# Walmart Weekly Sales Analysis: Visualization with PowerBI

This analysis presents key insights from Walmart's weekly sales data, specifically from 2010 to 2012. The data is visualized using PowerBI, offering an in-depth look at Sales performance, trends, and other significant patterns. The extended report provides further details and a comprehensive analysis using MySQL queries and statistical analysis with Python. This detailed report can be found via the following link;

[Walmart's Weekly Sales Analysis: Part 1 with SQL](#)

[Walmart's Weekly Sales Analysis Part 2: Statistical Analysis with Python](#)
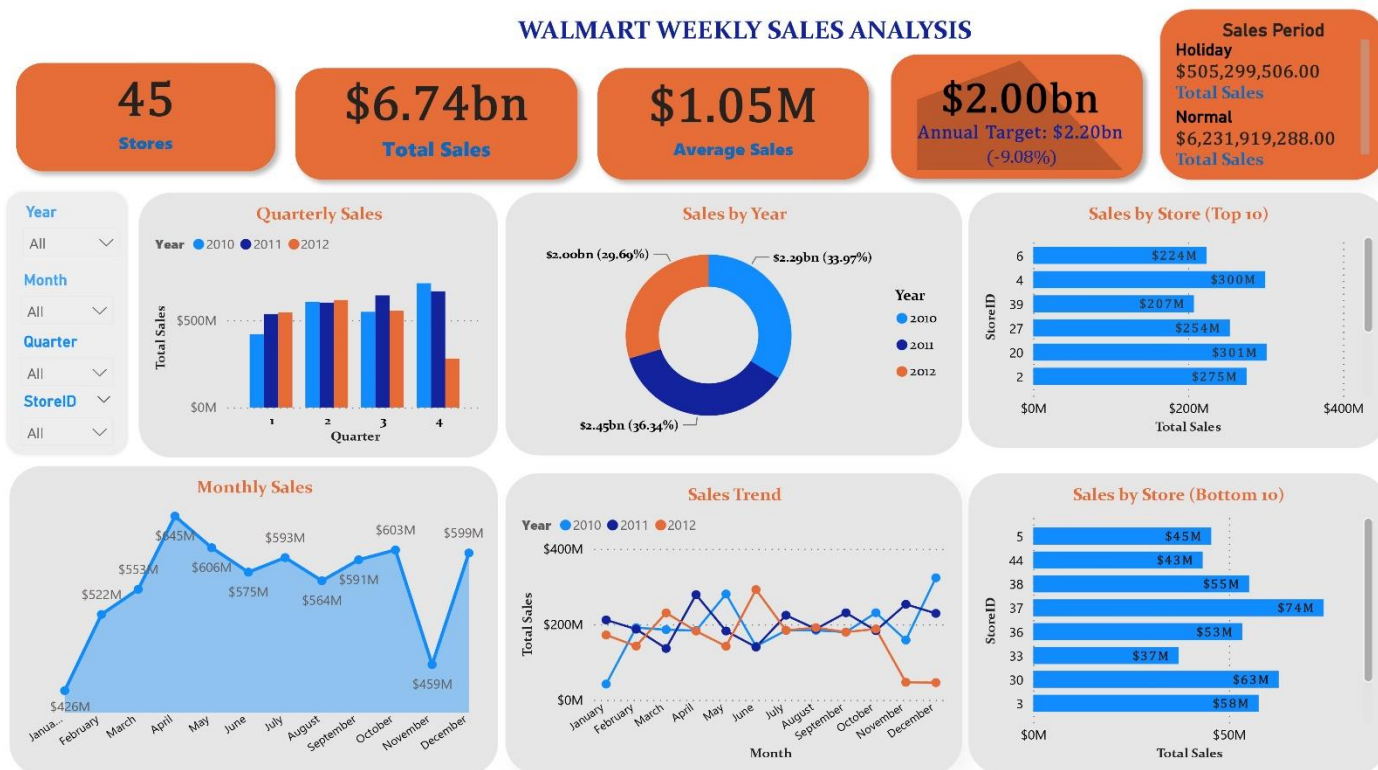
Sales Analysis Dashboard

Key Observations:

1. **Sales Performance**
   - Walmart has a diverse network of 45 stores, which has generated a significant revenue of $6.74 billion between 2010 – 2012.

- The average sales per store during this period stood at $1.05 million, indicating a need to improve underperforming stores.

- Despite the strong total sales, 2012 sales achievement is 9.08% below the annual target, highlighting a need for strategic measures to bridge this gap in the preceding years.

- Significant disparity between the top and bottom Store performers indicates the need for focused operational improvements and marketing strategies for low-performing stores.

2. **Sales Period Insights:**

- Holiday Sales: $505.30 million

- Normal Sales: $6.23 billion

- The sales spike during the holiday season emphasizes the importance of these periods. However, normal sales constitute the bulk of the revenue, indicating the need to maintain strong performance throughout the year.

3. **Sales Trend**

  a. **Quarterly Sales Trends:**

  - **2010:** Consistent performance across quarters.

  - **2011:** Slight increase in Q4.

  - **2012:** Significant drop in Q4 compared to other years, which requires investigation to identify and address the causes.

  b. **Yearly Sales Growth:**

  - Year-over-year growth shows positive momentum, but the dip in Q4 2012 is a concern.

  - The sales trends show fluctuations with noticeable peaks in April and October each year.

  - 2012 showed a consistent decline towards the year-end compared to previous years, highlighting a need for targeted strategies to boost sales during these months.

  c. **Monthly Sales Patterns:**

  - Peak Sales Month: April ($645M)

  - Lowest Sales Month: January ($426M)

- Significant Drop: December sales ($459M) fell sharply after a high in November ($603M), suggesting potential issues or shifts in consumer behavior during the holiday season.

Strategic Recommendations:

1. **Targeted Interventions for Low-Performing Stores**
   - Conduct detailed analysis of low-performing stores to identify specific issues and implement targeted improvement plans.
   - Enhance training and support for staff, optimize inventory management, and localize marketing efforts to boost sales.

2. **Boosting Year-End Sales**
   - Investigation into the cause of significant drop in December sales in 2012 should be carried out.
   - Promotional campaigns and special events should be developed to attract more customers during this period.

3. **Leveraging Peak Months**
   - Capitalize on April's strong performance by launching seasonal promotions and new product lines to sustain high sales momentum.
   - Analyze customer preferences and market trends to replicate successful strategies from peak months in other periods.

4. **Enhancing Holiday Season Performance**
   - Given the importance of holiday sales, early planning and coordinated marketing campaigns should be prioritized, along with inventory management and customer service enhancements, to maximize revenue during these critical periods.

5. **Continuous Monitoring and Adaptation:**
   - Implement a standardized monitoring system to track sales performance continuously and adapt strategies to address emerging trends and challenges.