

Retail Sales Data Analysis Report

1. Distribution of Units Sold and Total Sales

- Histograms show that most transactions involve 5-15 units.
- Total Sales is right-skewed, indicating a majority of lower-value transactions with some high-value outliers.

2. Correlation Heatmap of Numeric Data

- Strong positive correlation between Units Sold and Total Sales.
- Moderate correlation between Unit Price and Total Sales.

3. Scatter Plot: Units Sold vs Total Sales

- Linear pattern confirms that more units sold leads to higher revenue.
- High-value clusters likely belong to premium categories.

4. Payment Method Distribution

- Cash and UPI are the most common payment methods.
- Digital payments show strong adoption.

5. Sales Trend Over Time

- Daily total sales trends reveal seasonal or promotional spikes.
- Useful for forecasting and operational planning.

6. Units Sold by Product Category

- Groceries and Clothing have high volume and wide spread.
- Electronics and other premium products sell in lower volumes.

Key Findings

- Units Sold and Unit Price drive Total Sales.
- Customer preferences vary by category and payment method.
- Time-series trends support data-driven planning.

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Recommendations

1. Segment marketing by category and customer profile.
2. Optimize inventory for high-volume categories.
3. Promote digital payments via offers.
4. Use time-series analysis for future planning.