Price Patterns and Stock Status: Analyzing 'Club House' Brand Strategies

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The "Club House" product pricing and stock status impact, using data from the Filipp Hammer database. Results show most products priced low, with slight price differences by stock status. Caution is advised due to causation, missing data, and bias concerns, providing insights into potential influences on Club House's pricing strategy. Suggested Modifications of my text

1 Introduction

This analysis focuses on examining the price distribution of products and the potential impact of stock status on pricing for the brand "Club House" The data used in this study is derived from Filipp's Hammer database (Filipp 2024) and analyzed using the programming language R (R Core Team 2023). By exploring detailed information on Club House products—including product names, prices, and stock levels—this analysis aims to uncover insights into the brand's pricing strategies and possible trends in consumer demand.

2 Measurement

In Project Hammer, the process of transforming real-world grocery price fluctuations into SQL database entries involves several key steps. Data is first collected through automated scripts that scrape prices from major grocery retailers' websites. This raw data is then cleansed and standardized to ensure accuracy and consistency across different sources. The cleaned data is structured into an SQL database, which facilitates complex queries and analyses. Metadata documentation accompanies the dataset, detailing collection methods, measurement units, and frequency, which supports transparency and data integrity.

3 Result

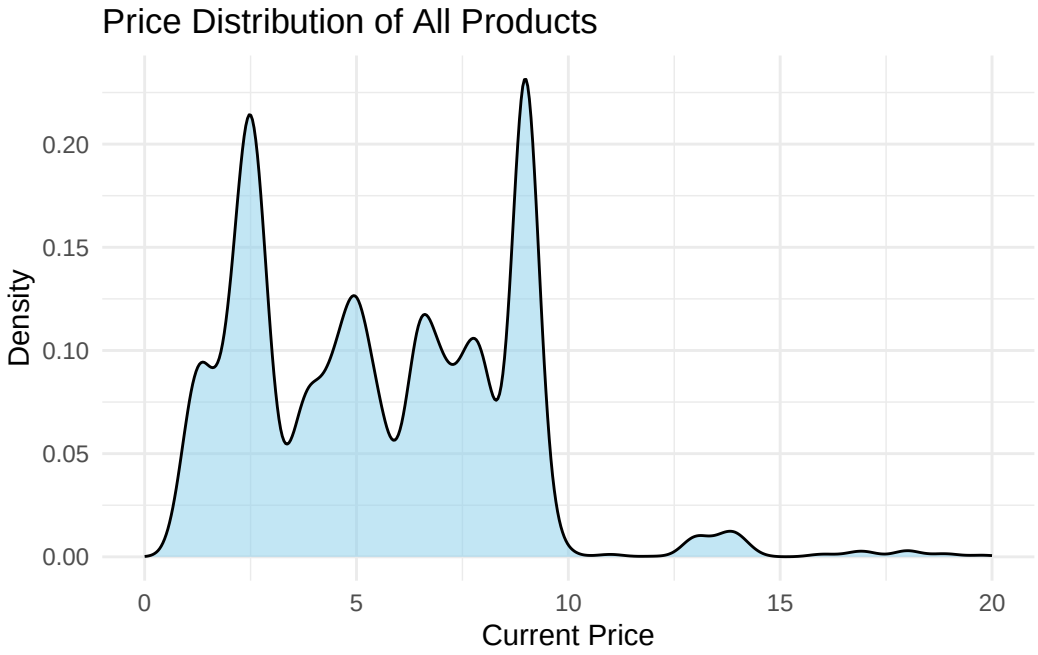

Figure 1

Figure 1 illustrates the price distribution for all products. The distribution is notably multimodal, with several prominent peaks within the 0 to 10 price range, indicating clusters of product prices around specific values. The density drops sharply beyond a price of 10, with very few products priced above this threshold. This skewed distribution suggests that most products fall within a lower price bracket, with some variation around certain price points. The data could indicate different tiers or categories of products grouped around particular price levels, though it is unclear if external factors (such as promotions or seasonal pricing) might influence these clusters. Price Distribution of Club House Products: A multimodal distribution highlights significant price clustering below $10, with distinct peaks suggesting potential tiers or groupings of product pricing. Few products exceed $10, indicating a prevalence of lower-cost items.

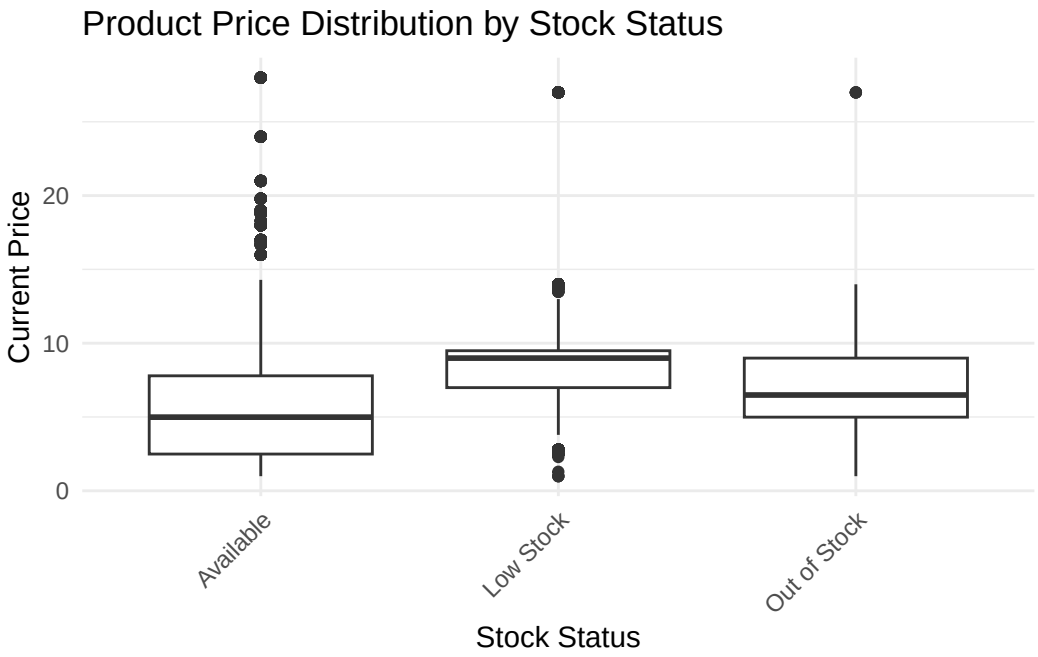

Figure 2

Figure 2 presents a comparison of product prices across different stock statuses (Available, Low Stock, Out of Stock). Products marked as "Available" have a wide range of prices, with a moderate median price and several high outliers. "Low Stock" products appear to have a slightly higher median price, but the range is more condensed, with fewer extreme values. "Out of Stock" products also show a wide range, although their median is similar to the "Available" category. This breakdown suggests potential pricing differences associated with inventory status, though additional analysis is needed to determine if there is any causal relationship between stock status and price. Comparison of Club House Product Prices by Stock Status: Highlights variations in median prices and price ranges across stock categories (Available, Low Stock, Out of Stock), suggesting potential influences of stock levels on pricing strategies.

4 Discussion

4.1 Correlation vs. Causation

In analyzing the relationship between stock status and pricing, it's important to differentiate correlation from causation. The observed data may show a pattern where higher-priced products frequently have lower stock levels, potentially leading to the assumption that scarcity directly drives up prices. However, this correlation does not confirm causation. It could also be that higher-priced items are stocked less due to lower turnover rates or strategic business

decisions regarding inventory management. When analyzing price variability by stock status, a possible causal explanation is that higher-priced products often have smaller purchasing volumes, leading to frequent low-stock situations. This supply dynamic can be interpreted from the observed higher median prices in the "Low Stock" category, suggesting a link between pricing strategies and stock management.

4.2 Missing Data

The integrity of conclusions drawn from data analysis is significantly impacted by the completeness of the data set. Missing data, particularly if systematic (e.g., consistently missing data for certain price ranges or during specific periods), can skew the analysis. For example, if higher-priced items are underreported, this might falsely suggest a prevalence of lower prices across the board. The absence of comprehensive data hampers the ability to accurately depict the true nature of pricing and stock dynamics, potentially leading to erroneous strategic recommendations.

4.3 Sources of Bias

Bias in data collection and analysis can critically alter the outcomes and interpretations of research. In the context of Project Hammer, potential biases might arise from several sources, including the over representation of data from particular vendors, time periods, or promotional sales. These biases could inadvertently favor certain price ranges or stock statuses, misleading conclusions about general market conditions. To mitigate these effects, it's necessary to employ rigorous sampling methods, ensure a balanced representation of all relevant categories, and critically evaluate the influence of promotional activities on price and stock data.

References

Filipp, Jacob. 2024. "Hammer." https://jacobfilipp.com/hammer/.

R Core Team. 2023. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.