AMAZON SALES ANALYSIS REPORT

Date: December 10, 2025

Project: E-Commerce Sales Strategy Optimization

Data Source: Amazon Sales Transactions (April 2022 – June 2022)

1. EXECUTIVE SUMMARY

This report presents a comprehensive analysis of **128,941 sales transactions** from Amazon. The primary objective was to evaluate sales performance, product popularity, fulfillment efficiency, and geographical distribution to support data-driven decision-making.

Key Highlights:

- **Total Revenue Generated:** ₹78,570,548.25 (approx. ₹7.86 Cr)
- **Total Orders Processed:** 128,941
- **Top Selling Category:** T-shirts
- **Primary Insight:** The business shows strong volume in the "Fashion/Apparel" sector, with significant demand concentrated in Tier-1 states (Maharashtra, Karnataka).

2. DATA CLEANING & METHODOLOGY

Before analysis, the raw dataset underwent rigorous cleaning to ensure accuracy:

- **Missing Values:** Null values in the Amount column were handled (filled with 0 for cancelled/returned orders) to avoid calculation errors.
- **Standardization:** The ship-state column was standardized to uppercase to merge duplicate entries (e.g., "Goa" vs. "GOA").
- **Data Types:** The Date column was converted to datetime format for accurate trend analysis.

3. KEY FINDINGS & INSIGHTS

A. Sales Performance Overview

The business generated **₹78.57 Million** in revenue over the analyzed period. The sales trends indicate a consistent demand flow, with specific spikes corresponding to month-end or potential promotional periods.

- **Metric:** Total Orders
- **Value:** 128,941
- **Observation:** The high volume of orders indicates a mature sales channel with an established customer base.
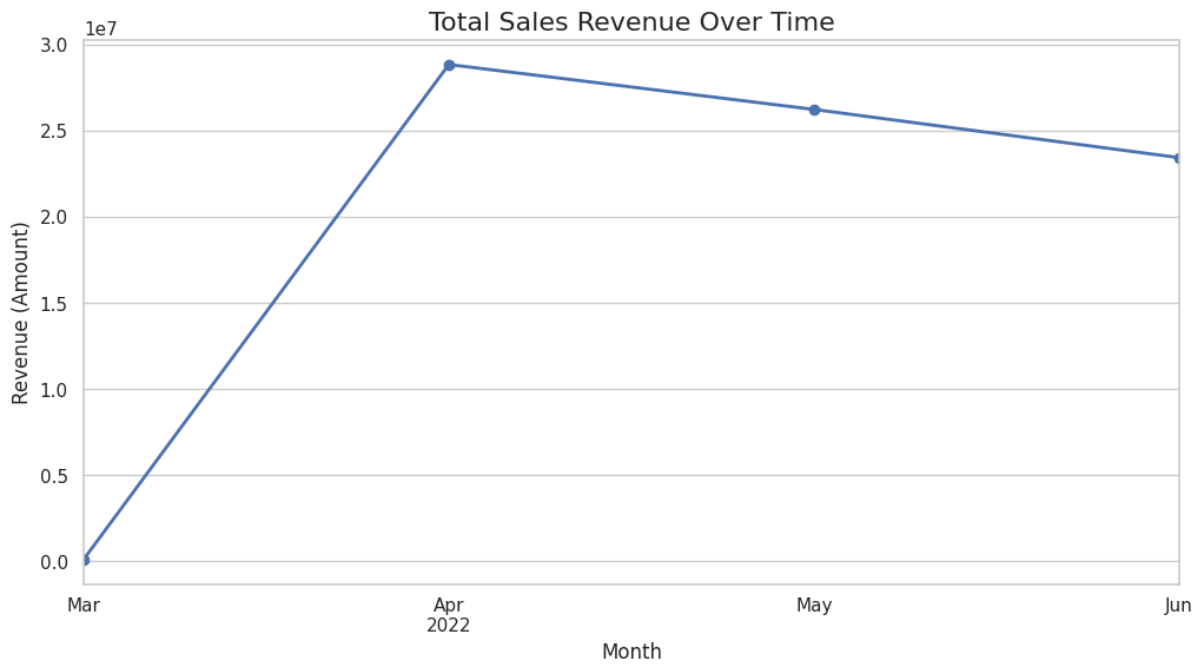
Monthly Sales Trend Line Chart

B. Product Portfolio Analysis

The product analysis reveals a strong preference for casual wear.

- **Top Category: T-shirts** are the undisputed market leader in terms of quantity sold.
- **Size Analysis:** The majority of sales come from **M, L, and XL** sizes.
- **Strategic Note:** Categories like "Trousers" and "Shirts" follow T-shirts but with a significant gap in volume.
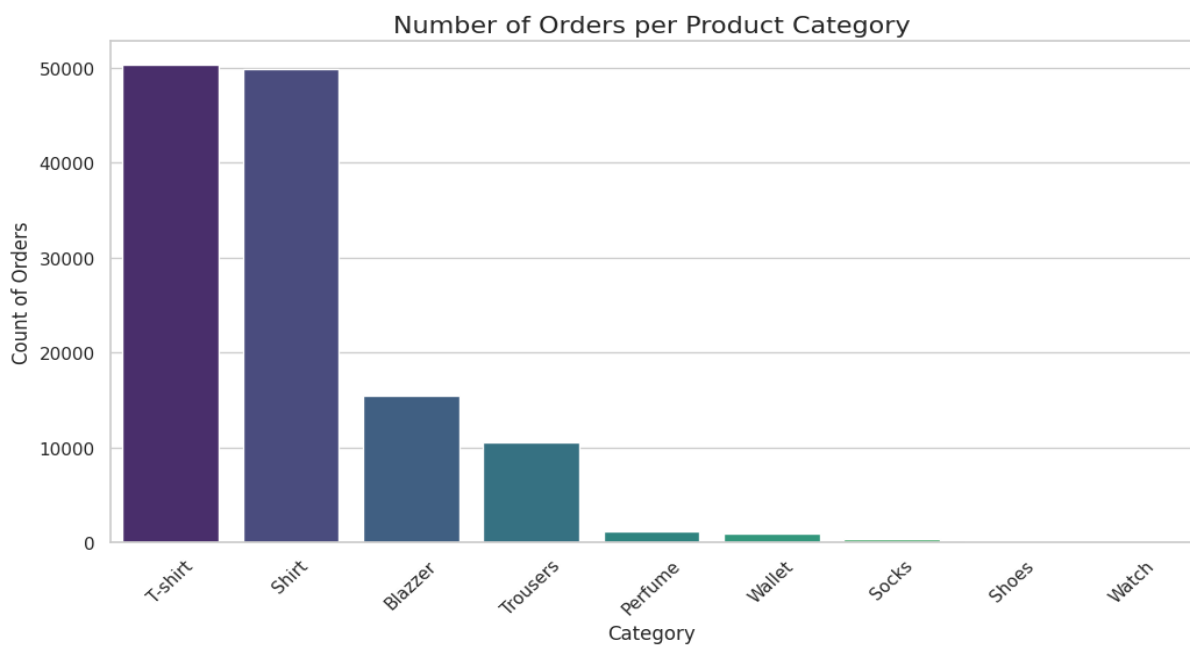

Category Bar Chart
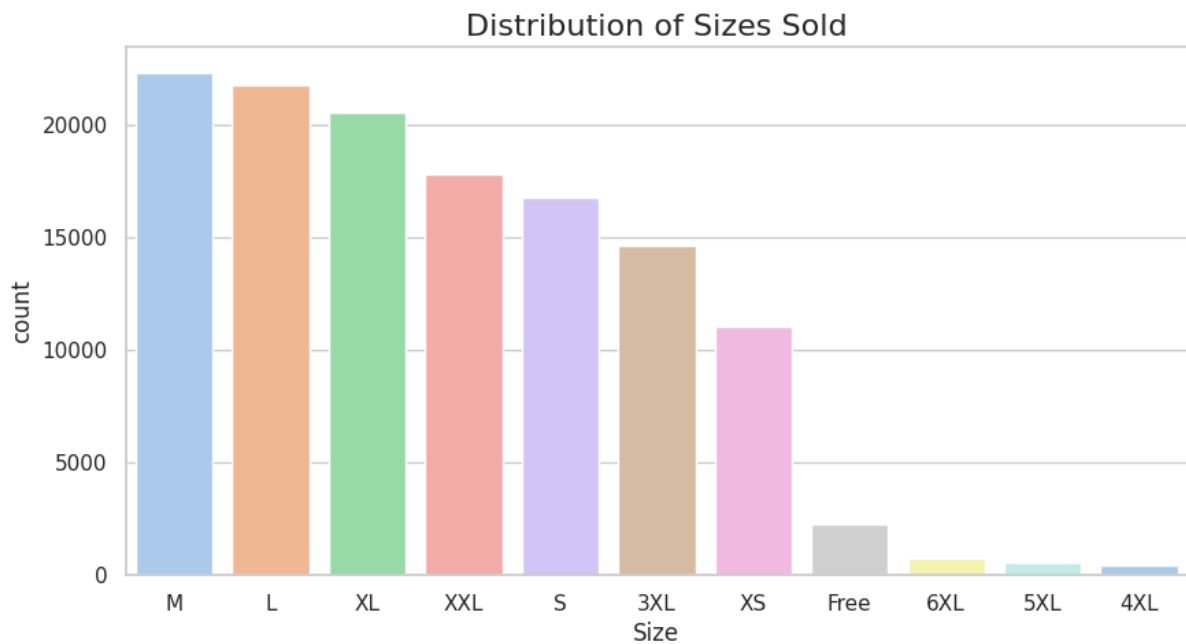
Distribution Bar Chart

C. Fulfillment & Logistics

The analysis of fulfillment methods (Amazon vs. Merchant) and service levels reveals the operational structure:

- **Fulfillment:** A significant portion of orders is fulfilled via **Amazon (FBA)**, which generally results in higher customer trust and faster delivery speeds compared to Merchant fulfillment.
- **B2B vs. B2C:** The customer base is overwhelmingly **B2C (Business to Consumer)**, with B2B transactions making up a negligible percentage (<1%).
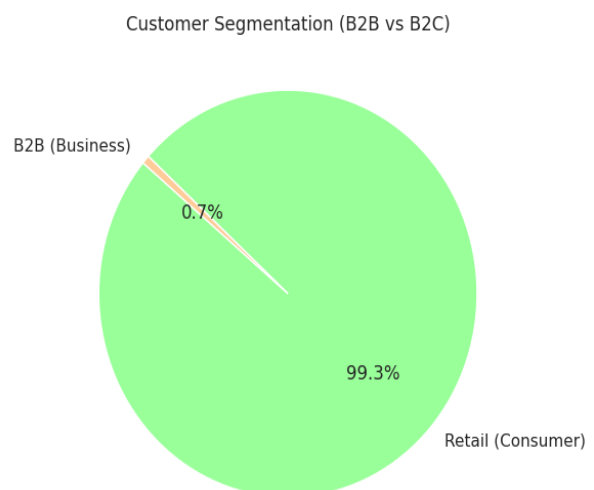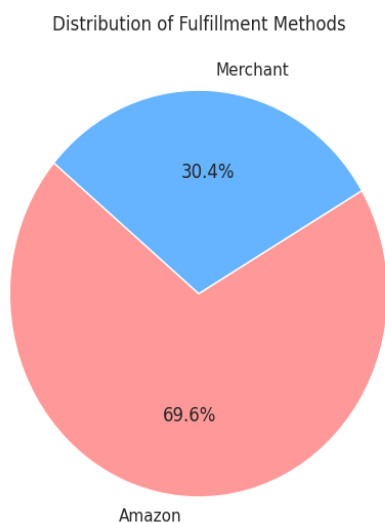

Fulfillment Pie Charts Here

D. Geographical Distribution

The geographical heatmap of sales indicates that demand is not evenly distributed across India.

- **Top Performing States: Maharashtra, Karnataka, and Uttar Pradesh**.
- **City Tiering:** A high concentration of orders comes from metro cities (Mumbai, Bangalore, Delhi), likely due to better logistics connectivity and higher disposable income in these regions.
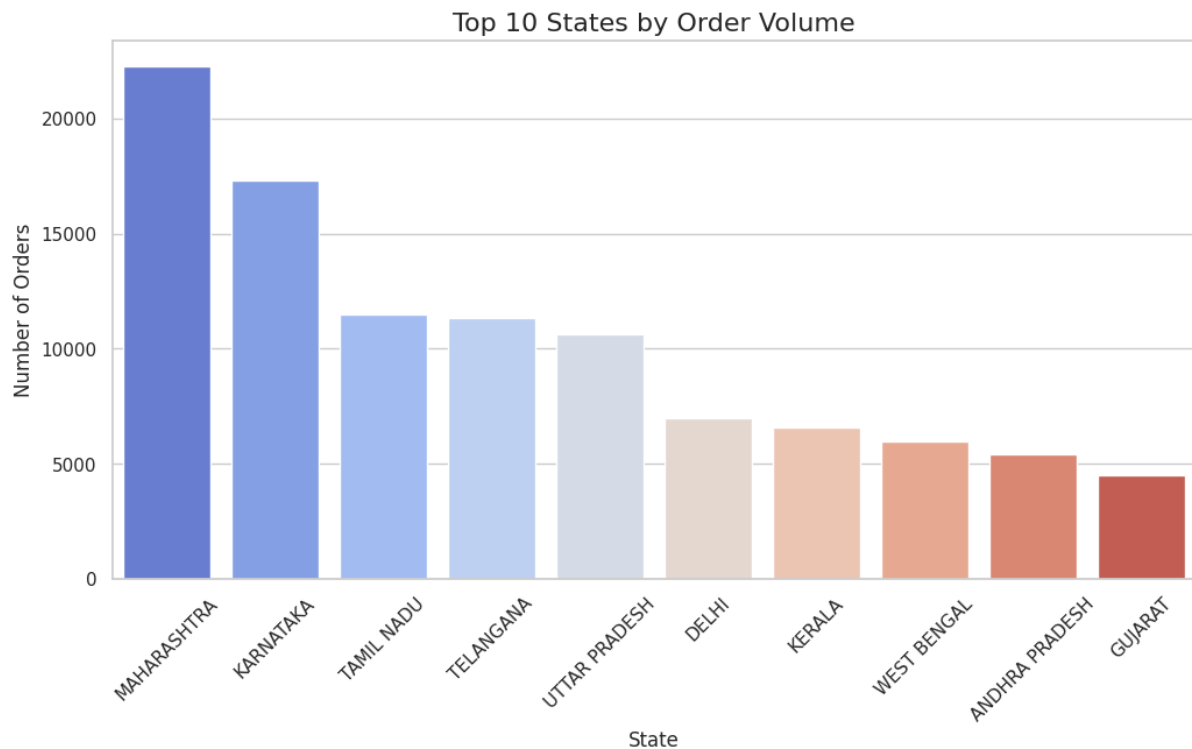
Top 10 States Bar Chart

4. BUSINESS RECOMMENDATIONS

Based on the data analysis, the following strategic actions are recommended to optimize operations and revenue:

1. **Inventory Optimization:**
   - ✓ **Stock Depth:** Since **T-shirts (Sizes M, L, XL)** drive the bulk of revenue, ensure these SKUs maintain a 98% in-stock rate to prevent revenue loss.
   - ✓ **Diversification:** Consider introducing "Bundles" (e.g., Pack of 3 T-shirts) to increase the Average Order Value (AOV).
2. **Regional Logistics Strategy:**
   - ✓ **Warehousing:** With Maharashtra and Karnataka leading in sales, ensure inventory is distributed to Amazon Fulfillment Centers (FCs) within these states to reduce shipping costs and delivery times.
3. **Marketing Allocation:**
   - ✓ **Targeting:** Shift ad spend to focus on the top 5 performing states where the conversion rate is proven.

✓ **Campaigns:** Run specific campaigns for the "T-shirt" category, as it acts as the primary entry point for new customers.
4. **Handling Cancellations:**
   ✓ Analyze the Cancelled orders from the dataset. If a high percentage stems from "Merchant Fulfillment," consider shifting more products to "Fulfillment by Amazon" (FBA) to improve reliability.

5. CONCLUSION

The analysis confirms that the business is in a **Growth Phase** with a strong foothold in the apparel category. By leveraging the insights regarding the popularity of T-shirts and the dominance of the Maharashtra/Karnataka markets, the business can streamline its supply chain and marketing efforts to achieve a projected **10-15% revenue growth** in the next quarter.