

Price Optimization Solution for an International Retail Distributor

- A Case Study

Client

- A leading agro-based commodities distributor and exporter based in Tirupati, India.
- Specialized in catering to retail customers across the Asia-Pacific region.
- Over 10,000 SKUs in various categories.
- Has an online platform for retailers to order agro-based products.

Problem

Here are some of the challenges faced by our client:

- Due to the vast range of commodities, it was challenging to determine the ideal price for each product.
- They relied on the manual method of updating the prices on their platform and ERP after considering many parameters such as competitors' pricing, procurement costs, storage and handling costs, packaging and shipping costs, overhead costs, taxes and regulatory fees, etc. This made the process time-consuming and inefficient due to limited resources.
- Losing potential customers due to high prices, or lowering revenue due to underpricing the products.
- Difficulty in keeping up with the constantly changing market demands and supply for different commodities which causes price fluctuations.
- Lack of a system and resources to track all operations, analyze data and gain insights from it. They relied on multiple spreadsheets to maintain all the data, which was cumbersome to analyze and manage.
- Limited understanding of how price changes impact the overall revenue.

Solution

To address the challenges, we understood the problems in depth from the stakeholders and our solution involved the following steps:

❖ Data Warehousing

- We identified and collected data on past sales, pricing, customer behavior, etc. from multiple sources.
- To collect data on market trends and competition, we used web scraping techniques to extract data from various online sources.
- Any discrepancy in the data was spotted and irrelevant segments were removed for better understanding.
- We created a centralized data warehousing infrastructure to store the vast amount of data collected.
- We automated the migration of data from the sources so that it is stored in the data warehouse efficiently.

❖ Data Analytics

- The pricing database developed by the data collected from data warehousing and web scraping was analyzed to identify the market trends, customer preferences, and competitor prices, taking into consideration the costs incurred by the client.
- The analysis helped identify the ideal price range for each commodity sold by the client on their platform.

❖ Price Optimization

- We developed an automated pricing model that utilized machine learning algorithms and could predict the optimal price for each product.
- The system was enabled with real-time tracking of competitors' prices and alerted the client when there was any change.

❖ Business Intelligence Dashboard

- For better analysis and reporting, we built interactive visual dashboards that provided real-time insights on various business operations of the organization, including data on sales volume, revenue, profit margins, etc., that would enable the client to make informed decisions.
- To understand the impact of price changes, changes in volume and changes in product mix on the revenue and profit margin, we incorporated Price Volume Mix (PVM) analysis into the dashboard. A simulator was also developed so that the stakeholders can forecast the revenue based on the pricing set for the products.

Business Impact

Implementing these solutions had a significant impact on our client's business:

- The distributor was able to set optimal prices for their products, resulting in a 15% increase in profitability.
- By optimizing the pricing strategy as per the actionable insights provided by our solutions, our clients were able to increase their market share by 10%.