

## **Adidas Sales Data Analysis Report**

### **1. Dataset Description**

**1.1 Source:** Adidas US Sales dataset (9648 records).

**1.2 Columns:**

- Retailer\_id – Unique identifier
- Retailer\_name – full name ( unique, some duplicates)
- Invoice date – Unique date
- Region – 5 regions (West, Northeast, Southeast, South, MidWest)
- State & City– US States and City
- Product – Adidas Product genre
- Price per Unit – Ranging from 50\$ to 70\$
- Units Sold – Ranging from 550 to 1300
- Total Sales – Price per Unit times Units Sold
- Operating profit – Net Profit From Total Sales

**1.3 Data Quality:**

- No missing values
- Clean and consistent
- Balanced structure with geographic and departmental diversity

1.4

### **2. Operations Performed**

**2.1 Data Cleaning & Exploration**

- No missing/null values observed
- Checked unique values in categorical columns
- Summarized numerical columns (mean, median, standard deviation, IQR)

**2.2 Descriptive Analytics**

- Adidas Total Sales By Region (pie chart)
- Top Performing Cities by Profit (bar chart)
- Units Sold By Category(pie chart)
- Total Sales By Product (bar chart)

**2.3 Relationship Analysis**

- Total Sales per month
- Total Sales vs. Operating Profit comparison
- Operating Profit variations by Cities

### **3. Key Insights**

#### **3.1 Sales Performance**

- **Total Sales:** \$899.9 million
- **Total Units Sold:** 2,478,861
- **Average Operating Margin:** 42.3%
- Indicates **strong profitability** and **steady sales growth** across regions.

#### **3.2 Product Insights**

- Average Price per Unit: \$45.22
- Price Range: \$40–\$70, suggesting a mid-market positioning.
- Top-Selling Product: Men's Street Footwear — indicates strong demand in the men's casual footwear category.
- Other key products maintain balanced contribution, showing a diverse portfolio appeal.

#### **3.3 Regional & Retail Insights**

- Top Region: West — contributes the largest share of total sales.
- Regional Spread: All U.S. regions show sales activity, with the West and Northeast leading.
- Top Retailer: West Gear — indicates strong retail partnerships and high brand presence.

#### **3.4 Sales Channel Insights**

- Top Sales Method: In-store — dominant channel, reflecting traditional retail strength.
- Online sales still contribute meaningfully, suggesting potential for digital expansion.

#### **3.5 Profitability Trends**

- Average Operating Margin: 42.3%, indicating efficient cost management.
- Margins are likely higher for footwear compared to apparel, emphasizing product mix profitability.

## **4. Recommendations**

### **4.1 Sales & Channel Strategy**

- Strengthen in-store sales experience through staff training and localized promotions, as this channel currently dominates sales.
- Expand online and mobile sales channels to capture growing digital demand and diversify revenue streams.
- Introduce omnichannel strategies (e.g., click-and-collect) to bridge online convenience with in-store engagement.

### **4.2 Product Portfolio Management**

- Continue investing in Men's Street Footwear, the current best-seller, while exploring similar styles in other categories.
- Evaluate lower-performing product lines for redesign or marketing push to maintain balanced growth.
- Explore premium-tier pricing opportunities in top-performing categories to enhance margins.

### **4.3 Regional Operations**

- Investigate why the West region dominates sales — may be due to stronger retail partnerships or regional marketing effectiveness.
- Boost marketing investment in underperforming regions (e.g., Midwest or South) to expand market share.
- Consider regional inventory optimization to reduce logistic costs and improve availability in high-demand areas.

### **4.4 Retailer & Partner Strategy**

- Strengthen collaboration with top-performing retailer West Gear through exclusive products or loyalty programs.
- Benchmark weaker retailers to identify best practices and performance gaps.
- Diversify retailer portfolio to reduce dependency on top partners and increase market coverage.

### **4.5 Profitability & Pricing**

- Maintain operating margin above 40% by monitoring cost structures and optimizing product mix.
- Use data-driven pricing models to balance competitiveness with profitability.
- Periodically review discounting and promotional policies to ensure sustainable margin performance.