USDA Pricing Data Analysis Report for 2022/2023

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Overview

The USDA Pricing Data Dashboard provides insights into the market trends, pricing dynamics, and performance of various fruits and vegetables across multiple U.S. markets. This data allows stakeholders to make informed decisions based on consumer pricing trends, market demand, and commodity performance.

Data Quality and Transformation

The data was assessed for quality, and duplicates were removed to ensure accuracy. Both 2022 and 2023 datasets were combined using Power BI's "Append" function, allowing a year-over-year analysis of pricing trends. Custom DAX measures were created to calculate key metrics such as total average sale, total high price, and year-over-year (YoY) change in average prices, specifically for tomatoes.

Key Insights

1. **Overall Pricing Trends**
    - The total average sale across all markets and products for 2022/2023 is approximately 5.79 million units, with a peak high price reaching 5.91 million units.
    - The YoY change in the average price for tomatoes shows a slight decline of -0.08, indicating minimal pricing fluctuation for this commodity.
2. **Commodity Performance**
    - Commodities like **lettuce, Brussels sprouts, and strawberries** consistently recorded lower average prices across markets, highlighting potential areas for price optimization or promotional focus.
    - High-performing commodities in terms of average sale value include **apples, potatoes, and watermelons**, which saw significant demand across multiple markets. Apples alone reached a total average sale of 1.18 million units, showing their strong market position.
3. **Market Analysis**
    - **Chicago** was the top-performing market in terms of high prices, reaching a peak of 0.74 million, followed closely by **San Francisco** and **Los Angeles**. This trend suggests a robust demand and potentially competitive pricing environment in these metropolitan areas.

- Geographically, **California, Mexico, and Idaho** stand out as the leading origins for high-price sales, reflecting their critical role in the supply of fruits and vegetables to U.S. markets.

4. **Organic vs. Non-Organic Products**

    - Organic products make up a smaller share of total sales, accounting for around 11.84% of total high prices. The lower sales volume of organic items suggests an opportunity to explore pricing adjustments or targeted marketing to boost their market presence.

5. **Price Volatility**

    - The data reveals a gradual decline in price volatility from July 2022 through 2023, showing that prices have become more stable over the year. This stability can help stakeholders better plan pricing and inventory strategies without facing sharp fluctuations.

User Interactions To enable more focused analysis, a slicer for date and commodity was added to the dashboard, allowing users to specify a date range or commodity type for a more detailed view. This interactive feature supports flexible insights on market trends and pricing over time.

Recommendations

1. **Target Low-Performing Commodities**

    - Commodities with lower average prices, such as **lettuce, Brussels sprouts, and strawberries**, could benefit from strategic initiatives like promotional pricing or bundled offers to increase demand. These items may also require enhanced marketing efforts to attract more attention and improve their market share.

2. **Optimize Pricing in Top Markets**

    - Given the strong pricing in cities like **Chicago, San Francisco, and Los Angeles**, consider tailoring pricing strategies for these high-demand markets. Seasonal or market-specific pricing campaigns could maximize revenue potential in these areas.

3. **Expand Organic Product Awareness**

    - Organic products have lower sales volumes and make up a smaller percentage of total high prices. To tap into health-conscious consumer segments, explore campaigns that emphasize the benefits of organic products and potentially adjust pricing to make organic items more accessible.

4. **Monitor High-Performing Commodities for Potential Price Adjustments**

    - Commodities like **apples, potatoes, and watermelons** show strong sales and demand, which might indicate price elasticity. Monitoring these items for possible price increases, if aligned with market demand, could further optimize revenue without negatively affecting demand.

5. **Continue Monitoring Price Volatility**

    - With the observed stabilization of prices, stakeholders can plan more confidently. However, it's recommended to keep monitoring this trend to prepare for any sudden shifts in pricing dynamics, especially for high-demand commodities.

Conclusion The USDA Pricing Data Dashboard provides valuable insights into the U.S. produce market's pricing patterns, allowing stakeholders to make strategic decisions on commodity focus, market prioritization, and pricing adjustments. By acting on these recommendations, stakeholders can improve revenue performance, capitalize on high-demand markets, and increase the competitiveness of lower-performing commodities.