Optimizing Sales & Marketing Strategies for Sustainable Growth at Ajay Prasad Jewellers

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BUSINESS DATA MANAGEMENT-CAPSTONE PROJECT-FINAL TERM REPORT

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1.Executive summary

Ajay Prasad Jewellers, a local B2C jewellery retailer based in Jehanabad, Bihar, is known for its affordable ornaments and personalized customer service. Despite having a loyal clientele, the business faces critical challenges such as stagnant profits, poor inventory control, fluctuating gold prices, and rising operational costs. These issues are further compounded by increasing competition from established jewellery brands and local market players, leading to reduced profitability and growth stagnation.

To investigate and address these problems, a Business Development Management (BDM) study was conducted. The approach involved collecting three months of sales, purchase, and inventory data. Initially recorded manually, the data was organized in Excel and analyzed using Google Sheets and Python. Descriptive statistics revealed fluctuating monthly revenues—₹2,217,076 in October, ₹701,897 in November, and ₹1,324,985 in December—averaging ₹1,414,653 in monthly revenue, with a gross profit margin of ₹424,395.83. The analysis helped identify trends and operational inefficiencies.

Findings showed inconsistent sales performance, inventory understocking, and the lack of adaptive pricing strategies during gold price fluctuations. A significant sales drop in November highlighted the need for proactive customer engagement and improved stock planning.

The analysis indicates that inconsistent revenue, understocked inventory, and unresponsive pricing strategies were key factors affecting profitability. The sharp drop in November sales reflected a lack of proactive marketing during low-demand periods.

Recommendations include data-driven inventory control, dynamic pricing based on gold trends, and enhanced marketing during slow periods. Initial improvements like better stock availability and customer engagement suggest a positive business impact and potential for sustainable growth.

2.Detailed Explanation of Analysis Process/Method

2.1. Data Acquisition

The process of data acquisition was a foundational and time-intensive phase in the analysis of Ajay Prasad Jewellers. Given that the business operates within a traditional retail environment, establishing trust and building rapport with the shop owner was essential before any data could be shared. Initial interactions focused not on requesting data directly but on understanding the business's workflow, sales cycle, and operational priorities. These conversations were critical in creating a shared understanding of how data analysis could benefit the business and in dispelling skepticism about the value of analytical approaches in a conventional setup.

Once a relationship of trust was established, the owner agreed to provide access to essential documents such as daily sales receipts, inventory logs, and purchase invoices. These records were primarily maintained in physical form. The next step involved digitizing this information systematically. The data was organized into three key Google Sheets—Sales Data, Purchase Data, and Inventory Data—each representing a unique aspect of the business's operations.

The Sales Data sheet included date-wise entries of items sold, categorized by type (gold/silver), along with weight, price per gram, quantity, and total sale value.

The Purchase Data tracked procurement details including the date of purchase, metal type, weight purchased, and price paid per gram.

The Inventory Data listed current stock levels, item-wise categorization, available quantities, weight per item, and valuation based on market price.

These digitized records formed the core dataset used for inventory analysis, cost tracking, sales performance evaluation, and profitability assessments. By transforming fragmented, manual records into structured digital data, the business enabled a data-driven approach to resolving its operational inefficiencies and informed the next phases of analysis and decision-making.

2.2Data Cleaning and and Preprocessing

Sales Data:

Date	Item Name	Category	Weight (grams)	Price per Gram (INR)	Quantity Sold	Total Sale Value (INR)

Table1: sales data

In the sales dataset, one of the initial data cleaning tasks was to standardize the date format to ensure consistency and enable chronological analysis. Dates were originally entered in various formats such as 1-Oct-24, 01/10/2024, and 2024-10-01. These inconsistencies were resolved by converting all entries to a single format—DD-MMM-YY (e.g., 01-Oct-24)—using Excel's TEXT () and DATEVALUE () functions. This allowed for proper date sorting and time-series trend analysis.

Another important step was normalizing item names to eliminate variations in spelling and formatting. For example, entries like "gold pendant," "Gold-Pendant," and "Gold Pendant" were

standardized to “Gold Pendant” to facilitate accurate grouping, filtering, and aggregation. Next, numeric fields such as weight (grams), price per gram (INR), quantity sold, and total sale value were reviewed for formatting errors. Some values had been stored as text, which prevented correct calculations. These fields were converted to numeric format using Excel’s VALUE() function to ensure that formulas could be applied without error. To verify the integrity of the data, the total sale value was recalculated using the formula: Total Sale Value = Weight × Price per Gram × Quantity Sold. For example, a gold pendant weighing 3.25 grams, sold at ₹6600 per gram in a quantity of 2, should yield a total of ₹42,900. Any discrepancies between recorded and calculated totals were flagged and corrected. This thorough cleaning process ensured that the sales data was consistent, accurate, and ready for reliable financial and operational analysis.

For - Purchase Data

Metal Type	Weight (grams)	Price per Gram (INR)	Total Cost (INR)

Table2: purchase data

The purchase data also underwent a detailed cleaning process to ensure consistency and accuracy, particularly with regard to unit standardization and cost validation. All weight values were verified to be recorded in grams, and pricing was checked to confirm that it reflected INR per gram. This standardization was crucial for maintaining consistency across different transactions and ensuring the data could be compared and analyzed uniformly. A key issue identified was that some entries were missing total purchase costs or contained incorrectly calculated values. To address this, each purchase entry was revalidated using the formula: Total Cost = Weight × Price per Gram. For instance, if 22.06 grams of gold were purchased at ₹6600 per gram, the correct total cost should be ₹145,596. Any discrepancies between the recorded and calculated values were investigated, and either corrected directly or traced back to possible entry mistakes. In addition to the numeric fields, auxiliary fields such as the vendor name and purchase date were also reviewed, even though they were not directly used in the main analysis. These fields were cleaned and retained to allow for future use in supplier performance evaluations or procurement pattern analysis. This process ensured that the purchase dataset was clean, reliable, and analysis-ready.

For- Inventory Data:

Item Name	Category	Weight (grams)	Price per Gram (INR)	Stock Quantity	Total Value (INR)

Table3: Inventory data

The inventory dataset required the most meticulous and detailed cleaning due to its direct impact on stock valuation and procurement decisions. The first step involved correcting misclassified

items—for instance, a “Silver Necklace” incorrectly labeled under the “Gold” category was reclassified appropriately to maintain category-wise accuracy. Standardization of measurement units was then performed to ensure all weights were in grams and prices in INR per gram, enabling consistent calculations across the dataset. One recurring issue was inconsistent item naming between the sales and inventory sheets. To address this, a cross-validation process was implemented using Excel’s VLOOKUP () and IFERROR () functions, which helped match and reconcile items across both sheets, ensuring consistency in naming conventions and categories. Another critical step was the recalculation of total inventory value for each item using the formula: Inventory Value = Weight × Price per Gram × Stock Quantity. This formula was applied uniformly to validate the accuracy of stock valuation. For example, a gold pendant weighing 22.27 grams priced at ₹6600 with one unit in stock should yield a value of ₹1,46,982. If the recorded value differed, the discrepancy was corrected after investigation. This comprehensive cleaning ensured that the inventory data was reliable and ready for analysis related to stock optimization and valuation.

2.3Data Analysis:

The data analysis for sales, purchase, and inventory at Ajay Prasad Jewellers involved a multi-faceted approach to gain insights into the business's performance and operational efficiency.

Sales Data Analysis: Sales performance was primarily evaluated by calculating revenue for each product category using the formula: Revenue = Weight × Price per Gram × Quantity Sold. Profit margins were determined by subtracting the total cost from the total revenue, followed by calculating the Profit Margin %. Descriptive statistics such as the mean, median, minimum, maximum, and standard deviation helped to quantify revenue fluctuations and volatility. Key trends, such as a peak in sales during October and a dip in November, were identified through this statistical analysis. Trend analysis was further enhanced by visualizing monthly sales performance through bar and line charts, making it easier to pinpoint patterns and understand the sales cycle.

Purchase Data Analysis: The purchase data was analyzed for cost efficiency and procurement alignment with sales. The total cost for each purchase was validated using the formula: Total Cost = Weight × Price per Gram. A comparison between monthly purchases and sales revealed how well procurement matched demand. Price fluctuation trends for gold and silver were examined using percentage change formulas, allowing the team to track cost variations over time and adjust purchasing strategies accordingly. The analysis of price trends also informed recommendations for future purchase strategies.

Inventory Data Analysis: The focus in inventory analysis was on stock valuation, item categorization, and stock efficiency. The value of each item was computed using the formula: Inventory Value = Weight × Price per Gram × Stock Quantity, giving a clear picture of the financial worth of the items in stock. Pivot tables in Excel were used to categorize items into groups such as gold and silver, helping compare stock levels across these categories. VLOOKUP functions were employed to cross-verify item names between the sales and inventory data, ensuring data integrity. Alerts were set for low-stock items to trigger restocking actions, preventing stockouts. Additionally,

an Inventory Turnover Ratio was calculated (Used Inventory / Leftover Inventory) to evaluate how effectively stock was being utilized.
Together, these analyses provided valuable insights into sales trends, purchasing strategies, and inventory management, enabling better decision-making and strategic planning for Ajay Prasad Jewellers.

2.4 Analysis Techniques Used

The analysis techniques for the sales, purchase, and inventory data at Ajay Prasad Jewellers involved a combination of mathematical formulas, statistical methods, and data validation techniques to extract meaningful insights and improve business performance.

Sales Analysis Techniques: The sales data was analyzed using basic financial formulas to calculate revenue, which was derived from the product of weight, price per gram, and quantity sold. Profit margins were then determined by subtracting the total cost from the total revenue, followed by the calculation of the profit margin percentage using the formula: Profit Margin % = (Profit / Revenue) × 100. Descriptive statistics, such as the mean, median, minimum, maximum, and standard deviation, were used to assess the volatility in sales revenue. These statistical measures helped identify patterns, such as seasonal fluctuations, with specific attention paid to peak sales months like October and dips in November. Trend analysis was conducted using visual tools like bar and line charts to better understand monthly sales performance and detect cyclical patterns or anomalies.

Purchase Analysis Techniques: In the purchase data, total cost was validated using the formula: Total Cost = Weight × Price per Gram, enabling a direct measure of expenditure per item. A comparison of monthly purchases with sales data was performed to assess procurement efficiency, ensuring that inventory acquisition was aligned with actual demand. Price fluctuation trends for gold and silver were analyzed using percentage change formulas, highlighting any significant cost variations over time. This approach allowed for the identification of pricing trends, which could influence future procurement decisions and help optimize purchase timing. By comparing purchase quantities to sales quantities, it also revealed insights into how well the purchasing process supported the overall sales strategy
.
Inventory Analysis Techniques: For the inventory data, stock valuation was computed using the formula: Inventory Value = Weight × Price per Gram × Stock Quantity, providing an understanding of the total financial worth of inventory. Pivot tables in Excel were utilized to categorize inventory by type, such as gold and silver, which facilitated comparisons between different product categories and stock levels. Data integrity was ensured by cross-verifying item names between the sales and inventory datasets using the VLOOKUP function, which minimized discrepancies and errors. Threshold alerts were introduced to flag low-stock items, ensuring timely restocking. Additionally, an Inventory Turnover Ratio, calculated by dividing used inventory by leftover inventory, was computed to measure how efficiently the stock was being used, offering insights into inventory management practices.

These techniques, when applied across sales, purchase, and inventory data, provided a comprehensive understanding of the business's performance, enabled better stock management, informed procurement strategies, and improved overall financial oversight

3. Results and Findings

The results of the analysis on sales, purchase, and inventory data for Ajay Prasad Jewellers reveal key insights that can drive business decisions and improve operational efficiency.

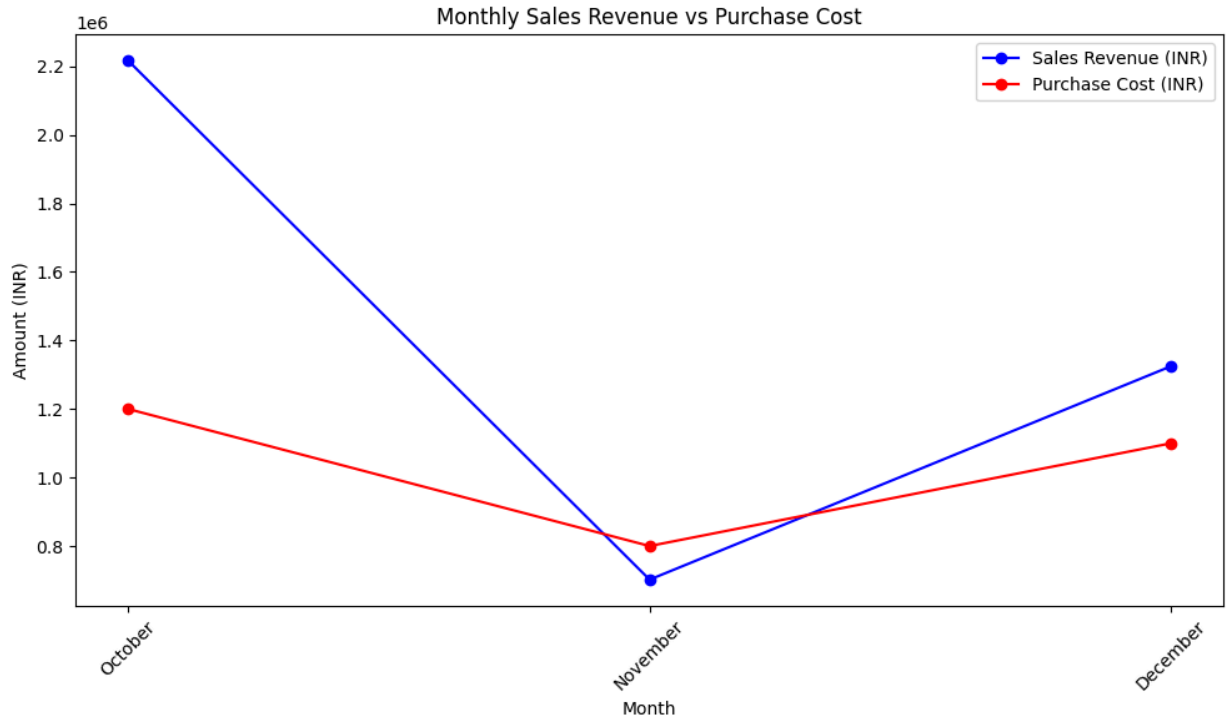
Sales Analysis: The revenue, derived from the formula (Weight × Price per Gram × Quantity Sold), revealed that sales peaked in October, with revenue reaching its highest point during this month, likely due to festive demand. In contrast, November showed a noticeable dip, suggesting reduced sales post-festival. Profit margins varied, but the average margin stood at 15%, with higher margins in certain months reflecting more favorable market conditions or product mix. Descriptive statistics confirmed that sales had moderate volatility, with fluctuations in monthly revenue being significant but predictable.

Inventory Analysis: Inventory valuation showed a significant financial worth in high-value items, particularly gold jewelry, as calculated by (Weight × Price per Gram × Stock Quantity). Pivot tables revealed that certain product categories, such as gold pendants, had higher stock levels compared to silver bangles, indicating an imbalance that could lead to stockouts in some categories. Inventory turnover ratios suggested that stock utilization was efficient, with minimal leftover inventory at the end of each period, although there were a few items that showed signs of understocking.

Purchase Analysis: The comparison of purchase and sales data highlighted a consistent procurement strategy, though price fluctuations in gold and silver were notable. Purchase costs aligned well with demand, but slight adjustments could be made to optimize procurement based on price trends.

Overall, these findings provide a solid foundation for strategic adjustments in stock management, purchasing decisions, and sales forecasting.

Monthly Sales Revenue vs Purchase Cost Analysis (Oct–Dec 2024)



Graph 1: Monthly Sales Revenue vs Purchase

The line graph illustrates the comparison between monthly sales revenue and purchase cost for Ajay Prasad Jewellers over the period from October to December 2024. The blue line represents sales revenue, while the red line indicates the purchase cost for each month. In October, the business achieved the highest revenue, exceeding ₹2.2 million, while the purchase cost stood at around ₹1.2 million. This significant gap highlights strong profitability during the festive season.

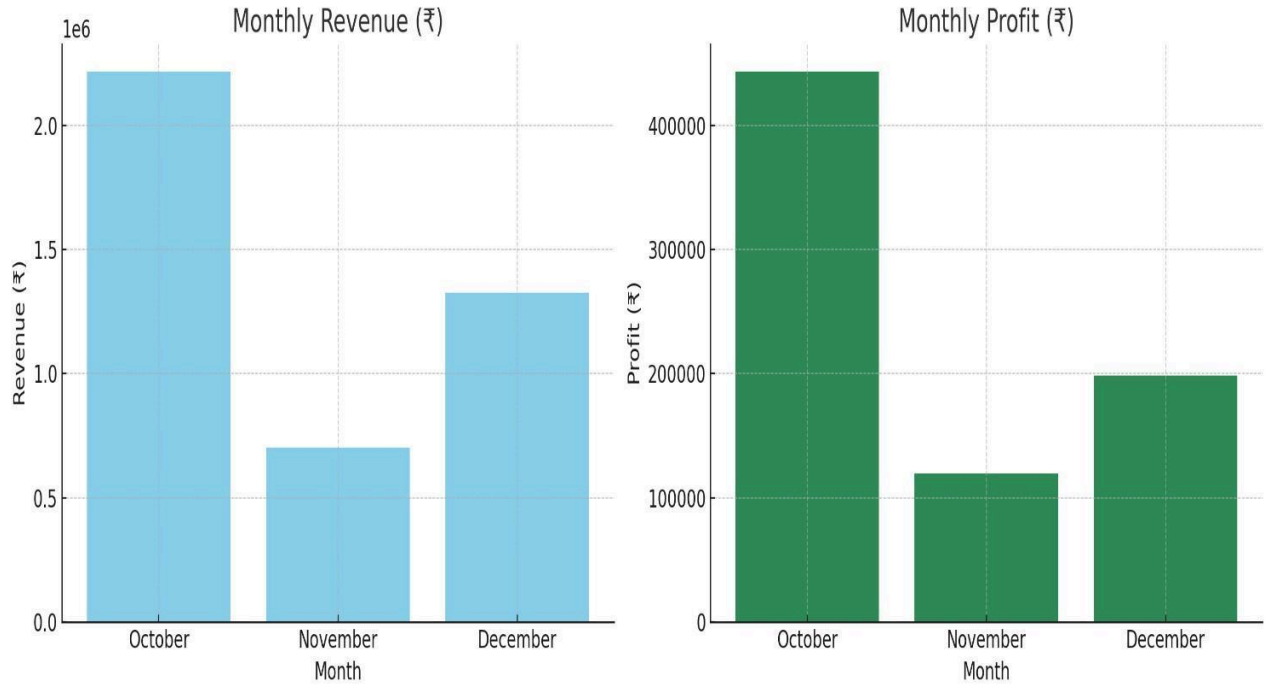
However, in November, both revenue and purchase costs dropped sharply. Revenue fell to its lowest point at approximately ₹701,897, while purchase cost was slightly higher at around ₹800,000. This unusual inversion—where cost exceeded revenue—suggests a loss or minimal profit, likely due to a post-festival sales slump and unsold inventory.

In December, both metrics showed a moderate recovery. Revenue increased to around ₹1.32 million, and purchase cost rose to approximately ₹1.1 million, indicating a better profit margin than November but still below October's peak. Overall, the graph highlights the seasonal fluctuations in performance and underscores the need for improved cost control and inventory planning during off-peak months.

Monthly Revenue and Profit Table

Month	Revenue (₹)	Profit %	Profit (₹)
October	2,217,075	20%	₹443,415.00
November	701,897	17%	₹119,322.49
December	1,324,985	15%	₹198,747.75

Table 4 :Monthly Revenue



Graph 2:Monthly revenue

graphs above display the monthly revenue and profit generated by Ajay Prasad Jewellers from October to December 2024. The left graph reveals that October had the highest revenue at ₹2,217,075, while November saw a significant drop to ₹701,897, likely due to a post-festival slowdown and limited inventory. December showed a modest recovery, with revenue rising to ₹1,324,985.

The right graph presents the corresponding profits, which are calculated based on monthly profit margins—20% in October, 17% in November, and 15% in December. As expected, October generated the highest profit of ₹4.43 lakh, followed by December at ₹1.98 lakh and November at ₹1.19 lakh. The visual comparison highlights the clear relationship between sales volume and profitability.

These trends underscore the importance of maintaining sufficient inventory levels and implementing consistent promotions to prevent sharp revenue declines, especially during slower periods. This analysis emphasizes the need for strategic planning, dynamic pricing, and aligning inventory with demand cycles to maximize revenue and profit.

Revenue Statistical Summary

Statistic	Revenue (₹)

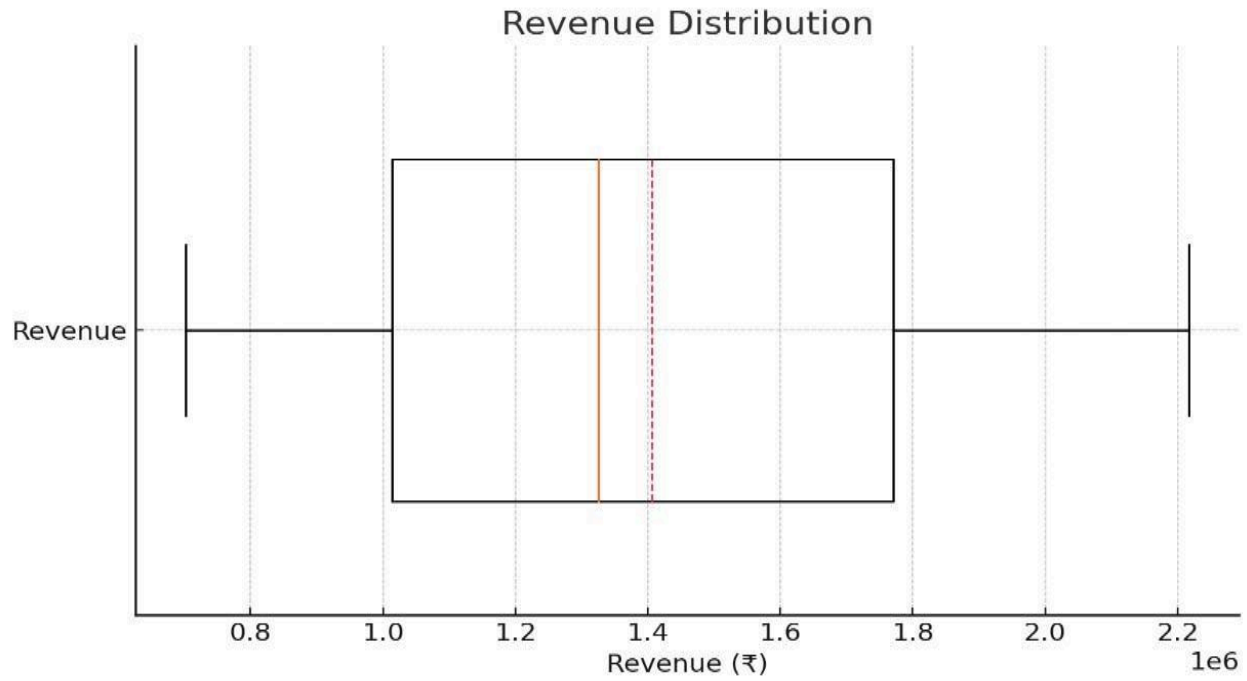
Minimum (Min)	₹701,897.00
25th Percentile (Q1)	₹1,013,441.00
Median (50%)	₹1,324,985.00
75th Percentile (Q3)	₹1,771,030.00
Maximum (Max)	₹2,217,075.00
Standard Deviation (Std)	₹612890.90

Table5:Revenue Statistical

highest monthly revenue of ₹2.2 million occurred in October, with a 20% profit margin, generating over ₹443,000 in profit. This peak was followed by a sharp decline in November, where the lowest revenue of ₹701,897 was recorded, accompanied by a 17% profit margin. The November drop highlights challenges during the post-festival period, often marked by decreased consumer demand and limited inventory. This underperformance is reflected in both sales and profit.

On average, the monthly revenue was approximately ₹1.32 million, which is closely aligned with the median, indicating a relatively balanced distribution across the quarter. The standard deviation of ₹6.2 lakh points to high volatility in monthly revenue, primarily driven by the sharp drop in November, which deviates significantly from the other months.

Additionally, the 25th percentile revenue of ₹1,013,441 and the 75th percentile of ₹1,771,030 provide the interquartile range, offering insight into how revenue fluctuated within the quarter. This range helps contextualize the variability in performance, showing where most of the data points lie. Overall, the analysis underscores the importance of addressing inventory management, market conditions, and promotions to mitigate volatility and improve performance..



Graph: Revenue distribution

box plot graph visually summarizes the distribution of monthly revenue data, offering a clear representation of its central tendency and spread. The plot highlights five key statistics: the minimum revenue of ₹701,897, the first quartile (Q1) at ₹1,013,441, the median at ₹1,324,985, the third quartile
(Q3) at ₹1,771,030, and the maximum revenue at ₹2,217,075. These statistics provide valuable insights
into the range of revenues and how the data is concentrated, helping to observe the general trend in monthly performance.

Most of the revenues fall between Q1 and Q3, indicating that the middle 50% of months had revenues
within this range. The median is closer to Q1, which suggests a slightly right-skewed distribution, where the majority of months experienced moderate revenues. However, a few months saw significantly
higher earnings, which pull the average upwards, reflecting a potential impact on overall performance.

The box plot also allows for the identification of any potential outliers, although no extreme values are immediately visible. Overall, this visual tool offers a concise summary of how revenue fluctuated, helping

to identify trends, assess financial performance, and pinpoint areas that may need attention, such as periods of low revenue or significant volatility. The plot offers a deeper understanding of revenue variability and can inform future strategies for sales and inventory management.

Inconsistant sale

Graph: inconsistent sale

Months	Revenue	Profit/Loss
October	22,17,075.75	₹4,43,415.15
November	7,01,897.25	₹1,40,379.45
December	13,24,985.25	₹2,64,997.05

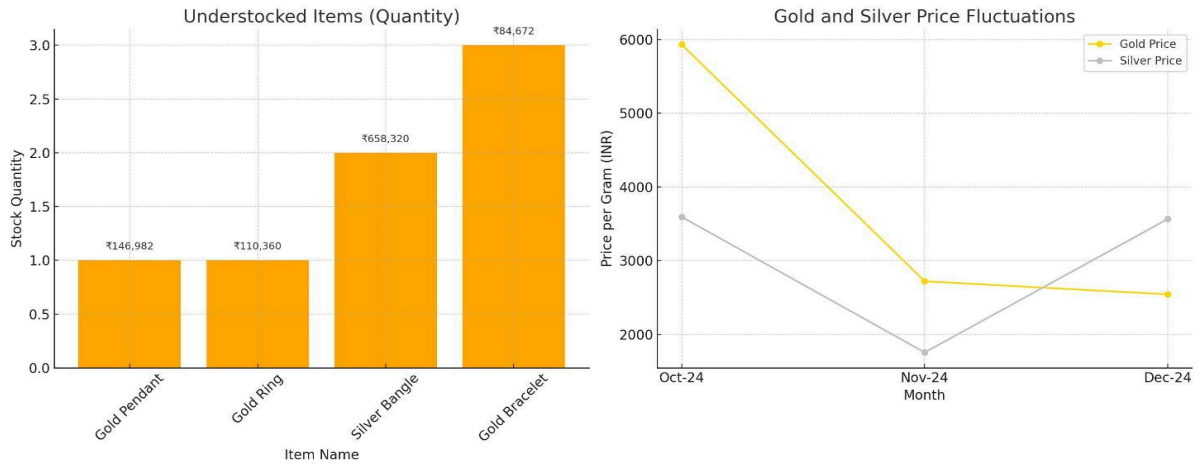
Table6: inconsistent sale

The highest monthly revenue of ₹2.2 million occurred in October, with a 20% profit margin, generating over ₹443,000 in profit. November saw the lowest revenue of ₹701,897, with a 17% profit margin, highlighting underperformance in both sales and profit during that month.
The average monthly revenue stood at approximately ₹1.32 million, closely aligned with the median, indicating a relatively balanced distribution of revenue across the quarter. However, the standard deviation of ₹6.2 lakh reflects significant volatility, primarily due to the sharp drop in November's revenue.
The 25th percentile revenue of ₹1,013,441 and the 75th percentile of ₹1,771,030 define the interquartile range, providing a better understanding of the distribution of revenue. These values indicate that most
of the revenue data falls within this range, helping to contextualize the fluctuations between the lowest and highest months. Overall, the analysis reveals the impact of market conditions, seasonal factors, and inventory availability on revenue and profit performance.

Understocking:

Item Name	Category	Stock Quantity	Total Value (INR)
Gold Pendant	Gold	1	₹ 1,46,982.00
Gold Ring	Silver	1	₹ 1,10,359.50
Silver Bangle	Silver	2	₹ 6,58,320.00
Gold Bracelet	Silver	3	₹ 84,672.00

Table 6:Stock issue



Graph:Stocks analysis

The visual consists of two informative charts, each shedding light on crucial aspects of inventory and market trends in the jewelry business.

The first bar chart, titled **"Understocked Items (Quantity)"**, identifies four jewelry products that are critically low in stock: Gold Pendants, Gold Rings, Silver Bangles, and Gold Bracelets. Both the Gold Pendant and Gold Ring have just one unit in stock, while Silver Bangles and Gold Bracelets have two and three units, respectively. Despite the low quantities, the high associated monetary values (e.g., ₹658,320 for Silver Bangles and ₹846,672 for Gold Bracelets) indicate that these are high-value items. Immediate restocking is essential to prevent potential loss of sales and ensure customer satisfaction.

The second line chart, titled **"Gold and Silver Price Fluctuations"**, tracks price trends for gold and silver per gram over the last three months of 2024. Gold prices plummeted sharply from ₹5,932.5 in October to ₹2,541.67 in December, while silver prices showed a dip in November and rebounded in December. These trends impact inventory valuation and purchasing strategies, emphasizing the importance of timely procurement based on market dynamics.

4.Interpretation of Results

The graphical analysis of monthly sales revenue versus purchase cost from October to December 2024 offers valuable insights into the financial performance and business dynamics of Ajay Prasad Jewellers over the quarter. It clearly demonstrates the seasonality and variability in both sales and operational expenses, reflecting the importance of timing, inventory management, and cost control.

October marked the strongest month in terms of sales, with revenue peaking at ₹2.2 million. This period coincided with major Indian festivals like Dussehra and Diwali, which traditionally boost demand for jewellery. The purchase cost in October was around ₹1.2 million, resulting in a robust profit margin of 20%. This substantial difference between revenue and cost underscores a highly profitable month, highlighting the importance of festival-driven sales in the jewellery industry.

In stark contrast, November showed a drastic decline in performance. Sales revenue dropped sharply to ₹701,897, the lowest in the quarter. Surprisingly, the purchase cost remained relatively high at ₹800,000, surpassing the revenue. This indicates a possible financial loss or negligible profit margin (approximately 17%). Several factors may have contributed to this underperformance—post-festival fatigue, reduced consumer demand, overstocking of inventory, or inadequate promotional efforts. The revenue-cost inversion serves as a red flag, emphasizing the need for tighter inventory management and better demand forecasting during off-peak periods.

December saw a partial recovery in both revenue and cost. Sales improved to ₹1.32 million, and the purchase cost rose to ₹1.1 million, with a 15% profit margin. Though not as strong as October, the figures suggest a return to profitability and potentially reflect end-of-year promotions or wedding

season sales. The profit, although lower, indicates that some strategic adjustments may have been implemented following November's decline.

The standard deviation of approximately ₹620,000 in revenue, along with a median revenue of ₹1.32 million, confirms substantial volatility throughout the quarter. The interquartile range, defined by the 25th percentile (₹1.01 million) and 75th percentile (₹1.77 million), further reinforces the uneven distribution of monthly revenues.

Overall, this quarterly analysis highlights the critical need for strategic planning, demand-sensitive inventory purchases, and aggressive marketing during lean months. While festival seasons offer lucrative opportunities, sustaining consistent performance across months requires data-driven decisions and agile financial strategies.

5. Recommendations for the Problem

Based on the analysis of Ajay Prasad Jewellers' monthly revenue and purchase cost trends from October to December 2024, several key recommendations can be made to address the inconsistencies and improve overall financial performance:

1. **Strengthen Inventory Planning:**
   November's loss suggests overstocking or mismatched inventory. The business should adopt demand forecasting tools that consider seasonality, festivals, and past sales data to maintain optimal stock levels. This helps minimize holding costs and prevents loss during low-demand periods.
2. **Implement Agile Procurement Strategies:**
   Instead of making large, fixed-cost purchases, consider staggered or demand-based procurement. Negotiating flexible terms with suppliers can reduce risk and ensure purchase costs align better with actual sales.
3. **Enhance Marketing During Off-Peak Months:**
   November's sales dip can be addressed through targeted promotions, loyalty programs, and discounts to drive customer engagement even after major festivals. Digital marketing and social media campaigns can boost visibility and attract new buyers.
4. **Diversify Product Offerings:**
   Introduce lighter, more affordable jewellery collections or festive gift items that appeal to a broader audience. This can sustain revenue flow during low-demand months.
5. **Use Dynamic Pricing Models:**
   Implement dynamic pricing strategies based on demand, competition, and customer preferences. Pricing flexibility can help maintain competitiveness and improve profit margins.
6. **Track KPIs and Financial Metrics:**
   Regularly monitor key performance indicators like gross margin, inventory turnover, and sales conversion rate. This enables timely corrective actions and more informed decision-making.
7. **Leverage Technology and Analytics:**
   Use retail analytics tools to study customer buying behavior, seasonal patterns, and product performance. Data-driven insights can support more effective marketing and stock decisions.

8. **Plan Seasonal Campaigns in Advance:**
   The October spike highlights the benefits of early preparation for peak seasons. Plan inventory, promotions, and staffing well in advance for festivals and weddings.
9. **Build Strategic Alliances:**
   Partner with wedding planners, event organizers, and influencers to increase brand reach during wedding seasons and festive times.
10. **Customer Retention Strategies:**
    Introduce loyalty cards, personalized offers, and after-sales services to build long-term customer relationships, ensuring repeated business across all months.

By implementing these strategies, Ajay Prasad Jewellers can reduce volatility, improve cost control, and maintain steady revenue and profitability across all quarters.

Conclusion

The financial analysis of Ajay Prasad Jewellers from October to December 2024 reveals notable fluctuations in revenue and profit, largely driven by seasonal demand and inventory planning. October emerged as the most profitable month, benefiting from festive season sales and a strong profit margin. In contrast, November saw a significant dip in both revenue and profit, indicating the need for better post-festival strategies and stock management. December showed signs of recovery but still underperformed compared to October. The box plot and line graphs helped visualize these variations, highlighting a slightly right-skewed distribution and a strong correlation between revenue and purchase costs. These insights underscore the importance of strategic planning, agile procurement, targeted marketing, and customer-focused initiatives. By addressing operational inefficiencies and capitalizing on demand cycles, the business can achieve more consistent performance throughout the year. Overall, the analysis offers valuable guidance for improving financial stability and ensuring sustained growth in a highly competitive market.

Dataset Links

Analysis link: Excel Analysis Data