



MediMo Case Study

Cocoa Price Forecasting for an Indian Wellness Brand



Executive Summary:

This case study examines the price trend forecasting of cocoa, a critical global agricultural commodity and a core input for health supplement products. By leveraging historical price data, seasonal trends, weather patterns, and global market dynamics, a predictive model was developed to forecast cocoa prices over the upcoming season. The insights derived from this analysis empowered key stakeholders—particularly procurement and supply chain teams—to make informed, data-driven decisions, optimize sourcing strategies, and mitigate price volatility risks.

Introduction

An omnichannel health supplement company headquartered in NCR, India, has seen rapid growth in the functional foods and nutraceuticals space. As a key ingredient in several of its high-demand products, cocoa plays a crucial role in its procurement strategy. However, by December 2023, international cocoa prices began rising sharply—driven by seasonal fluctuations, adverse weather conditions in key producing countries, and global supply demand imbalances. This created significant cost pressures and challenges in forecasting procurement budgets. This case study explores the operational and strategic implications of rising cocoa prices and presents a data driven forecasting approach. Using statistical models, historical market data, and macroeconomic indicators, the study aims to support smarter sourcing decisions and improve resilience in the company's supply chain.

Problem Statement

How can the company accurately forecast cocoa prices to enable stakeholders—particularly in procurement and finance—to make timely, data-driven decisions for budgeting, sourcing, and mitigating cost volatility?



Methodology

Data Source: Bloomberg Tools Used: Mathematical modeling
Variables: Rainfall data, sowing area, international demand, mandi arrival, geopolitical events, Global Logistics scenarios.

Analysis

West Africa which accounts for approx. 64% of Cocoa production, witnessed adverse weather, prolonged rainfall and further freight hikes because of geopolitical tensions around red sea added upward pressure in Cocoa prices. Mathematical models precisely predicated upper levels of prices which were surprisingly three-time higher comparing Dec'23 prices.



Conclusion

Forecasting Cocoa prices could help decision makers and supply chain teams to make informed, data-driven decisions, optimize sourcing strategies, and mitigate price volatility risks. A combined approach using MediMo's mathematical models and real-time market data could ensure better preparedness for all stakeholders.

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