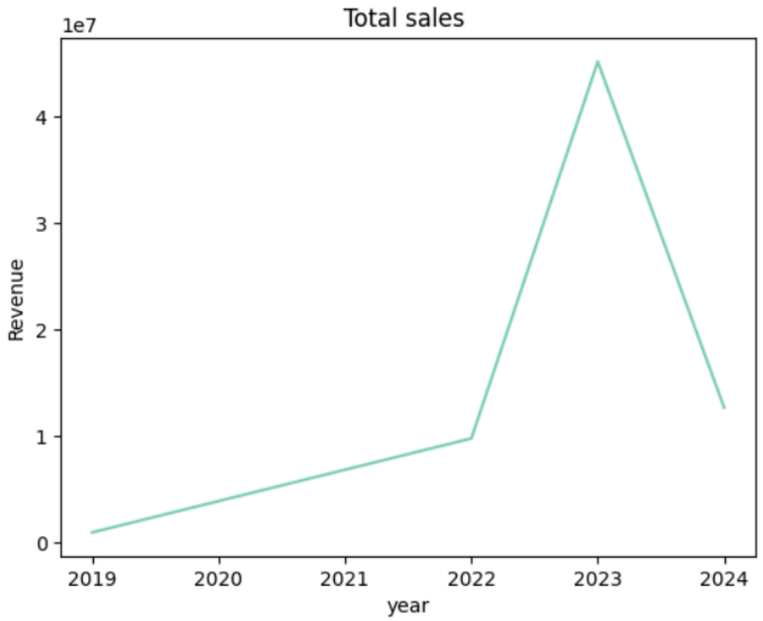




Uttar Pradesh and Tamil Nadu remains to be the leading states in terms of sales for both Sofa Cover and Kettle.

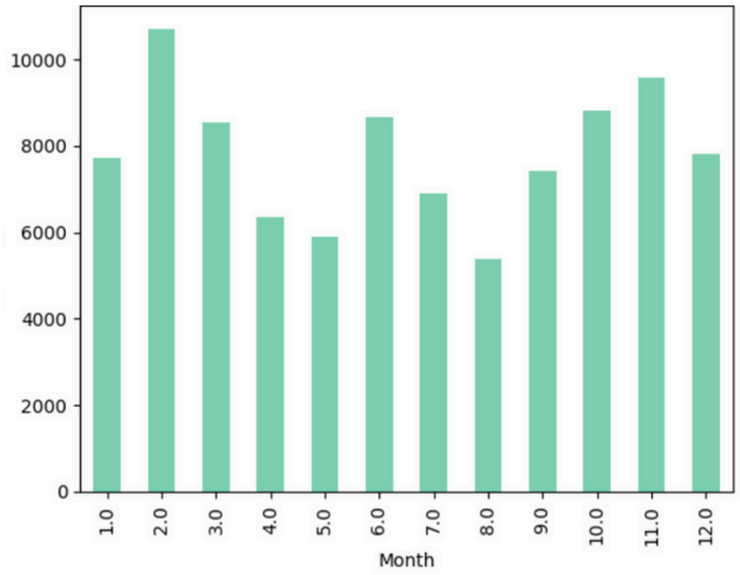
Market Analysis

Revenue Trends By Year



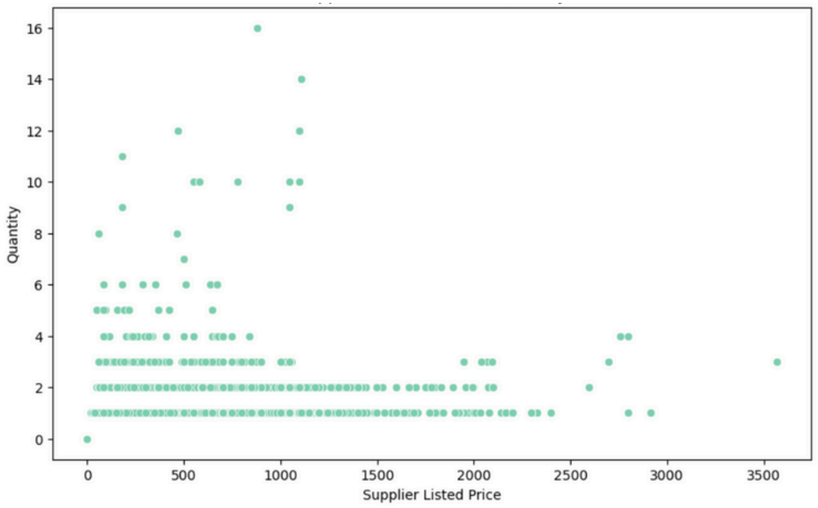
- Revenue **peaked** in FY23 but there seems to be a decline in revenue in FY24 compared to the previous year.
- Overall, there's a **generally upward** trend in revenue from FY19 to FY23.

Peak Sales Periods



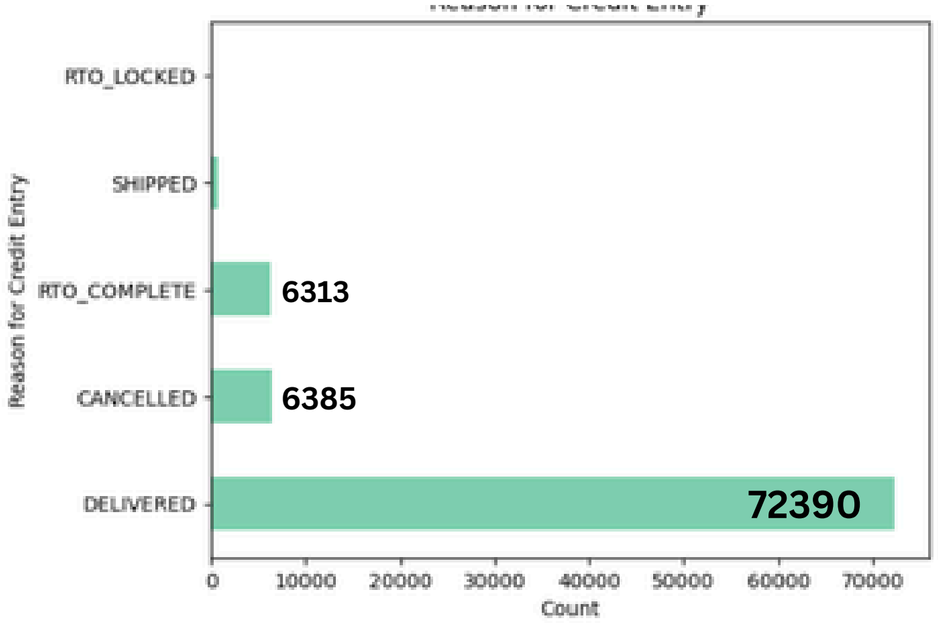
Peak Sales Months: The peak sales months are **February**, October, and November, which represent the periods with the highest sales activity. .

Supplier Listed Price vs Quantity



Points slopping downward, suggests that higher prices are associated with lower quantities, indicating **price sensitivity** and that customers prefer to buy more when prices are lower.

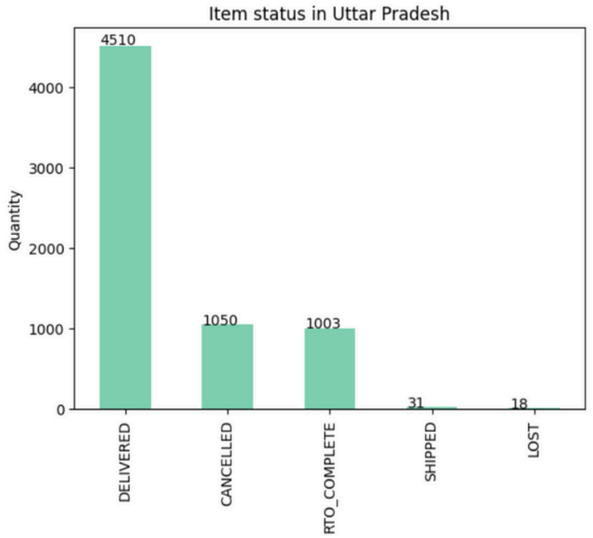
Supply Chain Efficiency



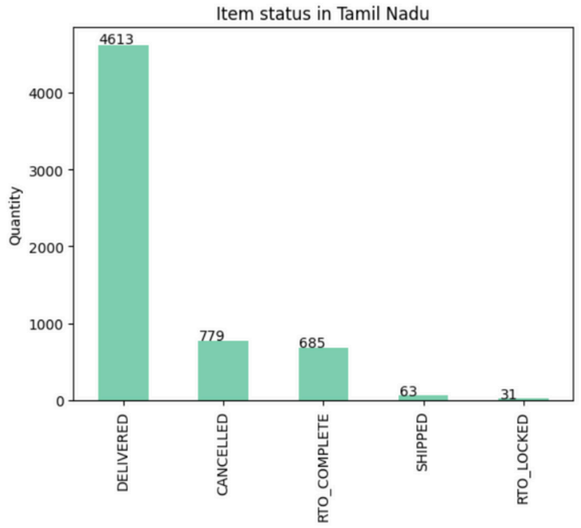
Meesho's overall **delivery rate** is **85.1%** while cancellation rate is 7.5%

Meesho **significantly outperform** Flipkart's delivery rate by 25.43 percentage points while 2.53 percentage points lower than flipkart's cancellation rates.

Operational Efficiency of top 2 overall Leading States(by volume and revenue)



Delivery rate - **68.21**%
cancellation rate - **15.77**%



Delivery rate - **75.35**%
cancellation rate - **12.55** %

THANK YOU