

Residual Analysis for Tables

The analysis of residual values for table sales provides insights into performance deviations from expected outcomes, indicating both underperformance and overperformance across various months.

Key Observations:

1. **Residual Fluctuations:** The residual values show significant volatility throughout the observed period, highlighting the unpredictable nature of table sales.
 - **Negative Residuals:**
 - **November 2015** (-1816.98) and **December 2016** (-2550.50) represent particularly high negative residuals, indicating substantial underperformance. These months should be scrutinized to uncover potential causes, such as market saturation or shifts in consumer preferences.
 - **January 2018** (-1946.87) and **April 2018** (-753.54) also reflect significant negative deviations, suggesting challenges in achieving expected sales during these periods.
 - **Positive Residuals:**
 - **January 2016** (2464.71) and **December 2017** (3494.29) are notable for their high positive residuals, indicating strong sales performance that exceeded expectations. Analyzing these months may reveal successful marketing strategies or product demand that could be replicated in the future.
 - **May 2017** (2107.00) and **June 2017** (2086.02) also demonstrate robust sales, suggesting effective sales tactics during this period.
2. **Inconsistent Performance:** The substantial variance in residual values emphasizes the unpredictable nature of table sales. For example, the drastic shift from **October 2015** (1694.14) to **November 2015** (-1816.98) indicates a significant change in market conditions or consumer interest.

Actionable Insights:

1. **Examine Key Months:** Investigating the months with significant negative residuals is essential to understanding the factors contributing to underperformance. This may

include exploring market dynamics, competition, and changes in consumer behavior.

2. **Replicate Successful Strategies:** The months with high positive residuals should be analyzed to identify effective strategies and conditions that led to strong performance. Leveraging these insights can inform future marketing and sales initiatives.
3. **Ongoing Monitoring:** Continuously tracking residual values can help identify emerging trends and facilitate timely adjustments to sales strategies, allowing for better alignment with market conditions.
4. **Cross-Product Analysis:** Comparing table sales residuals with other product categories may reveal broader trends in consumer preferences and sales patterns, aiding in strategic planning and inventory management.

Next Steps

- Conduct a thorough analysis of the months with notable deviations to identify actionable insights that can enhance sales performance moving forward.
- Review the strategies employed during high-performance months to inform future sales and marketing efforts.