Amazon Sales Analysis

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INTRODUCTION

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Project Overview Comprehensive analysis of Amazon sales data

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Key objectives: Derive insights and provide actionable recommendations

3

Derive Insights on product preferences, customer behaviour, and geographical sales distribution

Project Recap

Data Analysis: Analyze Amazon sales data to identify trends, pattern and insights.

Visualization: Use Power BI to create interactive dashboards for data visualization.

Recommendations: Provide actionable insights and recommendations based on the analysis to make more informed decisions for business success.

Problem

- Sales Performance: Need to identify factors impacting sales and revenue.

- Customer Experience: High cancellation rates and varying delivery times affecting satisfaction.

- Inventory Management: Inefficient stock levels leading to overstock or stockouts.

- Geographical Focus: Unclear performance in different regions impacting targeted marketing.

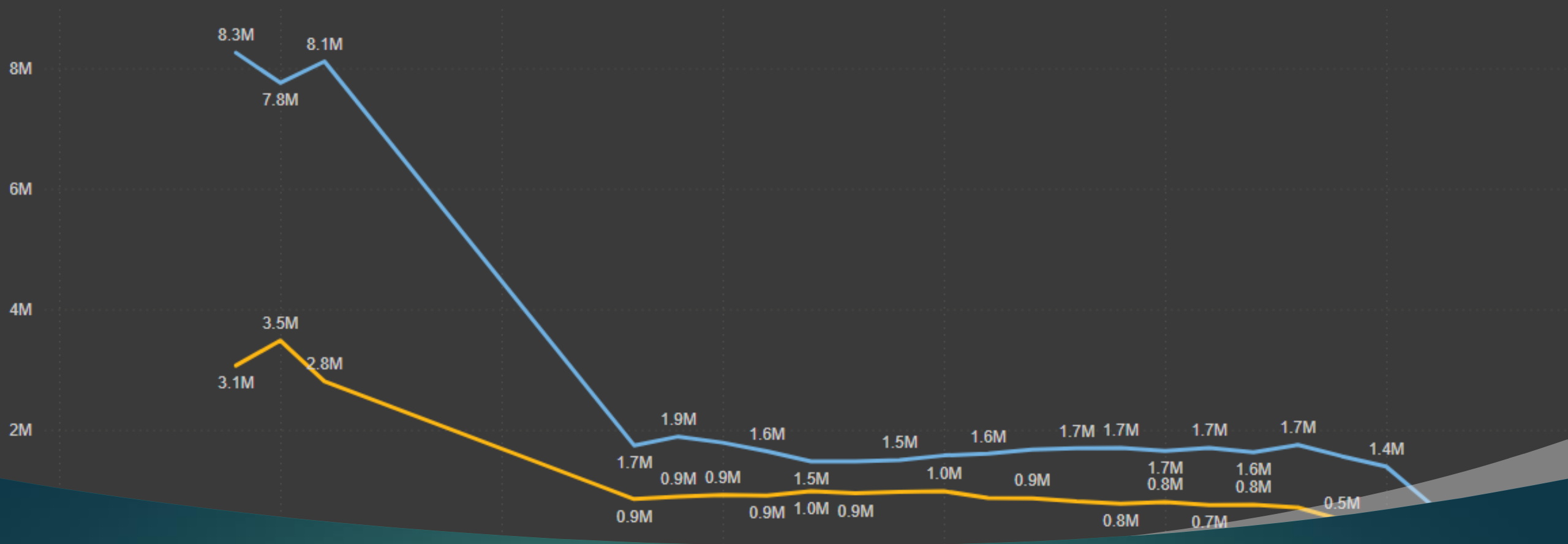- Fulfillment Efficiency: Need to improve fulfillment methods to enhance logistics and customer service.

Process

- Data Collection
- Data Cleaning & Interpretation
- Data Modelling
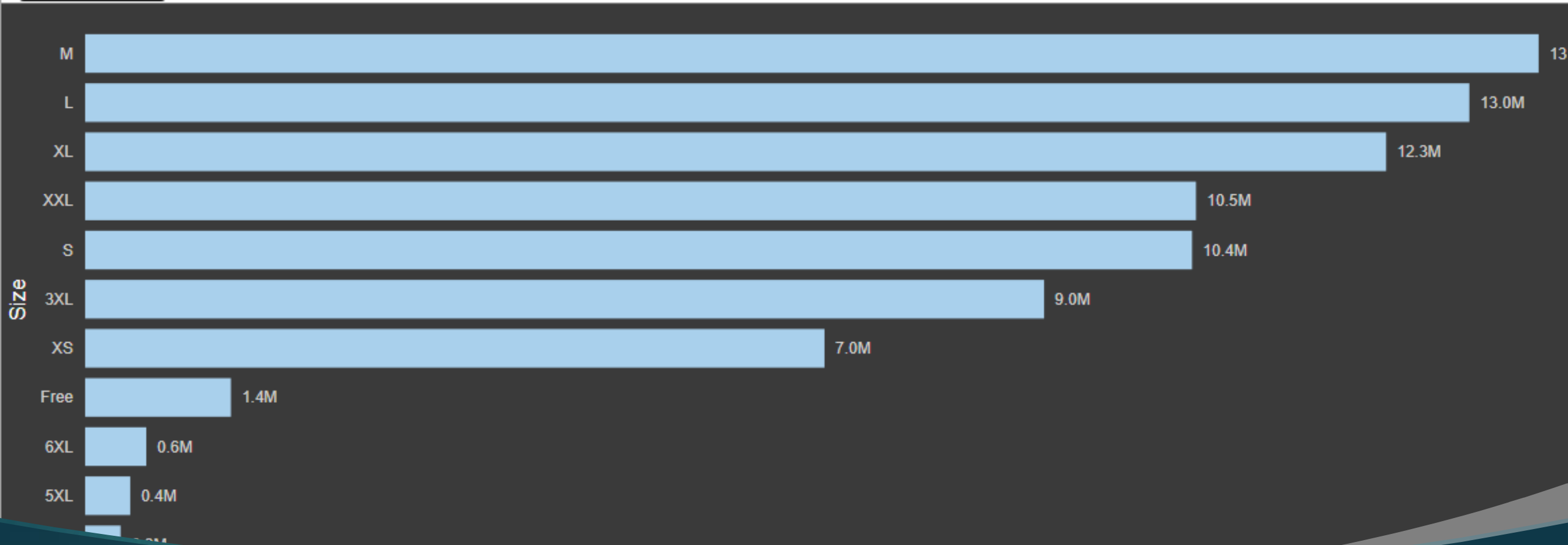- Data Analysis & Visualization
- Reveal Insights

Insights

- Total sales = 78.59M
- Order Count = 120K
- Average Order Value = 653.67
- Shipped Orders = 107K
- Cancellation Rate = 0.15

Line graph shows total sales by day. Fulfillment by Amazon and Merchant shows that both started with high values then both categories saw a significant decline in Total Sales over the month

The horizontal bar chart shows total sales across different categories, with 'M' leading at 13.7 million, followed by 'L' at approximately 13 million, and XL has 12.3 million sales. 'XS' has around 7 million in sales. This indicates that 'M' and 'L' sizes are the most popular and contribute the most to total sales, while smaller sizes and other categories have much lower sales figures

Pie chart shows total sales by category. T-shirt has 39.21m sales contributing 49% of total sales followed by Shirt 21.3 m(27.1%) sales, then Blazzer has 11.22m sales(14.27%) and watches has lowest sales.


0.79M (1%)

5.35M (6.8%)

11.22M (14.27%)

39.21M (

21.3M (27.1%)
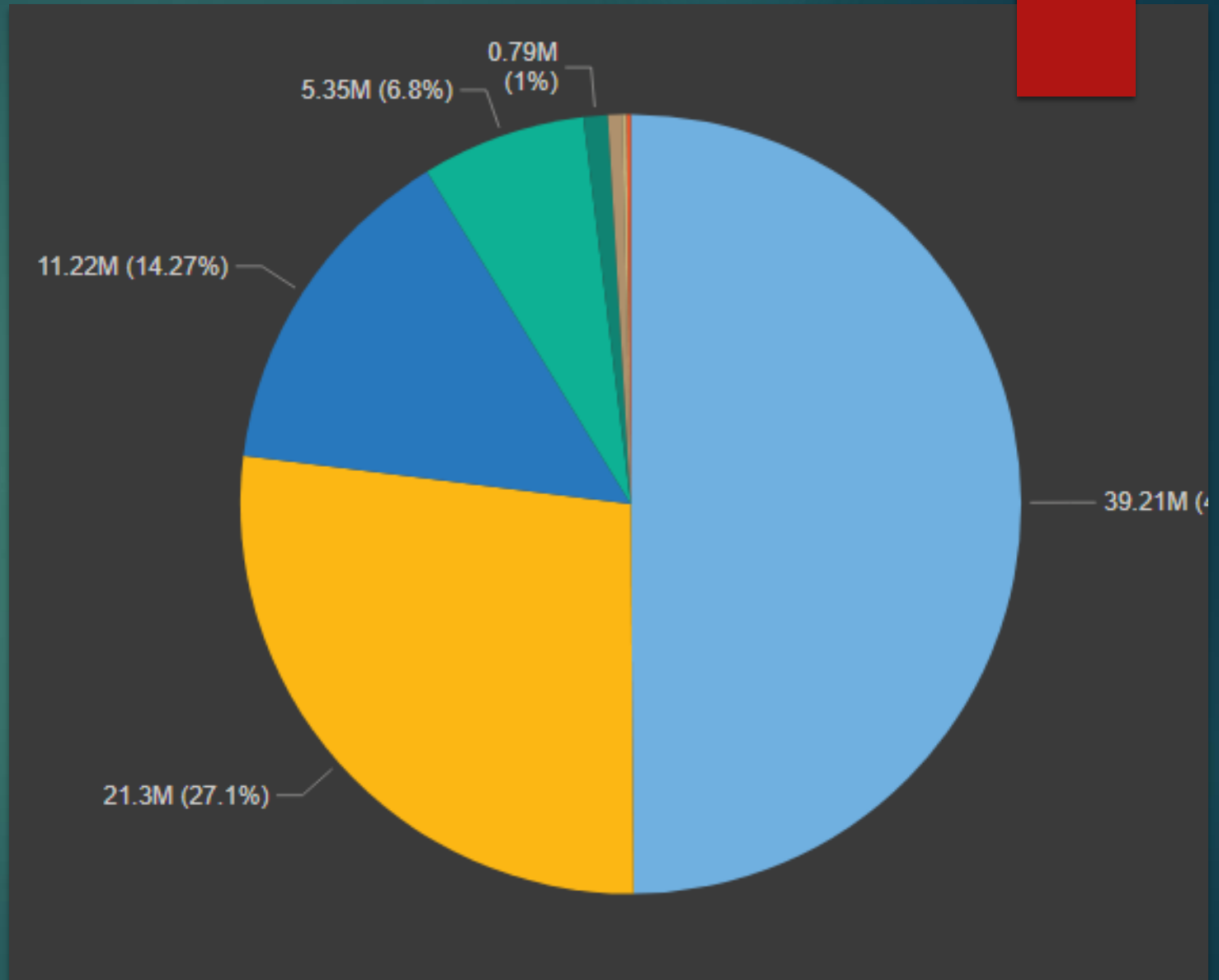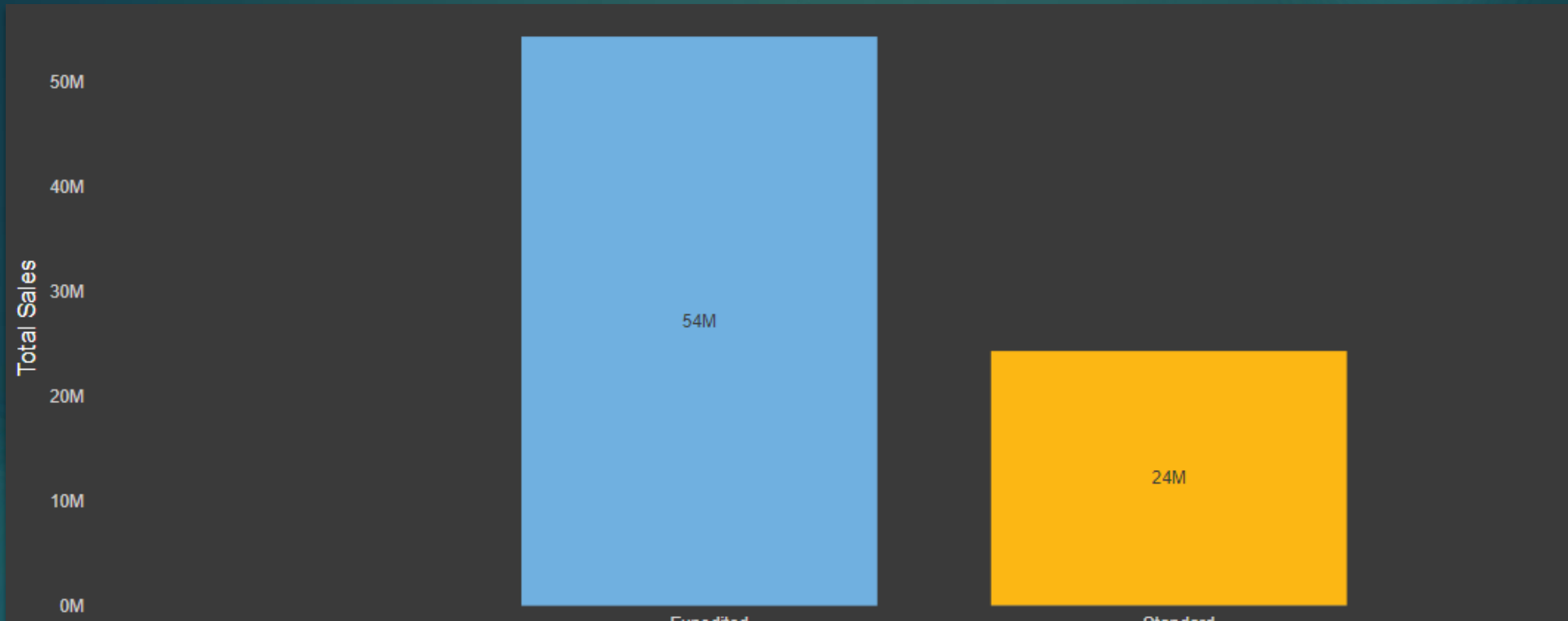
The chart compares total sales between two shipping service levels: "Fulfilled by Amazon" and "Merchant." The "Fulfilled by Amazon" category, represented by the blue bar, has significantly higher sales at 54 million, while the "Merchant" category, shown by the yellow bar, has 24 million in sales. This indicates that products fulfilled by Amazon have more than double the sales compared to those fulfilled by merchants. The chart highlights the effectiveness of Amazon's fulfillment services in driving higher sales volumes, suggesting that expedited shipping options may be more attractive to customers.
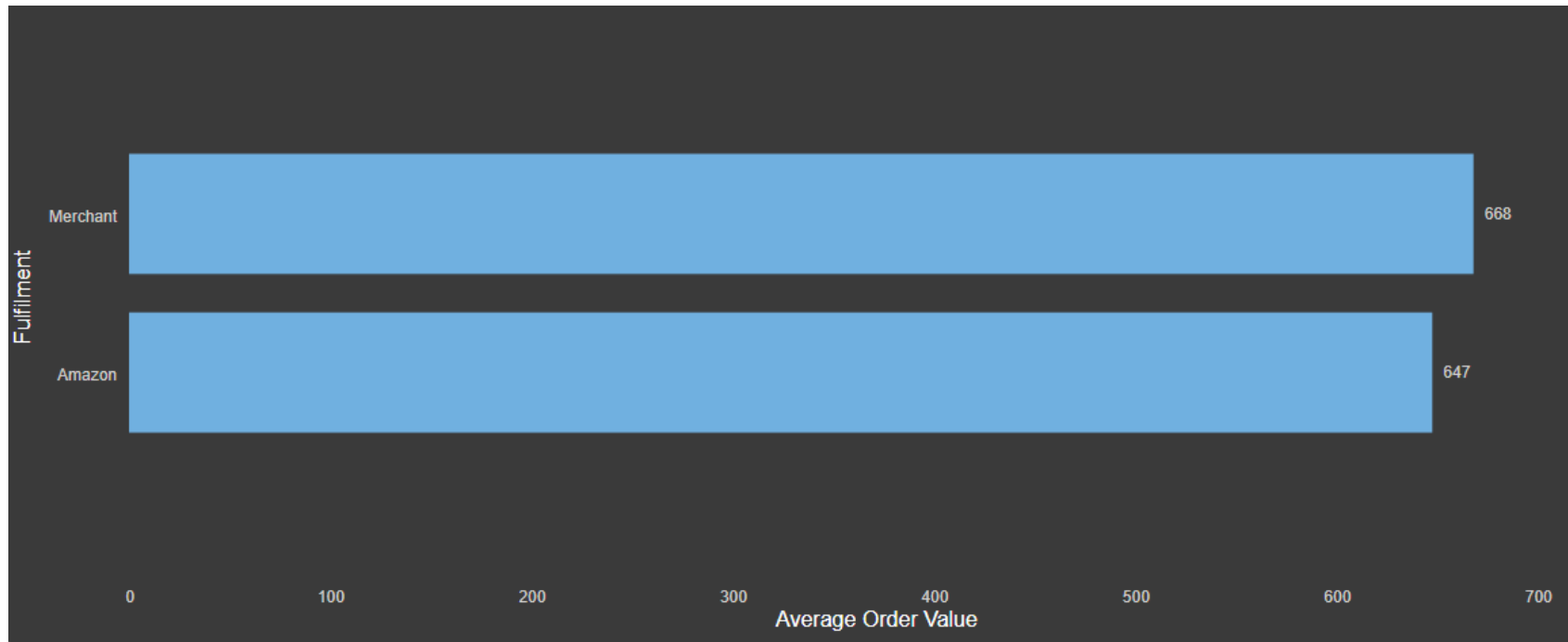
The chart compares the average order value between 'Merchant' and 'Amazon.' The 'Merchant' category has a higher average order value of 669, while 'Amazon' has an average order value of 647. This indicates that orders fulfilled by merchants tend to have a slightly higher value compared to those fulfilled by Amazon.
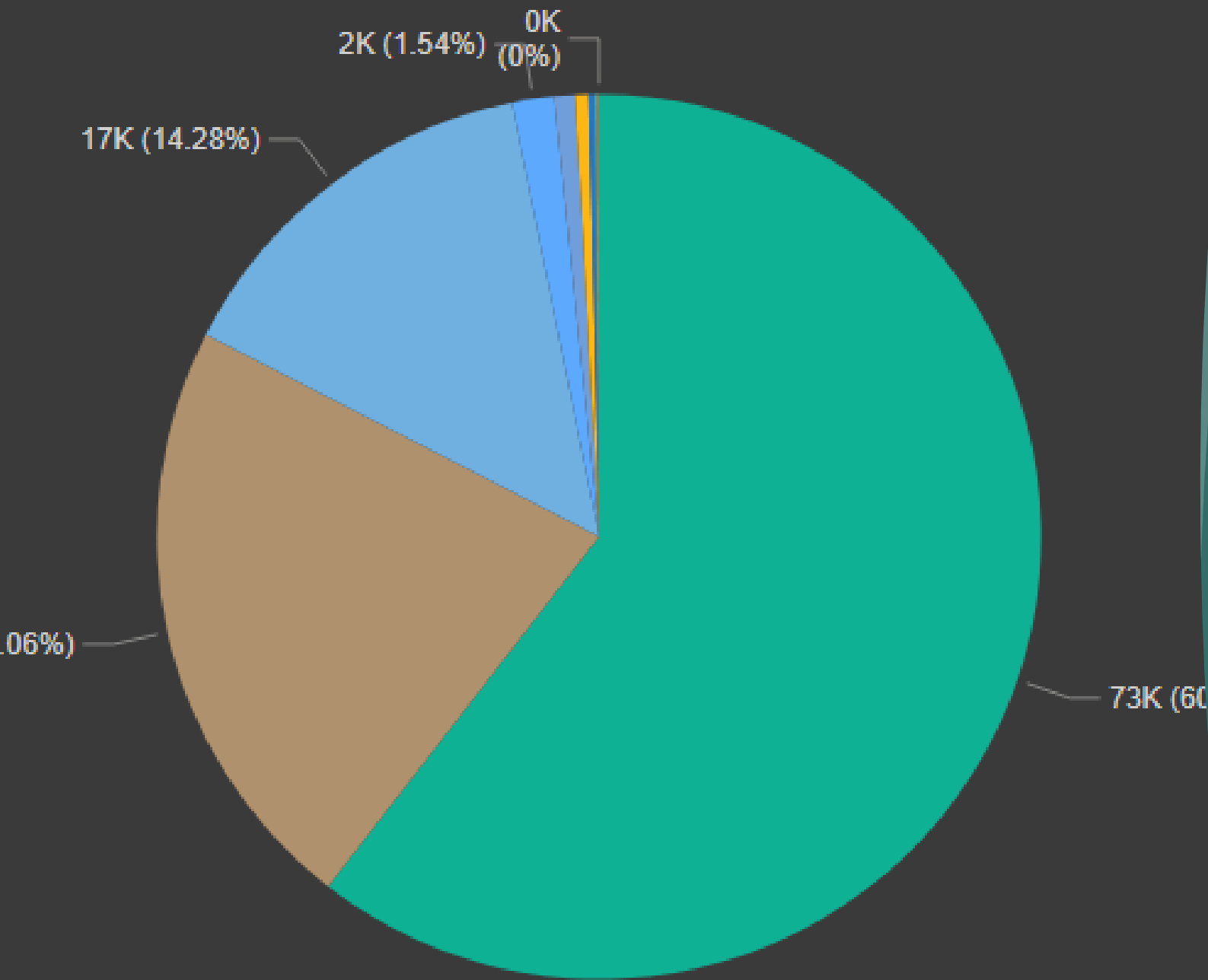
The pie chart provides a clear overview of shipment statuses. The majority of shipments, 73K (60.5%), are 'Shipped' indicating a high volume of active deliveries. 'Shipped - Delivered to Buyer' accounts for 27K (22.06%), showing successful deliveries.
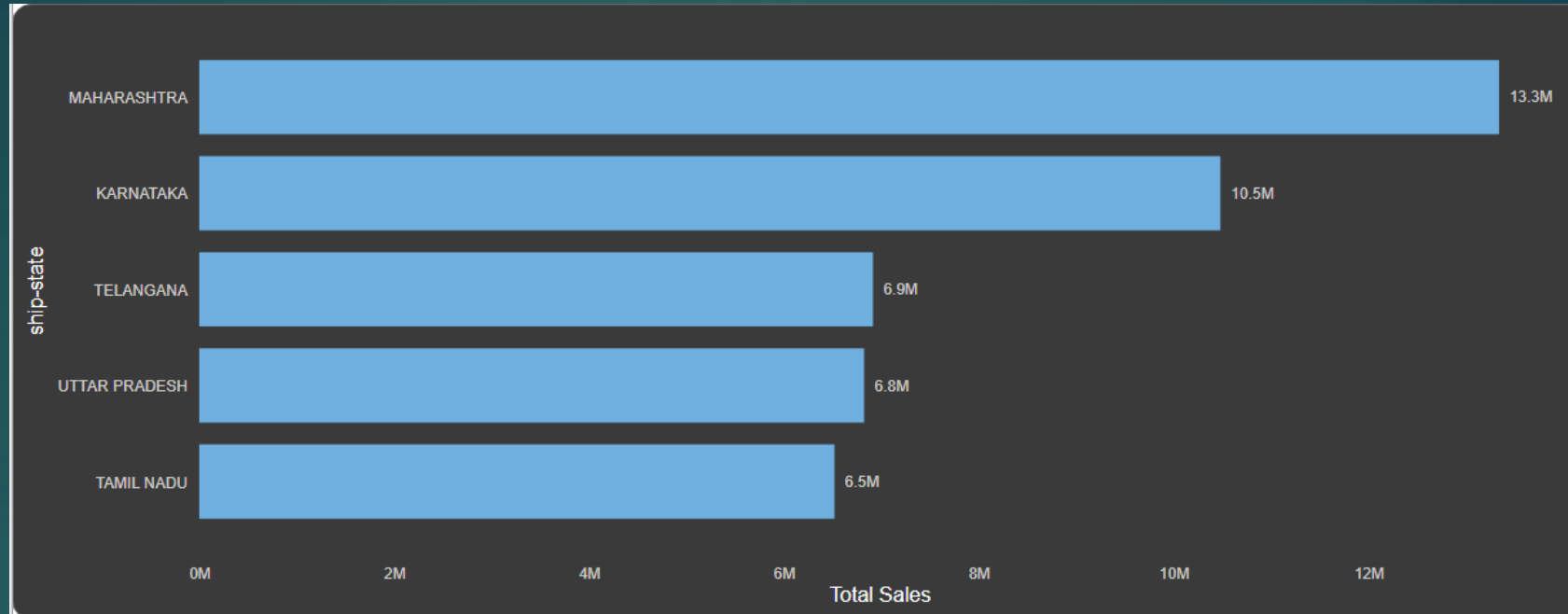
The horizontal bar chart illustrates total sales across top five Indian states. Maharashtra leads with the highest sales at 13.3 million, followed by Karnataka with 10.5 million. Telangana and Uttar Pradesh have similar sales figures, around 6.9 million and 6.8 million respectively. Tamil Nadu has slightly lower sales at 6.5 million. This data highlights Maharashtra as the top-performing state in terms of sales, while the other states show moderate performance, with Tamil Nadu having the lowest among the listed states. These insights can help in understanding regional sales distribution and identifying areas for potential growth
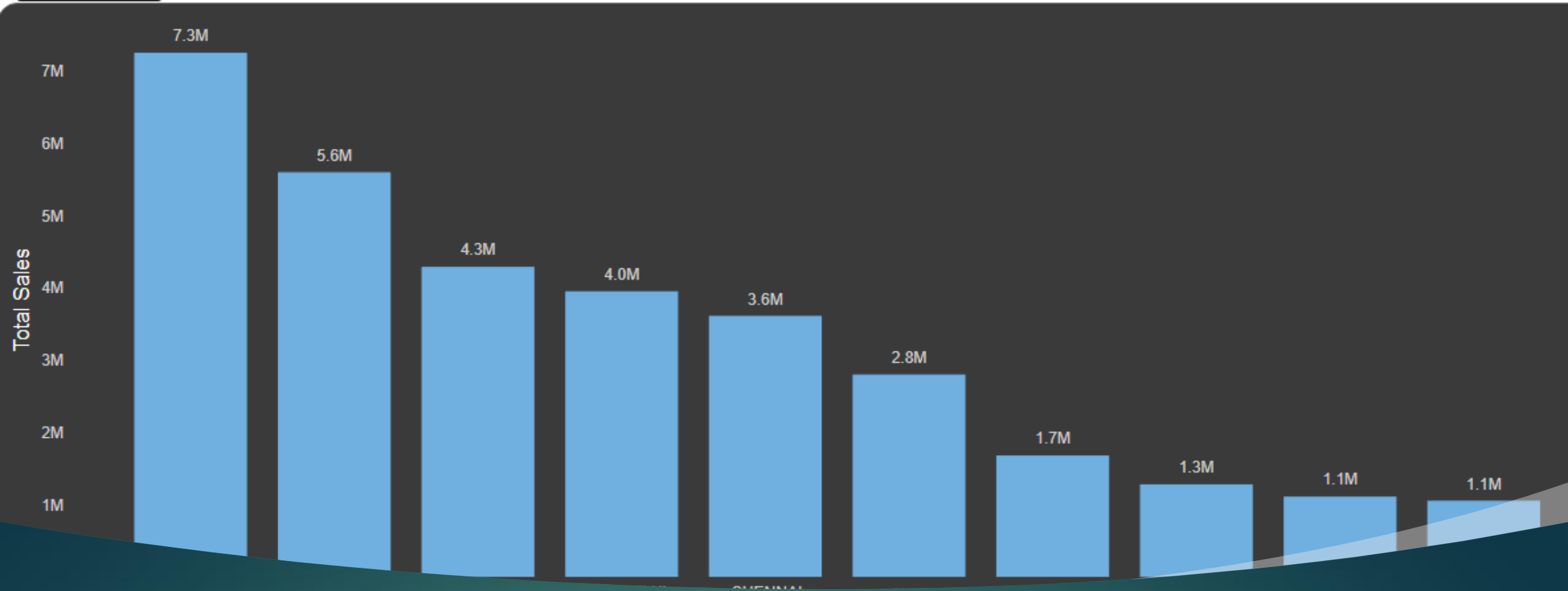
The chart shows total sales across top 10 Indian cities. Bengaluru leads with the highest sales at approximately 7.3 million, followed by Hyderabad with around 5.6 million. Mumbai and New Delhi have sales figures of about 4.3 million and 4 million respectively. Chennai and Pune follow with sales of 3.6 million and 2.8 million. Kolkata, Gurugram, Thane, and Lucknow have lower sales among listed top 10 cities. This data highlights Bengaluru as the top-performing city in terms of sales.

Key Insights and Recommendations

- **Optimize Fulfillment Strategies**:

  - **Amazon Fulfillment vs. Merchant Fulfillment**: Since products fulfilled by Amazon have significantly higher sales (54M vs. 24M), consider encouraging more merchants to use Amazon's fulfillment services. This could involve offering incentives or highlighting the benefits of using Amazon's fulfillment network.

- **Enhance Product Offerings**:

  - **Sales by Size**: Larger sizes ('M' and 'L') are the most popular and contribute the most to total sales. Ensure that these sizes are well-stocked and consider expanding the range of products available in these sizes to meet customer demand.

- **Improve Regional Sales Strategies**:

  - **Sales by State**: Maharashtra leads in sales, followed by Karnataka. Focus marketing efforts and resources on these high-performing states to further boost sales. Additionally, investigate why other states have lower sales and develop targeted strategies to improve performance in these regions.

Key Insights and Recommendations

- **Boost City-Specific Sales**:

    - **Sales by City**: Bengaluru has the highest sales, followed by Hyderabad and Mumbai. Strengthen marketing campaigns and promotional activities in these top-performing cities. For cities with lower, analyze local market conditions and customer preferences to tailor strategies that can drive growth.

- **Address Shipment and Delivery Issues**:

    - **Shipment Status**: With a significant portion of shipments shipped (60.5%) focus on improving the delivery process and reducing returns. This could involve better packaging, clearer product descriptions, and enhanced customer service to address issues before they result in returns.

- **Increase Average Order Value**:

    - **Average Order Value**: Orders fulfilled by merchants have a slightly higher average order value compared to those fulfilled by Amazon. Explore ways to increase the average order value for Amazon-fulfilled orders, such as bundling products, offering discounts on larger purchases, or promoting premium products

Sales Performance Overview

amazon

Total Sales

78.59M

Order Count

120K

Average Order Value

653.67

ship-state	ship-city	Month
All	All	All

Total Sales by Day and Fulfilment

Fulfilment ● Amazon ● Merchant

Amazon: 8.3M, 8.1M, 7.6M, 1.7M, 0.9M, 1.5M, 1.0M, 1.7M, 1.7M, 0.8M, 0.2M

Merchant: 3.1M, 3.5M, 0.9M, 1.9M, 0.9M, 0.6M, 0.4M, 0.2M

Total Sales by Size

Size	Total Sales
M	13.7M
L	13.0M
XL	12.3M
XXL	10.5M
S	10.4M
3XL	9.0M
XS	7.0M
Free	1.4M
6XL	0.6M
5XL	0.4M
4XL	0.3M

Total Sales by Category

Category: ● T-shirt ● Shirt ● Blazzer ● Trousers

39.21M (49.89%), 21.3M (27.1%), 11.22M (14.27%), 0M (0%)
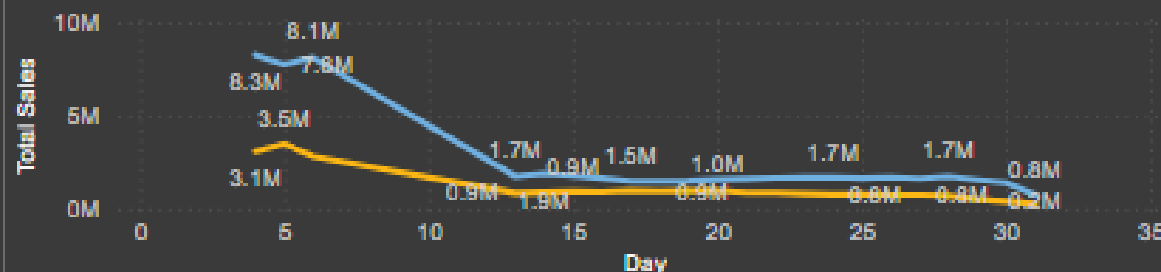
Total Sales by Sales Channel and Status

Status ● Cancelled ● Pending ● Pending -... ● Shipped

Amazon.in: 7M, 50M, 19M
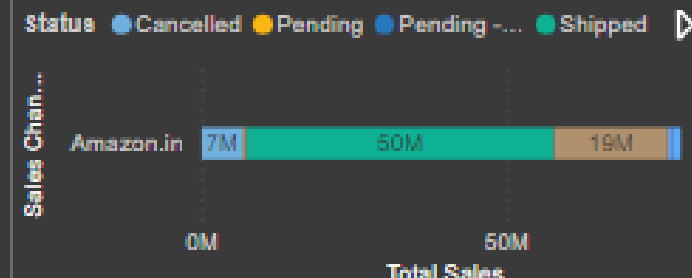
Category	Sum of Qty	Total Sales
Watch	3	915.00
Shoes	153	1,24,752.76
Socks	399	1,50,757.50
Wallet	883	4,58,408.18
Perfume	1051	7,89,419.68
Trousers	9898	53,46,286.30
Blazzer	13943	1,12,15,104.12
Shirt	45044	2,12,97,770.08
T-shirt	45292	3,92,06,756.65
Total	116646	7,85,90,170.25

amazon

Operational and Customer Insights

Cancellation Rate
0.15

Shipped Orders
107K

Total Sales by Fulfilment and Status
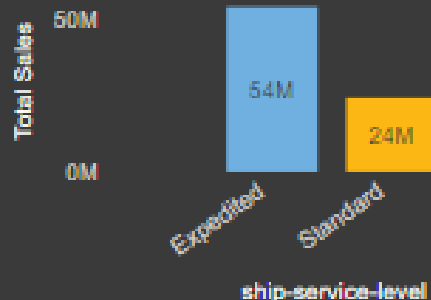
status ● Cancelled ● Pending ● Pending - ... ▷

Total Sales: 50M, 0M
Amazon: 50M
Merchant: 19M
Fulfilment
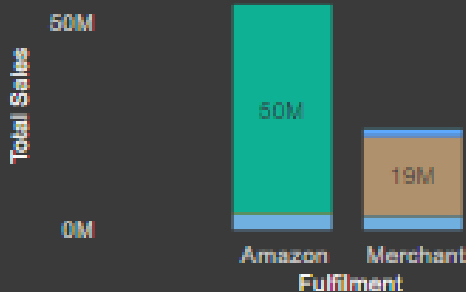
Average Order Value by Fulfilment

Merchant: 668
Amazon: 647

Average Order Value: 0, 500, 1,000
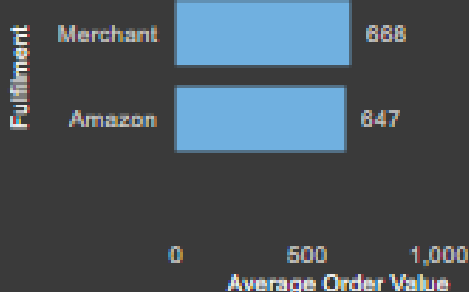
Total Sales by ship-service-level and Fulfilment

Fulfilment ● Amazon ● Merchant

Total Sales: 50M, 0M
Expedited: 54M
Standard: 24M
ship-service-level

Total Sales by ship-state

MAHARA...: 13M
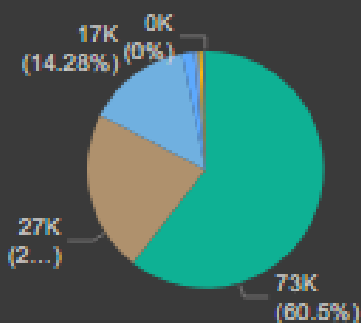KARNATA...: 10M
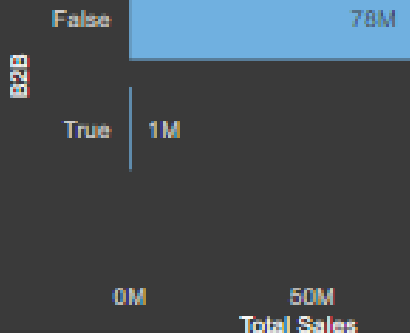TELANGA...: 7M
UTTAR P...: 7M
TAMIL NA...: 7M

Total Sales: 0M, 10M
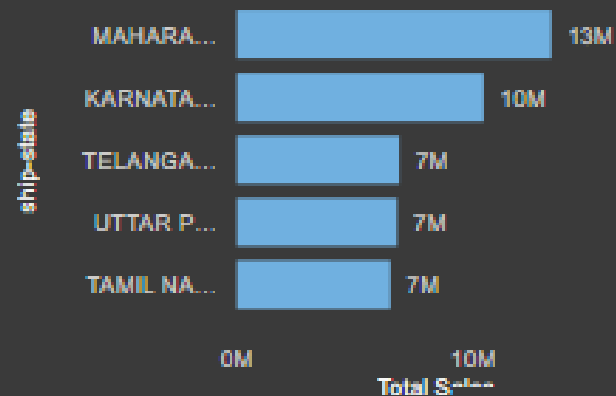
Order Count by Status

Status
● Shipped
● Shipped...
● Cancelled
● Shipped...
● Shipped...
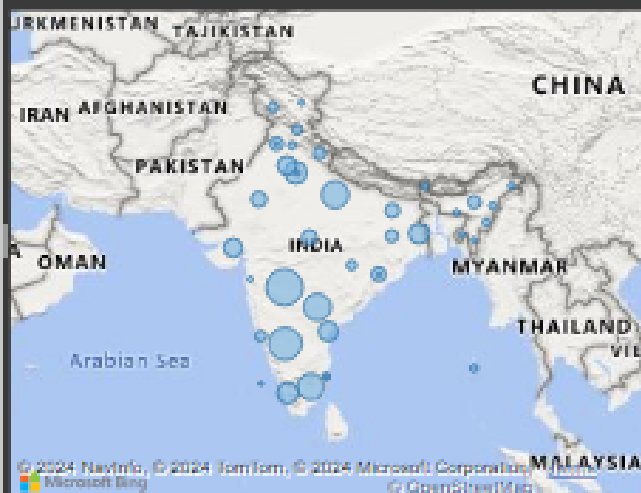● Pending
● Pending...
● Shipped...

17K (14.28%), 0K (0%)
27K (2...)
73K (60.5%)

Total Sales by B2B

False: 78M
True: 1M
B2B

Total Sales: 0M, 50M

Total Sales by ship-city

Total Sales: 8M, 6M, 4M, 2M, 0M

BENGALURU: 7.3M
HYDERABAD: 5.8M
MUMBAI: 4.3M
NEW DELHI: 3.6M
CHENNAI: 2.8M
Pune: 1.7M
KOLKATA: 1.1M
GURUGRAM
THANE
LUCKNOW

ship-city

Total Sales by ship-state

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