

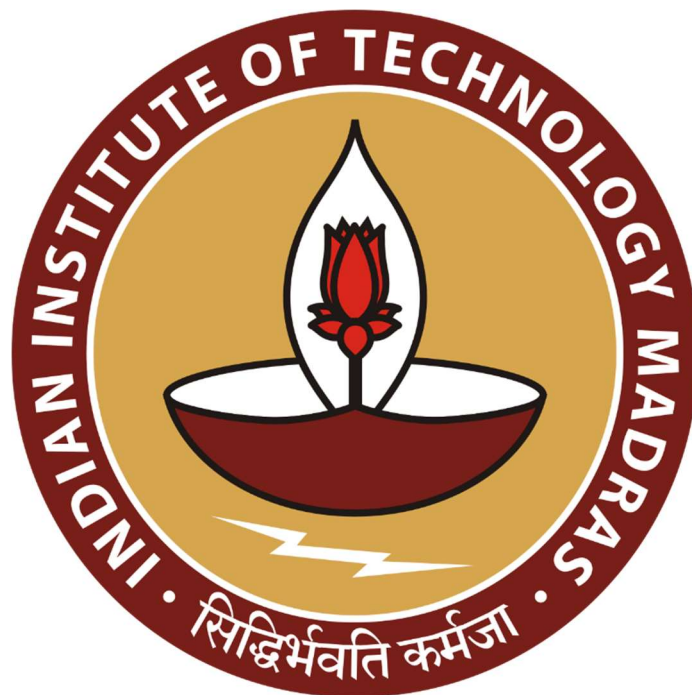
Direct Sell Precision: Data Driven Strategies for Altos

Final term report for the BDM capstone project

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1 Executive Summary and Title

Title: “Health Oasis Hub”

The concept of a "Health Oasis Hub" refers to a single site or hub where people can get everything they require for their health and wellbeing. It is like an oasis in the desert, a place where people may come to refresh and refresh themselves.

Executive summary

“Altos Mangalam Enterprises” for the past five years has been the top health and personal care store in Subash Nagar, a desirable area in Chhindwara , MP. With four employees who work around the clock and are consistently honest in their provision, the company's sales is expanding daily, although on occasion it fluctuates due to seasonal variations.

The initiative is centered on ‘Altos Mangalam Enterprises’ and uses sophisticated data analysis to improve consumer engagement and operational efficiency. The initiative attempts to maximize profits in an effective manner by providing insights into client preferences through an analysis of daily sales patterns.

The project aims to improve the accuracy of demand forecasting and enable exact resource allocation by utilizing daily fluctuations in sales data. To make better decisions, more effective regression analysis techniques are used to comprehend sales trends.

Over time, there will certainly be ups and downs to a regular day in a well-established and organized business for a variety of reasons. Here are a few scenarios that are covered:

- to ascertain which SKU (or products) adds the most to the net profit and which is best suited for holding in longer-term sales.
- Identifying the Elements Affecting the High Variability in Sales of Health and Wellness Products
- Recognize and assess revenue-related trends.
- competition in the market as a result of on door Supermarket's establishment in the neighbourhood.

In order to efficiently analyse sales data and make well-informed business decisions, I will be leveraging a variety of PowerBI tools, including bar, table, and line charts, among others, which can offer useful illustrated representations. These technologies make it possible to visualize sales data, which facilitates the identification of patterns, trends, and important insights. A marketing strategy, data-driven decision making, and performance analysis can be used to maximize income generating.

2 Detail explanation of analysis process/Method

An Overview of the Applicable Methodologies:

Several analysis techniques were first used in the midterm submission to obtain an in-depth understanding of the shop's operational dynamics and customer involvement. Building on these foundational efforts, the initiative is now employing sophisticated methods with the goal of carrying out a more thorough investigation. Through a closer look at monthly variances, improved research methodologies, and increased demand forecasting accuracy, these improved methods seek to look deeper into daily sales trends.

The main objective is to improve profitability and operational efficiency by gaining a deeper understanding of the preferences of customers regarding what and when to purchase.

Through the integration of these methodologies, the project aims to uncover more detailed insights on customer behavior and sales trends, which will help make educated decisions that will support the shop's sustained growth and success.

Detail Analysis process:

The data that was collected indicates that most of the material is not supported by hard proof, including videos, membership logs, regular backups, and clear debits done with permission from the owner. However, the corporation agreed that the credit for the data had been taken, and the body issue had been thoroughly resolved.

After that, the data was enhanced and cleansed. Techniques that accept missing given data, presenting order, and a typical of expected information addressed the problem of missing data. To increase transparency, highlights for these sets of data have been made.

Date	customer detail	item	quantity	selling price
06-06-2023	Ravi kumar	agriculture	4	700
06-06-2023	Abhishek Suryawanshi	cosmetic	5	250
06-06-2023	Ajay Raghu	medicine	3	100
07-06-2023	Deep Raj guru	medicine	3	120
07-06-2023	Raj guru singh	agriculture	2	600
07-06-2023	Soham Soni	home care	8	1000
08-06-2023	Devesh Dhote	cosmetic	6	750
08-06-2023	Kaustubh Khan	medicine	9	678

1.1) A sample data of shop (Altos Mangalam Enterprises)

Here is the snapshot of the raw data collected:

7	1206601	Noni Capsule	120 caps	594	8.00	546.48	4	1360.00	2185.1
8	1207601	Ore Piles Capsule (Altos)	60 cap	138	8.00	126.96	2	132.00	253.9
Juice Concentrate									
9	2300501	Altos Noni Juice	500 ml	429	8.00	394.68	4	952.00	1578.7
10	2301901	Oregel Syrup	500 ml	439	8.00	403.88	3	738.00	1211.6
Liquid Extract									
11	2502001	Altos Jeewan Shakti Avaleh	500 gm	316	8.00	290.72	2	162.00	581.4
Tablet									
12	3601001	Orecal Calcium Tablet (1x10x10)	100 tab	205	8.00	188.60	1	140.00	188.6
Toothpaste									
13	3901301	Altos Oredent Toothpaste	100 gm	79	8.00	72.68	12	384.00	872.1
14	3902301	Altos Orefresh Toothpaste	100 gm	82	8.00	75.44	12	432.00	905.2
TOTAL							54	8805.00	13745.7
In Words : Rupees Thirteen Thousand Seven Hundred Forty Six Only Payable amount of Rs. 13746.00/- against the FPO amount of Rs. 13746.00/-									
							Total	13745.7	
							Round Figure	0.21	
							Grand Total	13746.01	

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1.2) Snapshot of raw data collected from Altos Mangalam Enterprises

Data composition and Analysis:

- Data cleaning and preprocessing:
Cleaning up the dataset, dealing with missing values, and formatting pertinent columns was the first steps.
- Exploratory Data Analysis (EDA):
Visualizing data distributions, spotting outliers, and examining correlations between variables are all part of EDA. This stage gives a summary and directs further analysis.
- Sales Analysis Method:
To aggregate daily earnings by health goods, group-by operations were used. Bar charts and other visualization techniques help to present the sales distribution so that decisions can be made with knowledge.
- Analysis mode of payment method:

Applying group-by operations to the 'Mode of Payment' column is necessary for categorizing and summarizing payments. Pie or bar charts work well for showing how different payment methods are distributed.

5. Financial analysis method:

Financial metrics calculation requires simple mathematical operations on pertinent columns. Gross profit margin is one example of a profitability measure that offers a deeper knowledge of financial performance.

6. Forecasting and prediction method:

Time series analysis, which looks for trends and patterns using several platforms such as Power BI, Excel, and Python. To anticipate future sales, forecasting models are used, which yields insightful information for strategic planning.

Sales Analysis:

To commence the sales analysis, the 'Model Name' and 'Daily Earning' columns of the dataset are reviewed. The popularity and income contribution of categories can be understood by combining and summarizing the daily revenues for each product. By guaranteeing that the shop stocks various product categories according to customer demand, this study serves as a basis for strategic marketing and inventory management, which in turn improves sales performance.

Analysis mode of payment methods:

The 'Mode of Payment' column is the focus of the payment method analysis. It entails classifying and summarizing transactions according to the methods of payment (Cash, check and UPI). Understanding the shop's reliance on conventional cash transactions as opposed to digital payments is made easier by this study. Decisions on expanding digital payment systems, expediting financial transactions, and enhancing overall payment efficiency are informed by the insights gained from this analysis.

Financial Analysis of business:

1. Revenue Analysis:

- segmenting income sources, such as sales of goods, payments for services, and subscription costs.
- Trends in the yearly increase of revenue.
- Actual revenue compared to expected revenue.

2. Cost analysis:

- Cost breakdown for example running expenses, marketing costs, cost of product sales.

- developments in efficiency and cost control.
- Analysing gross margins can help determine profitability.

3. Budget variance Analysis:

- evaluation of the difference between budgeted and actual financial performance.
- Finding variations and analysing the reasons behind them (such as overspends or revenue shortages).
- Techniques for resolving differences in the budget and enhancing financial performance.

Forecasting and prediction:

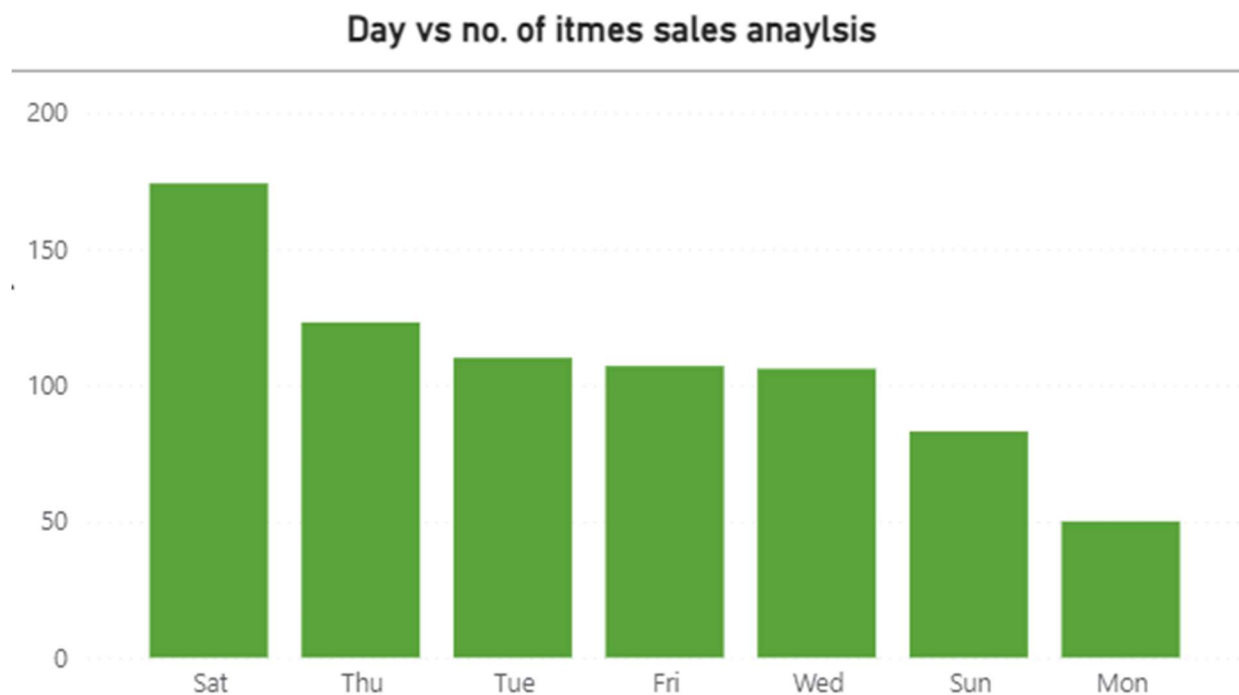
The process of forecasting is using past data to anticipate future trends. We can spot trends and seasonality in the shop's revenue by doing a time series analysis on the daily earnings. We can predict future sales by utilizing sophisticated forecasting models like exponential smoothing and ARIMA. Planning inventories, allocating resources, and developing a general corporate strategy all benefit greatly from this knowledge.

3. Results and Findings (Graphs and other Pictorial Representation)

Sales analysis:

- Calculating of the overall sales on a daily, weekly, and monthly basis to identify recurring patterns and developing trends in the sales information.
- Analysing how different payment methods (Cash, Points, BTC, Online) are distributed among customers to learn more about their favoured means of payment.
- A breakdown of the products in each category, showing which ones are selling better and which worse.

Day wise analysis:



1.3) This is the product sale broken down by day.

Fluctuation of sales on daily basis:

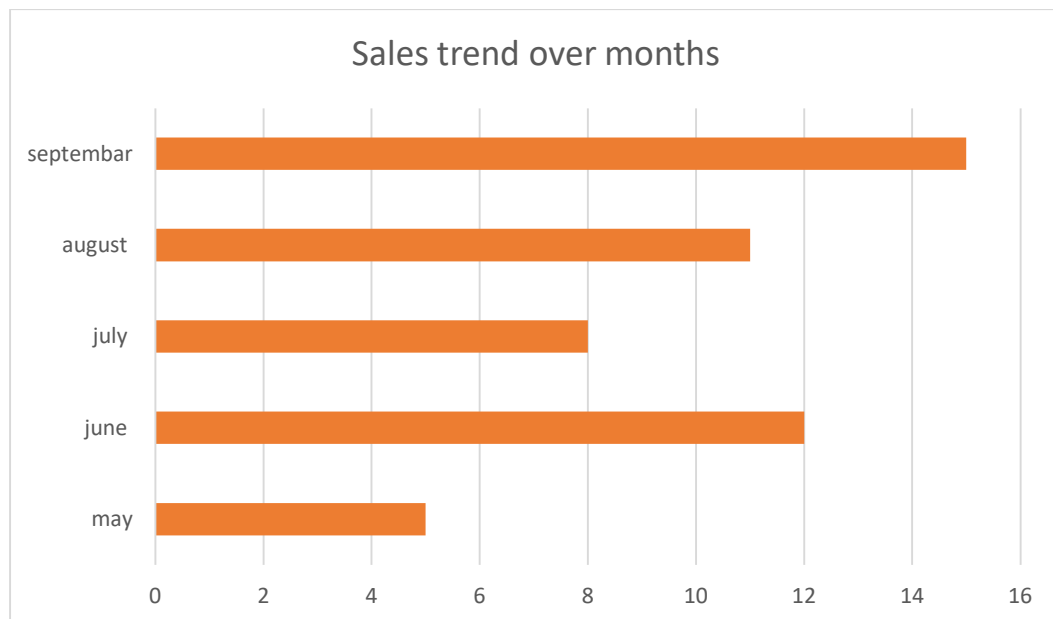
The data shown reveals the dynamic nature of daily sales figures for the various product categories, exhibiting significant swings across the studied period. This fluctuation implies a mix of busy and slower days at the store, a reflection of the various customer behaviours and possible trends. Understanding and identifying these variations provides insightful information that enables strategic planning to maximize operations and promotions on days when foot traffic is higher.

Week off days peeks:

Sales that are higher on some days indicate a correlation with weekends, such as Sunday and Holidays on festival, which point to positive effects at specific times. These peaks can be identified, and the store can use the information to better target its marketing and promotions on busy days. With this data, the store may capitalize on the weekend's increased customer engagement, perhaps increasing total sales results.

Sales trend over months:

Businesses in the health, skincare and agriculture production industry must comprehend the subtleties of monthly sales trends. This analysis provides insight into the dynamic nature of consumer behaviour by illuminating the trends and oscillations that influence the state of sales.



1.4) Sales trends by month for several categories

Seasonal Sales Peaks:

June and September show noticeably greater sales than other months, indicating that there are seasonal peaks in consumer demand for skincare and health goods. These peaks are probably caused by factors like rising temperatures and an increase in outdoor activities.

Consistent Performance:

July and August also show good sales figures, suggesting that consumers' interest in skincare, and health goods is steady throughout the summer.

Poor Sales Month:

May is notable for having relatively lower sales, which could point to a decline in consumer spending or market activity at this time.

Prospective Trends:

The sales trends that have been identified point to possible areas for strategic planning. For example, marketing campaigns and product promotions could be timed to coincide with seasonal demand peaks to optimize sales income.

Factors influencing Monthly sales:

Examining the differences in monthly sales performance reveals a wide range of elements that influence the trends that are seen. These elements, which fall into two categories: internal

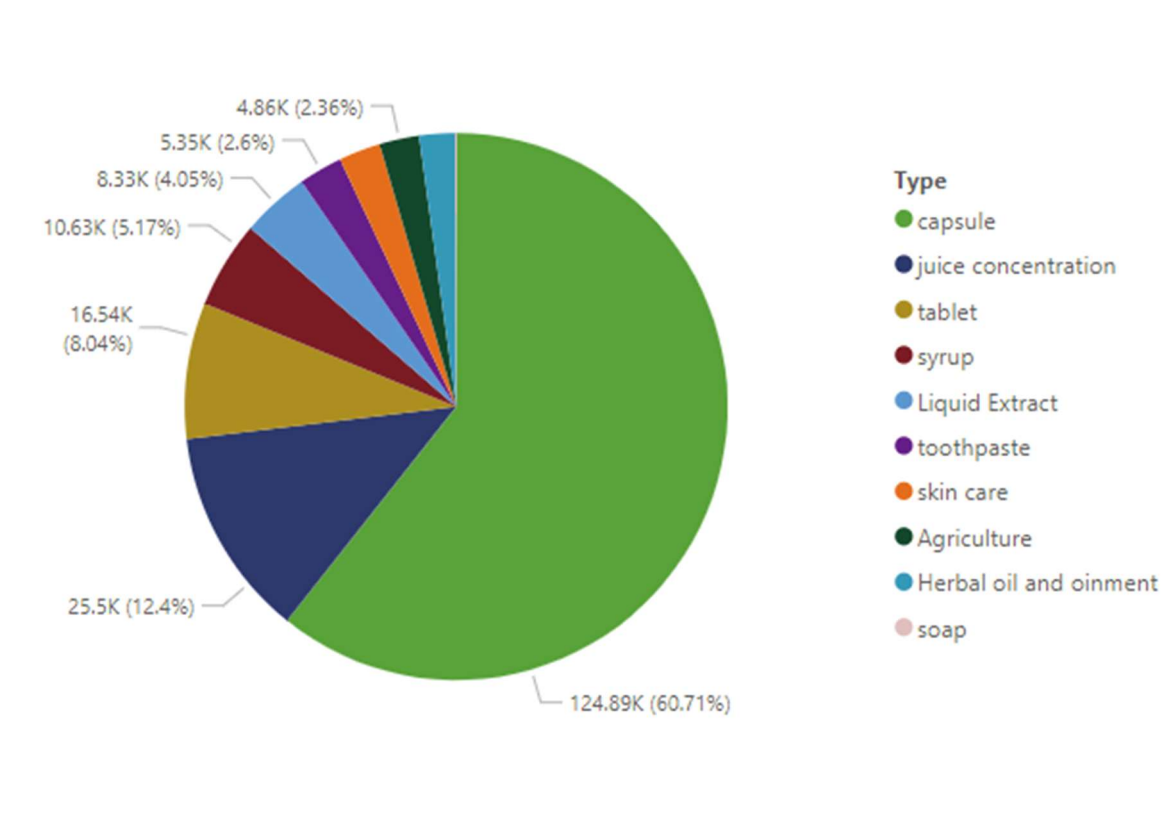
dynamics and external influences, all have a big impact on how your different categories products sell.

External factors:

- Seasonal Shifts:
As consumers' needs for sun protection, skincare protection, and general well-being grow, seasonal shifts—especially in the warmer months of May and June—often correspond with a rise in their interest in health and skincare products. Additionally, sales of agricultural items increase during the rainy season relative to other product sales.
- Festivities & Unique Occasions:
Key occasions and holidays, such summer break, back-to-school, and year-end celebrations, can affect consumer purchasing patterns and cause variations in monthly sales volumes.
- Promotional Events:
Seasonal sales, product discounts, or one-time offers are examples of timely promotional events that can increase customer demand and cause sales to rise during months.

Internal factors:

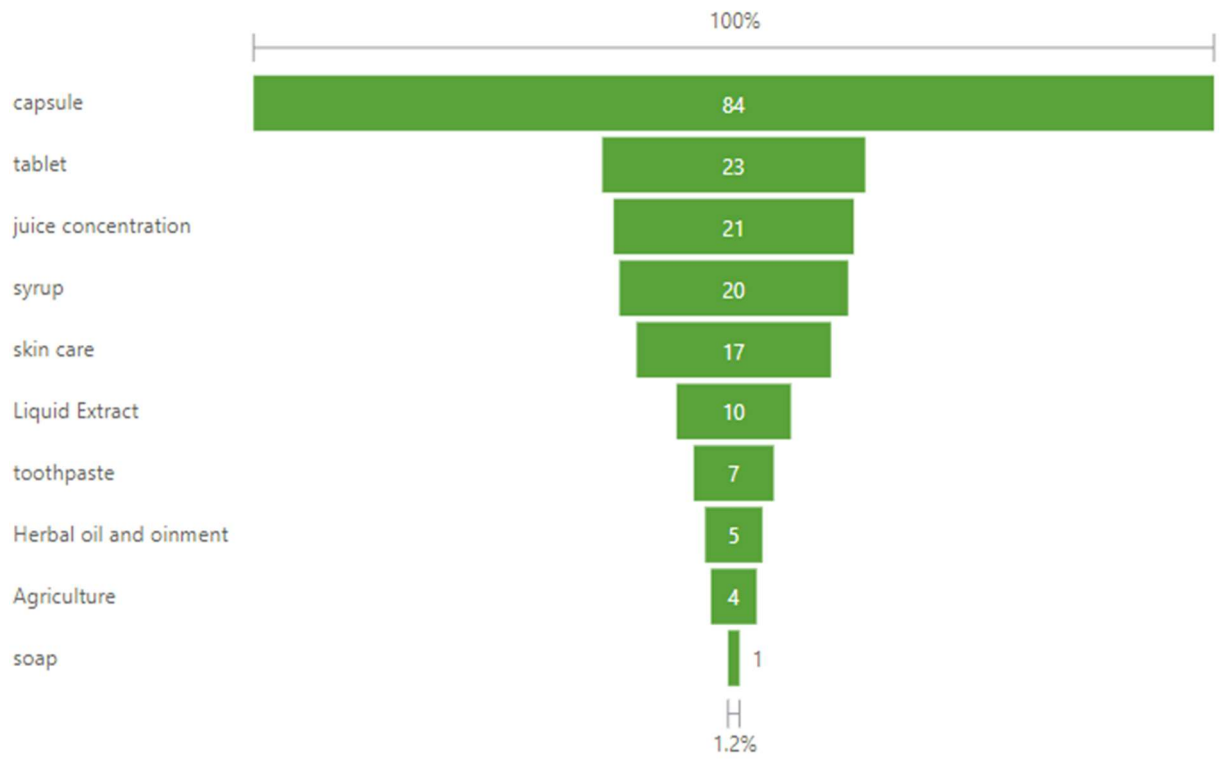
- Marketing Campaigns:
During specific times, well-run marketing campaigns—such as influencer partnerships, social media promotions, and digital advertising—can effectively increase brand awareness, encourage customer engagement, and increase sales volumes.
- Product Launches:
Consumer excitement about the introduction of new products or product line extensions can lead to incremental sales and monthly sales spikes.
- Price Modifications:
Value-added promotions, discounts, and bundles are examples of strategic pricing modifications that can encourage purchases and affect sales volumes in each month.
- Operational concerns:
Internal operational variables can affect product availability and distribution, which in turn affects monthly sales performance. These reasons include supply chain disruptions, inventory management difficulties, and logistical concerns.



1.5) Pie chart depicting contribution of SKUs

Revenue proportion:

We can infer from the preceding research that the medicine (capsule) category accounts for most of the revenue. This makes up 60.7% of all the categories. Juice concentration comes in second and generates excellent revenue as well. It is evident that the health categories—medication, pills, and concentrated juice—are highly profitable.



1.6) Funnel chart of sales in different categories

Expanding on the research that has been provided here, we can investigate the consequences of the revenue allocation across various categories:

- Profitability insights:**

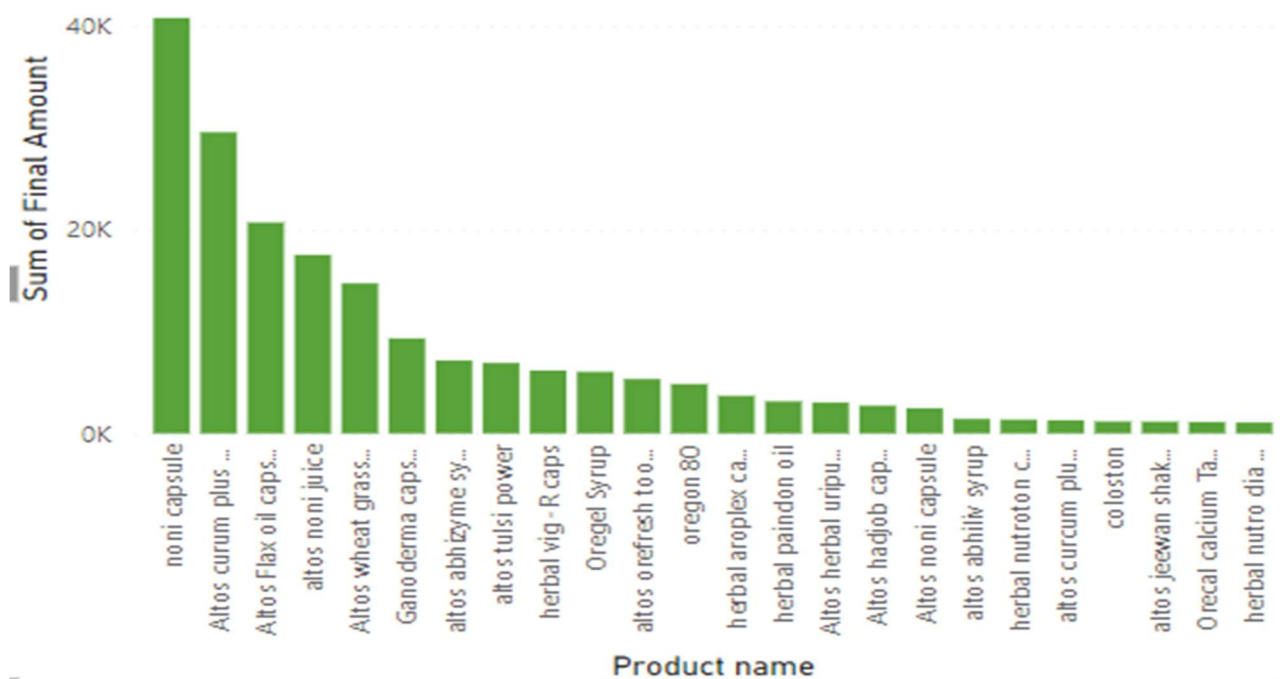
It's important to comprehend each category's profitability in addition to its revenue domination. Even if most of the revenue comes from the medical (capsule, table, syrup) category, it's important to evaluate profit margins and their contribution to total profitability. Gaining further insight into profitability can be achieved by examining variables including market demand, pricing strategies, and production costs.
- Consumer Preferences:**

Within the health and wellness industry, consumer preferences are revealed by the revenue distribution. The prevalence of medical products indicates a high need for important healthcare supplies, which may be fuelled by aging populations, rising health consciousness, and common health issues.
- Market Opportunities:**

Determining the most profitable categories offers chances for calculated expansion and capital expenditure. Capitalizing on current customer demand and generating further revenue growth can be achieved by diversifying product offerings or by innovating within high-revenue categories such as concentrated juice and medications.

- *Diversification Strategies:*
Diversification helps reduce the risks associated with an excessive reliance on a single product line, even if it is still important to concentrate on profitable areas. Investigating prospects in specialized markets or developing categories can increase the resilience of the company overall and diversify its sources of income.
- *Marketing and Promotion:* Targeted marketing and promotion campaigns can be designed to boost sales in high-revenue categories while fostering growth in others by utilizing insights from revenue distribution. Revenue generation throughout the product range can be optimized with the use of tactics like special offers, cross-selling programs, and customized marketing campaigns.
- *Competitive Positioning:* To establish benchmarks for assessing competitive positioning, consider comparing your revenue distribution to that of your competitors. To increase market share and competitive advantage, strategic decisions can be influenced by identifying areas of strength and chances for differentiation.

Analysis of products sales:



1.7) Sum of final amount vs product name

Upon examining the sales data of the products depicted in the bar graph, several significant findings surface that have significant impacts on business strategy:

Highest Revenue Product Identification:

The product in the product portfolio that generates the most revenue is the noni capsule (40k), which is indicated by the tallest bar in the graph. Strategies for optimizing income and utilizing the product's popularity to boost overall sales performance can be informed by an understanding of the elements that have contributed to its success.

Finding the Products with the Lowest Revenue:

On the other hand, goods with the lowest bar heights are those that bring in the least amount of money. Even while these goods might not have a big impact on overall income, their study can reveal areas for strategic changes or enhancement to boost sales performance or simplify product offers.

Implications for Strategy and Sales Performance:

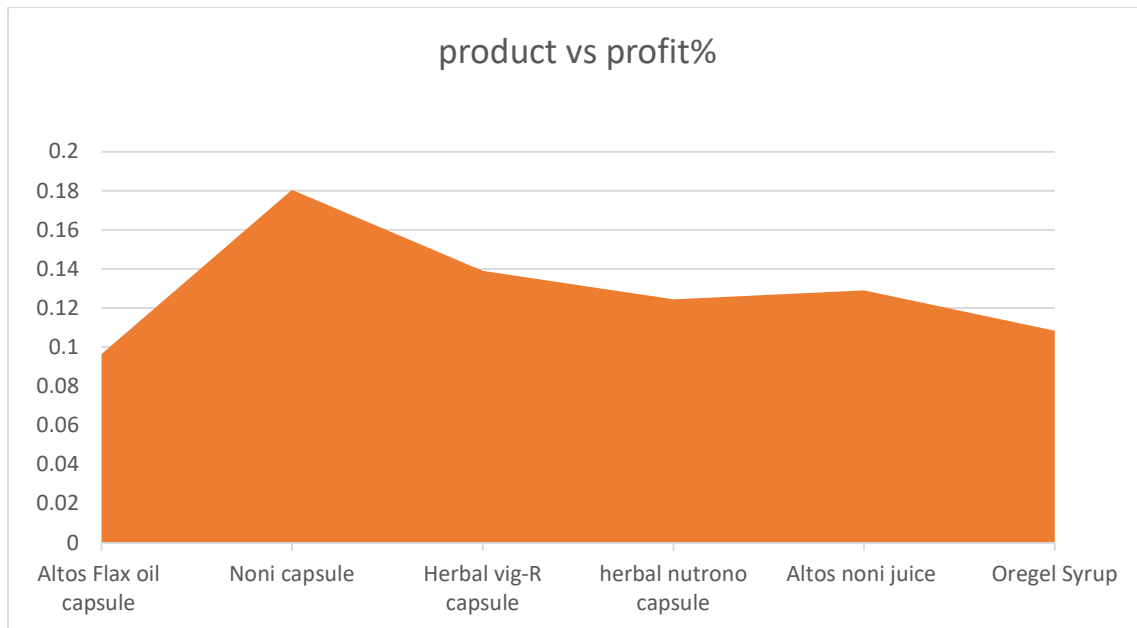
Optimizing Sales Performance and Making Strategic Decisions are affected in a number of ways by the analysis of product sales distribution. Inventory management strategies can be informed by it, including how high-revenue products are prioritized, how stock levels are adjusted for underperforming items, and how to spot chances for product innovation or diversification to reach undiscovered market groups.

Different products and profit:

Product name	Profit%
Altos Flax oil capsule	0.960508
Noni capsule	0.180592
Herbal Vig-R capsule	0.139068
Herbal Nutrono capsule	0.124505
Altos noni juice	0.129087
Oregel Syrup	0.108398

1.8) Table of product vs profit%.

These are the top 6 product names that have contributed the most to business profits; most of them are in the medical category, followed by juice concentrate and tablets. Seasonally, agricultural products are the source of earnings.



1.9) Area chart of product vs profit in decimal form

Observation:

It is evident that the product Noni pill has produced the highest profit which is 0.18 and its percentage is 18%. It is also evident that Herbal Vig-R capsules and Herbal Nutrono share some benefits and fall under the medical category. Regular syrup yields the least profit when it comes to concentrated juice.

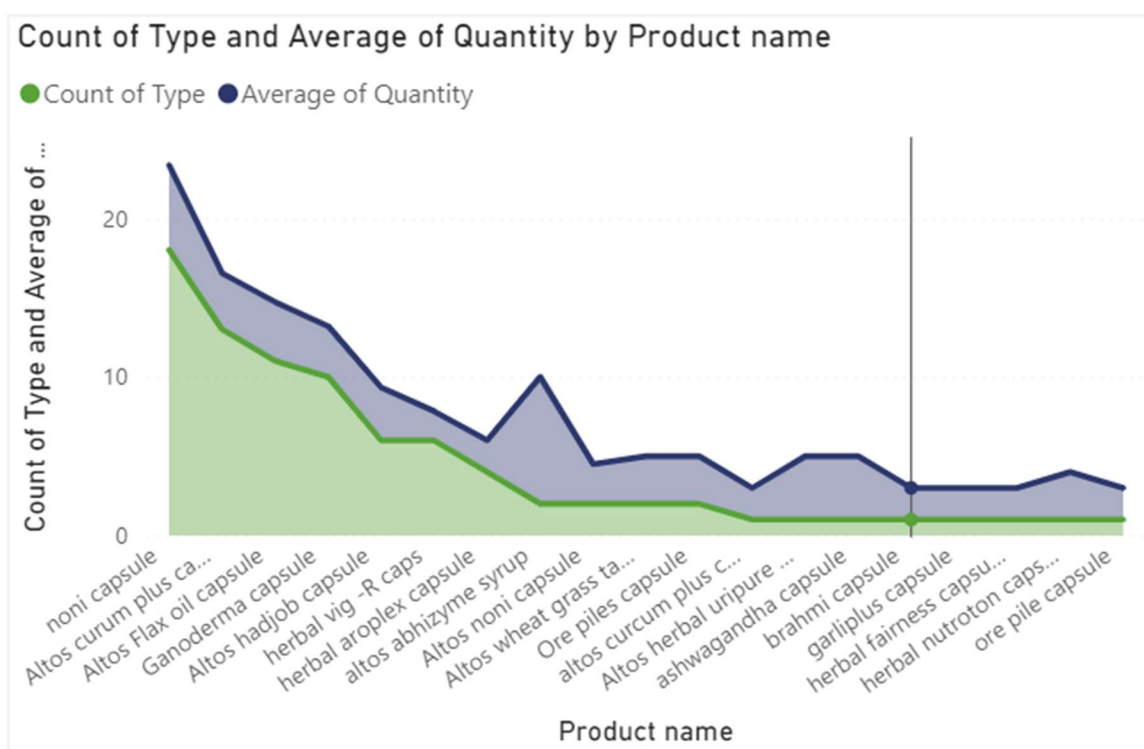
PL, gross profit and Insights:

A health and skincare company's profit and loss (P&L) statement gives a detailed picture of its financial performance over a given time frame.

Type	Sum of Price/Unit	Sum of Quantity	Sum of Final Amount
capsule	49450	308	1,24,891.84
syrup	2779	93	10,628.16
juice concentration	8098	72	25,504.64
toothpaste	565	72	5,348.88
tablet	6569	64	16,541.52
Herbal oil and oinment	491	44	4,436.24
Liquid Extract	2149	44	8,326.00
skin care	3162	42	5,106.80
Agriculture	1760	12	4,857.60
soap	38	2	69.92
Total	75061	753	2,05,711.60

1.10) Here is the total revenue generated from the different categories.

- The per unit cost analysis, total number of quantities, and total final product quantity are shown in the above table.
- The medical category generates a total revenue of Rs. 1,24,891.84, while all categories add up to a total of Rs. 2,05,711.60.
- The gross profit in this instance is Rs. 82,284.64. The method for calculating gross profit is as follows: {gross profit = total revenue - cost of goods sold (COGS)}.
- This quarter's gross profit grew as compared to the prior one. Furthermore, it performs at a medical product level profitability, as we can clearly observe.



1.11) Count of date, average quantity vs product sales.

The graph offers insights into various product categories by utilizing two primary metrics: the average quantity sold and the count of each category. Here, it is evident that noni capsule has a higher date count (18) and an average quantity sold of (5.33). The values differ throughout various product names. Over fifty goods are available in various categories.

Financial evaluation:

A key tool for evaluating Altos Mangalam Enterprises' performance, sustainability, and general financial health is the financial evaluation. Analysing important financial data is essential for a developing company that specializes in skincare, cosmetics, and medical supplies to make strategic decisions and guarantee long-term success.

Metrics for Financial Performance:

Total Sales:

Altos Mangalam Enterprises brought in a total of Rs. 2,05,711.60 in sales revenue over the reporting period. This measure is a crucial sign of market demand and corporate expansion since it shows how well the company can make money from its goods and services.

Total Profit:

For the reporting period, Altos Mangalam Enterprises made a profit of Rs. 1,15,105. The residual income that is left over after all costs, such as labour, operational expenses, and other charges, are subtracted from the total sales revenue is known as the total profit. It shows how profitable the business is overall and how well it manages its resources.

Total Expenses:

Altos Mangalam Enterprises incurred Rs. 90,606.60 in total expenses. These expenditures cover a range of operating charges, including rent, utilities, marketing, raw materials, and administrative fees. To increase overall profitability, areas for cost optimization and efficiency improvement can be found by doing a complete expense analysis.

Labour Costs:

The total labour costs incurred by Altos Mangalam Enterprises came to Rs. 82,000. The price of using labour resources for the production, delivery, or sale of goods and services is reflected in labour charges. Effective labour cost management is crucial for cost reduction and profit maximization.

The financial assessment of Altos Mangalam Enterprises sheds light on the business's overall viability and health. Through the examination of crucial financial indicators, including labour costs, expenses, profit, and sales, stakeholders may evaluate the capacity of the organization to produce income, control expenditures, and sustain profitability in the long run.

4. Interpretation of Results and Recommendation:

Interpretation of results:

Analysis of Sales Composition:

The sales composition shows that skin care and health care products make up a significant portion of the overall revenue generated by sales. Agriculture products come in second with a substantial sales share, followed by cosmetics. This distribution, which reflects customer trends and preferences, highlights the high market demand for the health, skin care, and beauty products that Altos Mangalam Enterprises offers.

Financial Performance Metrics:

The company's ability to create income throughout its product categories is demonstrated by the total sales revenue of Rs. 2,05,711.60.

Despite strong sales, a total of Rs. 90,606.60 in expenses were incurred, including Rs. 82,000 in labour costs. This emphasizes how crucial cost control and efficiency optimization programs becomes.

Analysis of Profitability:

Altos Mangalam Enterprises' respectable overall profit of Rs. 1,15,105 highlights the business's financial stability and profitability.

The profitability margin, which shows strong financial performance, illustrates the harmony between efforts to generate income and control costs.

Recommendation:

Optimization of Pricing:

- Discount: Offer specific promotions or discounts for low-revenue products. This may draw clients who are budget conscious.
- Bundling: Combine low-revenue goods (like perfume, soups, oils) with high-margin or well-liked merchandise. Consumers might be more likely to buy the package.
- Dynamic Pricing: Modify pricing in response to changes in inventory levels, demand, or seasonality.

Promotion and Exposure:

- Featured Placement: Use hoardings, social media pages of Altos Mangalam enterprises, and your website to draw attention to low-profit items.
- Content marketing: Produce interesting content (blogs on website) that highlights these goods.
- Cross-selling: Suggest low-profit products to clients who buy complementary goods.

Inventory Control:

- Stock Levels: Make sure you have enough low-profit products on hand without going overboard.
- Seasonal Adjustments: Make sure that stock levels correspond with the cycles of demand mostly in agriculture products.

Client Perspectives:

- Analysis of Customer Feedback: Consult with clients who have bought low-profit items. Recognize your pain points and act.
- Segmentation: Determine which consumer groups (such as cost-conscious buyers) could be interested in these products.

Training for Sales Teams:

- Product Knowledge: Provide sales representatives with thorough details regarding low-profit products.
- Sales representatives should be trained in effective upselling and cross-selling techniques.

Partnerships & Cooperations:

- Affiliate marketing: To promote low-revenue products, collaborate with affiliates or influencers.
- Retail Partnerships: Look at working together with different platforms or retailers.

Important links:

Spreadsheet :

https://docs.google.com/spreadsheets/d/1_5u2URo1d1NWlZGv1qPsIEk_u-D6q8yImT5MFIVY-3A/edit?usp=sharing

Meeting with owner: [https://drive.google.com/file/d/1GUaBMefsFiWww5VM8-5_vMHLvazoXUri/view?usp=drive link](https://drive.google.com/file/d/1GUaBMefsFiWww5VM8-5_vMHLvazoXUri/view?usp=drive_link)