

Exploratory Data Analysis(EDA) & Insights Report

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Project: Super Store Sales Dashboard



Figure 1

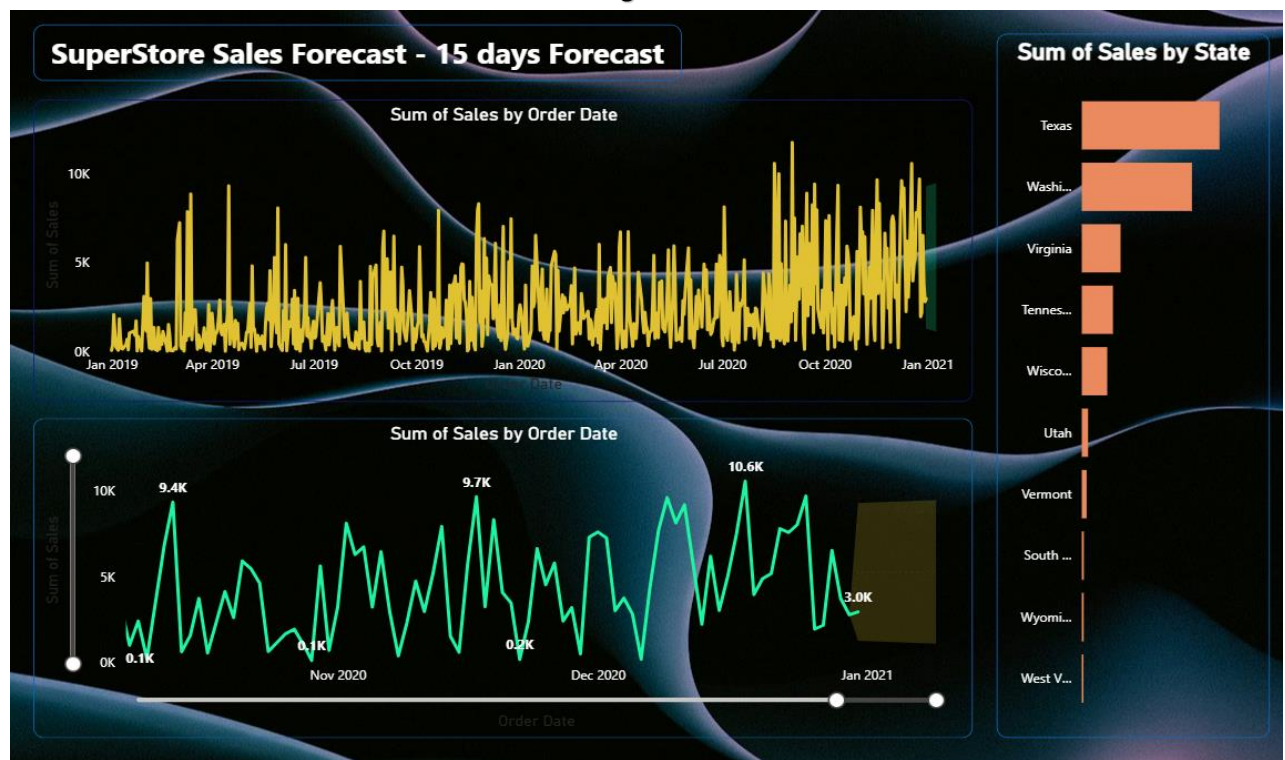


Figure 2

1. Overall Performance (Historical Data)

- Total Sales: \$1.6M
- Quantity Sold: 22K units
- Total Profit: \$175K
- Avg. Delivery Time: 4 days

✓ Business is profitable with steady sales growth across 2019–2020.

2. Regional & State Insights

- Regional Contribution:
 - West (33%) → Highest sales.
 - East (29%) & Central (22%) → Balanced contributions.
 - South (16%) → Lowest share.
- State Contribution:
 - Texas is the largest contributor among all states.
 - Washington also shows significant sales volume.
 - States like Vermont, Utah, South Dakota, and Wyoming have minimal contribution.

Insights:

- Texas and Washington are key revenue drivers.
- Low-performing states present opportunities for targeted marketing or expansion.

3. Customer Segment & Payment Behavior

- Customer Segments:
 - Consumer (48%) → Largest segment.
 - Corporate (33%) & Home Office (19%) follow.
- Payment Modes:
 - Cash on Delivery (43%) → Still the most preferred.
 - Online (35%) & Cards (22%).

Insights:

- Consumer segment dominates (B2C focus).
- Heavy reliance on COD → need to promote digital payments for efficiency.

4. Category & Subcategory Performance

- Categories:
 - Office Supplies (\$0.64M) → Highest.
 - Technology (\$0.47M) → High margin category.
 - Furniture (\$0.45M) → Lower growth.
- Subcategories:
 - Office accessories & Tech items lead.
 - Furniture lags in both sales & profitability.

Insights:

- Promote Technology for profit growth.
- Furniture needs discount strategies to increase demand.

5. Shipping Preferences

- Standard Shipping → Most popular (\$0.91M).
- Same-Day delivery has very low adoption (\$0.10M).

Insights:

- Customers prioritize cost over speed.
- Potential to upsell premium shipping with loyalty perks.

6. Time Series & YoY Trends

- Sales (2019–2020):
- Steady upward trend with peaks during Q3 & Q4 (holiday season).
- Profit (YoY):
- Strong mid-year and late-year spikes.

Insights:

- Seasonality plays a role → Q4 campaigns can boost sales.
- Inventory must be planned around peak months.

7. Forecast Analysis (Next 15 Days)

- Recent trend shows sales peaking at 10.6K before dipping.
- Forecast predicts ~ 3K in upcoming 15 days, indicating a short-term decline.
- Sales remain volatile, with strong fluctuations between 0.1K → 10K.

Insights:

- Businesses should prepare for slower sales in the immediate forecast window.
- Focus on promotional offers during forecasted low periods.
- Re-check supply chain & delivery readiness for upcoming demand spikes.

Final Recommendations

1. Regional Strategy: Strengthen presence in Central & South; maintain dominance in West.
2. Payment Digitization: Incentivize online/card payments to reduce COD reliance.
3. Category Focus: Push Technology (high profit) and revive Furniture with discounts.
4. Shipping Options: Encourage adoption of Same-Day delivery with bundled offers.
5. Seasonality Prep: Stock inventory before Q3 & Q4; align campaigns with holidays.
6. Forecast Action: Expect a dip → run flash sales & targeted promotions to stabilize short-term revenue.
7. State Expansion: Focus growth strategy in underperforming states like Utah, Vermont, Wyoming.