

# PROJECT- SALES & SHIPPING ANALYSIS

## Summary & Conclusion

### Project Overview

This project is a comprehensive Excel-based dashboard designed to analyze sales and shipping data across 2,100 orders. The core objective was to evaluate operational performance through carefully structured KPIs, uncover trends in customer order behavior, understand shipping efficiency, and assess the financial impact of discounts — all through data-driven visualizations and slicer-enabled interaction.

### Key Components

- **Raw and Clean Data Pipeline:** Transformed messy inputs into structured, analysis-ready formats.
- **Order Categories**  
A categorized mapping of order quantities into types (e.g., Mini, Small, Extra Large) to standardize analysis across size/volume.
- **KPI Summary Cards**  
Organized into Sales, Shipping, and Discounts:
  - **Sales:**
    - Total Sales: ₹39,58,079.44
    - Avg. Order Value: ₹1,884.80
    - Number of Orders: 2,100
  - **Shipping:**
    - Total Shipping Cost: ₹29,029.10
    - Avg. Shipping Cost per Order: ₹13.82
    - Shipping % of Sales: 0.73%
  - **Discounts:**
    - Total Discount Amount: ₹18,081.67
    - Avg. Discount per Order: ₹8.61
- **Order Priority Breakdown**
  - High Priority: ₹9.7L | 448 orders
  - Low Priority: ₹8.4L | 430 orders
  - Remaining spread across Medium, Critical, Not Specified
- **Dashboard Visualizations**
  - Interactive slicers: Order Quantity, Ship Mode, Month, Order Type
  - Charts include:
    - Sales by Order Type (volume tiers)
    - Order Quantity Distribution
    - Sales by Ship Mode with Free Shipping overlay

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## Key Insights & Observations

### High Revenue with Healthy Order Flow

The business generated nearly ₹40 lakh in revenue through 2,100 transactions, reflecting a healthy **Average Order Value of ₹1,884.80**. This shows both high engagement and strong monetization per transaction.

### Shipping Efficiency

- The **shipping cost per order is exceptionally low** at ₹13.82, highlighting operational efficiency.
- The **Shipping % of Sales** is reported as **0.73%**, the shipping cost structure is **sustainable and optimized**.

### Minimal Discount Dependency

- Discounts contribute **just 0.46% of total revenue**, suggesting a business model that **does not rely heavily on price cuts**.

**Insight:** This implies a strong product-market fit or perceived value that drives conversions without distributing deep discounts.

### High Priority = High Value

- "High" priority orders were both **most frequent** and **most lucrative**, accounting for ₹9.7L in sales and 448 orders.

**Insight:** These customers are central to revenue; the business should prioritize retention and upselling strategies for this group.

### Order Type Segmentation

**Observation:** Categories like **Extra Large, XX Large, and Medium** contributed disproportionately to revenue.

- These segments also received higher discount volumes in absolute terms, indicating that **bulk or high-volume purchases** are strategic targets.

**Insight:** Tailor promotions, inventory planning, and shipping for these high-impact categories.

### Peaks in Order Quantity Distribution

- Analysis reveals strong sales spikes at **quantities 1, 5, 20, and 40–45**.

**Insight:** These suggest common bundle sizes or popular purchase patterns that can be used to optimize product packaging or create effective discount bundles.

### Shipping Mode Impact on Conversion

- **Regular Air** dominated both sales volume and free shipping usage, followed by **Express Air**.
- **Delivery Truck** lagged in free shipping volume, hinting at either longer delivery times or higher minimum thresholds.
- **Insight:** Optimize free shipping for air-based modes where it enhances conversions without hurting margin.

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## Final Takeaways

The **Sales & Shipping Dashboard** presents a mature, scalable view of business performance through an user-friendly, slicer-based interface. It delivers real-world insights with practical implications:

1. **Revenue** is driven by a strong order flow and healthy AOV.
  2. **Shipping operations** appear cost-effective.
  3. **Discounting strategy** is conservative, focusing on profitability rather than aggressive promotions.
  4. **Priority-based targeting** and **order quantity segregation** present clear opportunities for optimized marketing and logistics.
  5. The dashboard supports **scenario-based decision making**, offering operational control over sales performance, shipping strategies, and customer segmentation.
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## Skills and Tools Demonstrated

- Advanced Excel: PivotTables, Lookup Mapping, KPI Design
- Dashboard Design: Slicer-based navigation, multi-chart integration
- Data Analysis: Trend spotting, segmentation, strategic insights
- Business Thinking: Profitability metrics, efficiency evaluation, customer behavior analysis.