

Amazon Sales Analysis Report

Internship Project

Prepared by: Vansh Gupta

Date: 01/10/2025

1. Executive Summary

This report presents a comprehensive analysis of Amazon sales using a cleaned and feature-engineered dataset containing 128,976 records and 23 attributes. The analysis is supported by a Streamlit dashboard that provides interactive exploration of sales metrics, customer behaviour, and geographical performance.

The primary objectives of this project are to:

- Identify sales trends and top-performing categories
- Understand customer purchasing behaviour
- Evaluate geographical sales distribution
- Recommend strategies for improving sales, inventory management, and customer service

Key Performance Indicators

Metric	Value
Total Revenue	₹76,031,267.00
Unique Orders	120,229
Total Quantity Sold	116,646
Average Order Value (AOV)	₹632.39

2. Key Findings

Revenue concentration was observed across specific categories, states, and cities. The following tables highlight the top contributors:

Top 10 Categories by Revenue

Category	Revenue
T-shirt	₹37,934,539.00
Shirt	₹20,674,430.00
Blazzer	₹10,707,732.00
Trousers	₹5,241,425.00
Perfume	₹761,151.00
Wallet	₹441,259.00
Socks	₹143,230.00
Shoes	₹126,586.00

Watch	₹915.00
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Top 10 States by Revenue

State	Revenue
MAHARASHTRA	₹12,941,688.00
KARNATAKA	₹10,223,517.00
TELANGANA	₹6,704,498.00
UTTAR PRADESH	₹6,562,586.00
TAMIL NADU	₹6,330,521.00
DELHI	₹4,090,496.00
KERALA	₹3,634,707.00
WEST BENGAL	₹3,377,802.00
ANDHRA PRADESH	₹3,107,348.00
HARYANA	₹2,827,617.00

Top 10 Cities by Revenue

City	Revenue
BENGALURU	₹6,707,041.00
HYDERABAD	₹4,798,562.00
MUMBAI	₹3,590,453.00
NEW DELHI	₹3,494,581.00
CHENNAI	₹2,998,981.00
PUNE	₹2,274,957.00
KOLKATA	₹1,369,614.00
GURUGRAM	₹1,192,451.00
THANE	₹968,869.00
LUCKNOW	₹899,823.00

3. Insights

****Product Preferences:**** Customers show strong preference for specific categories which dominate sales, contributing over 60% of total revenue.

****Customer Behaviour:**** Stable purchasing patterns with an AOV of ₹632.39. Status analysis shows:

- Shipped: 77,815 orders (60.33%)
- Shipped - Delivered to Buyer: 28,756 orders (22.30%)
- Cancelled: 18,334 orders (14.22%)
- Shipped - Returned to Seller: 1,954 orders (1.52%)
- Shipped - Picked Up: 973 orders (0.75%)
- Pending: 658 orders (0.51%)
- Pending - Waiting for Pick Up: 281 orders (0.22%)
- Shipped - Returning to Seller: 145 orders (0.11%)
- Shipped - Out for Delivery: 35 orders (0.03%)
- Shipped - Rejected by Buyer: 11 orders (0.01%)

- Shipping: 8 orders (0.01%)
- Shipped - Lost in Transit: 5 orders (0.00%)
- Shipped - Damaged: 1 orders (0.00%)

****Geographical Trends:**** Sales are heavily concentrated in top states and cities, while smaller regions contribute marginally, offering opportunities for regional growth.

Short-Term

- Launch targeted campaigns for top 3 categories.
- Optimize courier partnerships to reduce pending/cancelled orders.
- Focus stock availability on high-revenue states and cities.

Long-Term

- Expand product offerings in underperforming categories to capture new markets.
- Establish regional warehouses in top-performing states to improve delivery times.
- Develop loyalty programs to retain repeat customers.
- Introduce AI-driven demand forecasting for improved inventory planning.
- Enhance post-purchase support systems to boost customer trust.

5. Conclusion

The analysis highlights that Amazon sales are primarily driven by a small set of categories and regions. Leveraging strengths in these areas while strategically expanding into weaker regions will help Amazon enhance profitability and market presence. Implementing the recommended short-term and long-term strategies will lead to better sales performance, optimized operations, and improved customer experience.

4. Recommendations

Sales Strategies

- Category Focus: Allocate more marketing resources to top-performing categories, which together contribute over 60% of total revenue.
- Upselling & Bundling: Encourage higher Average Order Value (AOV) by offering bundled deals, cross-selling complementary products, and personalized recommendations.
- Regional Campaigns: Run localized promotions in underperforming states and cities to expand market penetration.
- Seasonal Promotions: Align product discounts and campaigns with peak demand periods identified in the sales trend analysis.

Inventory Management

- Stock Prioritization: Maintain sufficient inventory levels for high-revenue categories to prevent stockouts during peak sales.
- Slow-Moving Items: Identify and reduce procurement of low-demand products to minimize storage and holding costs.
- Demand Forecasting: Use historical sales data and predictive analytics to anticipate seasonal or regional demand fluctuations.
- Regional Warehousing: Establish distribution centers closer to high-demand cities to reduce delivery times and logistics costs.

Customer Service

- Order Fulfilment Efficiency: Partner with reliable courier services and streamline fulfilment processes to reduce cancellations and pending orders.
- Loyalty Programs: Reward repeat customers with exclusive discounts, cashback offers, or membership benefits to increase retention.
- Return & Refund Handling: Simplify and speed up the return/refund process to enhance customer trust and satisfaction.
- Post-Purchase Engagement: Implement follow-up emails, product usage guides, and feedback surveys to build stronger customer relationships.