

BDM CAPSTONE PROJECT FINAL SUBMISSION



Market Basket analysis and inventory optimization through data mining
for a low-growth organic food store

By:-

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Executive Summary:

This report deals with detailed data analysis of the low growth and low sales of organic window, an organic food outlet. It initially started with the mission of selling organic food products but later got into the problem of over-diversification of products from just organic products, to counter low sales. This eventually resulted in higher costings, over stockings and higher losses for the store.

The analysis reveals that Organic Window has struggled to reach break-even and experiences irregular growth, with significant drop-offs in certain months. The report addresses the first objective of overcoming Organic Window's identity crisis and establishing a stronger brand image. Through the use of Pareto charts, histograms, and scatter plots, it is discovered that many SKUs are not performing well, indicating a poor assessment of demand and mismanagement. The top-performing SKUs are identified, and it is noted that they include non-organic products, deviating from the store's initial mission.

The report further explores cluster analysis to identify priority groups of products based on sales and revenue patterns. Market basket analysis is employed to uncover associations between frequently purchased products, providing valuable insights for targeted marketing strategies. Repeat customer analysis reveals a decent percentage of repeat customers, and pricing analysis examines the impact of pricing on sales.

Finally, the report addresses objectives related to weather patterns' impact on sales and determining priority channels for resource allocation. Trends in monthly sales are analyzed, and the decline in sales during the monsoon season is attributed as a potential factor.

The findings and recommendations provided in this report aim to assist Organic Window in improving its brand image, optimizing its product lineup, implementing targeted marketing strategies, and making informed decisions for maximizing profitability and customer satisfaction.

Detailed Explanation of Analysis Process/Method

Following the initial insightful discussions with the business owner and conducting some preliminary analysis of the Organic Window store's data, I have identified business challenges and formalized them into four distinct problem statements. In this section, I will expand on these problem statements and outline a clear and thorough process for addressing each of them.

The aim is to provide a comprehensive analysis of the issues at hand and either find the root of the problems or develop actionable solutions that align with the business objectives.

Let us now delve into each problem statement and outline the proposed process for addressing them.

Objective 1: Overcoming Organic Window's identity crisis and establishing a stronger brand image.

During the discussions with the owners, it was revealed that the store has introduced new business units and stock-keeping units over time to counter lower sales. This resulted in a mix of pahadi products, natural products, organic and non-organic products, which have not provided the expected results in terms of getting new customers but has increased overall costs.

To achieve this objective, I will optimize the store's inventory lineup through a comprehensive data-driven analysis. This analysis will consider factors such as past sales trends, demand patterns, profit margins, product availability, and growth prospects.

I will begin by performing pareto analysis to understand the performance of SKUs. Data visualization techniques like bar charts and scatter plots will be used to assess the performance of different SKUs and business units.

Additionally, I will also conduct a Cluster Analysis to group SKUs based on their sales patterns and customer preferences. By utilizing the "Item-wise sales and revenue all history" dataset, I can gain insights into the popularity and profitability of each SKU, helping identify high and low-demand products. These analyses will inform decision-making and strategy development.

Objective 2: Identifying opportunities for increasing sales and profit at Organic Window.

To achieve this objective, I will analyze data on customer preferences, product offerings, and associations. Firstly, I will conduct a repeat customer analysis to determine the percentage of repeat customers and understand the quality of products among this specific demographic. This analysis will be performed using cleaned and transformed item-wise sales and sale return data.

Next, I will employ Market Basket Analysis (MBA) to uncover customer purchasing patterns and identify items frequently bought together. By analyzing bill-wise item-wise sales data, I will create a matrix that represents customer transactions and item associations. Using the Apriori

algorithm, I can discover frequent itemsets and generate association rules, which will aid in product recommendations, store layout optimization, and targeted marketing campaigns.

Furthermore, I will analyze the pricing strategy of Organic Window by calculating average sales and revenue for each item and examining the relationship between price and demand. This analysis will provide insights into customers' purchasing behavior and inform pricing decisions.

Objective 3: Trend Analysis, analyzing impact of weather patterns on sales

After talking with the business owners, I learned that Dehradun, being a valley city, is subject to heavy rainfall, leading me to hypothesize that rainfall may be negatively affecting the sales via reducing the walk-in. I believe this could be the reason for the drop in revenue during July and August.

By exploring this hypothesis and identifying the potential impact of weather patterns on sales, I can develop effective strategies to maximize sales during periods of low footfall, ensuring that the business remains profitable throughout the year.

To do this, first I will be collecting weather data for Dehradun. Precisely, I will be looking for rainfall data i.e how much it rained each month, and date-wise rainfall for each month.

I intend to perform some data visualization for some greater insights.

I will then do some trend analysis using month-wise sales data and collected rainfall data to see whether there are any indications of the effects of changes in weather seasons.

I then aim to perform a correlation analysis to check whether sales and rainfall are negatively correlated.

Objective 4: Analyzing different sales channels and prioritizing resource allocation.

Conducting an in-depth analysis of various sales channels to determine their relative priority and identify those with the highest return on investment for optimal resource allocation.

At present, Organic Window utilizes two sales channels: walk-in, where customers purchase products directly from the shop in Dehradun, and delivery, where a designated delivery personnel delivers products directly to customers in the same location. To accomplish this objective, I will need to gather additional data that was not previously available in the point-of-sale system.

Results and Findings (Graphs and other Pictorial Representation Preferred and with words)

Before diving into the findings from the analysis mentioned in previous section , I would like to lay out some important data and descriptive statisitcs regarding organic window's sales and revenue.

Total SKUs offered by organic window: **180**

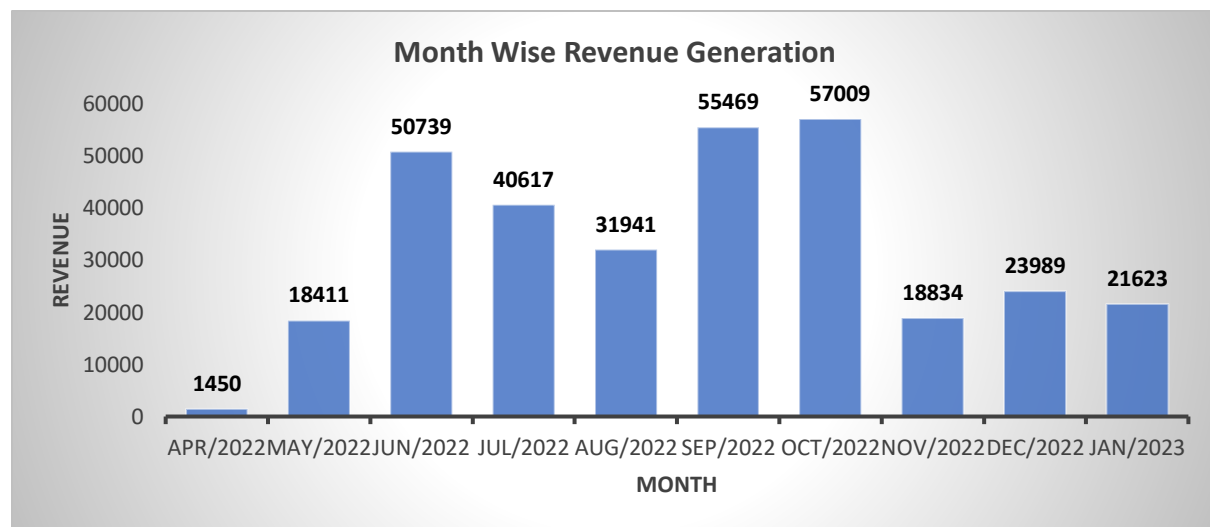
Total sales done by the organic window in its lifetime: **3034**

Total revenue generated by the organic window in its lifetime: **2,98,459 Rs**

Total days of sales: **227**

The revenue required each month to break even: **70,000 Rs.**

Below given graph shows the month-on-month revenue genreation of organic window.



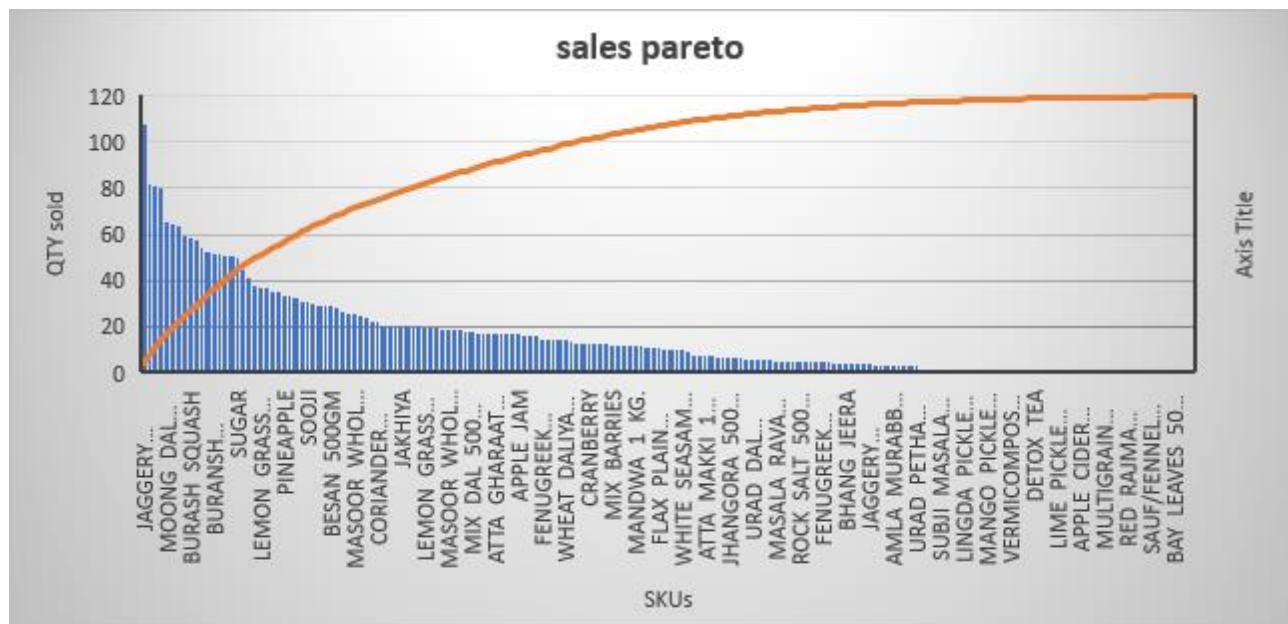
It is interesting to note that organic window has struggled to reach break even and the growth is highly irregular. There are majors drop offs in july-august and after oct months, which I will be exploring in this section as well.

Adhering to the previous section I have presented my findings objective wise.

OBJECTIVE 1:

Overcoming Organic Window's identity crisis and establishing a stronger brand image.

I began my analysis by utilizing Excel to plot a Pareto chart. My objective was to uncover the top-priority products and determine the relative importance of different SKUs



However, upon completing the sales Pareto, I discovered that the results were not as insightful as I had hoped. While the chart did highlight a few high-performing products on the left, there was a gradual decline in the total quantity sold for SKUs.

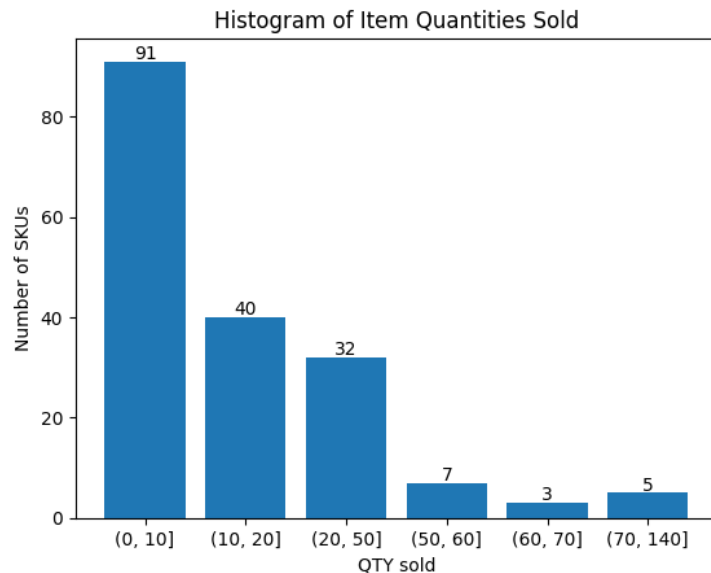
Further analysis of the data showed that the organic window had an unnecessarily large lineup of products, many of which were not performing at all. To gain a more comprehensive understanding, I dug deeper into the data and found multiple SKUs that had not sold more than five units.

In order to gain a clearer picture of how these products were performing sales-wise, I decided to create a histogram using Python code. This involved using the item-wise-sales-all-history data and creating number of sales as bins. By doing so, I was able to gather valuable insights and understand the distribution of sales across different SKUs.

Link to the colab notebook:

<https://colab.research.google.com/drive/1nsvGThd2x3zhSeloe3ZztGubD8mWxvm7?usp=sharing>

I created six such bins to see how products would distribute themselves into these bins and essentially creating sales performance categories:



The graph basically depicts that in total of 227 days of sales, there were 91 such SKUs that each have sales either less than or equal to 10.

This suggests that there was poor assessment of demand for many of these products within the demographics of Organic Window's customer base. This may also explain the owner's previous approach of introducing new products to counter low sales and stimulate growth, which clearly did not work.

When I discussed this issue with the owners, they acknowledged that there had been poor communication and mismanagement between the shopkeeper and the owner. Even if a customer asked for a product that was not in the line-up, the owner would often add it to the inventory in large quantities without researching the demand beforehand. This approach likely resulted in Organic Window incurring significant losses due to the procurement of low-performing SKUs that did not generate any revenue.

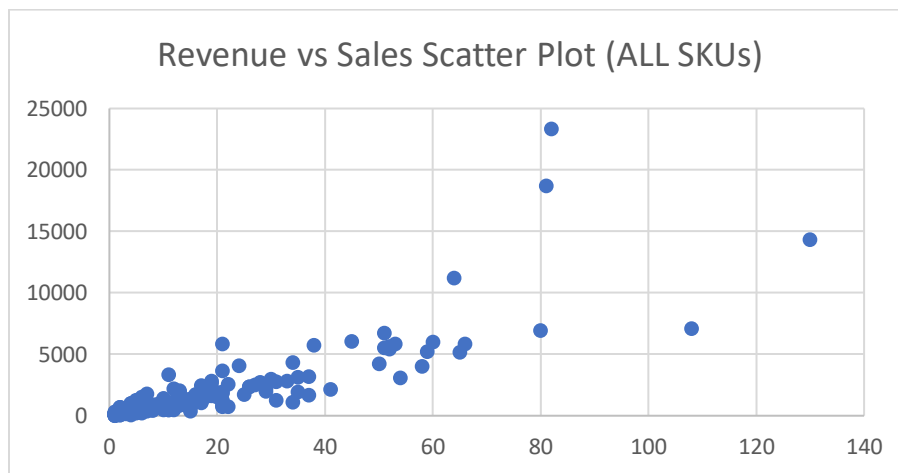
The histogram also shows that there are only five SKUs that had sales greater than 70, indicating a concentration of sales among a few key products. Based on this analysis, the top-performing SKUs in terms of sales are likely those five products.

The top-performing SKUs in terms of sales are:

BURASH	130
JAGGERY POWDER	108
MUSTARD OIL	82
ATTA GHARAAT	81
MALTA SQUASH	80

It is also interesting to note that the top 5 performing SKUs are not even organic products, which goes against the store's initial mission of promoting organic products, as implied by its name. Instead, the top products are a mix of non-organic grocery items and pahadi products, such as Malta Squash and Burash.

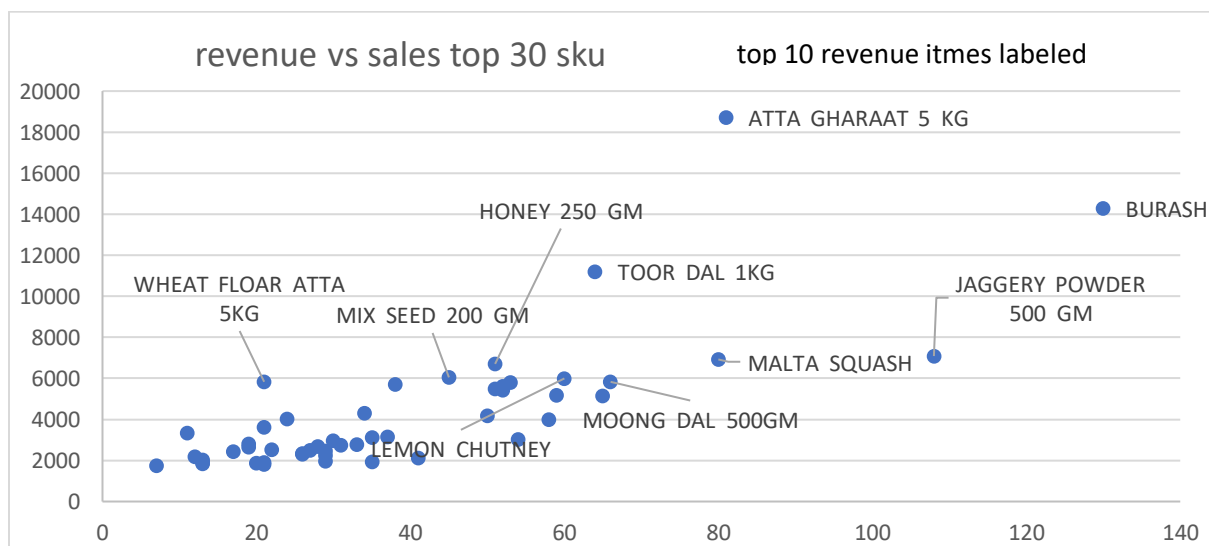
To get a further understanding of SKU performances I plotted some scatter plots using excel and the sales, and revenue data of each SKU.



It is interesting to note how majority of the products are scattered around origin , signifying the poor performances of the majority of the products of organic window.

The majority of the products have very low sales as well as revenue, so they are not helping in the revenue generation nor are they being helpful in driving customer traffic to organic window.

It can clearly be seen how these products are bringing down the overall profitability and have to be phased out or re-evaluated.



To better understand the performance of the SKUs, I plotted a chart considering only the top 30 performing products. Additionally, I labeled the top 10 revenue-based performers to get a better understanding of how product lineups change when we look at revenue rather than just sales.

It was fascinating to observe that some lower sales products like ATTA GHARAAT generate more revenue compared to the high sales products like BURASH. **These products can indicate profitability and Organic Window can capitalize on them by promoting them more.**

CLUSTER ANALYSIS:

In addition to the previous analyses, I have also conducted a Cluster Analysis to identify priority groups of products based on their demand.

I have used colab notebook to write a python code that basically groups these products into clusters using sales and revenue data.

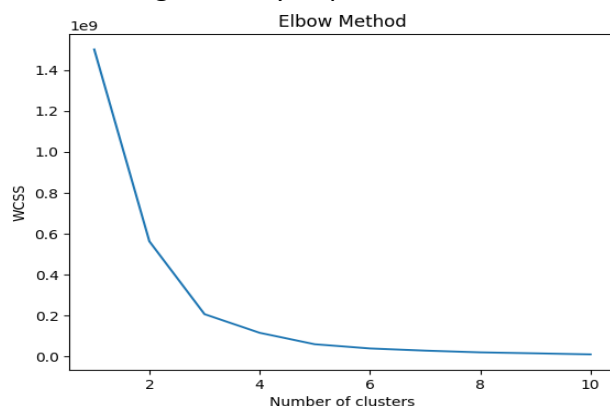
Link to colab notebook:

<https://colab.research.google.com/drive/1bwRZHhm1q-nLsDHT-s7TrSmTb2Z2UOi-?usp=sharing>

Cluster analysis is a statistical technique used to identify groups or clusters of similar objects in a dataset.

The aim of conducting Cluster Analysis was to identify priority groups of SKUs based on their sales and revenue patterns, which I consider as performance indicators. By identifying these priority groups, we can make informed business decisions. It will help in identifying which products to focus on in terms of inventory management and marketing strategies. Ultimately, the goal is to maximize profitability and drive customer traffic, and the insights from this analysis can help achieve these objectives.

To conduct the cluster analysis, I utilized the K-means algorithm from the sklearn library. Prior to applying the algorithm, I determined the optimal number of clusters for my dataset using the elbow method. This technique involves plotting the within-cluster sum of squares (WCS) against the number of clusters used in the analysis. The optimal number of clusters is identified as the "elbow" of the plot, which represents the point of maximum curvature on the graph. This approach allowed me to select the number of clusters where the addition of one more cluster would not significantly improve the WCS, and thus, the clustering outcome.



Based on the elbow method results and the above mentioned scores, it is clear that the optimal number of clusters is either 3 or 4. However, considering the business problem at hand, I have decided to choose 4 clusters for analysis, which will be explained in detail in the interpretation and recommendation section.

Cluster analysis with 4 cluster:



Based on the cluster analysis using k-means algorithm with 4 clusters, the number of SKUs in each cluster is as follows:

Cluster 1	106
Cluster 2	53
Cluster 3	19
Cluster 4	3

Here clusters can represent different priority groups of SKUs based on their sales and revenue patterns. Example: worst performing cluster (cluster 1) has the most SKUs as

OBJECTIVE 2:

Identifying opportunities for increasing sales and profit at Organic Window.

Market basket analysis (MBA):

Market basket analysis (MBA) is a data mining technique that examines customer purchasing patterns to identify associations and relationships between products frequently purchased together. It helps businesses understand customer behavior, optimize product placement, and create targeted marketing strategies.

I have used apriori algorithm to find associations. It works by generating a set of candidate itemsets based on support thresholds and then pruning those that do not meet the minimum support threshold. This process is repeated until no more frequent itemsets can be found.

Link to colab notebook containing code for implementing MBA using python:
<https://colab.research.google.com/drive/1iVkuZv5HXWzuP-EOfYOa3lflkjHOTwxY?usp=sharing>

Snippet of the bills data matrix (each row is a bill):

	Bill_no	MIX FRUIT	CHANA WHOLE 1KG	MASOOR WHOLE 1Kg	MASOOR WHOLE 500GM	FLAX ROASTED 200 GM	MIX SEED 200 GM	MIX BARRIES	APPLE JAM	BHANG DANA	...	APPLE CIDER VINEGAR 200 M130	MULTIGRAIN NAMKEEN	PACHAK HING GOLI
0	OR-00001	1	1	1	1	0	0	0	0	0	...	0	0	0
1	OR-00002	0	1	0	0	0	0	0	0	0	...	0	0	0
2	OR-00006	0	0	0	0	1	0	0	0	0	...	0	0	0
3	OR-00008	0	0	0	0	1	1	1	0	0	...	0	0	0
4	OR-00009	1	0	0	0	0	0	0	1	1	...	0	0	0

5 rows × 339 columns

The total number of bills(data points) for conducting MBA were 1415

So the basket matrix becomes 1415 x 339

Where 339 columns signify 339 sku considering 5kg item and 10 kg item of the same product is counted as different SKUs

I have kept min_support = 0.012

where min_support threshold is a user-defined parameter that determines the minimum frequency required for an itemset to be considered "frequent".

Market basket analysis resulting association table:

	antecedents	consequents	antecedent support	consequent support	support	confidence	lift	leverage	conviction
0	(TOOR DAL 1KG)	(MASOOR WHOLE SKINLESS 1kg230)	0.036749	0.025442	0.015548	0.423077	16.629274	0.014613	1.689234
1	(MASOOR WHOLE SKINLESS 1kg230)	(TOOR DAL 1KG)	0.025442	0.036749	0.015548	0.611111	16.629274	0.014613	2.476931
2	(MOONG DAL 500GM)	(CHANA DAL 500GM)	0.028269	0.022615	0.015548	0.550000	24.320313	0.014908	2.171967
3	(CHANA DAL 500GM)	(MOONG DAL 500GM)	0.022615	0.028269	0.015548	0.687500	24.320313	0.014908	3.109541
4	(MALTA SQUASH)	(BURASH SQUASH)	0.053710	0.029682	0.012721	0.236842	7.979323	0.011127	1.271451
5	(BURASH SQUASH)	(MALTA SQUASH)	0.029682	0.053710	0.012721	0.428571	7.979323	0.011127	1.656007
6	(MALTA SQUASH)	(LEMON GRASS TEA 50 GM)	0.053710	0.026148	0.012721	0.236842	9.057610	0.011316	1.276081
7	(LEMON GRASS TEA 50 GM)	(MALTA SQUASH)	0.026148	0.053710	0.012721	0.486486	9.057610	0.011316	1.842775

From the above given table we can conclude the following useful associations:

1. (MASOOR WHOLE SKINLESS 1kg230) & (TOOR DAL 1KG)
 - a. Support : 0.0166
 - b. lift: 16.63
 - c. Conviction: 2.477
 - d. Confidence: 0.611111
2. (CHANA DAL 500GM) & (MOONG DAL 500GM)
 - a. Support: 0.016
 - b. Lift: 24.32
 - c. Conviction: 3.11
 - d. Confidence: 0.687500
3. (LEMON GRASS TEA 50 GM) & (MALTA SQUASH)
 - a. Support: 0.012721
 - b. Lift: 9.057
 - c. Conviction: 1.842
 - d. Confidence: 0.486
4. (BURASH SQUASH) & (MALTA SQUASH)
 - a. Support: 0.012721
 - b. Lift: 7.98
 - c. Conviction: 1.656007
 - d. Confidence: 0.428571

Below I have described the significance of these metrics:

Lift: a measure of how much more likely it is that two items will be purchased together compared to if they were purchased independently. A lift value greater than 1 indicates that the items are more likely to be purchased together than expected.

Leverage: Leverage is a measure of the difference between the observed frequency of two items occurring together and the expected frequency of those items occurring together by chance. A positive leverage value indicates that the items occur together more often than expected, while a negative value indicates that they occur together less often than expected.

Conviction: Conviction is a measure of how much the presence of one item implies the presence of another item. A conviction value greater than 1 indicates that the presence of one item makes it more likely that the other item is present, while a value less than 1 indicates that the presence of one item makes it less likely that the other item is present.

I will elaborate more on these finding and how organic window can capitalize on them in interpretation and recommendation section.

Repeat customer analysis:

Repeat customer analysis is the process of examining customer behavior patterns to identify customers who have made multiple purchases or transactions with a business. It involves analyzing data such as the frequency and timing of purchases.

I Wrote a python script that uses customer list data(made out of the customer list-bill-wise-date-wise data) for this analysis.

Link to colab notebook:

<https://colab.research.google.com/drive/1EVa-WxLBS5msYfWqnrhTuYJ9BS08r3cg?usp=sharing>

The code cleans the data and calculates the number of repeat customers for organic window. Here are the findings:

Total unique customers: 383

Total repeat customers: 95

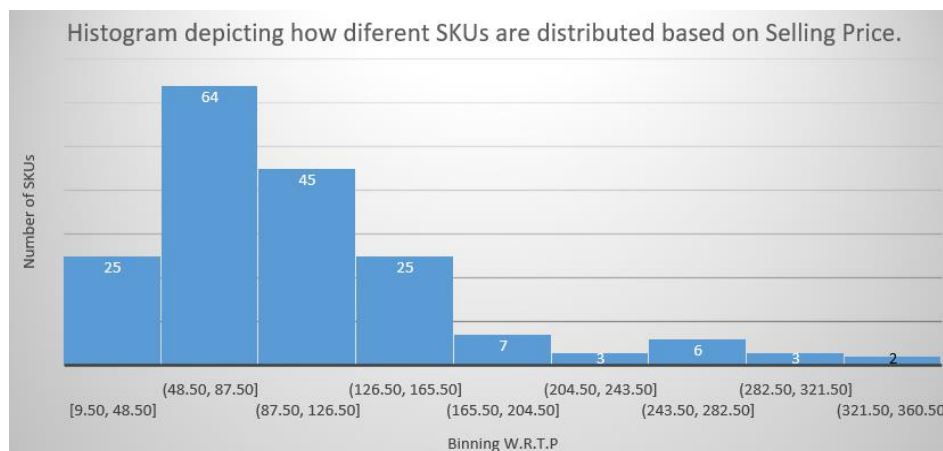
Repeat customers % : $(95/383) * 100 = 24.80$

24.8 is a decent repeat customer % for the industry standards which means organic window can have faith in its top-performing products going forward as people are liking them enough for a repeat buy.

Pricing analysis:

I found it important to analyse the pricing of organic window products since they have had low sales and are situated in a tier 2 city(dehradun), and it may prove to be helpful if I could help them get some insights into their product pricing

So I started by analysing how the pricing of organic window product is distributed:



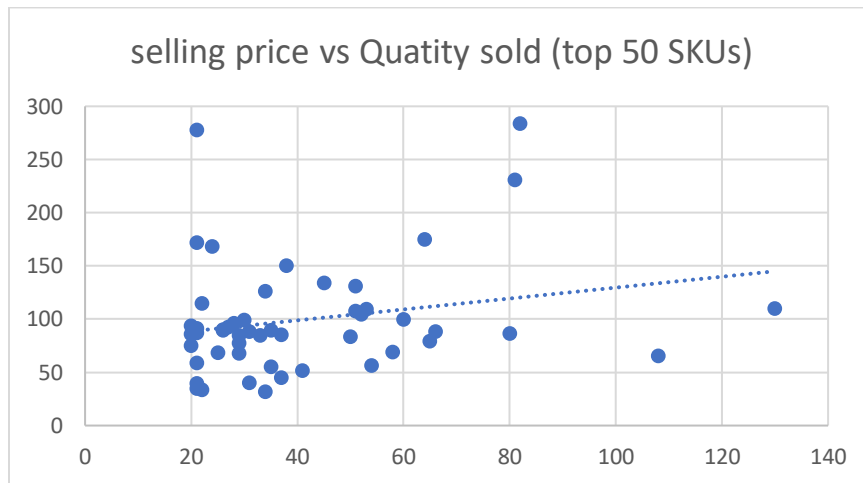
It is noteworthy that a significant number of the top products with repeat buys are priced at around Rs 120 or lower. This observation has several implications for Organic Window's business strategy. On the one hand, it suggests that the company's lower pricing strategy is effective in appealing to consumers in Tier 2 cities and may contribute to customer retention. On the other hand, the lower prices may lead to lower profit margins and reduce the overall

profitability of the business.

After consulting with the owner, I discovered that Organic Window's products have an average profit margin of only 20-24%

I will write more about how we can tackle these small margins in interpretation and recommendation section

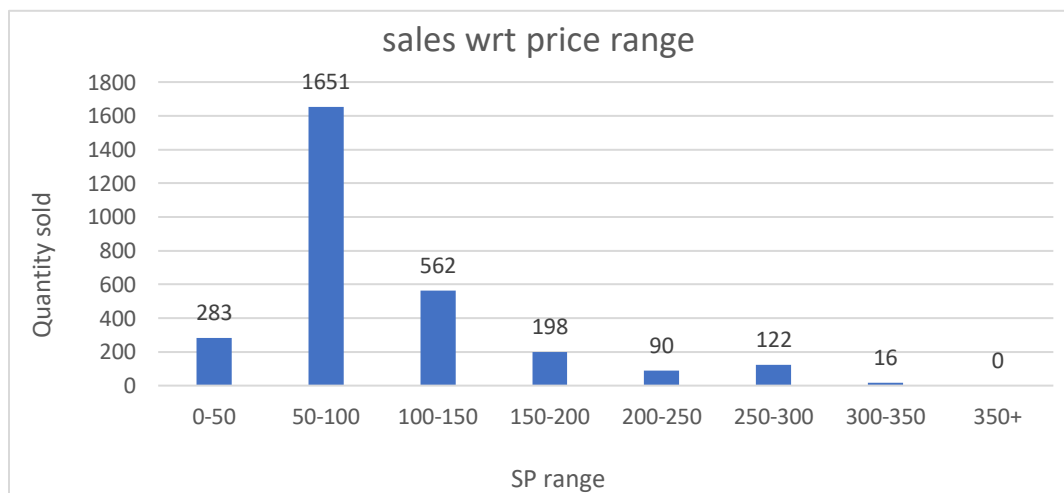
I also wanted to know if there was a correlation between the current pricing and sales, so I decided to start off by plotting some scatter plots.



Based on the analysis, it appears that higher selling prices may not have a negative impact on sales. In fact, there seems to be an upward trendline in the graph, indicating that customers may be willing to pay more for certain products.

To further investigate this relationship, I conducted a correlation analysis, which yielded a value of $R = 0.2247$. While this indicates a weak positive correlation between selling price and sales, it is important to note that correlation does not necessarily imply causation.

To gain a better understanding of the relationship between selling price and sales, I also plotted a bar chart of product sales with respect to selling price:



The graph shows how most of the sales are of product that cost within the range of 50-100 Rs to the customers, followed by 100-150 Rs range.

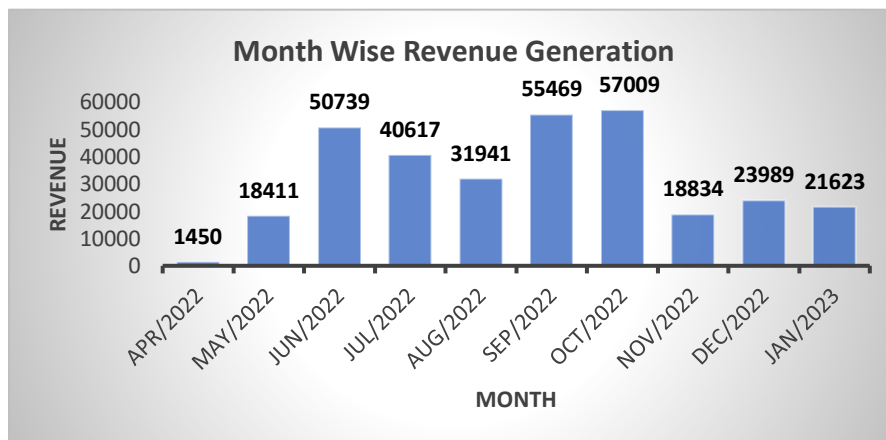
This data can be insightful in creating future pricing of organic window products. By aligning prices with the demand patterns observed, the company can ensure higher sales and profitability while maintaining customer satisfaction.

Objective 3 & 4:

Analyzing data on weather patterns to identify potential impacts on sales & determining the priority channels and identifying the channels with the highest ROI for appropriate resource Allocations

To start off my analysis for this section I performed some trend analysis for organic window in hopes of finding patterns and shifts in consumer behavior over time. This included sales or revenue per day, per week, and per month basis. The resolution where I found an interesting trend which could lead to productive insight, was at the monthly sales level

Graph for total revenue generated every month:



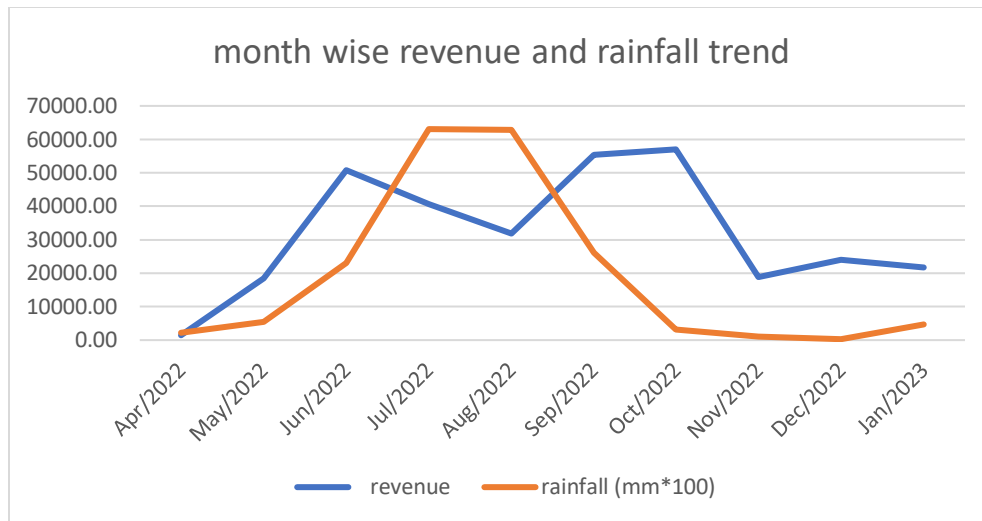
Although the store saw a promising growth trajectory in the first three months, it is essential to understand the underlying factors behind the sudden downturn. As mentioned earlier, the decline in sales could potentially be attributed to the monsoon season in Dehradun.

To conduct further analysis into this I scrapped month wise rainfall data of dehradun to find any negative trends.

source of monthly rainfall data:

<https://dehradun.nic.in/climate/>

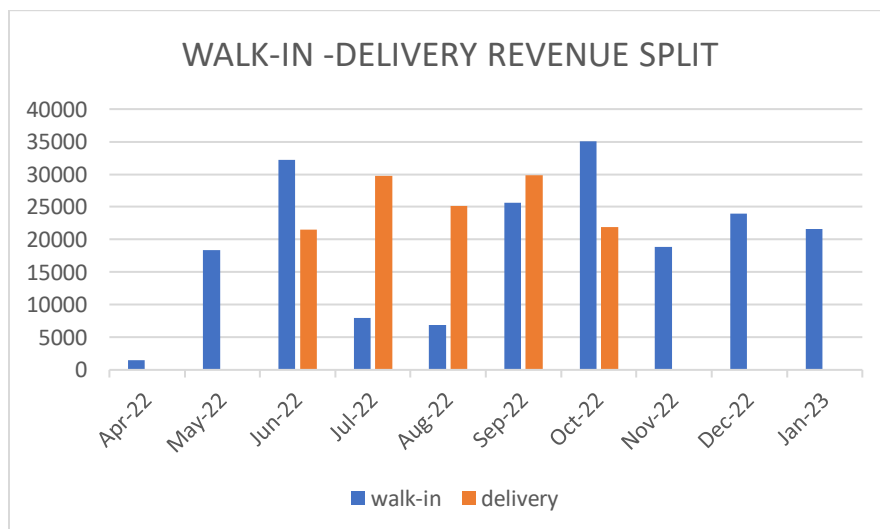
A line chart to depict amount of revenue and rainfall as trends over-time:

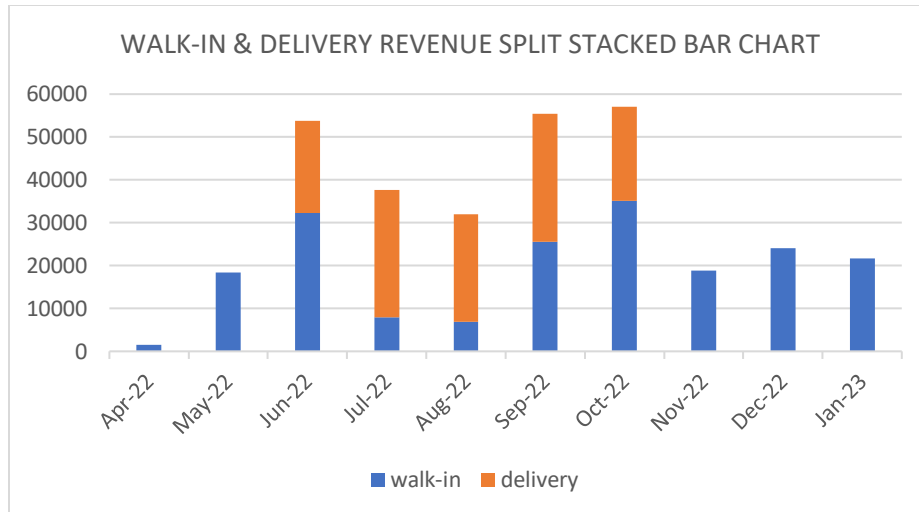


The above graph provides insightful information that displays how rainfall negatively affects the revenue generated by the store. It is apparent that during the months of July and August, when the rainfall is at its highest, there is a significant drop in revenue. Conversely, when the rainfall decreases, the revenue goes back to its previous highs and even surpasses it.

During discussions with the owners, they revealed that they faced numerous challenges during the monsoon months. However, they were able to overcome these difficulties by hiring a delivery person who could sell their products door-to-door or take orders over the phone. This strategy seems to have helped them mitigate the negative impact of the monsoon season on their revenue.

so for further statistical analysis, I also collected data regarding revenue due to delivery vs walk-in:





Its interesting to note how delivery revenue increased during the moonson months and also compensated for the lack of walk-in revenue.

Although the reason for no delivery revenue after the month of October was revealed to me in later discussions with owners. They said that there were cases of uprofessional behaviour from delivery-boy and had to fire him from the job.

The absence of delivery as a channel clearly seems to be a huge loss in oppurtunity for revenue.

In case of how the two channels perform under rainfall on monthly basis :

corelation	
	rainfall
walkin	-0.41
delivery (when available)	0.5363

Walkin has negative correlationof 0.41 where as delivery has a positive corelation of 0.53, The R value may not be high but are definitely signaling some impact.

I did the same analysis for revenue and day wise rainfall data , particularly data of rainfall in the month of august.

source of rainfall data: <https://en.tutiempo.net/climate/08-2022/ws-421110.html>

Findings:

corelation for month of august	
R for walk-in	R for delivery
-0.5071	-0.0118

This finding is quite insightful since organic window can now anticipate changes in demand accurately during moonsoona and make sure they have a delivery channel open by next moonsoon as it is evidently much less affected than walk-in channel during rainy weaaher.

Interpretation of Results and Recommendation

From the initial data analysis, it is evident current product lineup of Organic Window is unnecessarily huge and over diversified. It will be highly recommended to reduce the number of SKUs from many to a few. The recommendation is to focus on the top-performing SKUs and understand what drives their success.

1. I have identified these top performing SKUs using the analysis mentioned in previous section.

It is clear that the combination of cluster 1 products obtained in cluster analysis and the top products of repeat buys will be our priority 1 products.

These products will be the face of organic window and these products will be utilised for marketing campaigns.

I would recommend organic window to experiment with their price and check their elasticity, in order for increase in profit margins and hence overall profitability of company.

I would also recommend the owners to make sure these products do not go out of stock due to their high demand and their ability to bring in customer traffic.

The 2nd cluster would be our priority 2 products. These products can be experimented by reducing pricing and observing if the overall profits go up due to increased sales.

Even if they do not, these products will be staying in the line up. Although recommended procurement quantities from other businesses of these products would be less than priority 1 products

The 3rd cluster would be priority 3 products which for future should be bought in lower quantities. I will recommend the owners to give these product only limited time of evaluation. If they do not perform in the future, even on reduced pricing, I would recommend the owners to remove such products.

The last cluster would be cluster 4. These products are to be removed from the line-up and I would also recommend the owners to not procure similar products like those in this cluster, in the future and to make sure they undertake some demand research of any product they would like to introduce into the line-up.

2. Organic window also displays a repeat customer rate of 24.8 %

I believe with the recommended line-up of products this repeat rate can increase further. This can prove to be quite beneficial as it would increase the brand value of organic window, therefore increasing word-of-mouth which will help in driving further sales.

It is also a well-known fact that repeat customers are of high value to any business because they do not impose additional customer acquisition costs

3. In the pricing analysis section above scatter plot depicted that there doesn't seem to be much of negative impacts of higher Selling Price, in fact there seems to be an upward trendline

This indicates that the products are of good value as they offer higher utility to customers even after higher costs.

Thus I can conclude from above points that there is not much of a product quality issue (for priority 1, 2 products).

4. Another way organic window can increase sales is by using the market basket analysis from the previous section.

Organic window can implement the following strategies which utilizes associations from the MBA:

- Bundle promotion: As per the association between Masoor Whole Skinless and Toor Dal, it can be observed that customers tend to purchase these two items together. So, Organic Window can offer a bundle promotion where customers can buy both the items at a discounted price.
- Cross-selling: The association between Chana Dal and Moong Dal indicates that customers who buy Chana Dal are likely to purchase Moong Dal as well. So, the store can place these two items near each other and offer suggestions to customers to buy both items.
- Product recommendations: The association between Lemon Grass Tea and Malta Squash indicates that customers who buy Lemon Grass Tea are likely to purchase Malta Squash. So, the store can provide product recommendations to customers or suggest complementary items at checkout.
- Seasonal promotions: The association between Burash Squash and Malta Squash indicates that customers tend to buy these two items together. So, Organic Window can offer seasonal promotions where customers can buy these items at a discounted price during the squash season.

These associations will be extremely helpful if one day organic window decides to take their brand online and shift to a DTC model.

5. In terms of trend analysis, it is evident that monsoon season will negatively impact their sales.

especially the months of July and August that witness very high rainfall.

Either prepare for monsoon season by reducing the stocks of items and hence reducing costing or employ a delivery style model of sales or mix of both.

This is because people tend to order more in the monsoon season rather than visit the shop and even the data indicates that the delivery channel is quite robust to the rainfall season.

Also it is highly recommended for the owners to hire a new delivery person since the data indicates that a big chunk of sales was through delivery channel and it also showcases higher growth when compared to walk-in channel.

Finally I would also like to present them with a radical suggestion in which I would recommend them to, if possible shift their store from Dehradun to a tier 1 city or region like Delhi NCR. Since one of the two owners lives in delhi ncr, this could be possible ,although difficult. Citizens of Gurugram will have much higher purchasing power than that of Dehradun and I suspect would also be more conscious of the healthy food choices that Organic Window offers. I also believe a DTC (direct to customer) model would be fantastic for this business where instead of having the hassle & cost of maintaining a store, the owners can develop a website to get orders and instead spend that money on marketting which the owners revealed thay have not done yet.

I am suggesting such a radical changes because the data shows a good repeat rate and concentration of sales in their priority 1 products which the owners can carry forward into this new change with confidence.