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Retail Sales Performance Report

Overview

This report provides an analysis of retail sales performance across various categories, regions, payment methods, and pricing metrics. The key objective is to uncover insights into sales distribution, regional trends, customer preferences, and pricing strategies to drive better decision-making.

Business Problem

Analyze retail sales performance to identify top-performing categories, regional trends, and customer payment behaviors. Key questions include which products and regions drive sales, and how pricing impacts quantity sold.

Data Collection

The dataset contains transactional details, including:

- **Product category, region, and payment method.**
- **Total sales, quantity sold, and price per unit.**
- **Date and time of purchase.**

Data Acquisition

Data was sourced from a CSV file and imported into Power BI for processing and analysis.

Data Understanding

The dataset captures key variables:

- **Category and Region for performance analysis.**
- **Total Sales and Quantity as KPIs.**
- **Payment Method for customer preference insights.**

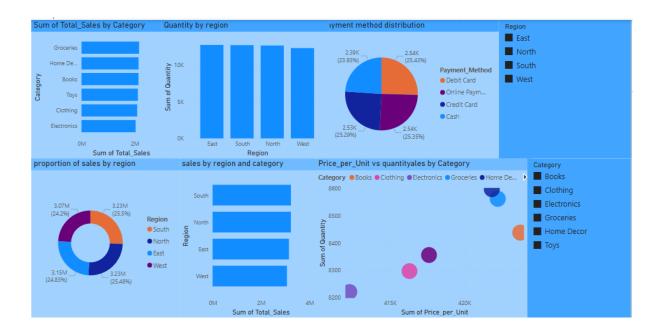- **Date for identifying trends.**

Data Cleaning

- **Handled missing values and removed duplicates.**

- **Validated data types and standardized fields.**

- **Created calculated fields for advanced metrics like profit and AOV.**

Tools

- **Power BI for visualization and analysis.**

- **DAX for custom calculations.**

- **Excel for initial data validation.**

DASHBOARD -

Dashboard Highlights

1. Sales by Category

- **Visualization**: Bar Chart

- **Insight**:

- Electronics leads in total sales, followed by **Clothing** and **Groceries**.

- **Books**, **Toys**, and **Home Decor** contribute comparatively lower sales.

- **Business Impact**:

  - Focus marketing efforts on top-performing categories like **Electronics** to maximize revenue.

  - Explore promotional strategies to boost sales in underperforming categories like **Books** and **Home Decor**.

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2. Quantity by Region

- **Visualization**: Clustered Column Chart

- **Insight**:

  - Sales quantities are consistent across regions, with no significant outlier.

- **Business Impact**:

  - Maintain consistent inventory levels across all regions to meet demand.

  - Investigate regional factors for further optimization in specific areas.

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3. Payment Method Distribution

- **Visualization**: Pie Chart

- **Insight**:

  - Payment methods are evenly distributed, with **Credit Card** and **Online Payment** being the most preferred.

  - **Debit Card** and **Cash** account for nearly the same proportion of transactions.

- **Business Impact**:

  - Ensure payment systems cater to all methods, with a focus on seamless **Credit Card** and **Online Payment** transactions.

  - Target promotions encouraging the use of preferred payment methods.

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4. Proportion of Sales by Region

- **Visualization**: Donut Chart

- **Insight**:
    - Sales are evenly distributed across the four regions:
        - **South** (25.5%)
        - **North** (25.5%)
        - **East** (24.8%)
        - **West** (24.2%)

- **Business Impact**:
    - Continue balanced regional campaigns to sustain performance.
    - Identify regional preferences for personalized marketing strategies.

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5. Sales by Region and Category

- **Visualization**: Bar Chart

- **Insight**:
    - Sales performance for categories is consistent across all regions.
    - Categories like **Electronics** and **Clothing** dominate sales in all regions.

- **Business Impact**:
    - Prioritize high-performing categories in regional campaigns to capitalize on their popularity.
    - Analyze region-specific customer behavior to explore growth in other categories.

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6. Price per Unit vs. Quantity by Category

- **Visualization**: Scatter Plot

- **Insight**:
    - **Electronics** and **Home Decor** have higher price points and lower quantities sold.
    - **Books**, **Clothing**, and **Toys** have lower price points but higher quantities sold.

- **Business Impact**:
    - Leverage pricing strategies to maintain balance between premium products and volume-driven products.
    - Offer targeted discounts on higher-priced categories like **Electronics** and **Home Decor** to drive volume.

Conclusion

This analysis underscores the importance of understanding category performance, regional trends, and customer preferences. By leveraging these insights, the organization can enhance its marketing strategies, streamline operations, and achieve sustainable revenue growth.