Profit Maximization Strategies for Technology Sales at Sample Superstore

Technology Products

The focus of the analysis is on increasing net income through increasing sales revenues and/or reducing the cost of goods sold to customers and/or reducing discounts to consumer customers.

By

Gazi Md Tasinul Islam

Graduate project

BAN731: Business Data Analytics

Submitted to the instructor of Business Data Analytics

Dr. Joseph B. O'Donnell

Canisius University

For project work

Background/Exposition

In an increasingly digital world, the sale of technology products is not just a business—it's an imperative. Sample Superstore operates at the intersection of necessity and innovation, offering a wide array of products from essential office supplies to furniture and, critically, technology products that have become central to modern life and work. These technology products—ranging from the latest computing devices to advanced office machinery—serve as a cornerstone of the store's offering, reflecting the evolving demands of consumers and businesses alike.

Sample Superstore has seen varying success across its segments, with a notable emphasis on the sale of technological goods. Data from 2020 to 2023 highlights the revenue and profit potential within this segment. The store's challenge is to leverage this data to enhance profitability. For instance, in 2020, technology sales reached nearly \$494K, with profits of approximately \$52K, suggesting room for strategic financial optimization.

Main Story

The store's financial performance demonstrates a positive trend in sales, with a spike in 2022 to over \$613K, aligned with a profit increase to approximately \$83K. Yet, there are concerns as the estimated figures for 2023 show sales potentially reaching \$694K while profits could stabilize around \$102K. This raises questions about the cost management and discount strategies currently in place.

Analyzing the quarterly costs of goods sold, which have steadily risen from \$72K in Q1 of 2020 to a forecasted \$258K in Q4 of 2023, underlines the pressing need for cost-efficiency measures. The relationship between sales and profit margins across different categories, such as the consistent profitability of 'Paper' versus the losses in 'Binders', points to the need for a more targeted product offering.

Resolution/Next Steps

The imperative is to refine discount practices, ensuring they contribute to profitability rather than detract from it. A review of the product portfolio is advised to focus on high-margin items, considering that some categories like 'Machines' have shown variable returns. Further, the aggregate discounts applied to each segment must be scrutinized, as seen with the Consumer segment's high discount level of 832.31, correlating with the highest sales but not proportionately higher profits.

It is critical for stakeholders to understand that while increasing sales is vital, it should not come at the expense of profitability. The visual data provided in this report charts a clear path for

decision-making, emphasizing the importance of a strategic approach to discounts, product selection, and cost control for sustainable growth.

Data Visualization(s)

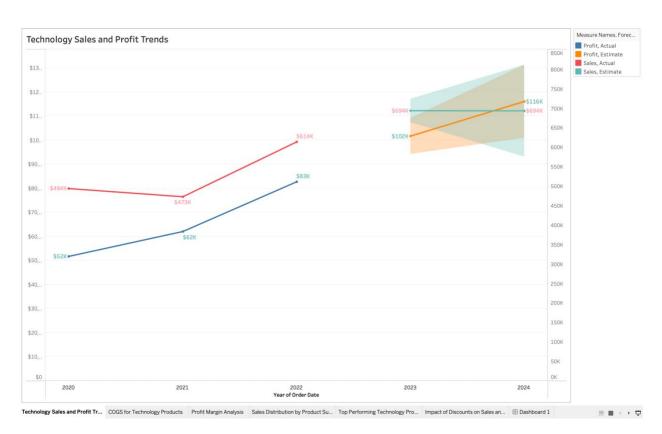


Figure 1: Technology Sales and Profit Trends

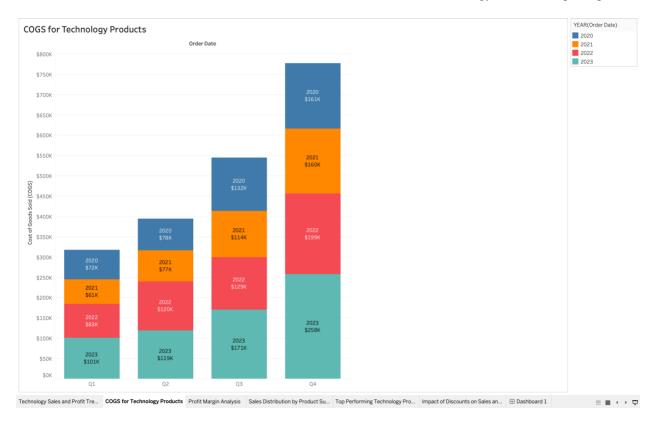


Figure 2: COGS for Technology Products

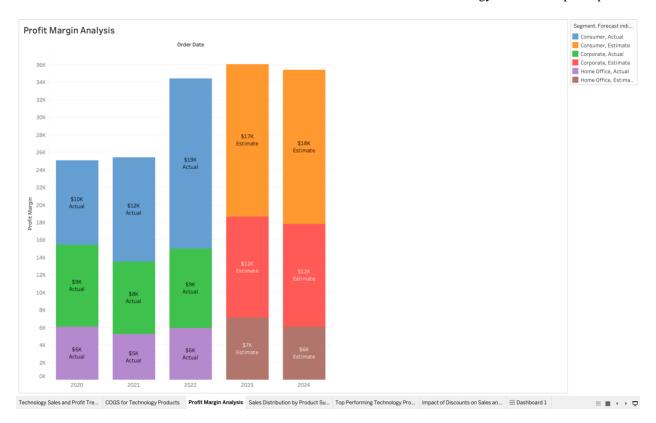


Figure 3: Profit Margin Analysis

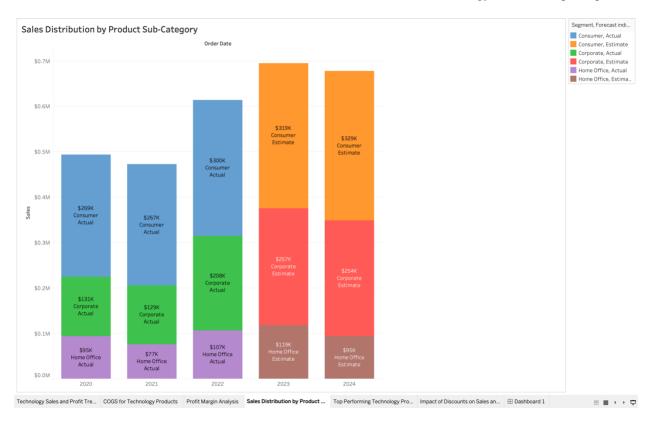


Figure 4: Sales Distribution by Product Sub-Category



Figure 5: Top Performing Technology Products

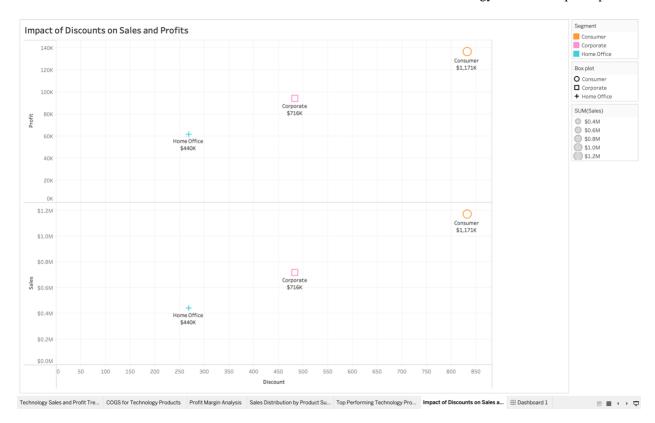


Figure 6: Impact of Discounts on Sales and Profits

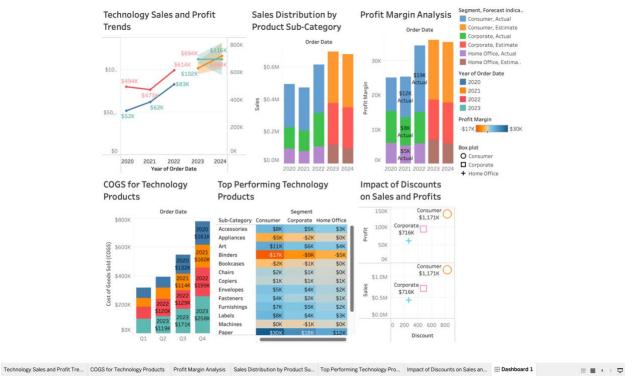


Figure 7: Dashboard of whole analysis