

Navigating Price Volatility: Optimizing Edible Oil Inventory Management for Rahil Enterprise

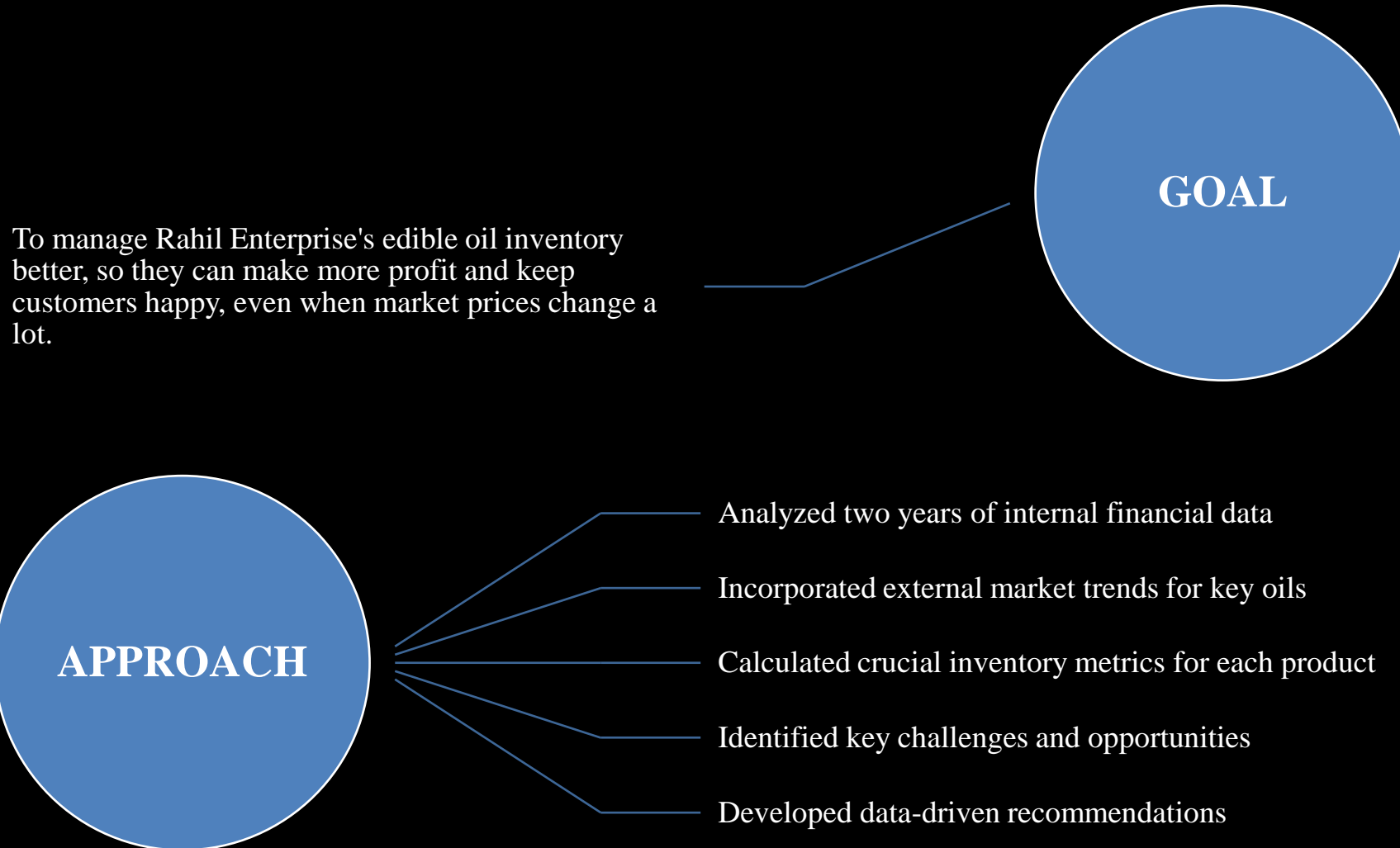
A BDM Capstone Project Presentation

Azarudin Bihari | 21f3000828 | 21f3000828@ds.study.iitm.ac.in

IITM Online BS Degree Program,
Indian Institute of Technology, Madras, Chennai



About Project



About Rahil Enterprise

Location: Banaskantha District, Gujarat

Established: 2018

Owner: Mr. Samir Bihari

Business: Distribution of over 15 types of edible oils within a 60-kilometer radius.

Customer Base: Bakeries, restaurants, supermarkets, and retail stores.

Suppliers: Gokul Agro Resources Ltd. and Adani Wilmar Ltd.

Software: Tally Prime for accounting and inventory management.



The Heart of the Matter – Key Problems

Price Fluctuations

Fluctuating purchase costs affect profits

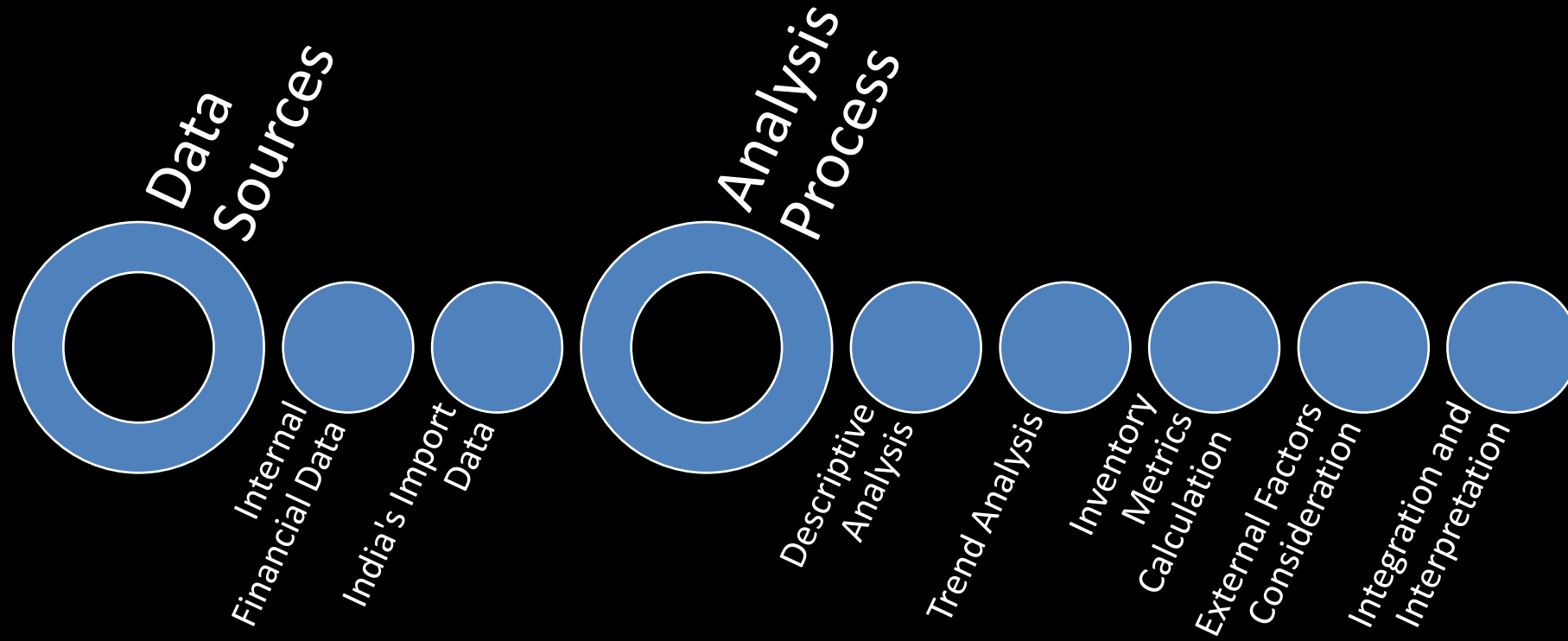
Risk of Losses

Sudden price drops can lead to financial losses

Optimal Stock Levels

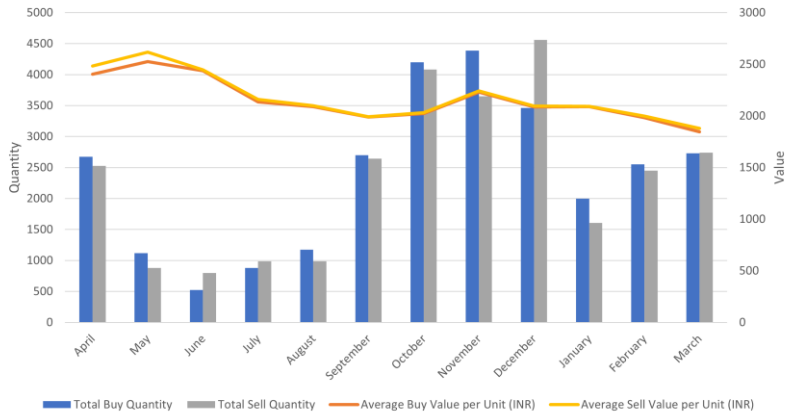
Balancing customer demand with overstocking risk during price fluctuations

Data & Methodology



Key Findings: Fortune Refined Soyabean Oil

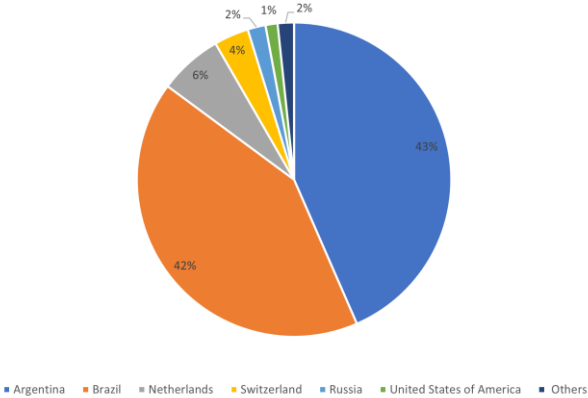
FORTUNE REFINED SOYABEAN OIL 15KG TIN
Buy and Sell Trends (FY 2022-23)



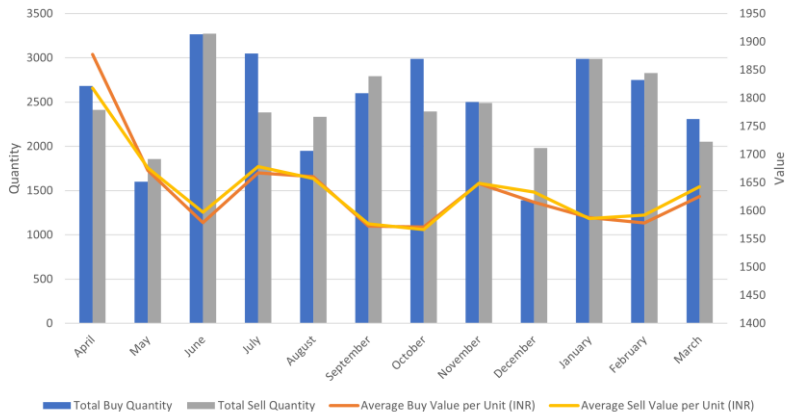
CRUDE SOYBEAN OIL IMPORTS
Quantity and Value (FY 2022-23)



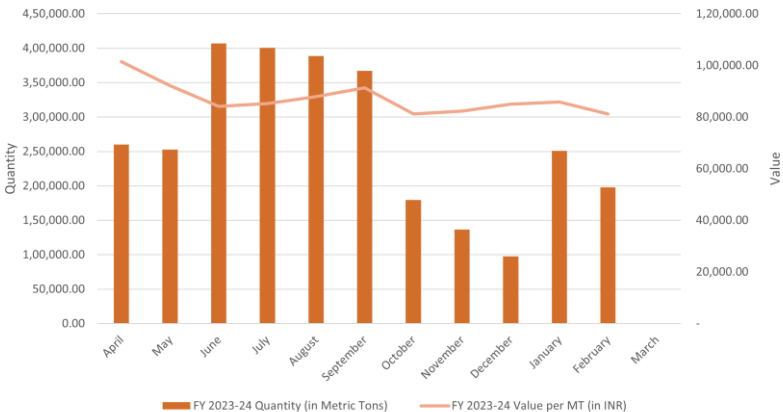
CRUDE SOYBEAN OIL IMPORTS
By Country (FY 2022-23)



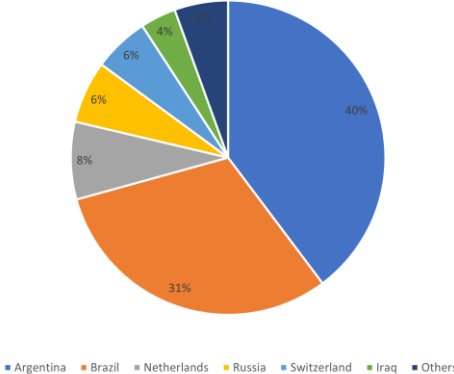
FORTUNE REFINED SOYABEAN OIL 15KG TIN
Buy and Sell Trends (FY 2023-24)



CRUDE SOYBEAN OIL IMPORTS
Quantity and Value (FY 2023-24)

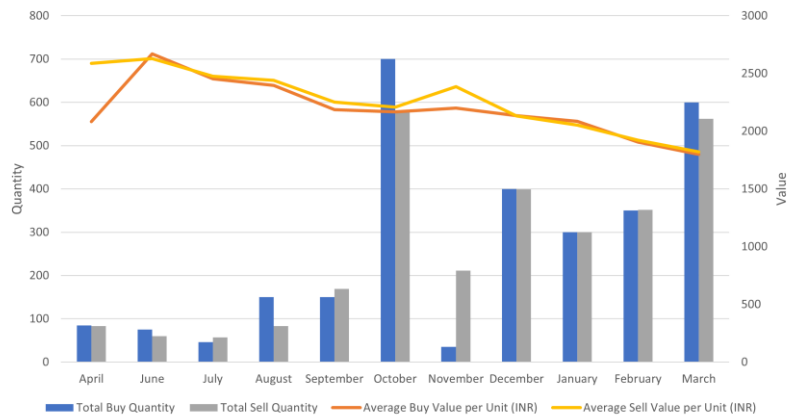


CRUDE SOYBEAN OIL IMPORTS
By Country (FY 2023-24)

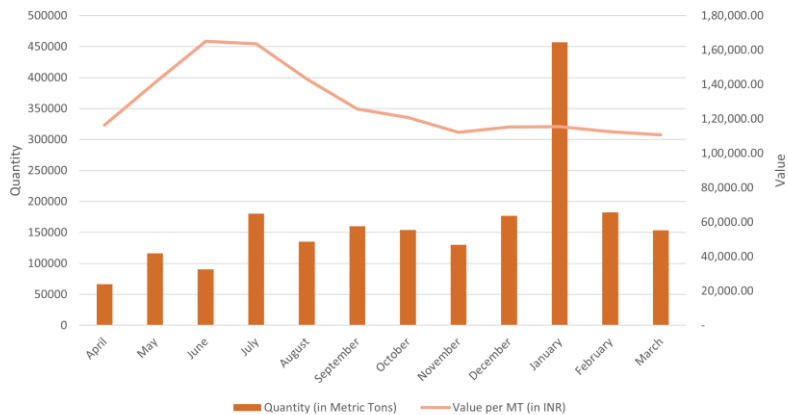


Key Findings: Fortune Refined Sunflower Oil

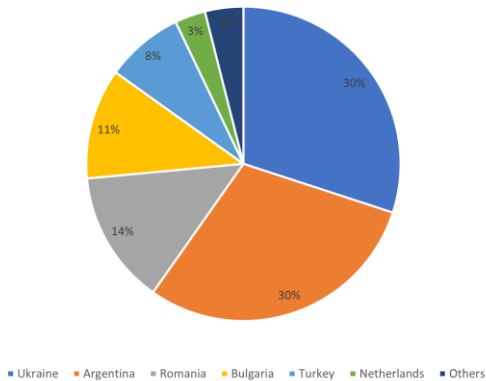
FORTUNE REFINED SUNFLOWER OIL 15LTR TIN
Buy and Sell Trends (FY 2022-23)



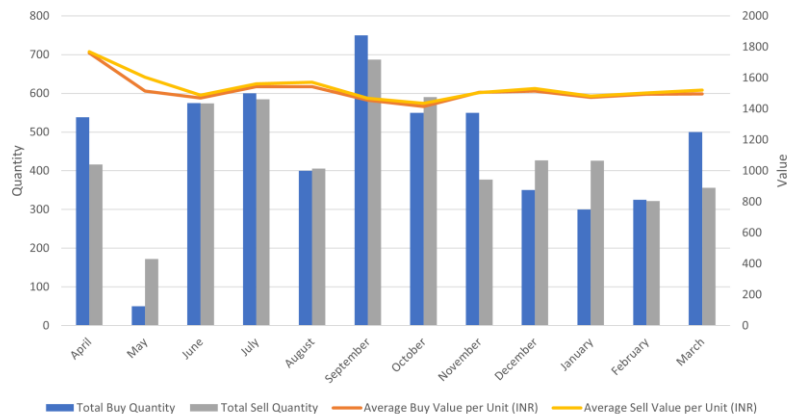
CRUDE SUNFLOWER SEED OIL IMPORTS
Quantity and Value (FY 2022-23)



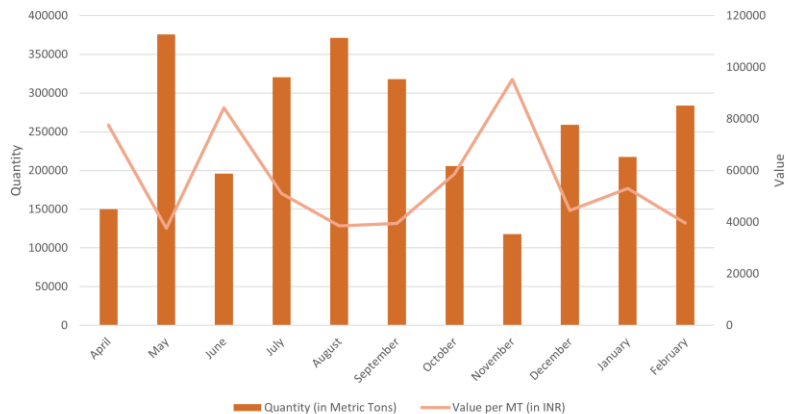
CRUDE SUNFLOWER SEED OIL IMPORTS
By Country (FY 2022-23)



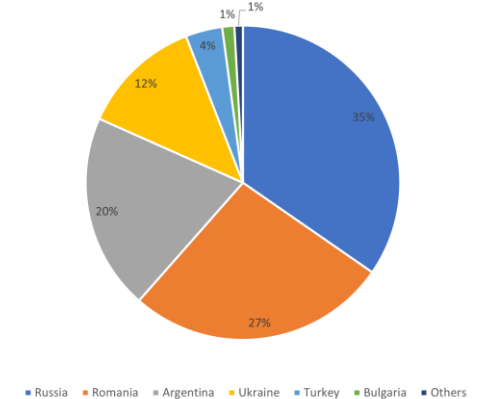
FORTUNE REFINED SUNFLOWER OIL 15LTR TIN
Buy and Sell Trends (FY 2023-24)



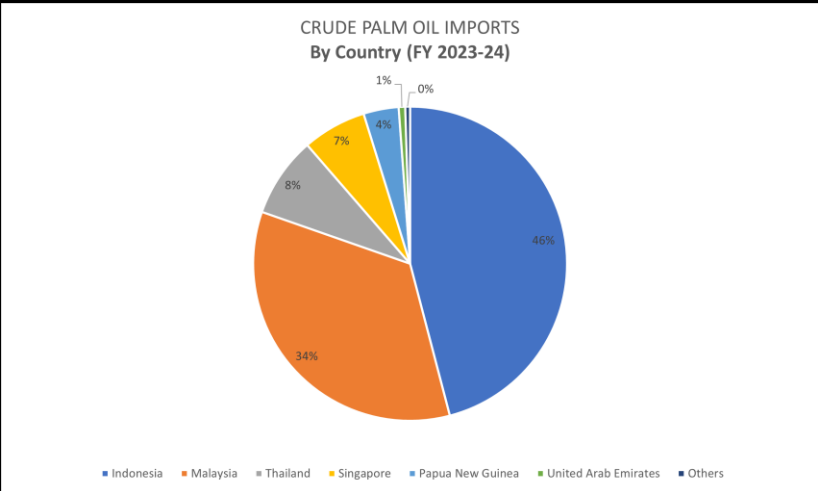
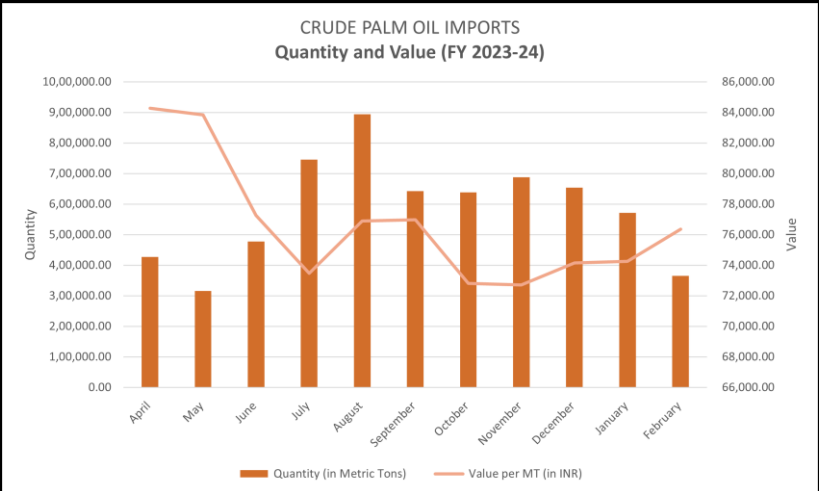
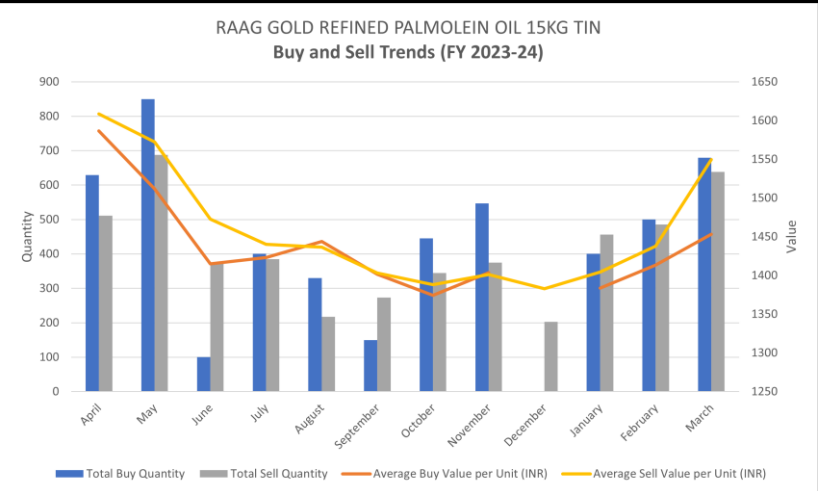
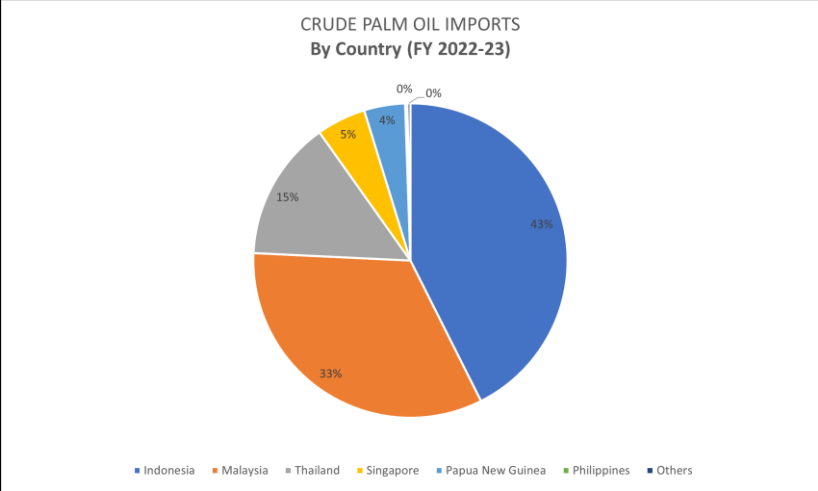
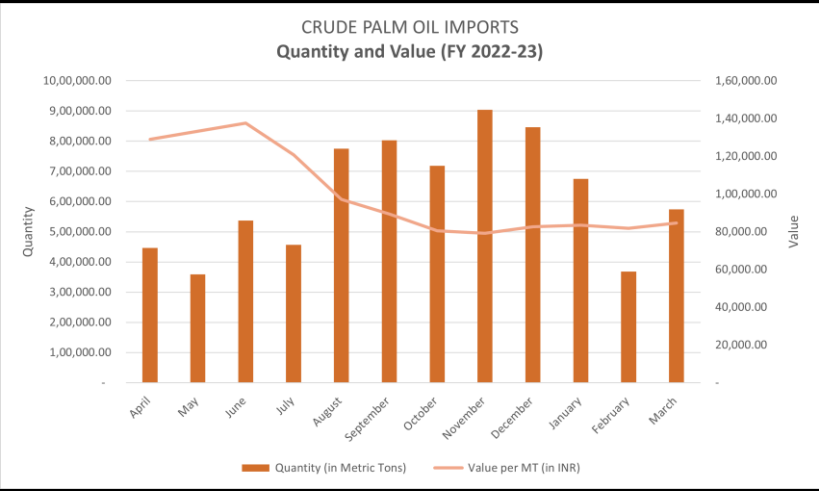
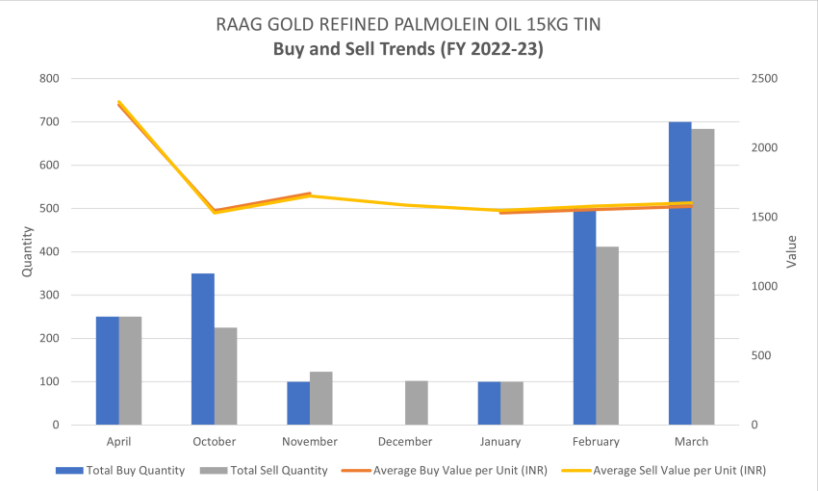
CRUDE SUNFLOWER SEED OIL IMPORTS
Quantity and Value (FY 2023-24)



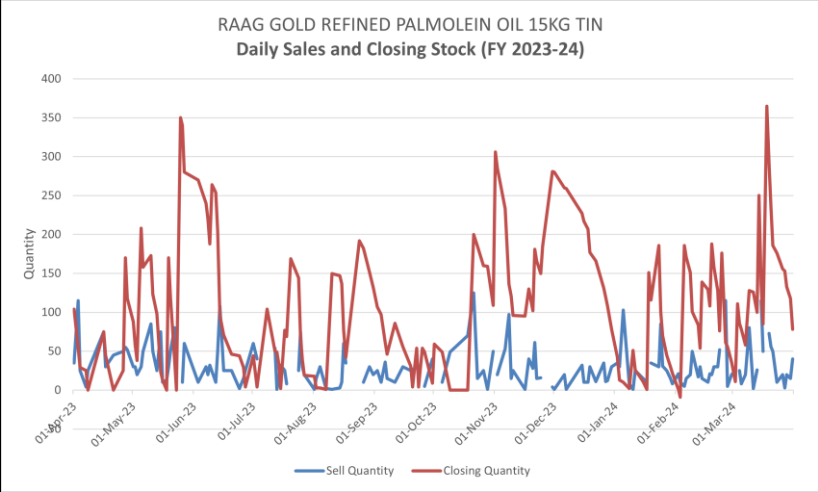
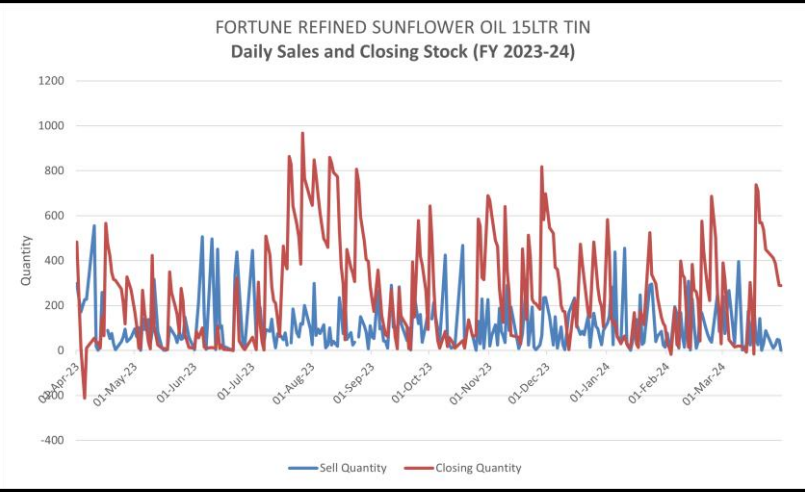
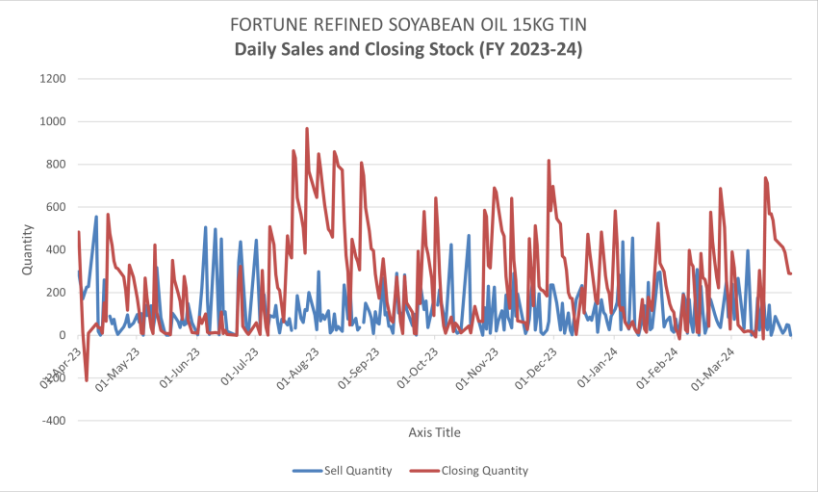
CRUDE SUNFLOWER SEED OIL IMPORTS
By Country (FY 2023-24)



Key Findings: Fortune Refined Palmolein Oil



Key Findings: Inventory Management Challenges



Inventory Analysis Metrics by Product				Desired Service Level (%)		95	Average Lead Time (Days)		5
Item Name	Average Daily Sales (FY 2022-23)	Average Daily Sales (FY 2023-24)	Average Daily Sales (Overall)	Demand Standard Deviation (FY 2022-23)	Demand Standard Deviation (FY 2023-24)		Demand Standard Deviation (Overall)	Safety Stock	Reorder Point
VITALIFE REFINED SOYABEAN OIL	18 TIN	17 TIN	17 TIN	23.71491276	23.16257052		23.43874164	86 TIN	173 TIN
RAAG GOLD REFINED PALMOLEIN OIL	34 TIN	31 TIN	33 TIN	42.70338653	26.046256		34.37482126	127 TIN	289 TIN
PUFFPRIDE VANASPATI	62 TIN	93 TIN	77 TIN	71.37184227	154.538812		112.9553271	417 TIN	803 TIN
FORTUNE REFINED SOYABEAN OIL	109 TIN	108 TIN	109 TIN	120.8426417	107.8023366		114.3224892	422 TIN	965 TIN
FORTUNE REFINED COTTONSEED OIL	20 TIN	25 TIN	23 TIN	21.75102753	25.66074461		23.70588607	87 TIN	201 TIN
FORTUNE REFINED SUNFLOWER OIL	22 TIN	24 TIN	23 TIN	23.61946903	23.62853965		23.62400434	87 TIN	202 TIN

Recommendations for Rahil Enterprise

1. Stay Ahead of the Curve

Closely watch global oil prices, especially from countries like Argentina (soybean oil), Ukraine and Russia (sunflower oil), and Indonesia and Malaysia (palm oil). Also, keep an eye on how much oil India produces locally.

2. Plan for the Peaks

Stock up before festivals and peak seasons when people buy more oil.

3. Don't Run Dry (Or Overstock)

Use our calculated reorder points and safety stock levels to know exactly when to order and how much to keep in stock. This will prevent running out of oil or having too much sitting around.

4. Buy Smart, Sell Smart

When global oil prices drop, buy a bit more to take advantage of the lower cost. This way, Rahil Enterprise will be well-stocked for peak seasons and can offer competitive prices.

Thank you!

