

Regional Sales Performance Analysis

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Project Type: Excel-Based Sales Performance Dashboard Project

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1. Executive Summary

This project focuses on analyzing multi-year sales data to evaluate overall business performance, product profitability, customer behavior, regional trends, and promotional effectiveness.

Using Microsoft Excel (Advanced Analytics), raw transactional data was transformed into an interactive business intelligence dashboard enabling stakeholders to:

- Monitor sales growth and seasonal trends
- Identify top-performing products and salespersons
- Evaluate discount and promotion impact on revenue
- Analyze customer segments and regional contribution
- Track operational KPIs such as returns and order volume

The project demonstrates strong capabilities in data cleaning, exploratory data analysis (EDA), KPI development, dashboard design, and business storytelling.

Business Problem Statement

The organization faced challenges in answering critical business questions such as:

- Which products generate maximum revenue?
- How do sales vary across months and years?
- Which regions and stores contribute most to total sales?
- Do discounts increase revenue or reduce profitability?
- Which customer type drives higher sales volume?
- What is the return rate across product categories?

The absence of a centralized analytics dashboard made performance monitoring time-consuming and inefficient.

2. Business Objectives

The key objectives of this project were:

1. Analyze overall sales performance and growth trends
2. Identify high-revenue and low-performing products
3. Measure salesperson-wise contribution
4. Evaluate the effectiveness of discounts and promotions
5. Understand regional and store-level performance

- 6. Segment customers by retail and wholesale behavior
- 7. Track return quantity and operational risk
- 8. Develop an executive-level interactive Excel dashboard

3. Tools & Technologies Used

- Microsoft Excel
 - 1. Pivot Tables & Pivot Charts
 - 2. Power Query
 - 3. Advanced Formulas
 - 4. Conditional Formatting
 - 5. Slicers & Timeline Filters
 - 6. Dynamic KPI Cards

4. Analytical Methods Applied

- 7. Exploratory Data Analysis (EDA)
- 8. Descriptive Statistics
- 9. Time-Series Analysis
- 10. Product Performance Analysis
- 11. Regional Contribution Analysis
- 12. Discount vs Revenue Correlation
- 13. Customer Segmentation Analysis
- 14. KPI Benchmarking

5. Dataset Overview

Data Source

- Internal structured sales dataset (Excel format)

Time Period

- 2023 – 2025

Key Data Attributes

Category	Fields
Sales	Order ID, Order Date, Sales Amount
Product	Product Name, Category
Customer	Customer Type (Retail / Wholesale)
Geography	Region
Operations	Quantity, Returns
Marketing	Discount %, Promotion Code
Finance	Payment Method
Store	Store Location

Category	Fields
People	Salesperson Name

6. Data Preparation & Cleaning

Data preprocessing was performed using Advanced Excel techniques:

- Removed duplicate transaction records
- Handled blank and null values
- Standardized date formats
- Converted text values to numeric where required
- Created derived columns:
 1. Year
 2. Month
 3. Total Revenue
 4. Discount Slab
- Validated data consistency across regions and products

7. Key Performance Indicators (KPIs)

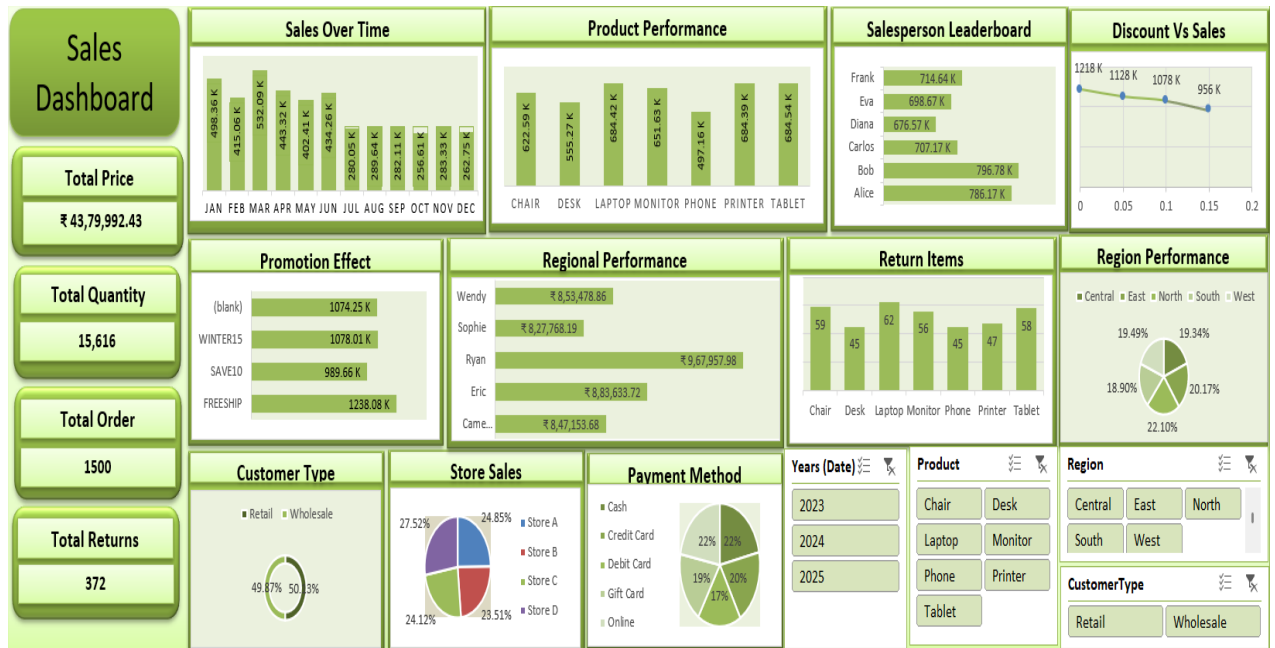
KPI	Value
Total Revenue	₹43,79,992.43
Total Quantity Sold	15,616 units
Total Orders	1,500
Total Returned Items	372
Average Order Value	₹2,920(approx)
Return Rate	~2.38%

8. Dashboard Overview

The interactive Excel dashboard consists of:

- KPI summary cards
- Time-series sales trend visualization
- Product-wise revenue comparison
- Salesperson performance leaderboard
- Discount vs sales impact analysis
- Promotion effectiveness comparison
- Regional sales distribution
- Return analysis by product
- Customer type contribution

- Store-wise performance
- Payment method breakdown



9. Sales Trend Analysis

- Peak sales observed during March–May
- Sales dip during July–September, indicating seasonality
- Gradual recovery seen in Q4 months

Insight:

Sales performance is influenced by seasonal demand cycles, suggesting potential for targeted quarterly campaigns.

11. Product Performance Analysis

Top Revenue-Generating Products

- Tablet – ₹684K+
- Printer – ₹684K+
- Laptop – ₹684K+
- Monitor – ₹651K+

Lower Performing Products

- Desk
- Chair

Insight:

High-value electronics drive maximum revenue, while furniture products contribute lower margins.

12. Salesperson Performance Analysis

Top performers based on revenue:

1. Bob – ₹796.78K
2. Alice – ₹786.17K
3. Frank – ₹714.64K

Insight:

A small group of salespersons contributes a major portion of total revenue, highlighting performance imbalance.

13. Discount vs Sales Analysis

- Sales decrease as discount percentage increases
- Highest revenue achieved with low or no discount
- Heavy discounts reduce overall profitability

Business Interpretation:

Discounting strategy should be optimized rather than aggressively applied.

14. Promotion Effectiveness

Promotion	Revenue
FREESHIP	₹1,238K
WINTER15	₹1,078K
SAVE10	₹989K

Insight:

Free shipping promotions perform better than direct price discounts.

15. Regional Performance Analysis

Regional Revenue Contribution

- South – 22.10%
- West – 20.17%
- Central – 19.49%
- North – 19.34%
- East – 18.90%

Insight:

Sales distribution is well balanced, with South and West showing slightly stronger demand.

16. Return Items Analysis

Highest returns observed in:

- Laptop (62 units)
- Tablet (58 units)
- Monitor (56 units)

Business Concern:

High returns in electronic products may indicate quality issues or post-sales support gaps.

17. Customer Segmentation Analysis

- Retail Customers: 50.3%
- Wholesale Customers: 49.7%

Insight:

Balanced customer mix reduces dependency on a single segment.

18. Store-Wise Performance

Store	Contribution
Store A	24.85%
Store B	23.51%
Store C	24.12%
Store D	27.52%

Store D shows the highest contribution among all locations.

19. Payment Method Analysis

- Cash – 22%
- Credit Card – 20%
- Debit Card – 19%
- Gift Card – 17%
- Online – 22%

Insight:

Digital and cash payments show nearly equal adoption.

20. Business Recommendations

1. Increase focus on high-margin electronic products
2. Optimize discount strategy — avoid excessive discounting

3. Expand successful free-shipping promotions
4. Improve quality checks for high-return products
5. Implement incentive programs for underperforming sales staff
6. Strengthen sales efforts in East and North regions
7. Use seasonal trend insights for marketing planning

21. Skills Demonstrated

- Data Cleaning & Transformation
- Exploratory Data Analysis (EDA)
- KPI Development
- Business Intelligence Reporting
- Excel Dashboard Design
- Analytical Thinking
- Data Storytelling
- Stakeholder-focused Insights

22. Conclusion

This project demonstrates an end-to-end data analytics workflow — from raw data to actionable business insights.

By leveraging Advanced Excel analytics, the dashboard enables management to:

- Track organizational performance in real time
- Make data-driven sales and marketing decisions
- Identify risks, opportunities, and growth areas

The project reflects strong proficiency in data analysis, visualization, business interpretation, and stakeholder reporting, aligning with real-world responsibilities of a Data Analyst.