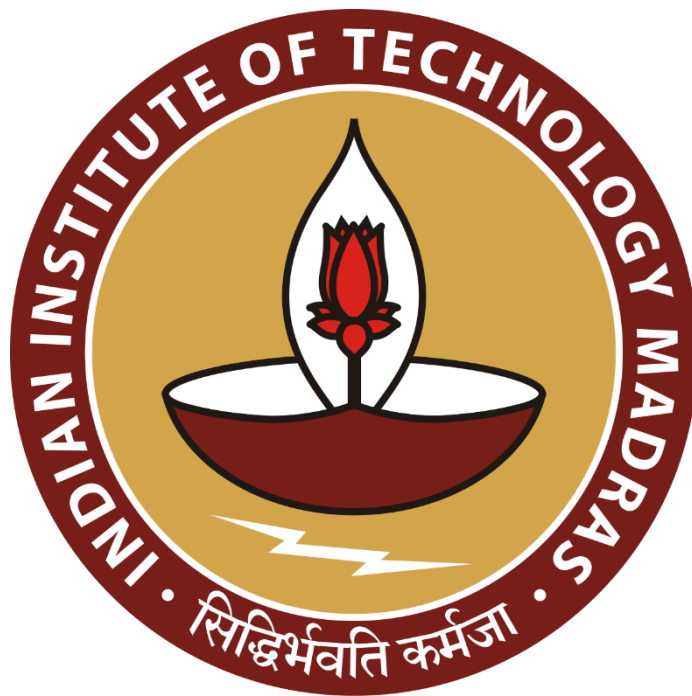# Business Optimization and Growth Strategies for Glam & Glow

A Final report for the BDM capstone Project

Submitted by

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Declaration Statement

I am working on a Project titled "Business Optimization and Growth Strategies for Glam & Glow". I extend my appreciation to **Glam & Glow** , for providing the necessary resources that enabled me to conduct my project.

I hereby assert that the data presented and assessed in this project report is genuine and precise to the utmost extent of my knowledge and capabilities. The data has been gathered from primary sources and carefully analyzed to assure its reliability.

Additionally, I affirm that all procedures employed for the purpose of data collection and analysis have been duly explained in this report. The outcomes and inferences derived from the data are an accurate depiction of the findings acquired through thorough analytical procedures.

I am dedicated to adhering to the principles of academic honesty and integrity, and I am receptive to any additional examination or validation of the data contained in this project report.

I understand that the execution of this project is intended for individual completion and is not to be undertaken collectively. I thus affirm that I am not engaged in any form of collaboration with other individuals, and that all the work undertaken has been solely conducted by me. In the event that plagiarism is detected in the report at any stage of the project's completion, I am fully aware and prepared to accept disciplinary measures imposed by the relevant authority.

I understand that all recommendations made in this project report are within the context of the academic project taken up towards course fulfillment in the BS Degree Program offered by IIT Madras. The institution does not endorse any of the claims or comments.

Name: Amit Pal

Date: 1 July 2024

1. Executive Summary

The report provides a comprehensive analysis of Glam & Glow's sales, inventory, and profit and loss (P&L) data to identify opportunities for improving operational efficiency, optimizing inventory, and maximizing profitability. A detailed analysis of product performance, inventory trends, and revenue contributions is included in the analysis.

The findings reveal patterns in sales and inventory management. High-demand items like Sarees and Silk Sarees demonstrate efficient inventory utilization but require closer attention to stock replenishment to avoid shortages. Conversely, products such as Kurtis and Dresses exhibit excessive inventory levels relative to sales, highlighting overstocking issues that blocks working capital. Underperforming items like Lehengas and Churidars suggest the need for strategic adjustments in pricing, marketing, or product offerings.

Profit and loss insights indicate that while Silk Sarees and Lehengas contribute significantly to overall profitability, other products like Leggings and Churidars deliver low profit margins, suggesting a reevaluation of pricing strategies. With an overall profit margin of 28.4%.

Key recommendations include:

1. Implementing demand forecasting to balance inventory levels for high-demand and slow-moving products.
2. Enhancing marketing campaigns and promotions for underperforming items to boost sales.
3. Reassessing the pricing strategy for low-margin items and focusing on high-margin products.
4. Adopting data driven decision-making for inventory replenishment and sales strategies.

2. Detailed explanation of Analysis Process

Glam & Glow sales, inventory, and profit and loss (P&L) data was analyzed systematically to derive actionable insights. This process involved collecting , preprocessing, visualizing, and interpreting data .

1. Data Collection

- **Inventory Data:** Monthly inventory levels for each product from February to June 2024.
- **Sales Data:** Monthly sales figures for each product category.
- **Profit and Loss Data:** Average purchase prices, average selling prices, revenue, profits, and overall financial contributions of each product category.

All data was cleaned and organized into structured tables in Excel for further analysis.

2. Data Preparation

- Average sales and inventory values were calculated to standardize comparisons across product categories.
- Additional metrics like profit margin, % contribution to total revenue, and % contribution to total profit were calculated.

3. Visualization

- **Inventory Trends:** Line graphs to show monthly inventory changes that helped to identify overstocking or understocking.
- **Sales vs. Inventory:** Scatter plots of average sales vs. average inventory to check inefficiencies in stock management.
- **Revenue and Profitability:** Bar charts were used to compare revenue contributions and profit margins across product categories.
- **Profitability Metrics:** Doughnut charts used for percentage contributions of each product to total profit and revenue.

4. Comparitive Analysis

- Compared sales performance with inventory levels to identify overstocking or understocking issues.
- Products like Dresses and Kurtis had high inventory levels but lower than expected sales, leading to potential cash flow concerns**.**
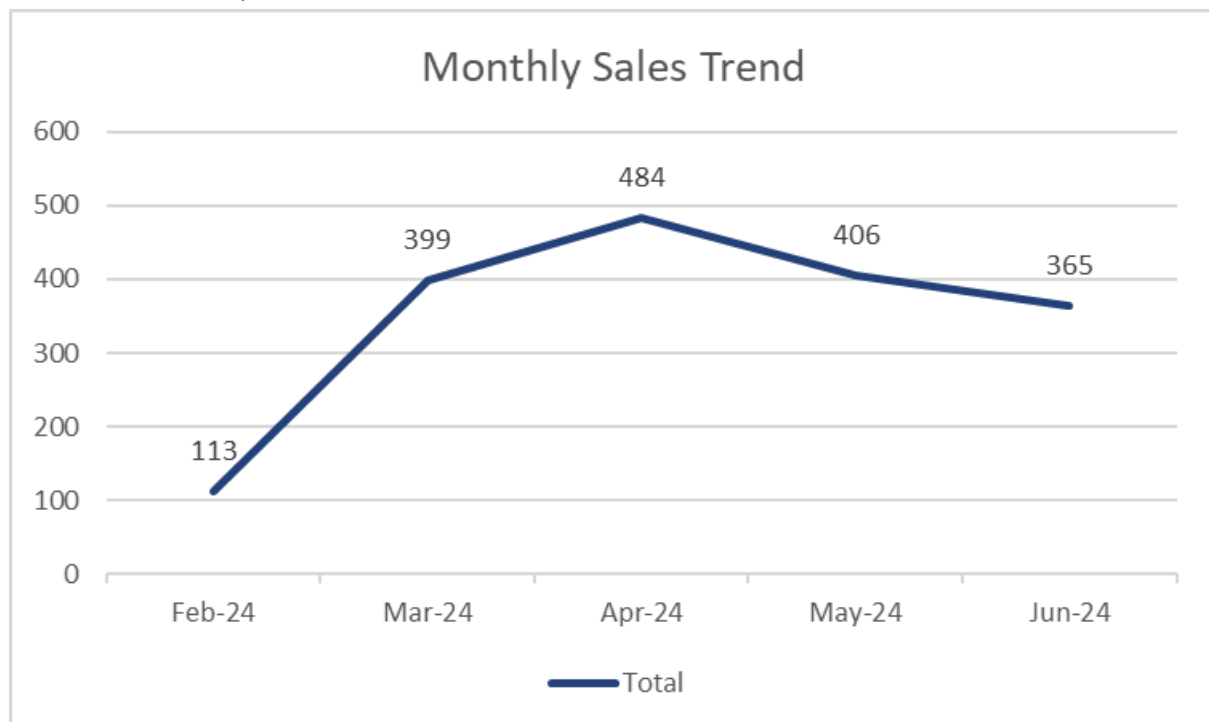
5. Inventory Analysis

- Calculated inventory turnover ratio = Average Sales/Average Inventory for each product category.
- This shows how efficiently inventory was converted into sales.

6. Pareto Charts

- Pareto Charts were created for total revenue and total profit to check it follows 80/20 Pareto principle.

3. Results and Findings

1. Sales Analysis

Fig 1. Monthly Sales Trend

Fig 1. shows monthly sales trends from February to June 2024. Sales increased sharply from 113 units in February to peak at 484 units in April. After reaching this peak, sales began declining, dropping to 406 units in May and further down to 365 units in June, showing a downward trend in recent months.This sudden spike in sales indicates strong seasonal demand around April and May (possibly due to festival or wedding season).
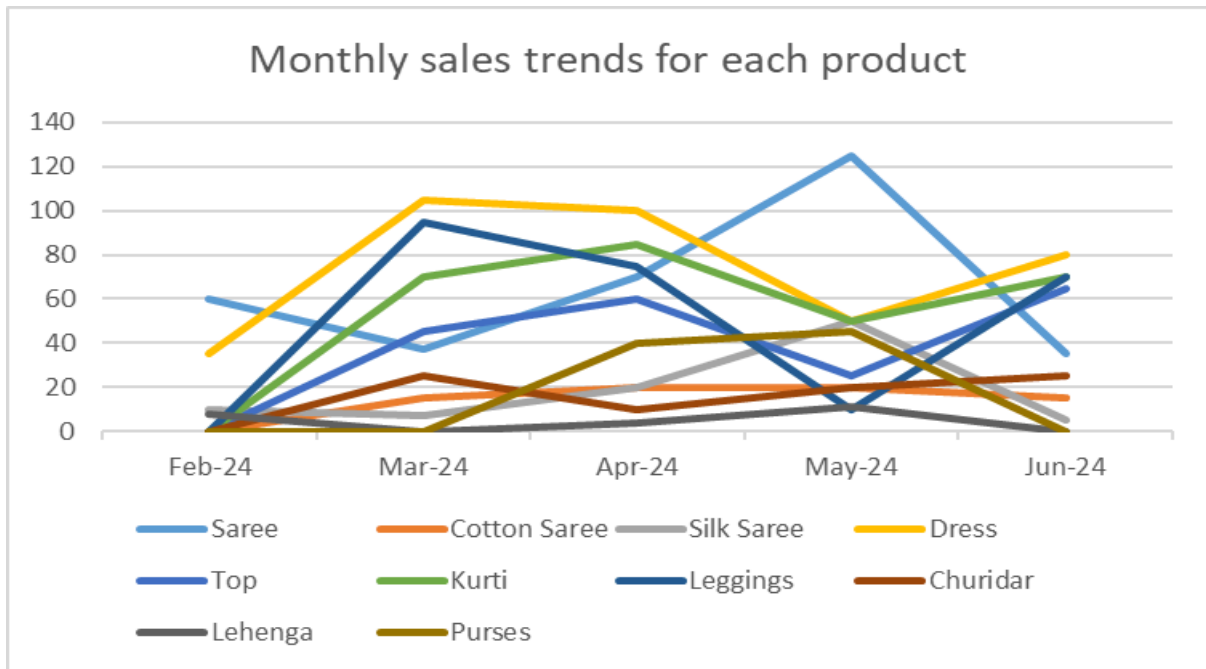
Fig 2. Monthly Sales Trend of each Product

Fig 2. shows Saree has the highest peak, reaching about 120 units in May before declining sharply. Dress and Leggings maintained relatively stable performance, ending around 70-80 units. Most products show fluctuating patterns rather than steady growth. Some items like Lehenga and Cotton Saree maintained consistently lower sales volumes.The graphs suggest this could be seasonal sales variation, with different clothing items having peak demand in different months.
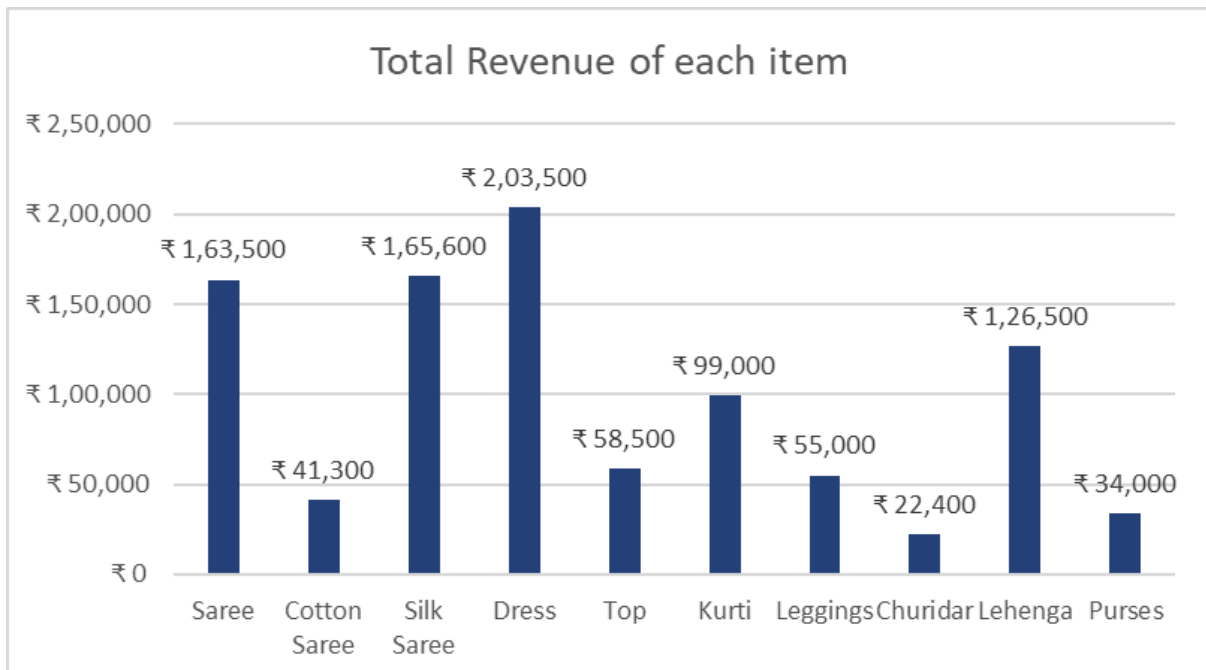
**Fig 3. Total Revenue of Each Item**

Fig 3. shows revenue distribution across items, with Dress being the highest earner (₹2,03,500), followed by Silk Saree (₹1,65,600) and Saree (₹1,63,500) dominates revenue generation, while basic items like Churidar (₹22,400) and Purses (₹34,000) contribute least to total revenue.
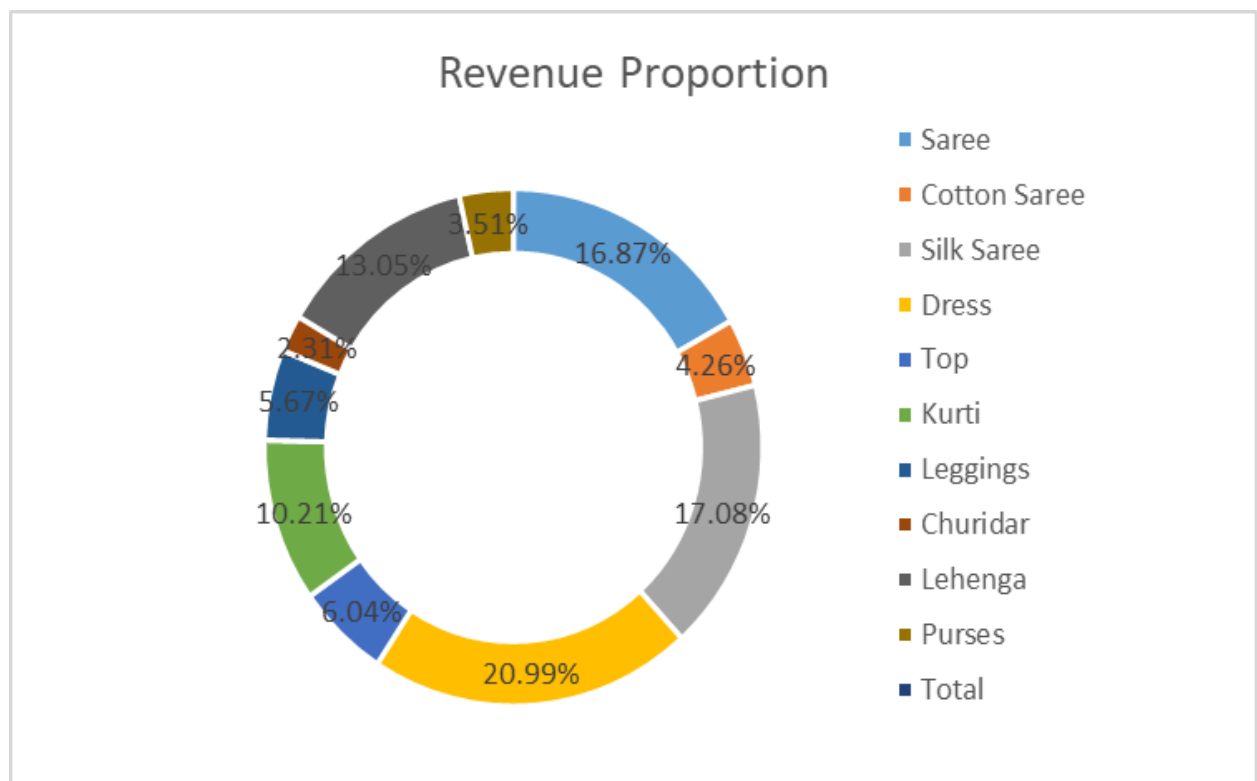
Fig 4. Contribution of products in Revenue

Fig 4. shows the revenue proportion of each product, with Dress leading at 20.99%, followed by Silk Saree (17.08%) and Saree (16.87%). These top three items account for about 55% of total revenue. Mid-range contributors include Lehenga (13.05%) and Kurti (10.21%), while items like Churidar (2.31%) and Cotton Saree (4.26%) contribute the smallest portions of revenue.
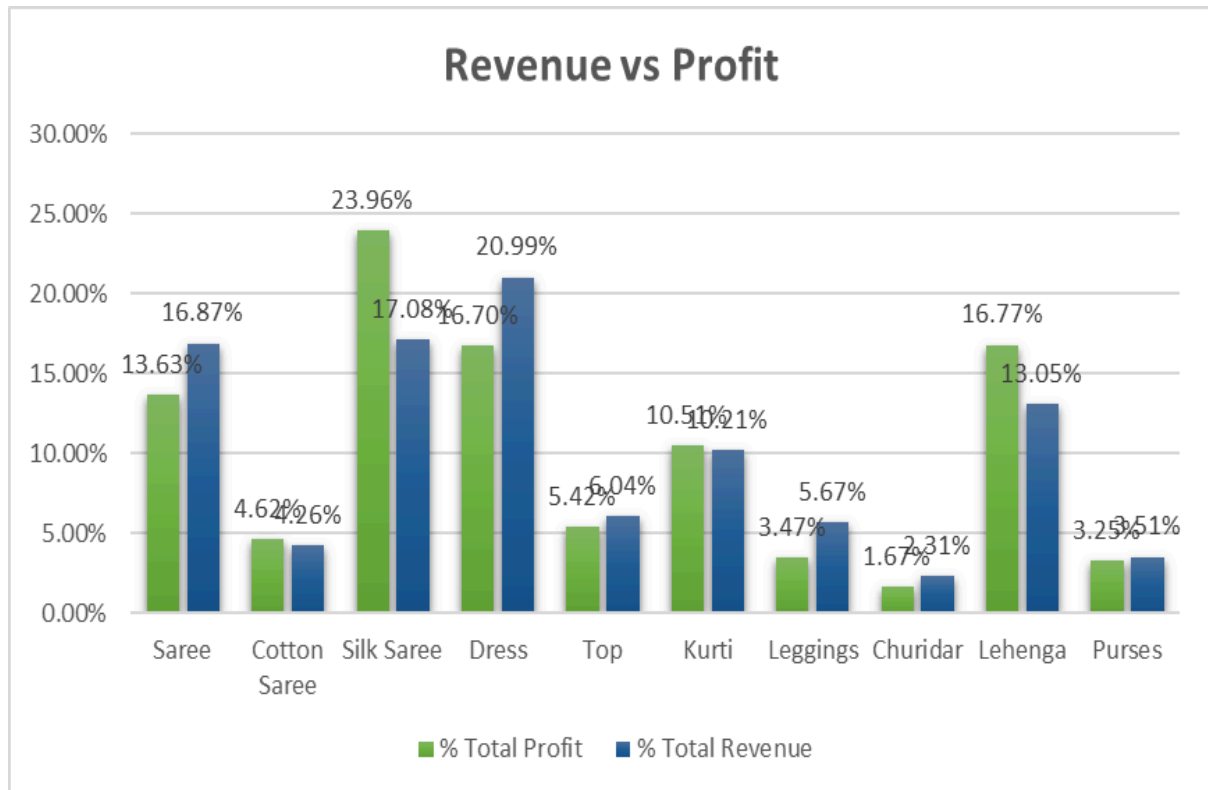
Fig 5.Revenue vs. Profit Contribution by Product

Fig 5. compares the percentage of total revenue versus total profit for different items.

1. Silk Saree shows the highest profit margin at 23.96% while contributing 17.08% to revenue
2. Dress and Saree show higher revenue percentages than their profit percentages
3. Most products maintain relatively similar proportions between revenue and profit
4. Lower end items like Leggings, Churidar, and Purses contribute less to both total revenue and total profit.
5. The biggest profit to revenue ratio advantage is with Silk Saree, suggesting it is the most profitable product.

2. Inventory Management
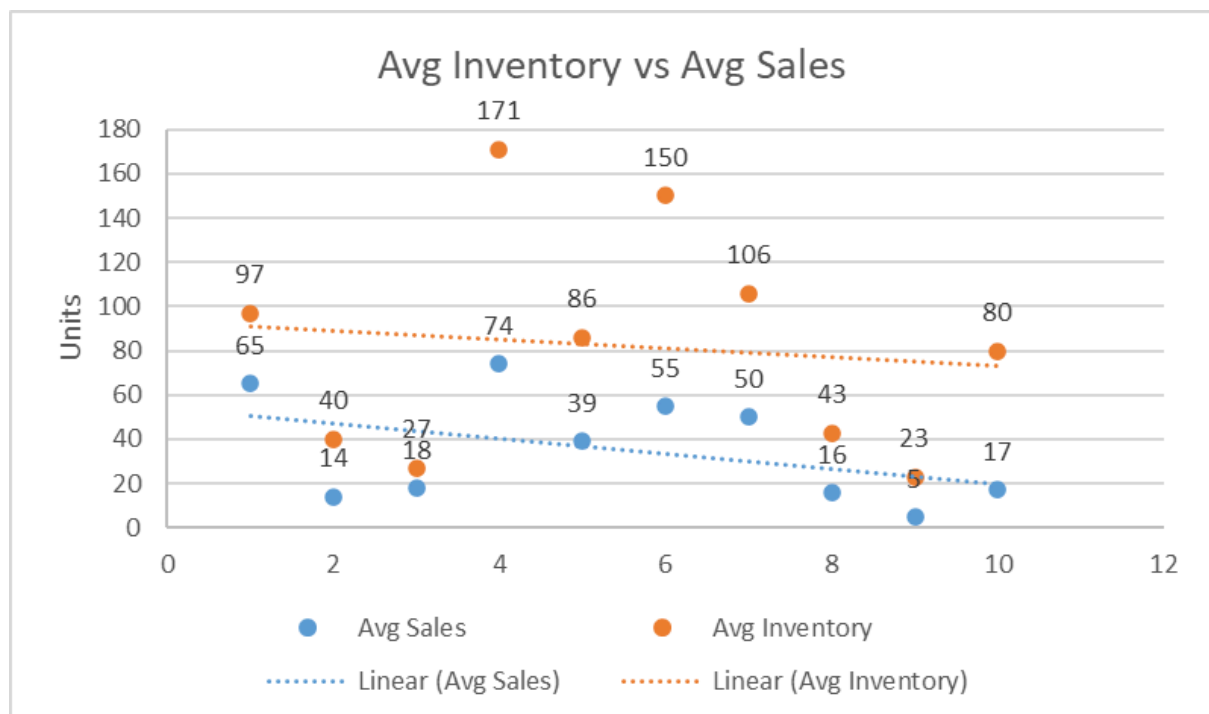
Fig 6.Scatter Plot: Average Inventory vs. Average Sales

Fig 6. compares average inventory levels versus average sales across products, with trend lines showing overall patterns. The inventory levels are consistently higher than sales, suggesting good stock availability. Both trend lines show a slight downward slope, indicating lower inventory and sales volumes for certain products. The largest gaps between inventory and sales are seen at the higher volume points (171 vs 74 units, and 150 vs 55 units), while products with lower sales volumes have more closely matched inventory levels, suggesting more efficient stock management for slower-moving items.

| Item	Avg Sales	Avg Inventory	Inventory turnover
Saree	65	97	67.01%
Cotton Saree	14	40	35.00%
Silk Saree	18	27	66.67%
Dress	74	171	43.27%
Top	39	86	45.35%
Kurti	55	150	36.67%
Leggings	50	106	47.17%
Churidar	16	43	37.21%
Lehenga	5	23	21.74%
Purses	17	80	21.25%

Fig 7 Calculating Inventory Turnover

Fig 7. shows how efficiently products are sold relative to their stock levels. High turnover rates for Sarees (67.01%) and Silk Sarees (66.67%) indicate strong demand and efficient inventory usage. Moderate turnover for Tops (45.35%) and Leggings (47.17%) suggests steady sales but potential room for improvement. Low turnover for Lehengas (21.74%) and Purses (21.25%) highlights overstocking or limited demand.
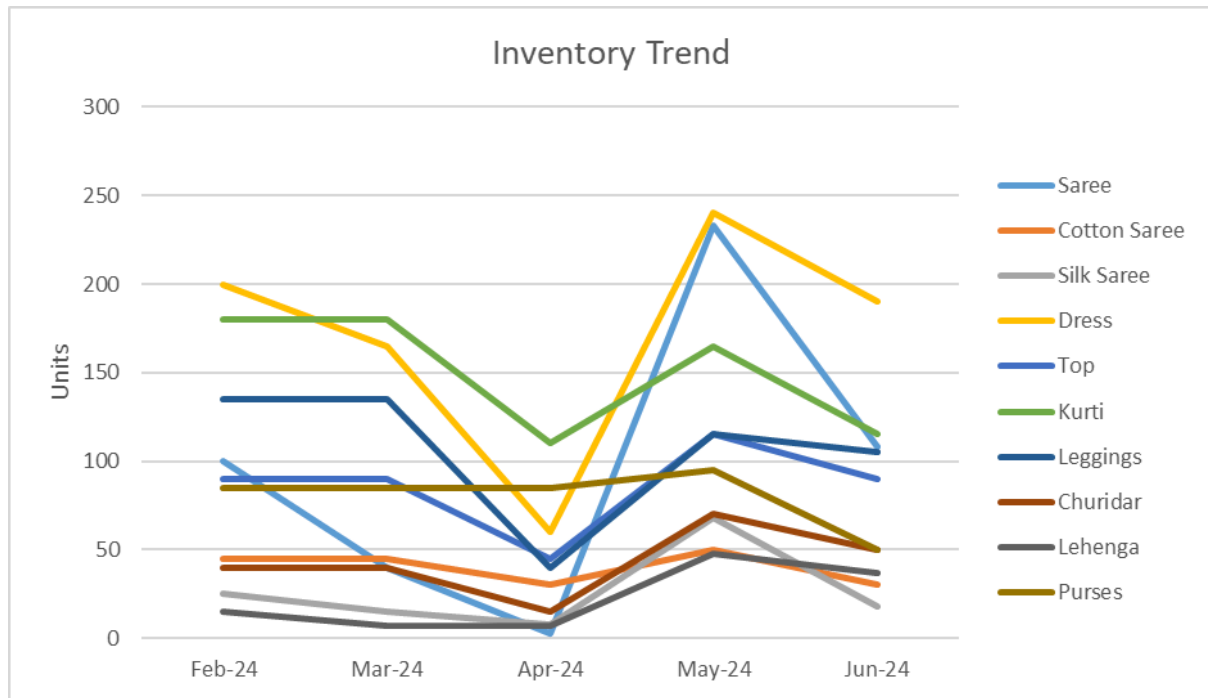

Fig 8. Monthly Inventory Trends

Fig 8. monthly inventory trend graph from February to June 2024 shows significant fluctuations across product categories. A notable dip occurs in April across all products, followed by a sharp spike in May, particularly for Dress and Saree categories which peaked at around 240 units. By June, most categories show a declining trend, suggesting post-peak season inventory reduction. The graph suggests a need for better seasonal inventory planning, especially for high-volume categories like Dresses and Sarees.
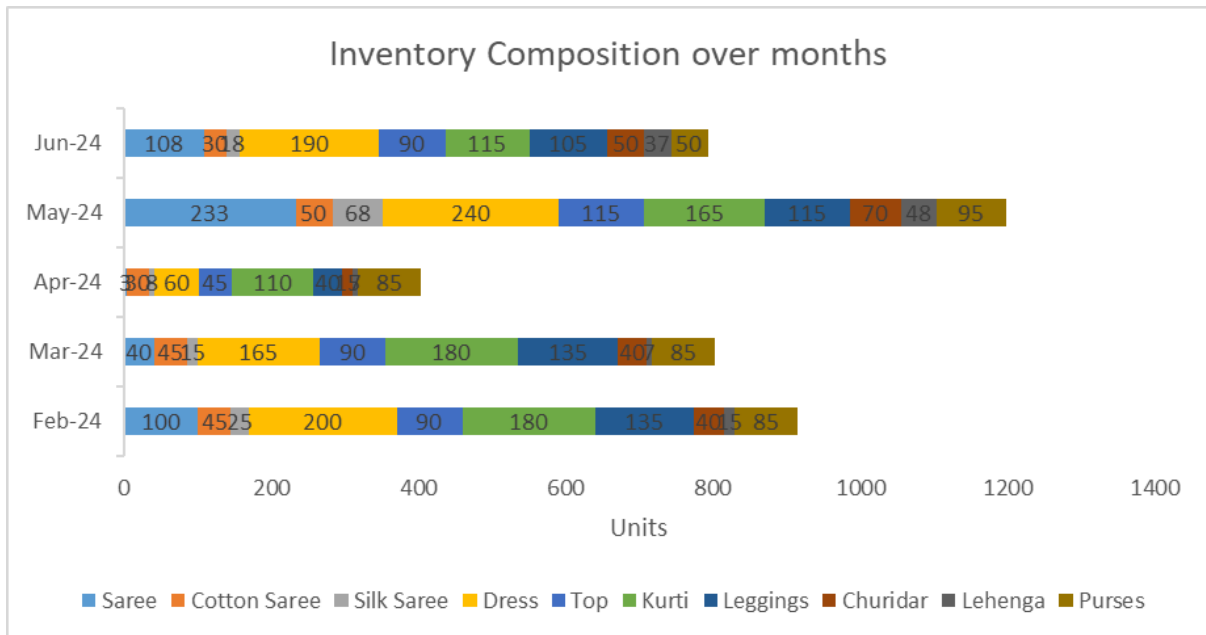
Fig 9. Inventory Levels by Product Category

Fig 9. shows monthly inventory composition from February to June 2024. May shows the highest total inventory levels with significant stock in Sarees (233 units) and Dresses (240 units). April had the lowest overall inventory across categories. The product mix remained relatively consistent with Sarees, Dresses, and Kurti dominating the inventory composition. June shows a more balanced distribution with reduced quantities across categories, suggesting potential inventory optimization. The data indicates a peak season in May, possibly due to seasonal demand, followed by inventory reduction in June.
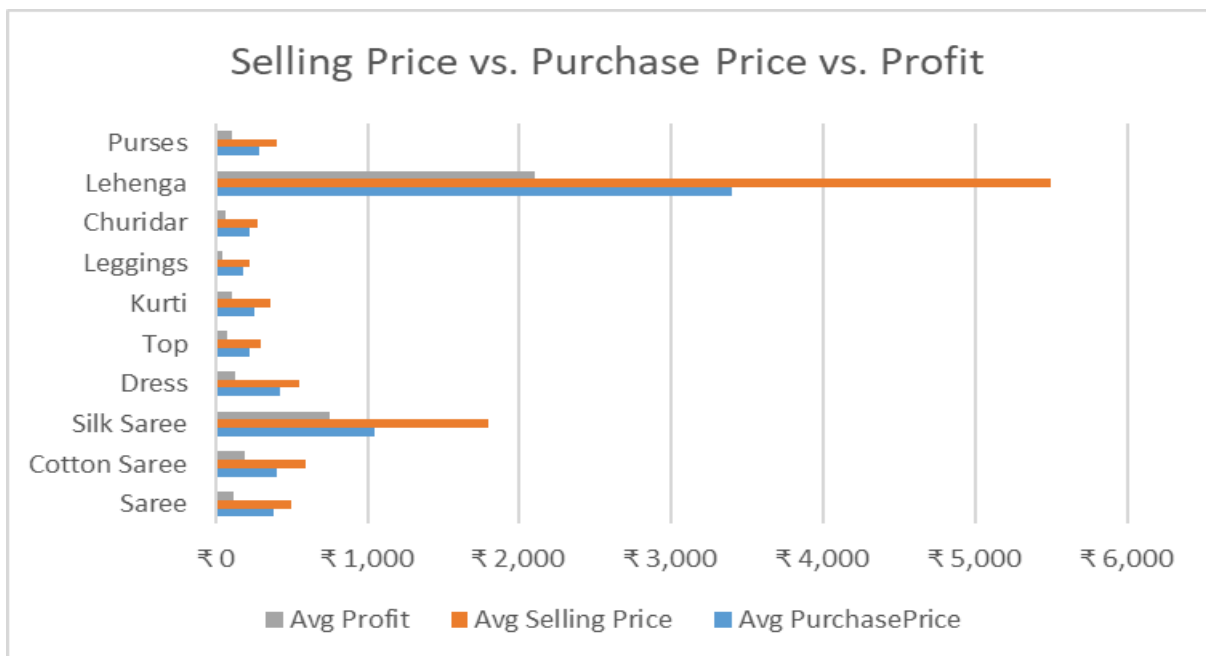
3. Pricing and Profit Margin
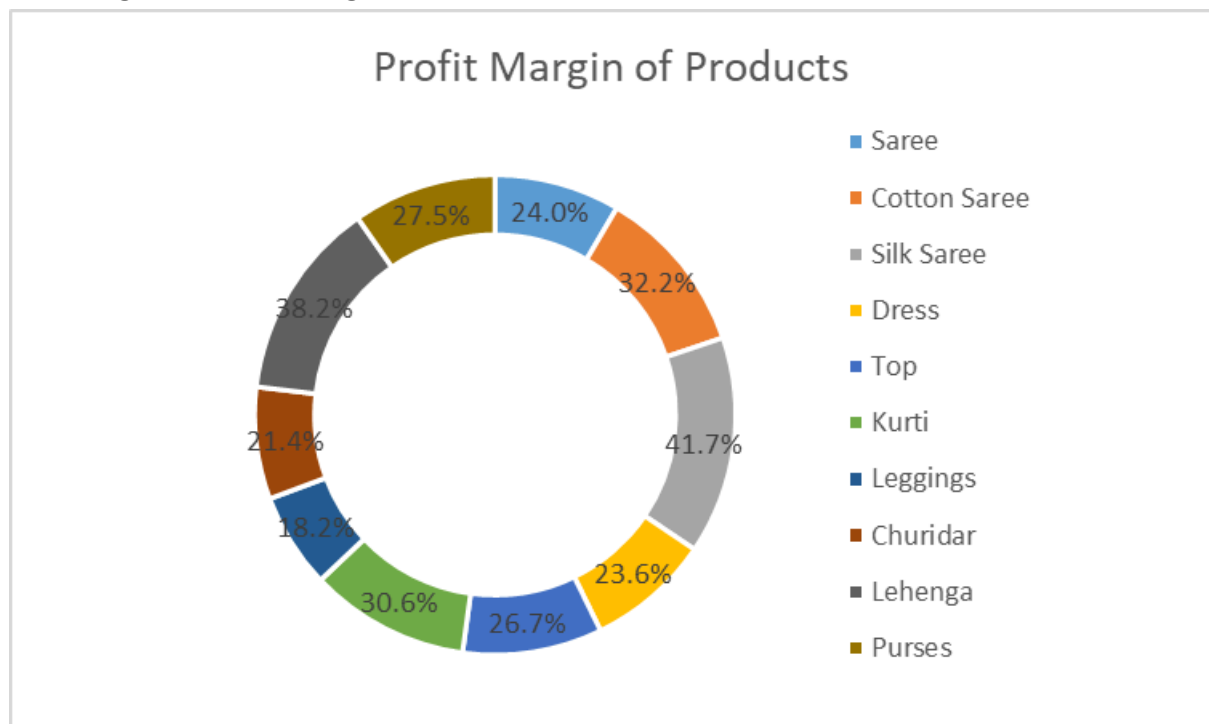
Fig 10. Profit Margin of each Products

Fig 10. shows profit margins for each product. Silk Saree has the highest margin at 41.7%, followed by Lehenga (38.2%) and Cotton Saree (32.2%) . Kurti shows a strong margin of 30.6%. Basic items like Top (26.7%) and Leggings (22.2%) have lower margins. Despite having high revenue, Dress has a moderate margin of 23.6%, suggesting its success comes from higher sales volume rather than profit margins.
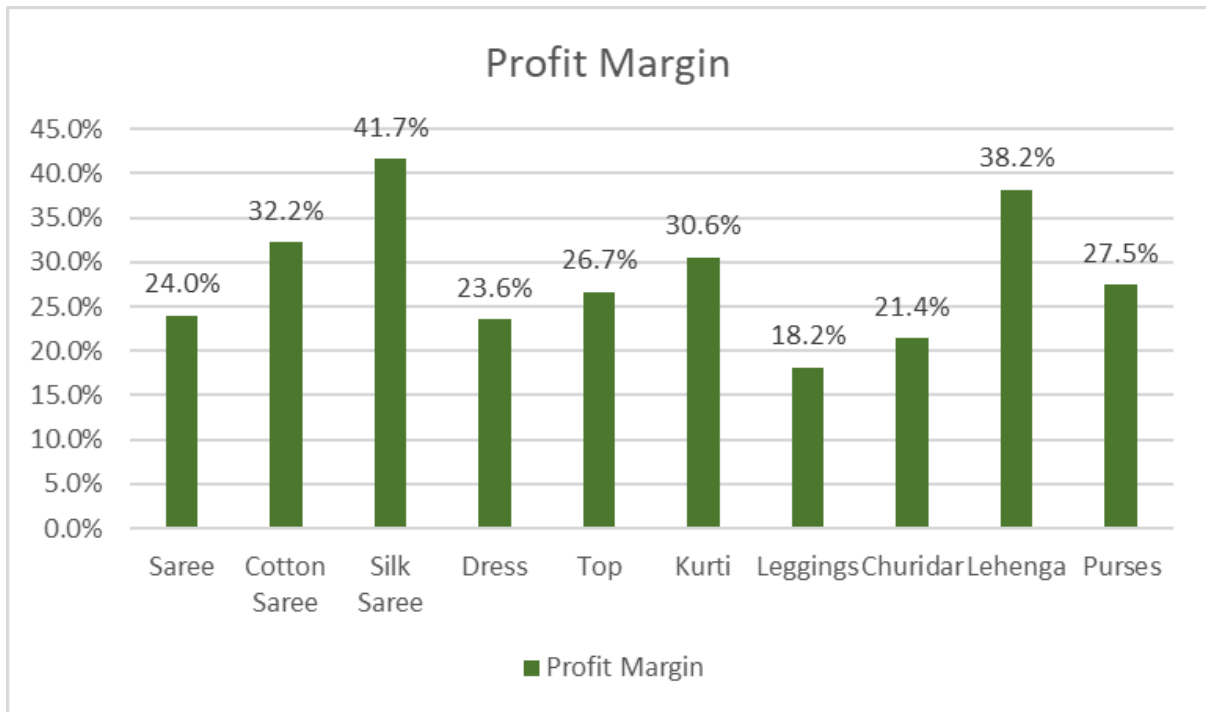
Fig 11. Profit Margins by Product

Fig 11. shows that Silk Sarees have the highest margin at 41.7%, followed by Lehenga at 38.2%, and Cotton Saree at 32.2%. Basic items like Leggings and Churidar show lower margins (18.2% and 21.4% respectively). The core products Sarees and Dresses maintain moderate margins around 24%. This suggests focusing on categories (Silk Sarees, Lehengas) could maximize profitability, while basic items might need volume sales to compensate for lower margins. The data indicates a clear opportunity to prioritize high-margin products in inventory and marketing strategies.


Fig 12. Selling Price vs. Purchase Price vs. Profit

Fig 12. compares the average purchase price, selling price, and profit for each product category. Lehenga shows the highest price points (around ₹5,000-6,000) with a significant profit margin, followed by Silk Sarees (around ₹2,000). Basic items like Leggings, Churidar, and Purses have the lowest price points (under ₹500). The gap between selling price and purchase price represents the profit , which is proportionally larger for items like Lehengas and Silk Sarees. This suggests focusing on Lehengas and Silk Sarees products could yield better returns despite higher inventory investment costs.
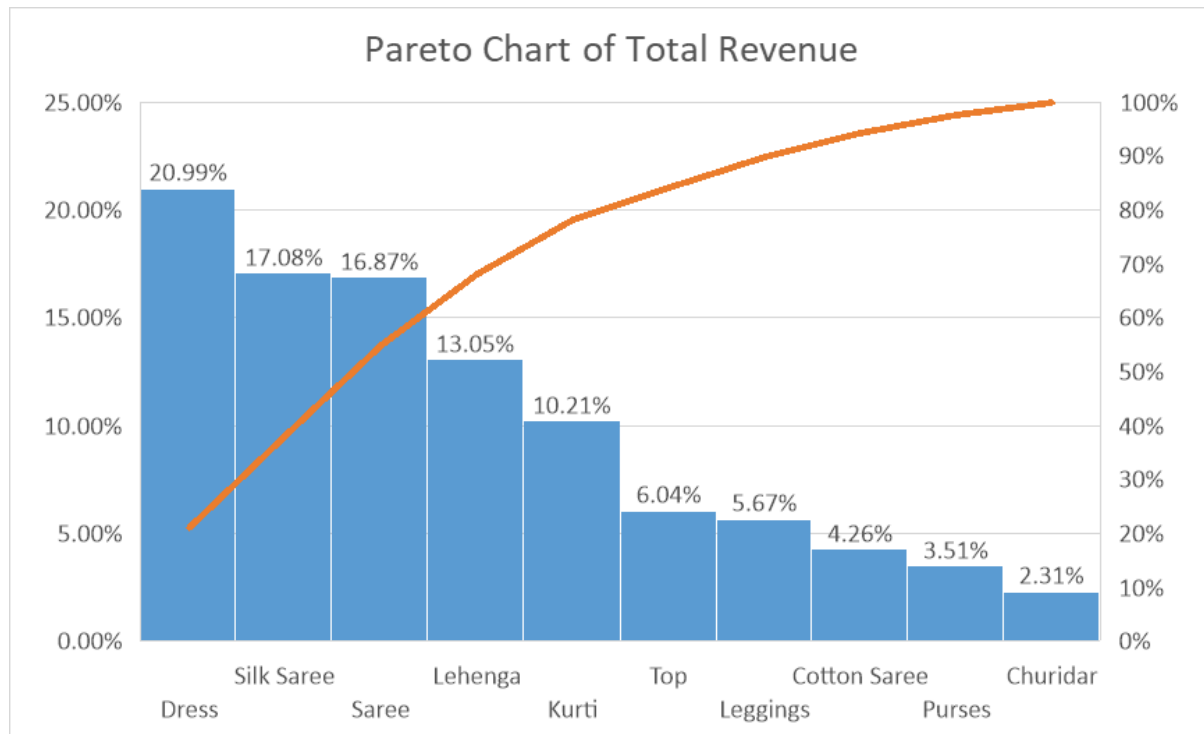
Fig 13. Top Revenue-Generating Products

Fig 13. shows the revenue distribution across different products. Dress leads with 20.99% of revenue, followed by Silk Saree (17.08%) and Saree (16.87%). The cumulative line shows that the top 3 items account for over 50% of total revenue, while items like Cotton Saree, Purses, and Churidar contribute less significantly. This follows the typical 80/20 Pareto principle, where a small number of products generate the majority of revenue.
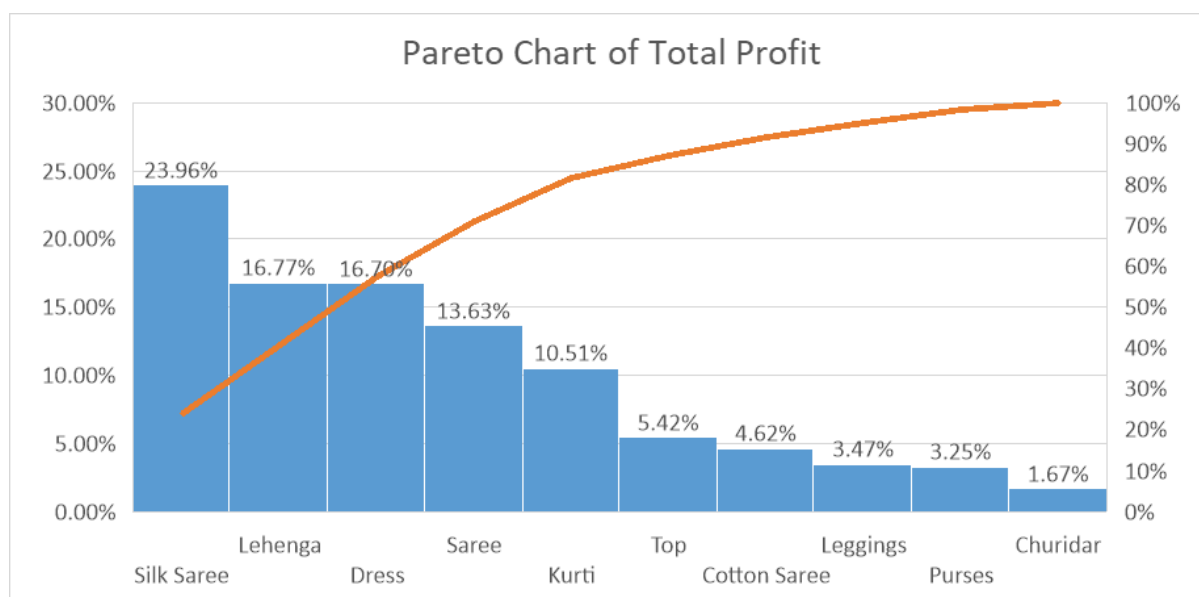
Fig 14. Top Profit-Generating Products

Fig 14. shows the distribution of total profit across products. Silk Saree leads with 23.96% of total profits, followed by Lehenga (16.77%) and Dress (16.70%). The cumulative line indicates that the top 3 items generate about 57% of total profits, while items like Leggings, Purses, and Churidar contribute minimally. The chart reveals that focusing on the top few products, particularly Silk Saree and Lehenga, could be most beneficial for maximizing profits since they account for a disproportionate share of total profits.

4. Interpretation of Results

The analysis of the sales, inventory, and profit and loss (P&L) data provides valuable insights into the performance of different product categories and highlights areas for improvement. Below are the key interpretations:

1. Sales Performance Analysis

The business is heavily reliant on a few high-performing categories, which poses a risk if demand for these items fluctuates. Low sales of certain items suggest either limited demand or lack of effective marketing.

2. Inventory Management

There is a mismatch between inventory levels and actual demand for some items. Overstocked products lead to higher holding costs and reduced cash flow, while understocked high-demand products limit sales potential. Proper inventory planning and demand forecasting are crucial for optimizing stock levels.

3. Profit and Loss Analysis

The focus on high margin products like Silk Sarees and Lehengas can maximize profitability, while low-margin items like Leggings and Churidars should be priced competitively to drive volume sales.

4. Overall Financial

While the business demonstrates strong profitability in key categories, inefficiencies in inventory management and low sales in certain segments dilute overall performance. Addressing these inefficiencies can improve financials and operational sustainability.

5. Seasonal Demand Trends

Aligning inventory with seasonal demand trends can optimize stock levels, reduce holding costs, and maximize sales during peak periods. Off-season discounts can help clear excess inventory and improve cash flow.

5.Recommendations

Based on the analysis of the sales, inventory, and profit and loss data, here are some recommendations to improve the business performance:

1. **Optimize Inventory Management**
- **Implement a Forecasting System:** Use historical data and seasonality trends to predict future demand accurately and prevent overstocking or shortages.
- **Focus on High-Performing Products:** Prioritize inventory for items with higher profit margins, such as Silk Sarees and Lehengas, while keeping adequate stock for mid-performing items like Dresses and Kurtis.
- **Reduce Low-Turnover Stock:** Minimize purchases of items with consistently low sales (eg. Churidars and Purses) to avoid tying up capital.
2. **Adjust Pricing Strategies**
    - **Leverage High Profit Products:** Increase the price slightly for items with high demand and premium quality, such as Silk Sarees and Lehengas, maintaining the perceived value.
    - **Offer Competitive Pricing for Basic Items:** For lower margin products like Leggings and Churidars, maintain competitive pricing to attract budget conscious retailers.
3. **Diversify Product Mix**
    - Introduce complementary accessories, such as matching jewelry, belts, or footwear, to increase average transaction value.
    - Test new product lines in high demand categories to diversify revenue streams while ensuring they align with customer preferences.
4. **Enhance Marketing and Customer Engagement**

- **Run Targeted Campaigns:** Use sales data to identify the best-selling products and launch promotional offers during peak periods.
- **Leverage Social Media:** Showcase trending styles to increase brand visibility and customer acquisition.
- **Introduce Loyalty Programs:** Reward repeat customers with discounts or exclusive deals to improve customer retention.

5. **Monitor Profitability Metrics**
   - **Track Profit Margins Per Product:** Regularly analyze profit contribution by each product category to focus on high yielding products.
   - **Monitor Cash Flow:** Optimize working capital by reducing excess inventory and ensuring timely collections from customers.

6. **Seasonal Planning**
   - Align purchases with seasonal trends to avoid excess stock during low-demand months.
   - Promote off-season sales to clear older inventory, making room for new collections.

7. **Expand Sales Channels**
   - Explore online sales platforms, including e-commerce websites and social media marketplaces, to broaden reach.
   - Introduce local pop-up stores or partnerships with boutiques to target a broader audience.

The overarching goals are to optimize resources, focus on high-performing products, build customer loyalty, and leverage data for decision-making. By implementing these strategies, the business can improve profitability, enhance operational efficiency, and drive sustainable growth.