

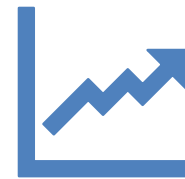
Walmart Sales Forecasting

- Using R and Tableau Visualizations to Improve Business Decisions

- By DHARANI CHALAPATI

Introduction

- The goal of this project is to develop a model that can forecast store sales based on past sales patterns. With this model, decision-makers can make critical business decisions, maximize revenue, and improve sales in underperforming departments.



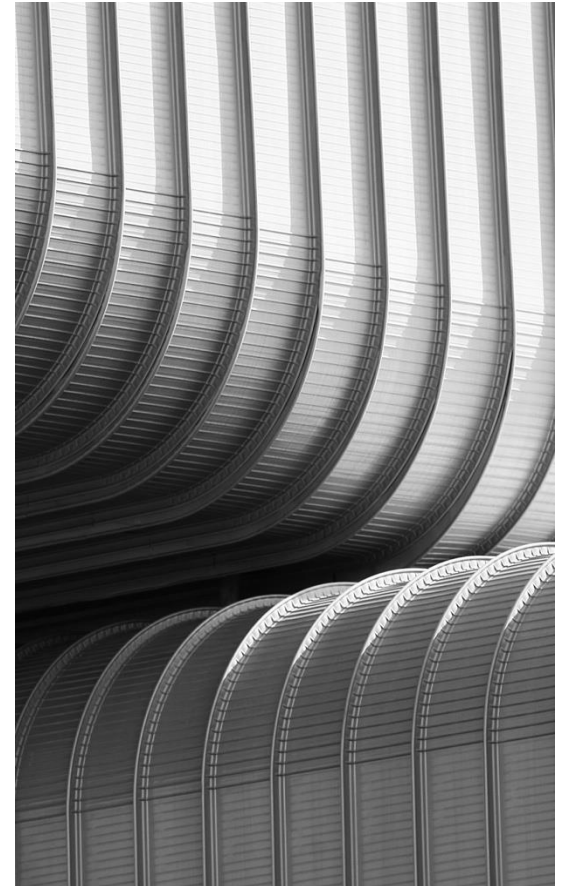
Dataset Overview

Data Source: Walmart historical sales data

Key Variables: Weekly Sales, Store Size,
Sales Trends

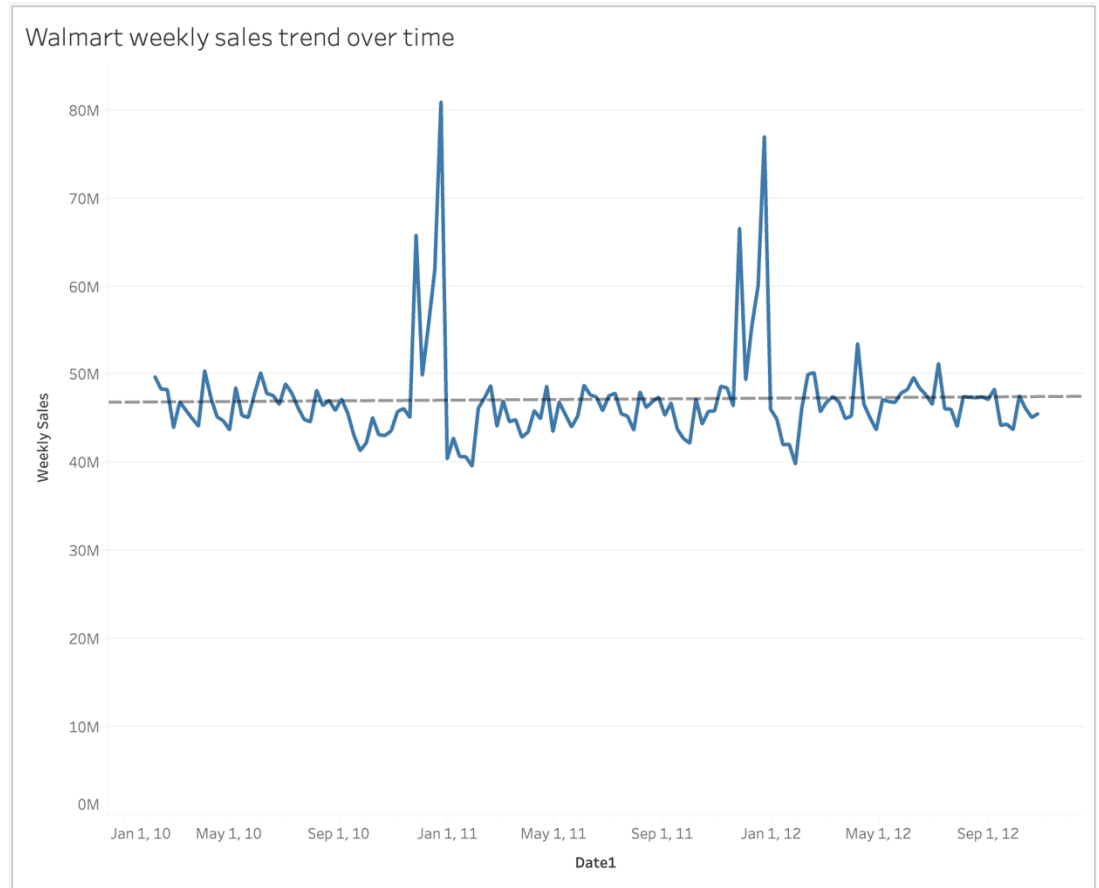
Timeframe: Multiple years of weekly sales
data

Purpose: Identify trends, seasonal
fluctuations, and underperforming stores



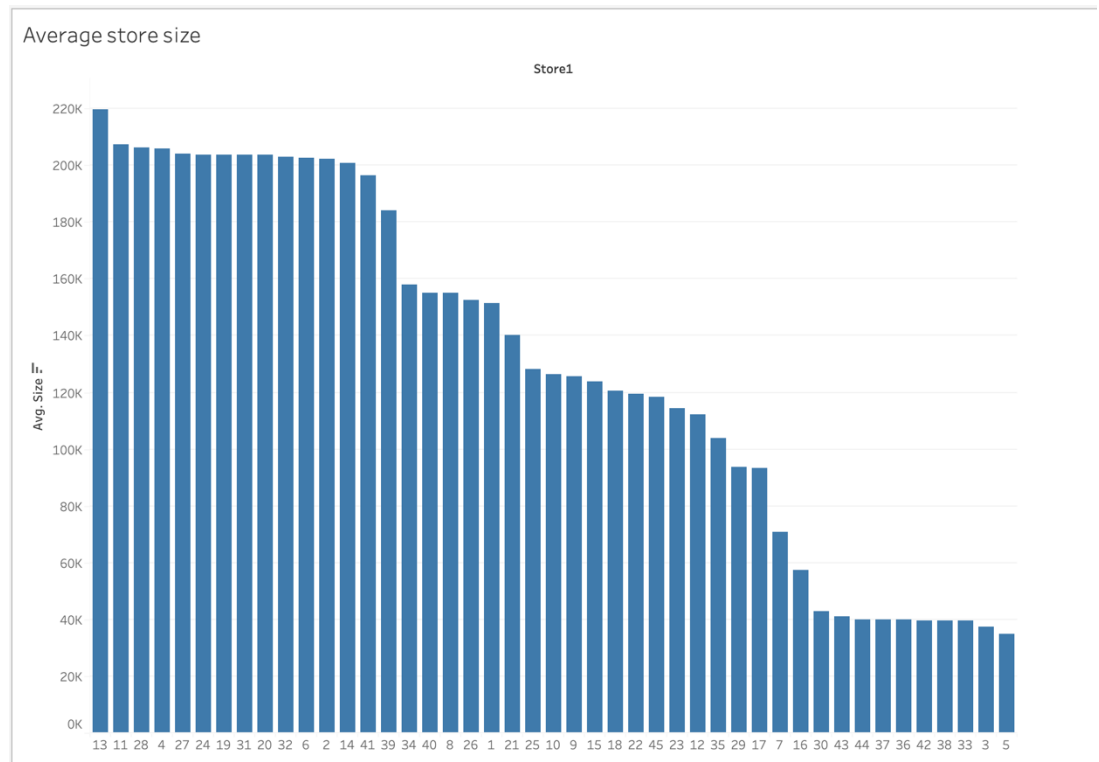
Weekly Sales Trend Over Time

- This line chart shows weekly sales trends, highlighting sales fluctuations and seasonal spikes.



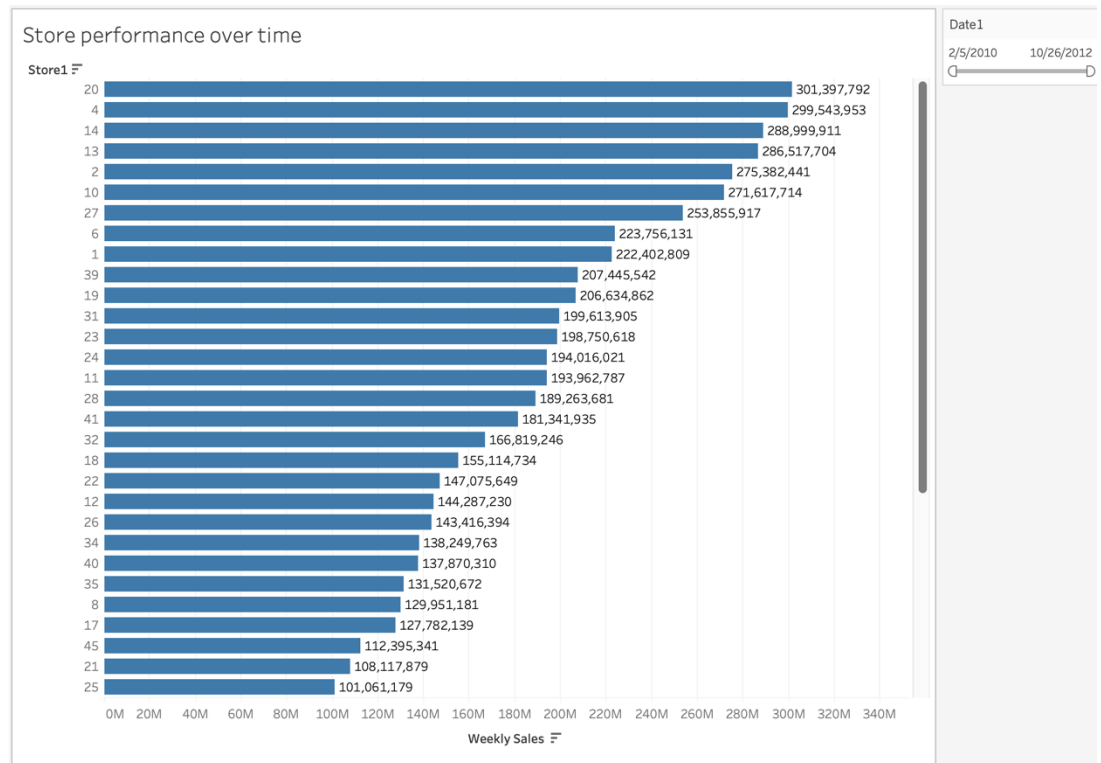
Average Store Size Analysis

- This bar chart displays the average size of stores, showing variation in store capacities.



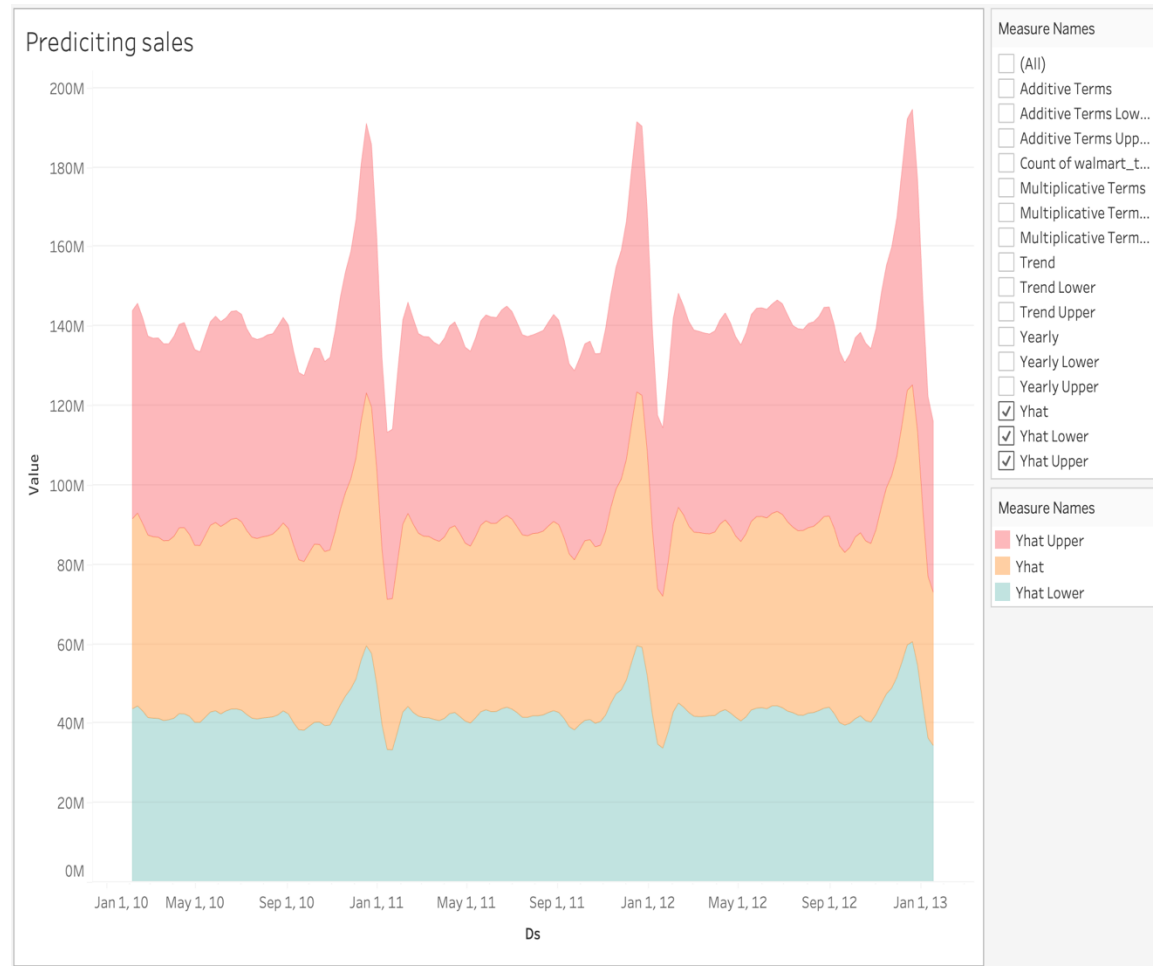
Store Performance Over Time

- This ranked bar chart compares store performance based on cumulative weekly sales.



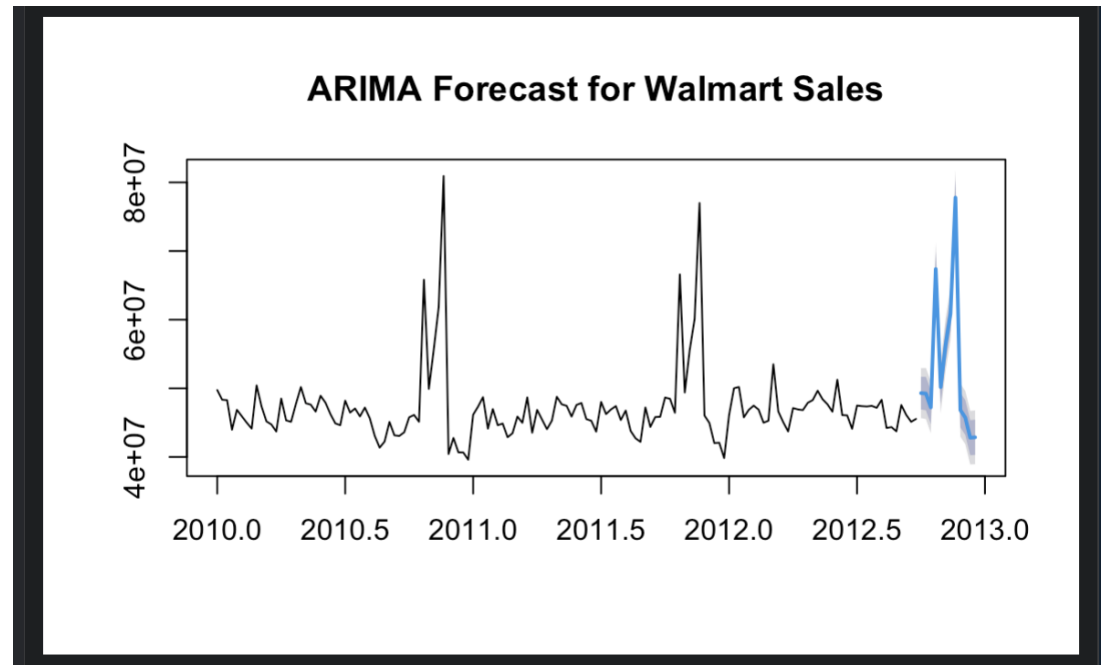
Sales Forecasting with Prediction Intervals

- This visualization predicts future sales trends using confidence intervals (Upper & Lower bounds).



ARIMA Forecast using R

- The black line represents historical sales data, showing past trends and seasonal peaks.
- The blue line represents the ARIMA forecast, predicting future sales trends.



Insights & Recommendations



Sales spikes indicate seasonal trends (e.g., holiday sales boost).



Some stores outperform others significantly—potential reasons: location, promotions.



Forecasting helps adjust inventory & optimize pricing strategies.



Underperforming stores need targeted marketing strategies and operational improvements.

Conclusion

- This analysis provides data-driven insights into Walmart's sales trends, helping decision-makers improve revenue forecasting, manage inventory efficiently, and optimize store performance.

