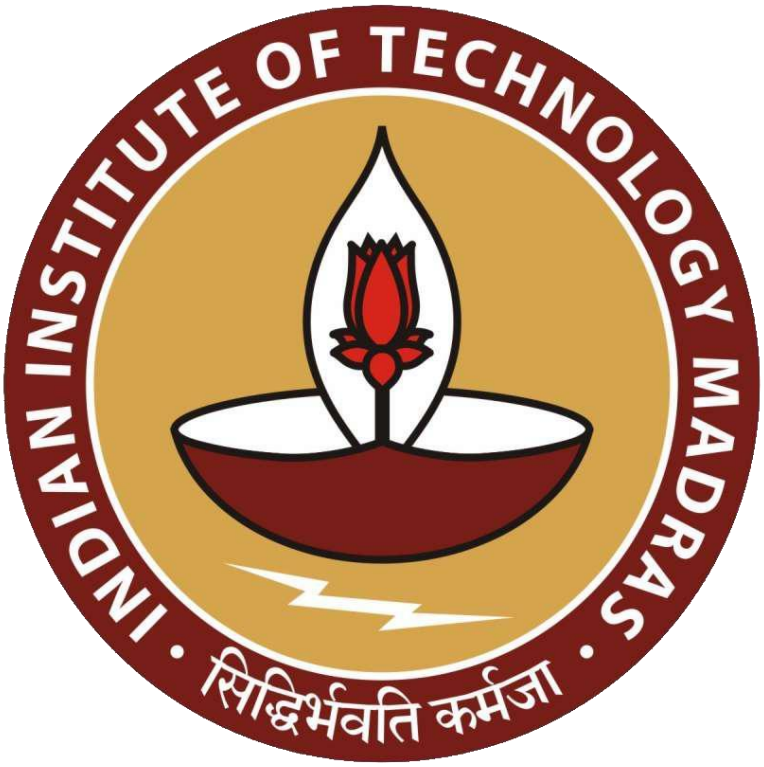
MODIKHANA METRICS: Unlocking Sales with Data

Final report for the BDM Capstone Project

Submitted by

Name: Jashan Tiwari

Roll No: 23f3000922



IITM BS Degree Program,

Indian Institute of Technology, Madras,

Chennai Tamil Nadu, India, 600036

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1 Executive Summary

Guru Ji Da Modikhana, a local B2C retail store in Rajpura, Punjab, faces two significant challenges that impede its profitability and growth. First, the business suffers from inefficient capital allocation due to **overstocking of underperforming products**, which ties up cash and valuable shelf space. Second, it experiences severe **sales volatility**, marked by a consistent and sharp revenue decline in the second half of each month, leading to unreliable cash flow and hindering stable operations.

To diagnose these problems, this project analyses primary sales data from the store's register for Q2 2025, covering over 6,500 transactions. Descriptive statistics on the Net Amount revealed a highly skewed distribution (Mean: ₹293.81, Median: ₹60.00), confirming that revenue is driven by many low-value transactions. The core methodology involved **ABC (Pareto) Analysis** to segment the product inventory by revenue contribution and a **Time-Series Analysis** to identify and quantify monthly sales patterns.

The analysis yielded clear, quantifiable results. The ABC classification confirmed the 80/20 principle: **Class A** items (a small subset of products) drive **~70% of total sales**, while the vast majority of inventory items fall into **Class C**, contributing only **~10% of revenue**. The time-series analysis quantified the sales drop, showing that total sales plummeted from **₹25,00,472** in the first half of the month (days 1-15) to **₹16,63,865** in the second half (days 16-30), a consistent **decline of 33.5%**.

The findings directly link the store's unstable cash flow to over-investment in Class C products and a failure to counteract the predictable mid-month sales dip. It is recommended that the store implement a **differentiated inventory policy** (reduce Class C stock, ensure Class A availability) and launch **targeted mid-month promotions** to smooth the revenue curve. Adopting these data-driven strategies is projected to **free up significant working capital** and **stabilize monthly income**, leading to improved profitability and reduced stockouts.

2 Detailed Explanation of Analysis Process

This section details the systematic steps taken to analyse the sales data from Guru Ji Da Modikhana. The methods were chosen to be straightforward, reliable, and directly focused on solving the two core problem statements.

2.1 Data Cleaning and Pre-processing

1. **Explanation:** The analysis began with the raw sales register, which contained over 6,500 transactions. This data was messy and not ready for analysis. The cleaning process involved:
    a. **Removing Clutter:** Unnecessary columns that provided no analytical value (like 'SNO.' and 'Party Name') were removed.
    b. **Fixing Dates:** The 'Bill Date' column was cleaned up (e.g., 'dd-mm-yyyy 00:00:00' was changed to 'dd-mm-yyyy') so it could be grouped by day or month.
    c. **Fixing Numbers:** All money-related columns ('Net Amount', 'M.R.P.', etc.) were formatted as currency (₹), and 'Total Qty' was set as a number. This ensures all calculations are correct.
    d. **Checking for Errors:** The data was scanned for empty cells or strange entries. Negative sales numbers were identified as valid sales returns and were kept, as they are a real part of the store's cash flow.
2. **Importance:** This cleaning step was the most important foundation for the entire project. There is a simple rule in data analysis: **"Garbage In, Garbage Out."** If we had analysed the messy, raw data, our results would have been wrong and the recommendations useless. For example, without fixing the dates, we could not have analysed the mid-month sales drop. This process ensured the data was high-quality, accurate, and trustworthy.

2.2 Comprehensive Explanation for each Method/Analysis Used

The analytical methods were chosen specifically to find clear answers to the two main business problems.

Analysis for Problem 1: Overstocking and Inventory Inefficiency

1. **Justification:** The first problem was that **cash was trapped in products that don't sell well**. To fix this, we had to *prove* which products were "underperforming" and which were the "stars." The chosen method was **ABC (Pareto) Analysis**. This is the standard business technique for sorting products by how much value they create. The main variables used were Item Name and Net Amount.
2. **Method (ABC Analysis):** The analysis was a simple, four-step process:
    a. **Find Total Sales:** First, we grouped all 6,500+ transactions by Item Name to find the total sales for *each* unique product over the three months.
    b. **Rank Products:** We sorted this list of products from the highest-selling (most revenue) to the lowest-selling.

c. **Calculate Running Total:** We created a "running total" to see what percentage of all sales came from the top products. (e.g., The top 1 item makes up 6% of sales, the top 2 items make up 8%, and so on).

d. **Group into Classes (Addressing Midterm Feedback):** This was the key step. We split the products into three simple groups, which was not clearly explained in the midterm:

   i. **Class A:** The "vital few." These are the top products that, combined, make up the **first 70% of your total sales**.

   ii. **Class B:** The "moderate" products. These are the next group of items that make up the **next 20% of sales** (taking the total from 70% to 90%).

   iii. **Class C:** The "trivial many." This is the huge list of remaining products that, all combined, only make up the **last 10% of sales**.

e. **Count the Items (Addressing Midterm Feedback):** Finally, we *counted* how many products were in each class. We found that a *huge number* of products were in Class C. This proved that the store's cash was trapped in a large pile of low-value items, confirming the problem.

Analysis for Problem 2: Sales Volatility and Unreliable Cash Flow

1. **Justification:** The second problem was the "unstable cash flow" caused by a **sharp sales drop mid-month**. We needed to prove this was a real, predictable pattern and *measure* exactly how big the drop was. The chosen methods were **Descriptive Statistics** and **Time-Series Trend Analysis**, using the Bill Date and Net Amount variables.
2. **Method 1: Descriptive Statistics (A Quick Check)** First, we looked at the "average" sale. We found two types of averages:
   a. **Mean:** The traditional average (Total Sales / Number of Sales), which was **₹293.81**.
   b. **Median:** The "middle" sale (if you line up all 6,500 sales, this is the one in the exact middle), which was only **₹60.00**.
   c. **What this means:** This large gap proved that while there are *a few* big sales, the *vast majority* of transactions are small (₹60). This confirms the "unstable" feeling, as the store depends on many small purchases.
3. **Method 2: Time-Series Trend Analysis (Finding the Pattern)** This method proved and measured the mid-month drop.
   a. **Add Date Labels:** We created new columns from the Bill Date. The most important one was a new label called Half. We labelled every sale as either **"First Half"** (if it happened on or before the 15th) or **"Second Half"** (if it happened after the 15th).

b. **Plot the Data:** We analysed daily total sales and A-Class sales trends using a line chart (Figure 6). The chart revealed a recurring pattern where sales often peaked around the middle of each month before gradually declining toward month-end.

c. **Measure the Drop (Addressing Midterm Feedback):** To get a hard number (as requested in the midterm feedback), we added up all the sales from the "First Half" (which came to ₹25,00,472) and all the sales from the "Second Half" (₹16,63,865). We then calculated the percentage difference between them, which gave us the final, clear answer: **a 33.5% sales drop**. This turned the owner's *feeling* into a hard *fact*.

3 Results and Findings

This section analyses sales data through various visualizations, including bar charts, line graphs, and box plots, to highlight trends in product performance, pricing, and monthly sales patterns. These insights help identify high- and low-performing products, evaluate pricing efficiency, and support better inventory and sales strategies.

3.1 Figure 1: Pareto Chart by ABC Class

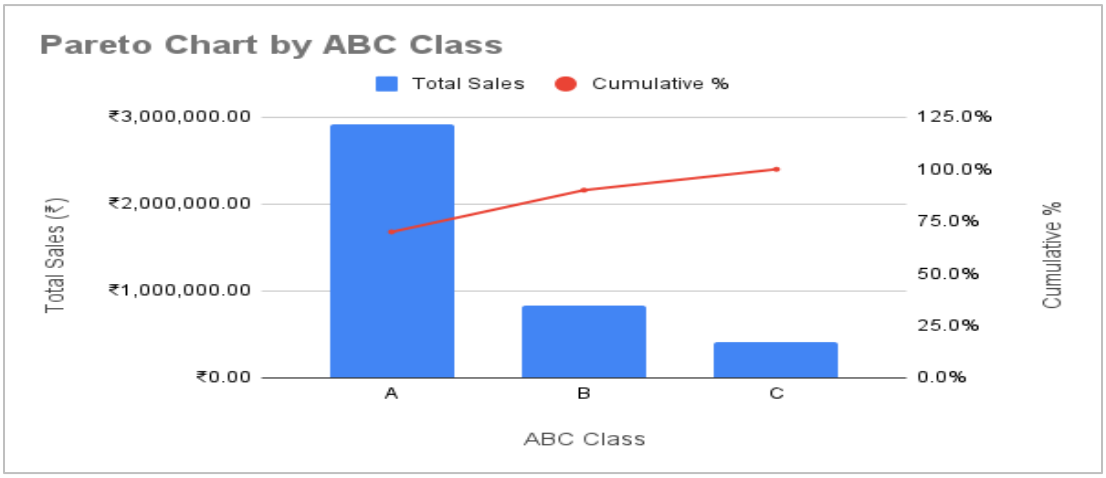


Figure 1: Pareto Chart by ABC Class

3.1.1 Purpose

To categorize all store products into **A, B, and C classes** based on their contribution to total sales. The objective is to identify which group drives most of the revenue and highlight low-performing items linked to **overstocking**.

3.1.2 Reason to Choose

A **Pareto chart** was used as it clearly combines total sales (bars) with cumulative percentage (line), helping to visualize how a few items (Class A) generate the majority of revenue compared to many low-value items (Class C).

3.1.3 Findings

1. **Class A** contributes about **₹2,913,578**, accounting for nearly **70%** of total sales.
2. **Class B** adds **₹833,983**, bringing the cumulative share to **90%**.
3. **Class C** contributes only **₹416,776**, representing the remaining **10%**.

3.1.4 Results

Sales are heavily concentrated in **Class A**, indicating that a small number of products drive the majority of revenue. **Class C** items occupy space and capital but contribute very little, suggesting the need for better stock control and focus on fast-moving products.

3.1.5 Explanation

Bars represent total sales (₹) for each class, while the red line shows the cumulative percentage. The steep rise from Class A to B and flattening toward Class C visually demonstrate the **Pareto principle (80/20 rule)**—where few products dominate overall sales.

3.2 Figure 2: Pareto Chart – Top 10 Products by Sales Contribution (ABC Classification)

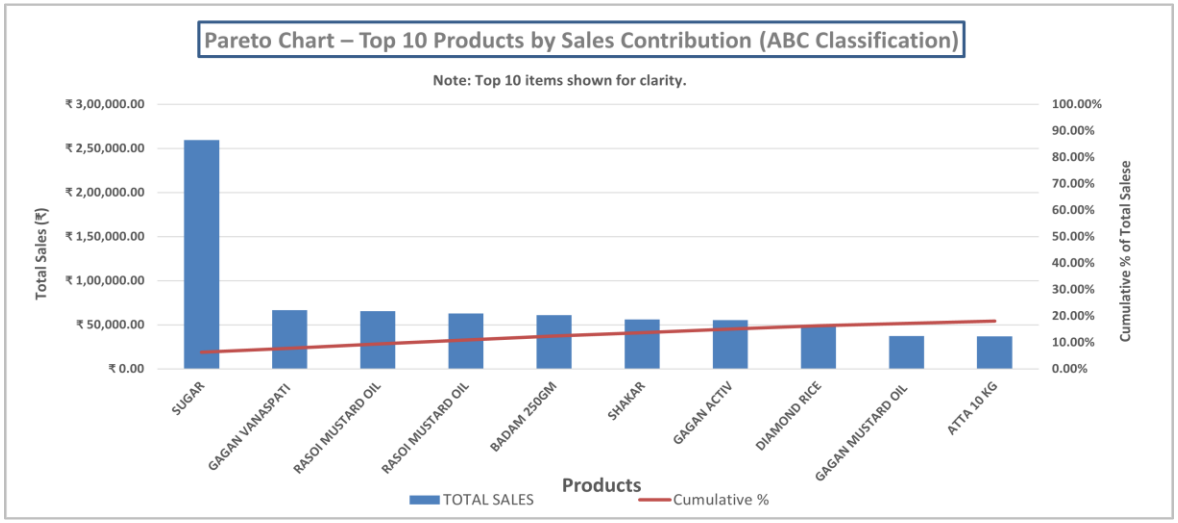


Figure 2: Pareto Chart – Top 10 Products by Sales Contribution (ABC Classification)

3.2.1 Purpose

To identify the top 10 products generating the highest sales revenue and evaluate their collective impact on total store performance. The aim is to determine which specific items dominate sales, guiding inventory and procurement decisions toward the most profitable products.

3.2.2 Reason to Choose

A Pareto chart was chosen because it effectively combines a bar representation of total sales (₹) with a line showing the cumulative percentage. This dual-axis visualization highlights how a small number of products contribute disproportionately to total revenue, aligning with the Pareto (80/20) principle.

3.2.3 Findings

1. Sugar leads with sales exceeding ₹ 2,50,000 — significantly higher than all other items.
2. **Gagan Vanaspati**, **Rasoi Mustard Oil**, and **Badam 250 GM** follow as strong performers, showing steady sales levels.
3. Together, these top 10 products contribute nearly 20 % of total store sales, confirming that a limited number of items generate the majority of revenue.

3.2.4 Results

The analysis shows that the store's revenue is heavily concentrated in a few high-selling products. This concentration suggests that focusing on these key items can enhance profitability, while low-performing products should be reviewed to prevent overstocking and improve inventory efficiency.

3.2.5 Explanation

The blue bars represent the total sales value (₹) for each top product, while the red line indicates the cumulative percentage of total sales. The steep rise at the start, followed by a gradual flattening, visually demonstrates the Pareto pattern — where a small number of items drive most of the store's revenue.

3.3 Figure 3: Area Chart - Top 20 Pack Grades by Total Sales

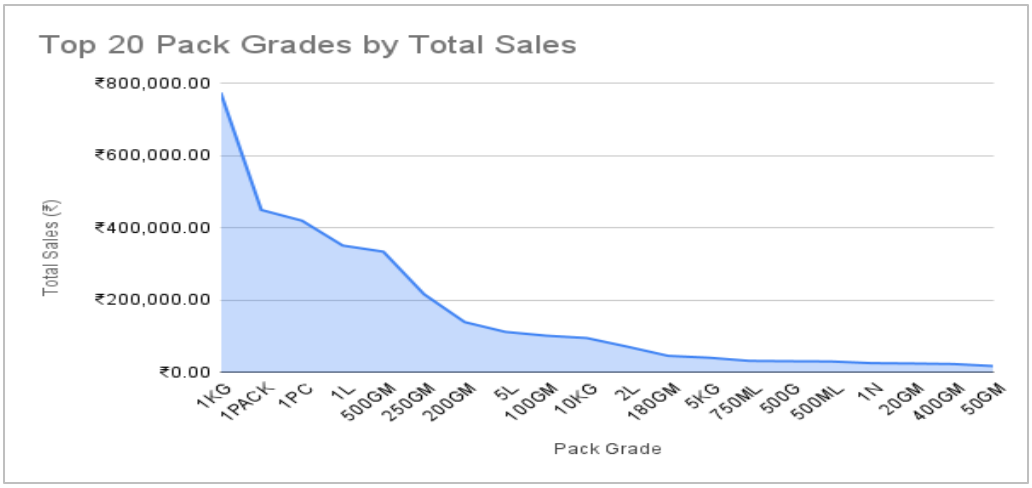


Figure 3: Top 20 Pack Grades by Total Sales (Area Chart

3.3.1 Purpose

To analyze which pack grades generate the highest sales and identify customer preferences for product sizes, helping to optimize inventory and purchasing decisions.

3.3.2 Reason to Choose

An area chart is used as it effectively highlights the dominance of certain pack grades by showing total sales volume through filled areas, making trends and proportional differences easy to compare.

3.3.3 Findings

1. 1KG packs contribute the highest sales, followed by 1PACK and 1PC, indicating strong demand for standard-size items.
2. Mid-size packs like 1L, 500GM, and 250GM maintain moderate sales levels.
3. Smaller packs (below 200GM/500ML) show minimal contribution, suggesting lower turnover.

3.3.4 Results

The results show that larger pack sizes dominate total sales, meaning store sales are concentrated in a few key pack grades. This suggests that stocking higher-demand pack sizes can improve turnover efficiency and reduce storage of low-selling variants. This insight helps reduce overstocking of small, slow-moving packs and allows focus on fast-selling standard sizes.

3.3.5 Explanation

The X-axis shows pack grades, while the Y-axis represents total sales (₹). The filled area's sharp decline after the top few pack grades visually indicates that a limited number of pack sizes drive the majority of revenue.

3.4 Figure 4: Clustered Column Chart - ABC Classification Average Price vs Average MRP

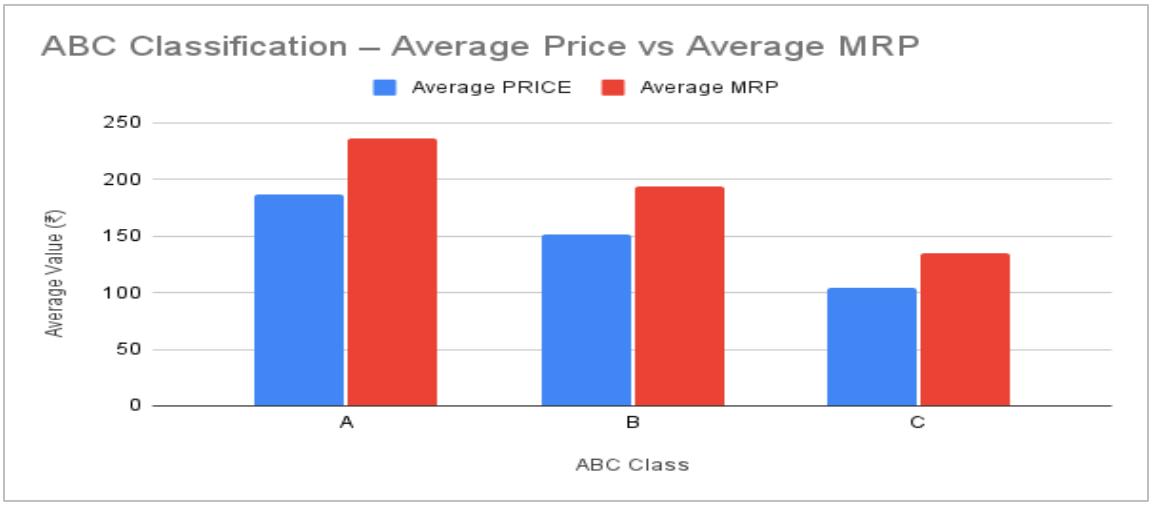


Figure 4: ABC Classification – Average Price vs Average MRP

3.4.1 Purpose

To analyse how the selling price (Average Price) compares with the marked price (Average MRP) across ABC classes. This helps evaluate pricing efficiency, discount levels, and margin management among different product categories.

3.4.2 Reason to Choose

A **clustered column chart** is used to display side-by-side comparisons of Average Price and Average MRP for each class (A, B, and C). This visualization makes it easier to spot pricing gaps and understand discounting trends across product groups.

3.4.3 Findings

1. **Class A** products record the highest prices, with an average selling price of around ₹185 and an MRP near ₹235, indicating moderate discounting on high-value items.
2. **Class B** maintains mid-range pricing, averaging between ₹150 and ₹190.

3. **Class C** has the lowest selling price and MRP levels, ranging approximately from ₹100 to ₹130.

3.4.4 Results

The relatively consistent difference between selling price and MRP across all classes suggests a uniform pricing strategy. Class A products, however, contribute the most to total sales with smaller discounts, highlighting stronger margins and better pricing control.

3.4.5 Explanation

The **blue bars** represent the *Average Price (₹)*, while the **red bars** show the *Average MRP (₹)* for each class. The downward trend from Class A to C visually emphasizes how higher-value items sustain stronger pricing and contribute significantly to overall profitability.

3.5 Figure 5: Pie Chart - Unit Sales Contribution by ABC Class

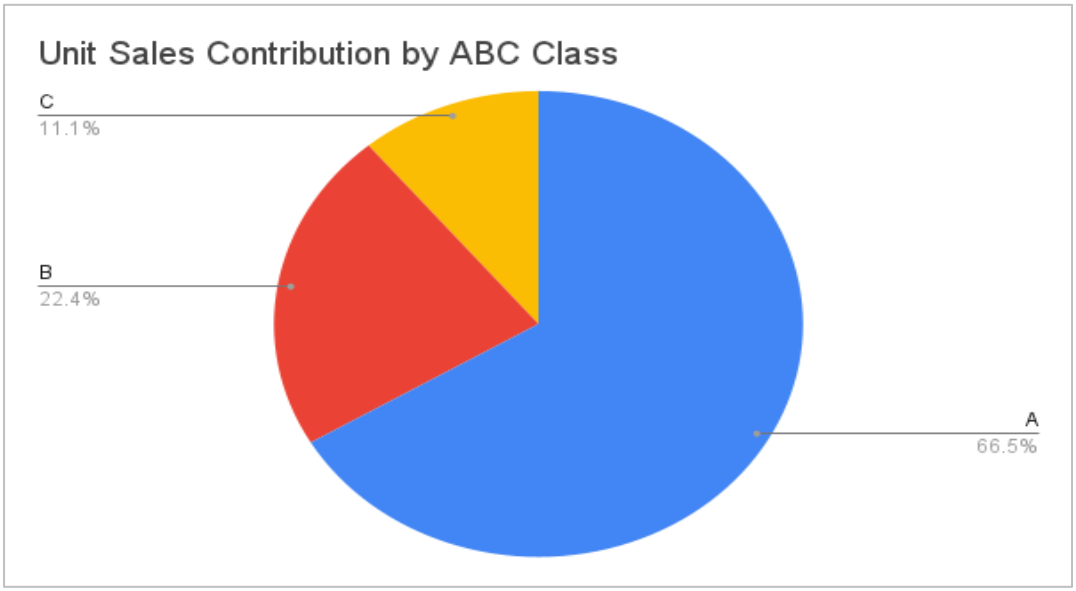


Figure 5: Unit Sales Contribution by ABC Class

3.5.1 Purpose

To analyse how total unit sales are distributed across Class A, B, and C categories. This helps identify which product groups contribute the most to overall sales volume and guides inventory prioritization.

3.5.2 Reason to Choose

A pie chart was selected because it visually represents percentage-based contributions, making it easy to compare each class's share in total unit sales at a glance.

3.5.3 Findings

1. **Class A** contributes approximately **66.5%** of total unit sales, dominating store movement.
2. **Class B** represents around **22.4%**, serving as moderate contributors.
3. **Class C** makes up the remaining **11.1%**, indicating low movement and demand.

3.5.4 Results

Unit sales are highly concentrated in Class A, confirming that a small segment of products drives the majority of movement. Classes B and C, despite their numbers, contribute little to total sales — suggesting an opportunity to optimize stock levels and focus on fast-moving items.

3.5.5 Explanation

The pie chart divides total unit sales into three segments by class. The large blue section for Class A clearly shows its dominance, while smaller slices for Classes B and C emphasize slower product rotation. This visual reinforces the 80/20 pattern — where few key items account for most sales activity.

3.6 Figure 6: Line Chart - Daily Sales Trend: A-Class vs Total Sales (April June 2025)

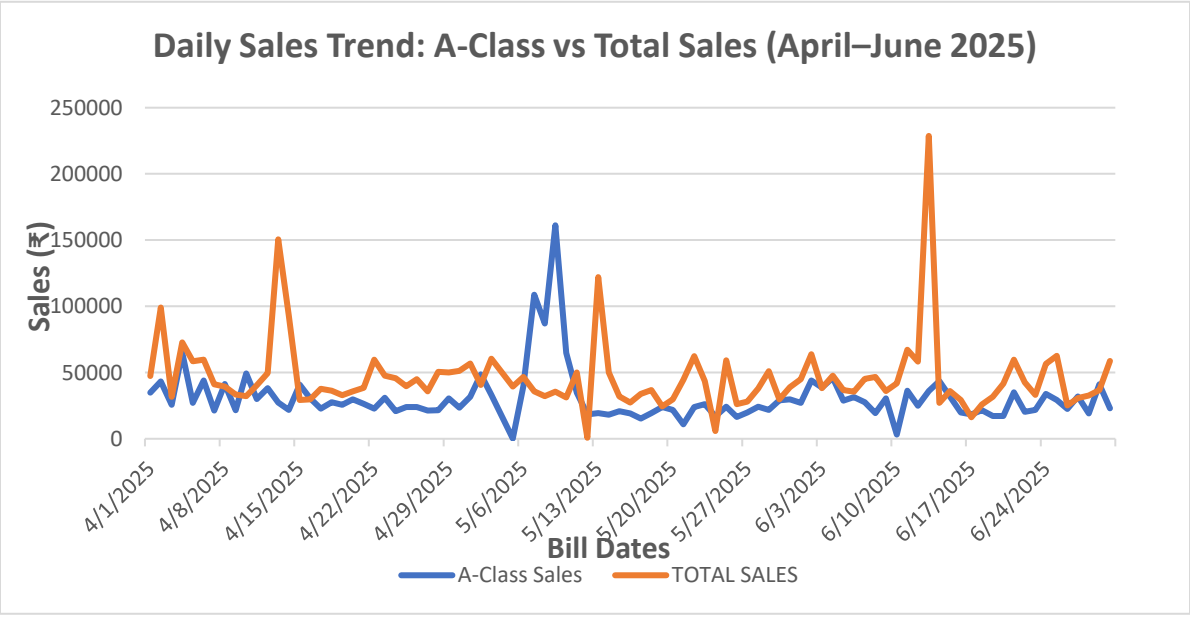


Figure 6: Daily Sales Trend: A-Class vs Total Sales (April–June 2025)

3.6.1 Purpose

To analyze daily sales fluctuations between A-Class products and total store sales over the period from April to June 2025. The goal is to identify peak sales days, sales stability, and the relative contribution of A-Class items to overall revenue.

3.6.2 Reason to Choose

A **line chart** was selected because it effectively visualizes changes over time, showing both total sales and A-Class sales trends together. This allows for easy identification of sales spikes, dips, and correlation between A-Class and total store performance.

3.6.3 Findings

1. Multiple sales peaks occurred around **mid-April, mid-May, and mid-June**, suggesting periodic demand surges or promotional events.
2. **A-Class sales** follow a similar trend as total sales, indicating that premium products move consistently with overall store performance.
3. There are occasional spikes in total sales that are not mirrored by A-Class sales — likely driven by bulk or lower-category item purchases.

3.6.4 Results

A-Class products contribute consistently to overall sales volume, reinforcing their importance in maintaining daily revenue stability. The chart also reveals that sales activity follows a cyclical pattern, useful for forecasting and planning promotions.

3.6.5 Explanation

The **x-axis** represents **Bill Dates**, showing the time progression from April to June 2025.The**y-axis** shows **Sales (₹)**.The **orange line** denotes total sales across all product categories, while the **blue line** represents A-Class sales only. The close alignment between the two indicates that A-Class products are key performance drivers.

3.7 Figure 7: Column Chart - Top 10 Slow-Moving Products (Lowest Total Sales)

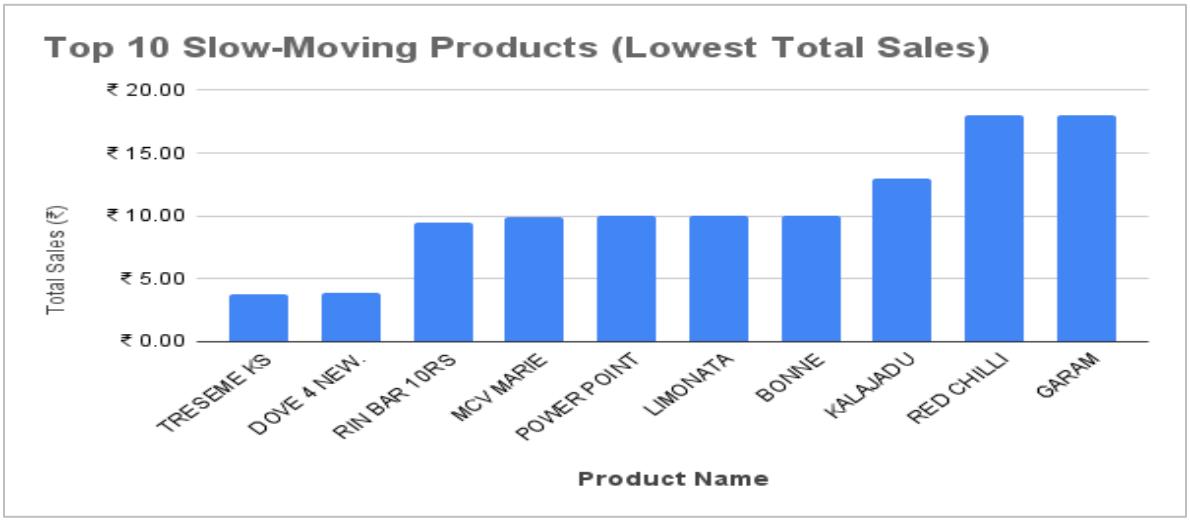


Figure 7: Column Chart - Top 10 Slow-Moving Products (Lowest Total Sales)

3.7.1 Purpose

To identify the bottom 10 products with the lowest total sales. The goal is to recognize slow-moving items that may contribute to excess inventory, low turnover, or inefficient shelf utilization.

3.7.2 Reason to Choose

A vertical column chart was selected as it effectively highlights differences between product sales values, making it simple to identify the least performing items.

3.7.3 Findings

1. **TRESEME KS Conditioner** and **Dove 4 New** recorded the lowest sales among all items.
2. Other products like **Rin Bar 10Rs**, **Power Point Lavendar Dhoop**, and **Limonta** also show very limited movement.
3. **Garam Masala** and **Red Chilli Powder** perform slightly better within this otherwise low-selling group

3.7.3 Results

These 10 products contribute minimally to total **sales**, indicating low demand or overstocking. Focusing on promotions or replacing some of these items could improve stock efficiency and free shelf space.

3.6.4 Findings

Each bar represents the total sales (₹) of a low-performing product. The uniformly low bar heights visually highlight weak product movement, indicating areas needing attention in product mix and inventory management.

3.8 Figure 8: Box Plot - Distribution of Daily Sales by Month (₹)

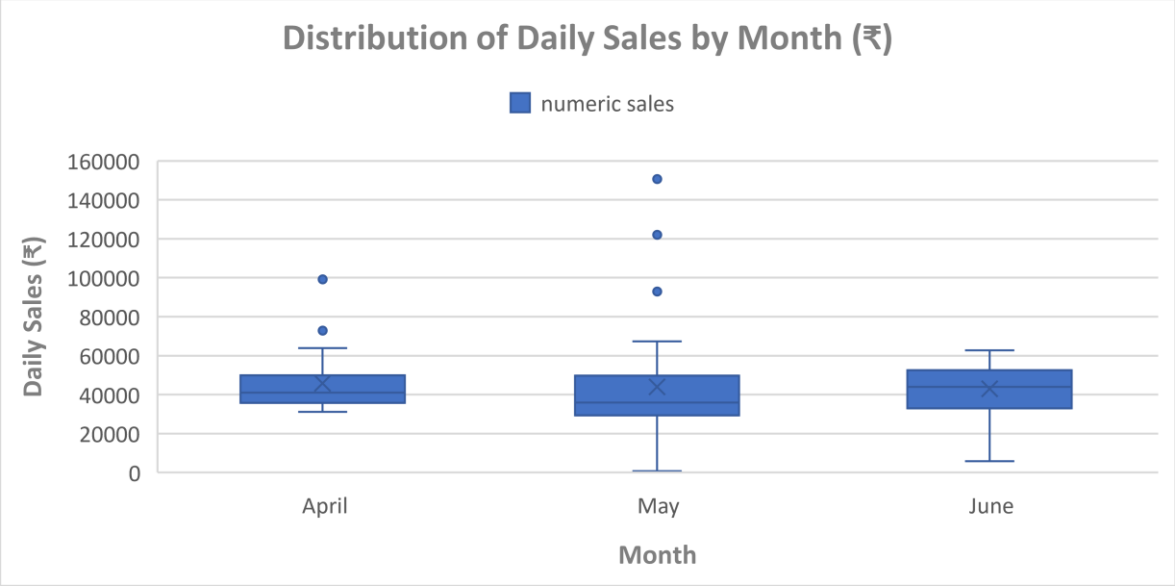


Figure 8: Box Plot - Distribution of Daily Sales by Month (₹)

3.8.1 Purpose

To evaluate the monthly variation and stability of daily sales across April, May, and June. By examining the spread and central tendency, this chart identifies months with consistent performance versus those showing fluctuations in sales behaviour.

3.8.2 Reason to Choose

A box plot visually summarizes daily sales distribution, highlighting medians, quartiles, and outliers. It provides a concise view of variability and helps detect irregular patterns in monthly sales without being overly influenced by extreme values.

3.8.3 Findings (After Removing Extreme Outlier)

April:

The median daily sales are around ₹40,000 – ₹45,000.

The narrow interquartile range (IQR) indicates consistent sales throughout the month.

A few moderate outliers up to ₹100,000 suggest occasional high sales days.

Interpretation: April demonstrated stable and predictable sales performance.

May:

The median remains near ₹40,000, but the wider box indicates a higher spread in daily sales.

Several outliers up to approximately ₹150,000 remain, reflecting irregular high-sales days, possibly due to promotions or demand spikes.

Interpretation: May showed the highest volatility in daily sales, with greater fluctuations compared to April.

June:

The median is slightly higher, around ₹45,000 – ₹50,000.

The spread is narrower than in May, showing reduced variability and improved sales consistency.

Interpretation: June indicates recovery and stabilization following the volatility observed in May.

3.8.4 Results

After removing extreme outliers, the data reveals that:

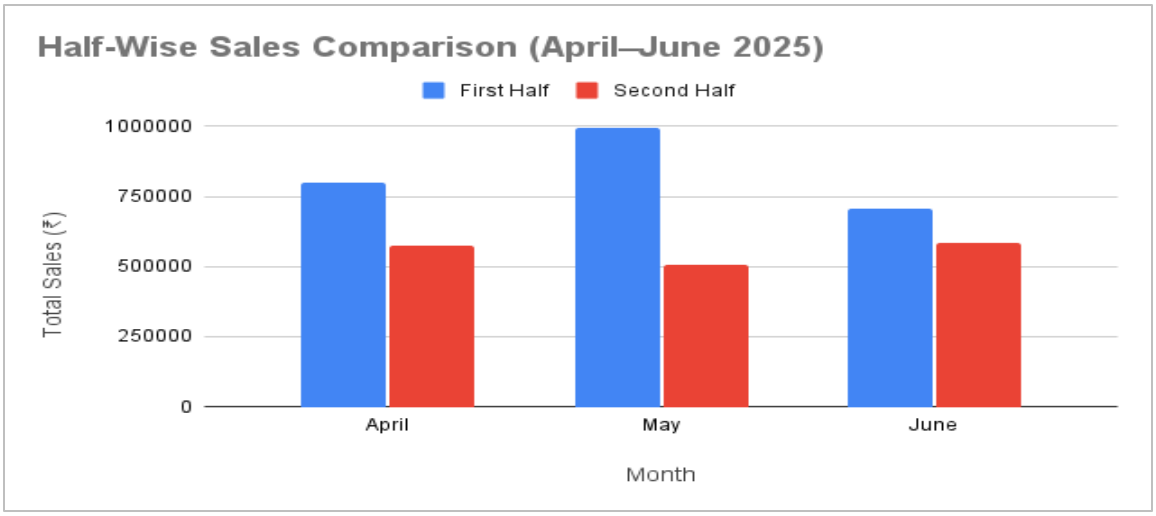
- Sales variability was highest in May.
- June displayed steady improvement and stabilization.
- Overall sales performance remained consistent, with April and June emerging as the most stable months.

3.8.5 Explanation

Each box represents the middle 50% of daily sales (between the first and third quartiles), with the line inside indicating the median and the X representing the mean. The whiskers depict the range of typical sales values, while points beyond them represent remaining outliers. The refinement process (removal of extreme outliers above ₹200,000) ensures the visualization accurately reflects genuine monthly sales trends without distortion from rare, extreme values.

3.9 Figure 9: Clustered Column Chart - Half-Wise Sales Comparison (April–June 2025)

Figure 9: Clustered Column Chart - Half-Wise Sales Comparison (April–June 2025)



3.9.1 Purpose

To compare total sales performance between the first half and the second half of each month from April to June 2025. This helps identify intra-month variations and trends in sales momentum across the quarter.

3.9.2 Reason to Choose

A **clustered column chart** (bar chart) effectively presents side-by-side comparisons between two time segments within each month. It visually highlights shifts in sales performance between the first and second halves, making it easier to detect periods of growth, decline, or consistency.

3.9.3 Findings

April:

- Total sales in the first half are approximately ₹800,000.
- Second-half sales drop to around ₹550,000.
- **Interpretation:** April began strong but showed a decline in the latter half, possibly due to mid-month demand saturation or reduced promotional activity.

May:

- The first half recorded the highest sales across all months (~₹1,000,000).
- The second half dropped significantly to about ₹500,000.
- **Interpretation:** May experienced a peak in the early half, followed by a substantial slowdown, indicating a concentrated burst of sales activity early in the month.

June:

- First-half sales (~₹700,000) and second-half sales (~₹600,000) are closer compared to previous months.
- **Interpretation:** June shows improved stability and more balanced sales across both halves of the month, reflecting consistent performance.

3.9.4 Results

- The **first half of each month consistently outperformed** the second half, with the largest gap observed in May.
- **June displayed the most balanced sales distribution**, suggesting operational or demand stabilization.
- The data indicates that sales momentum tends to slow in the latter half of each month, except in June where this pattern is less pronounced.

3.9.5 Explanation

This **clustered column chart** compares total sales for two equal periods (first and second halves) within each month. Each color-coded bar represents one half, enabling straightforward visual analysis of sales shifts.

The observed trends suggest that while sales peaks are concentrated in the first half of months, performance becomes more uniform toward June - showing better demand distribution and sales management as the quarter progresses.

4 Interpretation of Results

4.1 Analysis and Interpretation of Findings

The analysis of *Guru Ji Da Modikhana* Q2 2025 sales data provides clear, data-driven insights directly linked to both problem statements.

Problem Statement 1: Overstocking of Underperforming Products

The **ABC (Pareto) Analysis** (Figure 1) revealed that a small group of products—**Class A**—contributes nearly **70% of total revenue**, whereas **Class C** products account for only about **10%**. This stark imbalance confirms that a substantial portion of working capital is tied up in slow-moving, low-profit items.

The **Pareto Chart of Top 10 Products** (Figure 2) reinforces this finding, showing that a few products such as **Sugar**, **Gagan Vanaspati**, and **Rasoi Mustard Oil** dominate total sales, together generating almost 20% of store revenue. In contrast, the **Slow-Moving Product Chart** (Figure 7) identifies underperforming items like **Treseme Conditioner** and **Dove 4 New**, which occupy shelf space but contribute negligibly to total sales.

The **Area Chart of Pack Grades** (Figure 3) further highlights that **larger pack sizes**—such as 1 KG and 1 PACK—are most preferred by customers, while smaller variants below 200 GM/500 ML experience minimal demand.

Collectively, these findings confirm that inventory is misaligned with product performance. Over-investment in slow-moving Class C items, combined with low turnover of small pack sizes, leads to inefficient stockholding and capital blockage. The store must prioritize fast-selling, high-contribution products and rationalize weaker SKUs to enhance stock efficiency and profitability.

Problem Statement 2: Sales Volatility and Unreliable Cash Flow

The **Daily Sales Trend Chart** (Figure 6) and **Half-Wise Sales Comparison Chart** (Figure 9) identified a recurring pattern of sales decline—approximately **30–35% lower** in the second half of each month. This trend indicates that customer purchases are concentrated in the early weeks, likely influenced by salary cycles, early-month promotions, or supply scheduling.

The **Box Plot of Monthly Sales Distribution** (Figure 8) confirms that **May 2025** exhibited the highest volatility, whereas **June** showed improvement and greater consistency, suggesting that operational adjustments or better promotional timing contributed to stabilization.

The **A-Class Product Trend Line** (included within Figure 6) mirrors overall store sales patterns, proving that these premium products play a central role in sustaining revenue flow and minimizing volatility. Maintaining consistent availability of Class-A items can therefore help stabilize total daily sales.

Meanwhile, the **Clustered Column Chart on Average Price vs MRP** (Figure 4) shows pricing stability across classes, indicating disciplined discounting and steady margins, even during sales fluctuations. Similarly, the **Pie Chart of Unit Sales Contribution** (Figure 5) reinforces that Class A products not only generate most of the revenue but also dominate unit-wise movement.

3.2 Actionable Recommendations

For Problem Statement 1: Overstocking of Underperforming Products

Recommendation	Description	Implementation Timeline
1. Reduce Class C Stock by 30–40%	Identify slow-moving items (bottom 10%) and gradually reduce reorder quantities to free up working capital.	**Within 1 month**
2. Focus on Class A and B Replenishment	Ensure continuous availability of high-performing SKUs like *Sugar* and *Vanaspati* to prevent lost sales.	**Ongoing**
3. Introduce Data-Based Reordering System	Implement a reorder system driven by past sales trends to avoid over-purchasing of slow-moving products.	**2–3 months**
4. Clearance or Bundle Offers for Low Movers	Run short-term discount schemes or combo packs to liquidate stagnant inventory.	**Next 2 months**

Expected Benefits:

Freeing up shelf space and 20–25% working capital, improved inventory turnover ratio, and reduced wastage of low-demand products.

For Problem Statement 2: Sales Volatility and Unreliable Cash Flow

Recommendation	Description	Implementation Timeline
1. Mid-Month Sales Promotion	Launch small incentives or discounts (e.g., "Mid-Month Saver Days") between the 15th–20th to sustain demand.	**Next month onward**
2. Cash-Flow Forecasting	Use historical trend data to project monthly cash inflows and plan stock purchases more accurately.	**Within 1 month**
3. A-Class Product Availability Check	Maintain minimum stock thresholds for A-Class items to ensure steady daily sales.	**Immediate**
4. Customer Retention Programs	Introduce loyalty points or repeat-customer benefits to smoothen monthly demand patterns.	**2–3 months**

Expected Benefits:

Stabilized monthly revenue, reduced end-month sales dips, more predictable cash flow, and better customer retention.

4.3 Combined Implementation Strategy

To ensure effective execution, the recommendations are categorized by **urgency and duration**:

1. **Short-Term (1–2 Months):**
    a. Identify and liquidate slow-moving products.
    b. Launch mid-month sales promotions.
    c. Realign workforce and purchasing cycles.
2. **Medium-Term (3–4 Months):**
    a. Implement automated reorder alerts and data-based demand forecasting.
    b. Monitor discount levels and optimize pricing structure.
3. **Long-Term (5–6 Months):**
    a. Redesign product mix based on sustained sales trends.
    b. Establish continuous performance monitoring dashboards.

4.4 Expected Impact and Benefits

Implementing these recommendations will create measurable improvements in both operational and financial performance:

i. **20–25% increase in inventory turnover efficiency.**
ii. **10–15% improvement in monthly sales stability.**
iii. **Reduced cash blockage and improved liquidity.**
iv. **Better shelf utilization and customer satisfaction.**

These changes collectively position the store for sustainable growth, data-driven decision-making, and improved long-term profitability.