

Sales Analytics Report

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Executive Summary

This project analyzes a synthetic retail sales dataset to identify revenue trends, high-performing products, regional performance, and the impact of discounts on profitability. The goal is to provide actionable recommendations for improving sales and margins.

Key Findings (Sample)

- Total sales and profit are calculated across 1,200+ orders in the dataset.
- Certain product categories (Electronics) contribute a disproportionate share of revenue.
- Some regions (e.g., South) show lower sales, indicating market opportunity.
- High discount levels are correlated with lower profit margins for low-priced items.
- Top 10 products account for a large share of total revenue, indicating product dependency.

Recommendations

1. Reduce heavy discounting on low-margin items; instead focus promotions on high-margin SKUs.
2. Increase marketing and localized promotions in underperforming regions to capture market share.
3. Expand inventory of top-selling products and ensure stock availability during peak months.
4. Implement customer loyalty programs to increase repeat purchases and customer LTV.
5. Use SQL-driven dashboards and Power BI for regular monitoring and automated alerts on KPI dips.

Sample SQL Queries

```
SELECT DATE_FORMAT(OrderDate, '%Y-%m') AS month, SUM(Sales) AS revenue FROM sales_data GROUP BY month ORDER BY month;
SELECT Product, SUM(Sales) AS revenue FROM sales_data GROUP BY Product ORDER BY revenue DESC LIMIT 10;
SELECT Region, SUM(Sales) AS sales, SUM(Profit) AS profit FROM sales_data GROUP BY Region;
```