Data-Driven Problem Solving for a Growing Trading and Distribution Business

A Final Report for the BDM Capstone Project

Submitted by

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1 Executive Summary

Greenaway Enterprises LLP, located in Kanpur, Uttar Pradesh is a B2B firm. It operates in the trading and distribution sector, supplying chemical and rubber-based raw materials to small manufacturers.

The analysis, based on sales and purchase data from 2023 to 2024, confirms and quantifies three core business challenges: a high dependency on a few key clients, rising inventory carrying costs, and the negative impact of raw material price fluctuations on profit margins.

The findings reveal that **80% of total revenue is generated by just 3% of clients**, creating a significant risk exposure. The firm's inventory management is also inefficient, as evidenced by a rising **Days Inventory Outstanding (DIO)** and a clear mismatch between purchasing and sales activities. Most critically, the analysis provides irrefutable proof of unprofitability: for several months, the firm was **selling at a loss** because its average purchase rate exceeded its average sales rate. This is a direct result of the "lag effect," where the company fails to adjust its sales prices quickly enough to reflect rising costs.

To address these issues, the report outlines a three-part, data-driven framework. Recommendations include implementing a **dynamic pricing strategy** to ensure consistent profitability, adopting a tiered **ABC analysis for inventory management** to focus resources on high-value items, and diversifying both the **client base and supplier relationships** to mitigate future risks. By implementing these strategies, Greenaway Enterprises can transform its operations from a reactive, risk-prone model to a proactive, data-driven one, ensuring long-term profitability and stability.

In conclusion, these operational challenges are not isolated issues but are interconnected and rooted in a reactive business model.

2 Detailed Explanation of Analysis Process/Method

Overview

This section outlines the structured approach adopted to address the three identified business challenges using the available sales and purchase datasets. The methodology was designed to

move from high-level observation to granular, data-driven insights. It is a multi-step process that utilizes Excel's PivotTable and charting capabilities to first quantify each problem, then identify its root cause, and finally, provide a framework for actionable strategic solutions.

Problem Wise Analysis

2.1 High Dependency on a Few Clients

Objective:

To quantify the extent of client concentration and to identify specific opportunities for revenue diversification by analyzing client purchasing patterns. The methodology was built around the Pareto Principle to isolate the most critical clients and then perform a deeper analysis of their buying habits.

Step 1: Identifying and Quantifying Client Concentration

This initial step was crucial for defining the scale of the problem.

Analysis Method: The Pareto Principle (80/20 Rule) was applied to the sales data to identify the small percentage of clients responsible for the majority of the total sales revenue.

Process:

1. The total sales revenue for each client was calculated over a two-year period (2023-2024).
2. The percentage of total sales for each client was computed.
3. Clients were sorted in descending order based on their revenue.
4. Cumulative revenue and the cumulative percentage of total revenue were calculated.

Visualization: A Pareto chart was created to visually represent this concentration, showing each client's individual revenue contribution and their cumulative impact on total sales.

Step 2: Trend Analysis of Key Client Revenue

To understand the historical performance and volatility of the top clients, a trend analysis was performed.

Process:

1. A filter was applied to the combined sales data to isolate the top clients identified in the Pareto analysis (Kanpur Plastics, Aditya Industries, and Om Sai Enterprises).
2. A Year-Month column was added to the data to enable time-series analysis.
3. A PivotTable was used to aggregate the monthly sales for each of these top clients.
4. A line chart was created to visualize the monthly sales trend for each key client, highlighting their individual revenue patterns over time.

Step 3: Deep Dive into Top Client Purchases and Diversification Strategy

The final step in this section was to move beyond revenue and understand the purchasing behavior of clients to identify diversification opportunities.

Process:

- **Deep Dive:** A PivotTable was used to break down the total sales amount for each of the top clients by Material Name. This provided a detailed view of the specific products driving the majority of the revenue.
- **Identifying Growth Opportunities:** The analysis then shifted to identify "next-tier" clients (those with high potential but currently a smaller share of revenue). By comparing their material purchases to those of the top clients, potential up-selling and cross-selling opportunities were identified.

Visualization: A pie chart was created to visualize the percentage contribution of each client to the total revenue. This chart serves as a baseline for measuring future progress in client diversification.

2.2 Rising Inventory Carrying Costs

Objective:

To quantify inventory efficiency and identify which materials are contributing most to inventory costs. The methodology moved from high-level KPIs to a detailed, item-by-item classification.

Methodology:

1. Calculation of Key Performance Indicators (KPIs):

- **Inventory Turnover Ratio:** This metric was calculated to measure how many times inventory is sold and replaced over a period, providing a high-level view of inventory efficiency.

$$\text{Inventory Turnover Ratio} = \frac{\text{Total Cost of Goods Sold (Purchases)}}{\text{Average Inventory Value}}$$

- **Days Inventory Outstanding (DIO):** This metric was calculated to represent the average number of days it takes for the company to convert its inventory into sales.

$$\text{DIO} = \frac{\text{Average Inventory Value}}{\text{Cost of Goods Sold}} \times 365$$

2. ABC Analysis:

The core of the inventory analysis was an ABC Classification, a widely used method for categorizing inventory based on its value to the business.

Process:

1. A PivotTable was used to calculate the total purchase value (Total Amt. (Rs.)) for each Material Name.
2. The materials were sorted in descending order by their total value.
3. A cumulative percentage of total value was calculated for each material.
4. An IF formula was used to classify each material into one of three categories based on the cumulative percentage: **A** (up to 80% of value), **B** (80% to 95% of value), and **C** (95% to 100% of value).

```
=IF (C2<=0.8,"A", IF(C2<=0.95,"B","C"))
```

This classification provided a clear framework for advising the business on where to focus its inventory control efforts, dedicating the most attention to the high-value 'A' items.

2.3 Fluctuating Raw Material Prices Impacting Profit Margins

Objective:

To directly quantify the financial impact of price fluctuations and to identify proactive strategies for mitigating this risk. The analysis combined profitability calculations with a statistical approach to supplier management.

Methodology:

1. **Profitability Analysis:**

   This analysis was conducted to move beyond trend observation and provide a direct measure of business performance.

   - **Data Aggregation:** The monthly average purchase and sales rates were combined into a single table.
   - **Profit Metrics:** For each month, two key metrics were calculated:

     Profit per kg: The Average Sale Rate - the Average Purchase Rate.

     Profit Margin %: The Profit per kg divided by the Average Sale Rate, expressed as a percentage.

$$\frac{\text{Avg Sales Rate} - \text{Avg Purchase Rate}}{\text{Avg Sales Rate}} \times 100$$

   Visualization: A line chart was created to plot the **Monthly Profit Margin %** trend over time. This chart was crucial for demonstrating periods of financial loss by visually extending into the negative axis.

2. **Strategic Sourcing Analysis (Supplier Price Volatility):**

This analysis focused on the supplier side to provide an actionable solution to the root cause of the problem.

Objective: To compare the price stability of different suppliers for the same material.

Methodology:

1. A PivotTable was used to calculate the standard deviation of the Rate (Rs.) for each Supplier Name.

2. The PivotTable was filtered to analyze one Material Name at a time.
3. The results were interpreted to identify suppliers with a low standard deviation (stable prices) versus those with a high standard deviation (volatile prices).

Handling Data Limitations: It was noted that a #DIV/0! error in the PivotTable for certain suppliers indicated they had only a single purchase transaction, which made a standard deviation calculation impossible. These suppliers were excluded from the volatility analysis due to insufficient data.

3 Results and Findings

This section presents the key findings of the analysis, supported by visual representations from the sales and purchase data.

3.1 High Dependency on a Few Clients

The analysis revealed a significant concentration of revenue from a small number of clients. By applying the Pareto Principle, it was found that the company's revenue is heavily reliant on a small group. This was visually presented in mid-term report.

Client Name	Total Sale Value (Rs)	% of Total Sales
Kanpur Plastic Pack Ltd	₹ 1,57,12,195.60	53.59%
Aditya Industries	₹ 43,06,410.00	14.69%
Om Sai Enterprises	₹ 40,58,020.00	13.84%
Kisan Tanks Pvt Ltd	₹ 25,35,300.80	8.65%
Samrat Polymers	₹ 21,33,487.20	7.28%
Ganesh Polymers	₹ 2,12,400.00	0.72%
Indiagro Foods Ltd	₹ 2,12,400.00	0.72%
Shivom Plastics	₹ 1,51,040.00	0.52%
Grand Total	**₹ 2,93,21,253.60**	**100.00%**

Table 1. Top Clients by Revenue and Their Contribution to Total Sales (2023-2024)

Key Finding: A mere **3%** of clients account for a staggering **80%** of total sales revenue. This finding quantifies the business's high dependency on a few key accounts.

The revenue trend analysis for the top three clients further emphasizes this risk. Their revenue streams are volatile and not consistently growing, which could lead to a significant revenue shock for the business if not addressed.

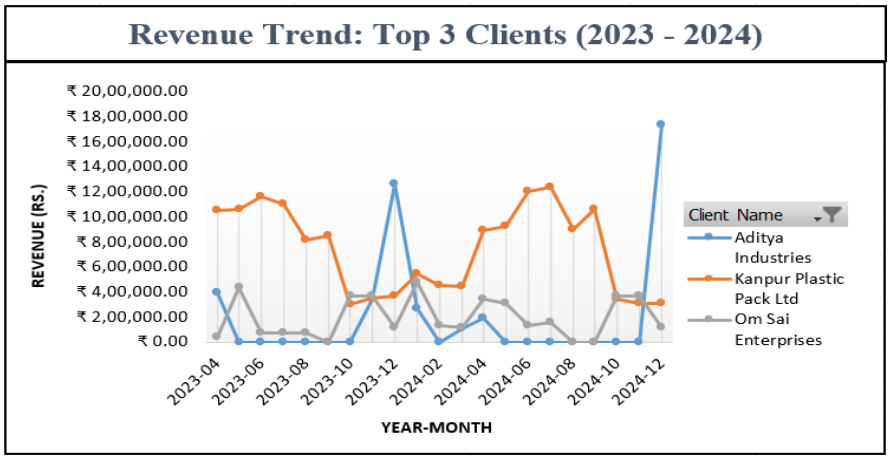

Fig1. Trend Analysis of Key Client Revenue from Pareto Analysis

Explanation: This line chart plots the monthly sales trend for the three top-contributing clients. The fluctuating and non-linear trends show that your top clients' purchasing patterns are not stable, making the business's overall revenue stream highly unpredictable.

The revenue trends highlight the volatility associated with top clients. The heavy reliance on **Kanpur Plastic Pack Ltd** is especially risky due to their unpredictable purchasing pattern. This makes cash flow forecasting and inventory management difficult.

3.2 Rising Inventory Carrying Costs

The analysis of inventory data revealed a clear decline in operational efficiency, leading to an unnecessary accumulation of stock and a rise in associated holding costs.

Consistent Excess Inventory: Rising Carrying Costs - there's a visible trend of continuous Excess Inventory, with Purchase Qty exceeding Sales Qty.

Key Finding: The **Days Inventory Outstanding (DIO)** increased from 2.4 days in 2023 to 3.9 days in 2024, indicating that cash is tied up in inventory for a longer period.

Year	COGS(Rs.)	Average Inventory(kg)	Inventory Turnover	Days Inventory Outsanding(DIO)
2023	₹ 1,06,68,160.00	71,185.00	150	2.4
2024	₹ 1,41,80,360.00	1,50,910.00	94	3.9

Table 2. Inventory Management Key Performance Indicators (KPIs) for 2023-2024

Explanation: The above table provides a quick, numerical snapshot of the decline in our inventory efficiency. The rise in DIO is a direct result of the inventory buildup shown in the chart below.

- **Inventory Efficiency is Declining:** The Inventory Turnover Ratio dropped significantly from **150** in 2023 to **94** in 2024. This shows that the business is becoming less efficient at selling and replacing its inventory.
- **Inventory is Sitting Longer:** The DIO increased from **2.4 days** in 2023 to **3.9 days** in 2024. While still relatively low, a 62.5% increase in the time inventory sits is a clear warning sign of a trend toward overstocking and higher carrying costs.

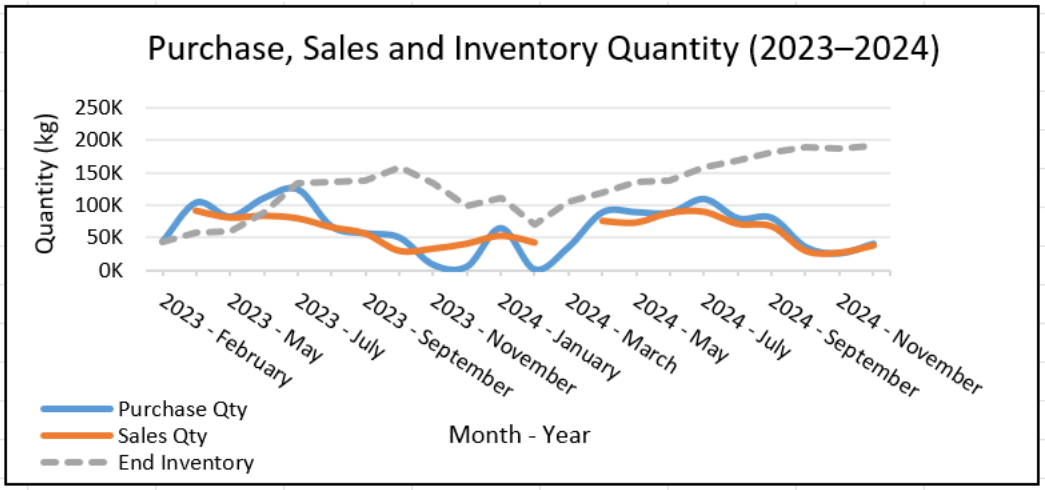

Fig 2. Inventory Accumulation Due to Purchase-Sales Mismatch (2023-2024 Monthly Trend)

Explanation: This chart visually demonstrates the disconnect between your purchasing and sales activities. The gray line representing **End Inventory** shows a sharp increase during periods where **Purchase Quantity** (blue line) significantly outpaces **Sales Quantity** (red line). This buildup is a direct contributor to your rising inventory costs.

3.3 Fluctuating Raw Material Prices Impacting Profit Margins

The **most critical finding** of this report is the quantifiable proof that raw material price fluctuations are not just impacting, but are actively **destroying**, profit margins during specific periods.

Key Finding: The calculated profit per kilogram and profit margin percentage were **negative** during several months, indicating that the business was **selling at a loss**.

Month	Avg Purchase Rate (Rs.)	Avg Sales Rate(Rs.)	Profit per kg (Rs./ kg)	Profit Margin (%)
2023	**40.20**	**27.51**		
February	28.85		0.00	0
April	18.69	23.78	5.09	21.39
May	22.41	24.39	1.97	8.31
June	17.42	17.55	0.13	0.56
July	41.16	25.85	-15.30	-64.36
August	46.13	21.03	-25.09	-105.53
September	53.08	30.95	-22.13	-93.08
October	59.82	30.10	-29.72	-125.01
November	60.00	40.38	-19.62	-82.52
December	71.08	33.65	-37.43	-157.43
2024	**37.79**	**31.09**		
January	35.68	43.19	7.51	31.58
February	93.00	39.13	-53.87	-226.58
March	52.28	48.25	-4.03	-16.95
April	19.22	24.98	5.76	24.23
May	22.69	22.63	-0.05	-0.22
June	19.16	18.88	-0.28	-1.20
July	36.26	25.83	-10.43	-43.86
August	25.72	21.16	-4.56	-19.17
September	25.72	30.95	5.23	22.00
October	42.15	27.16	-14.99	-63.04
November	51.55	33.75	-17.80	-74.87
December	54.43	40.08	-14.35	-60.37

Table 3. Summary of Monthly Unprofitability Periods (2023-2024)

Explanation: This table provides the raw numbers for our profitability, showing the direct financial loss incurred during months where the average purchase rate exceeded the average sales rate.

Key Finding: The negative profit margins are a direct result of the **"Lag Effect,"** where the company is unable to adjust its sales prices fast enough to keep up with rising raw material costs.

Monthly Trend of Purchase and Sales Rates (The Cause)

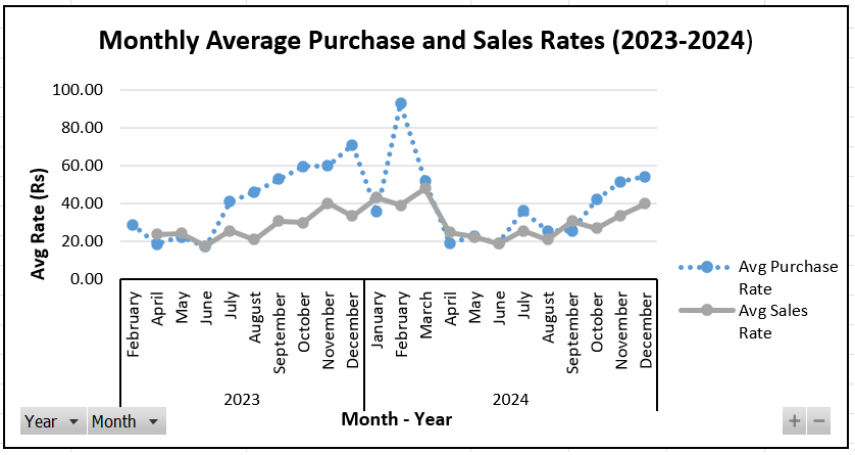

Fig 3. Monthly Average Purchase and Sales Rates (2023-2024)

- This plot is the **cause** of the problem. It shows the **volatility** in raw material costs (the blue line).
- The key finding here is that **Average Purchase Rate** fluctuates significantly and often spikes above our **Average Sales Rate** (the gray line).
- This illustrates the **lag effect**: the business is not agile enough to immediately pass on higher purchase costs to its customers, creating a profitability gap.

Monthly Profit Margin Trend (The Effect)

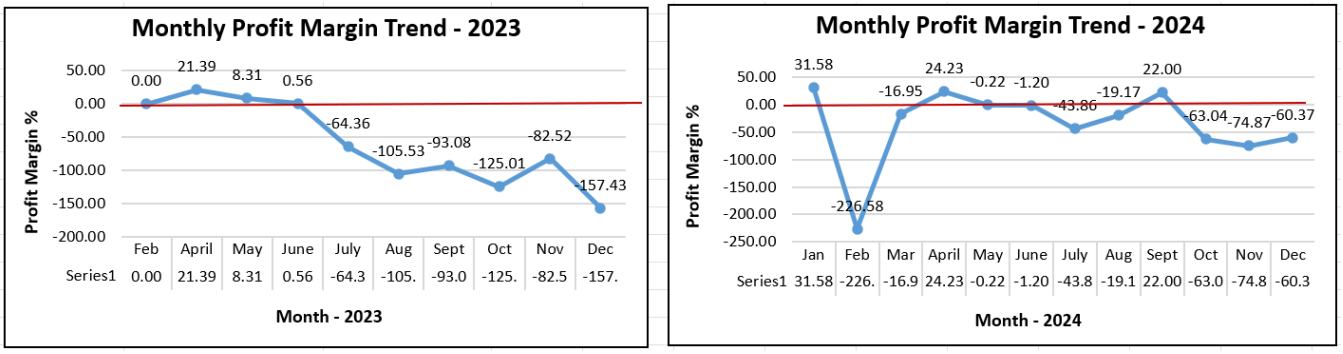

Fig 4. Monthly Profit Margin Trend (2023-2024)

- This plot is the **effect** of the problem shown in the first chart.
- The most critical finding is the line dipping below zero. This visually and quantitatively proves that the business was **selling at a loss** during those periods.

- The severe dips in profit margin directly correlate with the periods where the purchase rate spiked above the sales rate in the first chart.

Together, these two charts provide a complete, data-driven narrative: **Volatile raw material prices (the cause) are directly leading to a destructive impact on profit margins, resulting in the business selling at a loss during key periods (the effect).** This is the most powerful piece of evidence we have to support final recommendations.

4 Data-Driven Solution Framework

The analysis provides a foundation for proactive, data-driven solutions to each of the identified problems.

a) Client Diversification

The analysis of client purchasing patterns reveals clear opportunities to grow revenue from clients beyond your top three.

Key Finding: A deep dive into the top clients' purchases reveals that they are the primary buyers of specific materials.

Data-Driven Solution	Material Name				
	Calcium Carbonate	LLDPE Powder	Non coated Calcium Carbonate	Toluene	Grand Total
Party Name					
Aditya Industries	₹ -	₹ 43,06,410.00	₹ -	₹ -	₹ 43,06,410.00
Kanpur Plastic Pack Ltd	₹ 1,50,82,760.00	₹ 1,53,400.00	₹ 4,13,590.00	₹ 62,445.60	₹ 1,57,12,195.60
Om Sai Enterprises	₹ -	₹ 40,58,020.00	₹ -	₹ -	₹ 40,58,020.00
Grand Total	**₹ 1,50,82,760.00**	**₹ 85,17,830.00**	**₹ 4,13,590.00**	**₹ 62,445.60**	**₹ 2,40,76,625.60**

Table 4. Material-Wise Sales Breakdown for Top Clients (2023-2024)

Explanation: This table shows exactly what each of your top clients is buying, providing a product-level understanding of your key relationships.

Key Finding: There is a significant opportunity to grow the "next tier" of clients by cross-selling and up-selling materials they do not currently purchase.

T2	Material Name					
Party Name	Calcium Carbonate	LLDPE Powder	Non coated Calcium Carbonate	Soda Ash	Toluene	Grand Total
Aditya Industries	₹ -	₹ 43,06,410.00	₹ -	₹ -	₹ -	₹ 43,06,410.00
Om Sai Enterprises	₹ -	₹ 40,58,020.00	₹ -	₹ -	₹ -	₹ 40,58,020.00
Kisan Tanks Pvt Ltd	₹ -	₹ 24,52,040.00	₹ -	₹ -	₹ 83,260.80	₹ 25,35,300.80
Samrat Polymers	₹ 1,71,100.00	₹ 8,02,400.00	₹ 1,17,528.00	₹ -	₹ 10,42,459.20	₹ 21,33,487.20
Ganesh Polymers	₹ -	₹ 2,12,400.00	₹ -	₹ -	₹ -	₹ 2,12,400.00
Kanpur Plastic Pack Ltd	₹ 1,50,82,760.00	₹ 1,53,400.00	₹ 4,13,590.00	₹ -	₹ 62,445.60	₹ 1,57,12,195.60
Shivom Plastics	₹ -	₹ 1,51,040.00	₹ -	₹ -	₹ -	₹ 1,51,040.00
Indiagro Foods Ltd	₹ -	₹ 1,06,200.00	₹ -	₹ 1,06,200.00	₹ -	₹ 2,12,400.00
Grand Total	**₹ 1,52,53,860.00**	**₹ 1,22,41,910.00**	**₹ 5,31,118.00**	**₹ 1,06,200.00**	**₹ 11,88,165.60**	**₹ 2,93,21,253.60**

Table 5. Material-Wise Sales Breakdown for All Clients (2023-2024)

Explanation: By comparing this table to the one above, we can see which products their next-tier clients are not buying. This identifies our best targets for growth and diversification. The ultimate goal is for their revenue to be more evenly distributed across a larger client base.

Party Name	Total Sales
Kanpur Plastic Pack Ltd	53.59%
Aditya Industries	14.69%
Om Sai Enterprises	13.84%
Kisan Tanks Pvt Ltd	8.65%
Samrat Polymers	7.28%
Ganesh Polymers	0.72%
Indiagro Foods Ltd	0.72%
Shivom Plastics	0.52%
Grand Total	100.00%

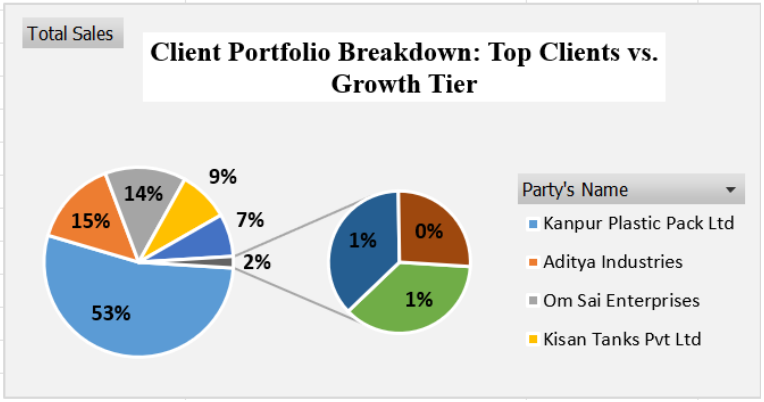

Fig 5. Client Portfolio Breakdown: Top Clients vs. Growth Tier (2023-2024)

Explanation: This chart serves as a baseline for our diversification strategy. The goal is for the large slices representing their top clients to shrink over time as they successfully grow other accounts.

b) Inventory Optimization with ABC Analysis

The ABC analysis provides a clear, data-driven method for prioritizing inventory management efforts.

Key Finding: The majority of your inventory value is concentrated in a small number of materials, while a large number of materials contribute little to the overall value.

Material Name	Purchase Amount (Rs.)	Cumulative %	ABC Classification
Calcium Carbonate	₹ 1,18,38,750.00	54.41%	A
LLDPE Powder	₹ 85,49,750.00	93.70%	B
Toluene	₹ 8,98,380.00	97.83%	C
Non Coated Calcium Carbonate	₹ 3,92,450.00	99.63%	C
Soda Ash	₹ 80,000.00	100.00%	C

Table 6. ABC Classification of Materials by Purchase Value (2023-2024)

Explanation: This table classifies all our materials into three categories:

- **A-Items (High Value):** A small number of items that account for most of their inventory value. These require the most rigorous management and control.
- **B-Items (Medium Value):** Items that fall between the A and C categories.
- **C-Items (Low Value):** A large number of items that account for very little value. These can be managed with less oversight

This classification allows the company to focus its resources where they will have the most significant impact on profitability and cost reduction.

c) Strategic Sourcing Insights

The analysis of supplier pricing reveals a direct link between supplier price volatility and the company's profit margin risk.

- **Key Finding:** There is a significant difference in price stability among their suppliers. Some suppliers exhibit highly volatile pricing, while others maintain a stable price structure.

Supplier Name	StdDev of Rate (Rs.)
AG Chemicals Pvt Ltd	0
Gas Authority of India Ltd	0.65
Micro Minchem Pvt Ltd	1.98

Material Name
Calcium Carbonate
LLDPE Powder
Non Coated Calcium Carbonate
Toluene
Soda Ash

Table 7. Supplier Price Volatility Analysis by Material (2023-2024)

Explanation: This table summarizes the findings of the supplier volatility analysis. The **Standard Deviation** provides a statistical measure of price predictability. Suppliers with a low standard deviation offer stable pricing, while those with a high standard deviation contribute to the very price fluctuations that are hurting their profitability. This finding provides the foundation for the strategic sourcing recommendation.

Key Finding: Having a single supplier for each material is a critical finding that has significant implications for Greenaway Enterprises. This goes beyond a simple analytical result; it's a major business risk that directly relates to the problems we have been solving.

This situation, known as **sole sourcing** or **single sourcing**, means the business is highly dependent on a single company for each of its key materials. It's the **root cause of the "Fluctuating Raw Material Prices" problem** because it significantly limits their negotiating power and makes them vulnerable to price increases.

5 Interpretation of Results

The analyses performed reveal that the three business challenges—client dependency, rising inventory costs, and fluctuating profit margins—are not isolated issues but are interconnected. The root of all these problems is that the company isn't changing its strategies to keep up with a changing market.

5.1 Client Dependency (Problem 1)

The data confirms a significant client concentration. This dependency, while providing a stable revenue base from a few large clients, presents a major risk.

- **Reliance on Key Relationships:** The business is heavily reliant on a few client relationships. If one or more of these top clients were to reduce their purchases, the company's entire revenue stream would be at risk.
- **Unpredictable Income:** The money coming in from these top clients goes up and down a lot. This makes it very hard to predict how much money the business will make or to plan for the future.
- **Missing Out on New Business:** By focusing so much on the biggest clients, the company is missing chances to grow its next set of customers. Our data shows there's a huge opportunity to sell more to these smaller clients and build a stronger, more stable business.

5.2 Inventory Carrying Costs (Problem 2)

The inventory analysis demonstrates a clear inefficiency in stock management, leading to unnecessary costs.

- **Inefficient Capital Management:** The rising Days Inventory Outstanding (DIO) indicates that the company is tying up cash in inventory for longer periods. This money could otherwise be used for other strategic investments, such as marketing, technology upgrades, or supplier negotiations.
- **Buying Too Much, Too Soon:** The company is buying a lot of material before it's actually sold. This creates a disconnect between what's in stock and what customers are actually buying, leading to a surplus of inventory.
- **Unfocused Management:** The ABC analysis reveals that all inventory is being managed with equal effort. Without this classification, valuable resources and time are likely being wasted on low-value C-class items, while high-value A-class items, which are most critical to profitability, may not be receiving the strategic attention they require.

5.3 Raw Material Prices & Profitability (Problem 3)

The most critical finding is the direct link between fluctuating raw material prices and the destruction of profit margins.

- **Selling at a Loss:** The most impactful discovery is the periods of negative profit per kg and negative profit margin. This isn't just a small loss—it's a massive, critical problem that is hurting the business's finances.
- **The "Lag Effect":** This financial loss is a direct result of the "lag effect." The analysis shows that when raw material purchase rates spike, the company is unable to adjust its sales prices quickly enough to cover the increased cost. This time lag between purchase and sale creates a period of unprofitability.
- **Lack of Proactive Strategy:** The company's current pricing model is reactive and not linked to its costs. This exposes the business to the full force of market volatility. The strategic sourcing analysis further supports this, showing that a lack of strategic supplier choice is a contributing factor to the price instability.

6 Recommendations

Based on the analysis, Greenaway Enterprises LLP should implement a three-pronged, data-driven strategy to mitigate risks and improve profitability. The following recommendations provide a clear roadmap for addressing the identified challenges.

6.1 Pricing & Profitability: Implement a Dynamic Pricing Strategy

- **Develop a client diversification strategy:** The business should prioritize acquiring new clients and increasing sales to existing, smaller clients to reduce reliance on the top three.
- **Tiered Pricing for Key Clients:** While implementing a dynamic model, they can offer their top clients (A-class) a more flexible or slightly discounted rate, but ensure it is always above the adjusted purchase cost. This maintains their loyalty while protecting your profitability.
- **Strengthen Existing High-Value Relationships:** Through analysis we identified that their top clients are not just your biggest; they are also **growing** in their purchasing of core materials.

➔ **Action:** The business owner should engage in a strategic conversation with these top clients to understand the reasons behind their increased demand. Is it due to business expansion, a new project, or are they consolidating their supplier base?

➔ **Purpose:** Understanding these drivers can help you anticipate future needs, forecast sales more accurately, and proactively offer solutions.

- **Prioritize High-Demand Materials:** The data shows that LLDPE Powder and Toluene are popular materials across their entire client base. This tells us to focus their sales and marketing efforts on these materials. The business should ensure they have stable supply and competitive pricing for these products, as they are a key driver of growth.
- **Invest in "Growth Tier" Clients:** Allocate a portion of their sales and marketing resources to clients like **Kisan Tanks, Samrat Polymers, and Ganesh Polymers**. These clients represent their best bet for future growth.

6.2 Inventory Management: Adopt a Tiered Management Approach

The current inventory buildup is a result of a one-size-fits-all approach. By implementing an ABC analysis-based strategy, they can manage inventory more efficiently and reduce carrying costs.

- **Rigorous Management for A-Class Items:** Focus their inventory control efforts on the high-value A-class materials. Implement stricter inventory counts, more accurate demand forecasting for these items, and consider just-in-time (JIT) delivery to minimize on-hand stock.
- **Routine Management for B-Class Items:** For B-class items, implement standard inventory management practices, such as regular periodic reviews and a safety stock level to prevent shortages without over-investing.
- **Simple Management for C-Class Items:** C-class items, which hold little value, can be managed with a simple reorder point system. The goal here is to reduce the time and resources spent on them, freeing up resources for higher-value stock.

6.3 Client & Supplier Relationships: Diversify for Stability

Their revenue and costs are tied to a small number of key relationships. Strategic diversification is essential for long-term stability and growth.

- **Diversify Suppliers and Explore Bulk Contracts:** The fluctuations in the purchase rate suggest that the company may be highly exposed to a single supplier or market. Business should explore new suppliers or negotiating long-term contracts to lock in prices for key materials like Calcium Carbonate, reducing price volatility.
- **Nurture "Next-Tier" Clients:** Actively engage with their "next-tier" clients (those just below your top clients). Use our data to identify what their top clients buy that this group does not, and create targeted cross-selling and up-selling opportunities to grow their accounts.
- **Strengthen Client Contracts:** Work with their legal team to add clauses to client contracts that allow for price adjustments in response to significant increases in raw material costs. This formalizes our new dynamic pricing strategy and ensures mutual understanding.