

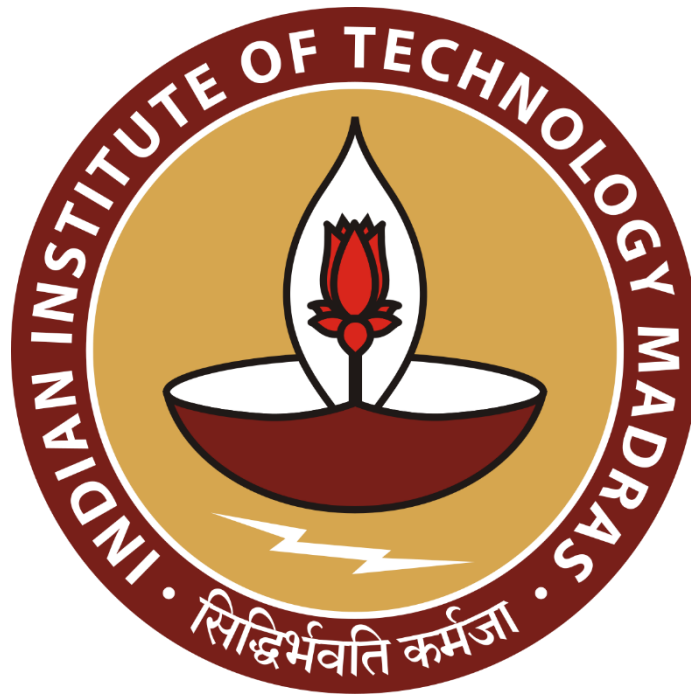
Optimize Problems to Improve Selling of a Cloth Shop

The Final report for the BDM capstone Project

Submitted by

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1. Executive Summary and Title

The final report, "Optimizing Strategies to Enhance Sales at Shri Maa Narmada Collection," delves into a comprehensive analysis of the challenges facing the cloth shop, located in Pachore. In collaboration with the store, data was meticulously collected and examined to address the key issues of low revenue, limited inventory offerings, and market competition. Leveraging Microsoft Excel as the primary analytical tool, a thorough investigation was conducted using November's day-wise data. Various analytical approaches were employed, including identifying popular items, revenue-generating products, sales trends, and profit margins. Visual aids such as pivot tables and a variety of charts including Column, Pareto, and Bar charts were utilized to provide clarity and insight into the data. Through these analyses, a nuanced understanding of the shop's performance and market dynamics was attained.

The insights gleaned from the analyses formed the basis for a series of strategic recommendations aimed at mitigating the identified challenges. These recommendations encompass a range of areas crucial for the store's growth and sustainability. Strategies were proposed to bolster revenue generation, enhance customer engagement, cultivate loyalty among clientele, effectively navigate market competition, and diversify the product offerings. Each recommendation was tailored to address specific pain points identified during the analysis, with a focus on actionable steps to drive tangible results.

By implementing these recommendations, Shri Maa Narmada Collection stands to significantly enhance its competitive position and bolster its bottom line. The report serves not only as a diagnostic tool,

shedding light on areas ripe for improvement, but also as a roadmap for strategic action. Armed with data-driven insights and targeted recommendations, the store is poised to chart a course toward sustained success in the dynamic retail landscape.

2. Detailed Explanation of Analysis Process/Method

There are many analyses I did to get some insights and here I am explaining each in detail.

2.1 Data –

I collected data of a cloth shop ‘Shri Maa Narmada Collection’ and it is November month data.

In this data I have some attributes –

1. **Date** – Each date of November month
2. **Item** – Name of each product
3. **Item Category** – Each product category
4. **Cost Price** – Cost price of each item
5. **Selling Price** – Selling price of each item
6. **Quantity** – Sales quantity of each item on particular day
7. **Profit** – Each item’s profit on that day
8. **Total** – Total selling of each item on that day

Here is the link to access the Data-

<https://docs.google.com/spreadsheets/d/1oSzUahL23uN9LRD43LRwHKaBDYA2uGcWFH5qESnNbpl/edit?usp=sharing>

2.2 What I Use for Analysis and Why –

There are many tools to do analysis but I used Microsoft Excel.

Excel is a powerful tool for data analysis, providing users with a versatile platform to organize, manipulate, and interpret data.

Its user-friendly interface allows individuals with varying levels of expertise to conduct complex analyses efficiently.

One of the Primary features is its ability to handle large datasets. The formula function of Excel enables users to perform diverse calculations, from basic arithmetic operations to complex statistical analyses.

Pivot tables are another invaluable tool in Excel for data analysis. They allow users to summarize and explore large datasets by creating interactive tables.

I used a pivot table to make it easier to identify trends, patterns, and outliers.

After getting the data I put it in Excel and after that, I cleaned it. I arranged in categories and added some new columns such as profit, category, total, etc.

I created various charts by using a pivot table to analyze the data get some insights and find trends.

Excel is an indispensable tool for data analysis due to its versatility, user-friendly interface, and robust features.

2.3 Column Chart Analysis –

I used a column chart to visualize the data and got some meaningful insights.

Column Chart is a visually compelling tool for representing data in a column format, divided into columns that collectively represent a whole. Their effectiveness lies in their ability to convey the distribution of different categories within a dataset.

Analyzing a column chart involves interpreting these columns to derive meaningful insights.

First, I created a pivot table by using Item and Quantity columns. This gives me the proper column of each item and I created a column Chart to visualize it.

2.4 Pareto Chart Analysis –

In business, revenue is very important for it. There are many factors for business but one of the major factors is revenue. For revenue visualization, I used a Pareto Chart.

After the Column chart, I used the Pareto chart for analysis to see which item has more revenue and visualize it.

It is a graphical representation of data that highlights the most significant factors in a dataset and here it can be seen whether it follows the 80:20 rule or not.

I created a pivot table by using Item and Total columns. It gives me the contribution of each item in revenue as well as it shows major contributors.

2.5 Time Series Chart Analysis –

In business, it is important to see what trend is going on and how is selling. For this, I used a Time Series Chart to visualize and understand it.

For this, I created a pivot table by using three columns and it shows how many items are sold and the total selling on each day.

One key aspect of time series analysis is trend identification and here it can be seen that.

2.6 Bar Chart Analysis –

There are many factors in the business and one of them is Profit. For business, profit is important to run a business and for growing it.

The Bar chart is a powerful visual tool for analyzing and presenting data and I used it to visualize the profit of the business and how it is.

For this, I created a pivot table by using item and profit columns and after this; by helping of pivot table dataset, I created a Bar Chart to understand and visualize it.

2.7 Stacked Column Chart Analysis –

The shop offers some items to the customer and it in the main market. Now I have one month's data from the shop, so what is the proportion of each item day-wise? For this, I created a pivot table by using Date, Item, and quantity columns.

After this, by using this table I created a Stacked Column Chart.

This chart is useful to understand and visualize the proportion of items and it can be seen the proportion of each item on day wise.

3. Results and Findings

After collecting the data when I put it into for analysis, I got some meaningful insights and results.

After various analyses, I can recommend some things to the shop which may help the shop.

From the data, Total revenue of November month is ₹46,910.00 and the mean, median, and standard deviation are –

1. Mean: The mean of the Total revenue is ₹483.61
2. Median: The median of the Total revenue is ₹400.00
3. Standard Deviation: The standard Deviation of the Total revenue is ₹314.10

Here it can be seen that the average selling for the shop in November month is ₹483.61 and it is not very high.

Here is the explanation of each result with the respective chart –

3.1 Column Chart Result –

When I analyzed the data, I got the quantity of each item for sale in the shop. Here it can be seen that item name 'Sarees' has the most and item name 'Pajama' has the least quantity.

Item 'Sarees' is the most demanding item and 'Pajama' is the least.

And when I talked about it to the shop owner, they told me that they have major female customers for their shop and they focus on it.

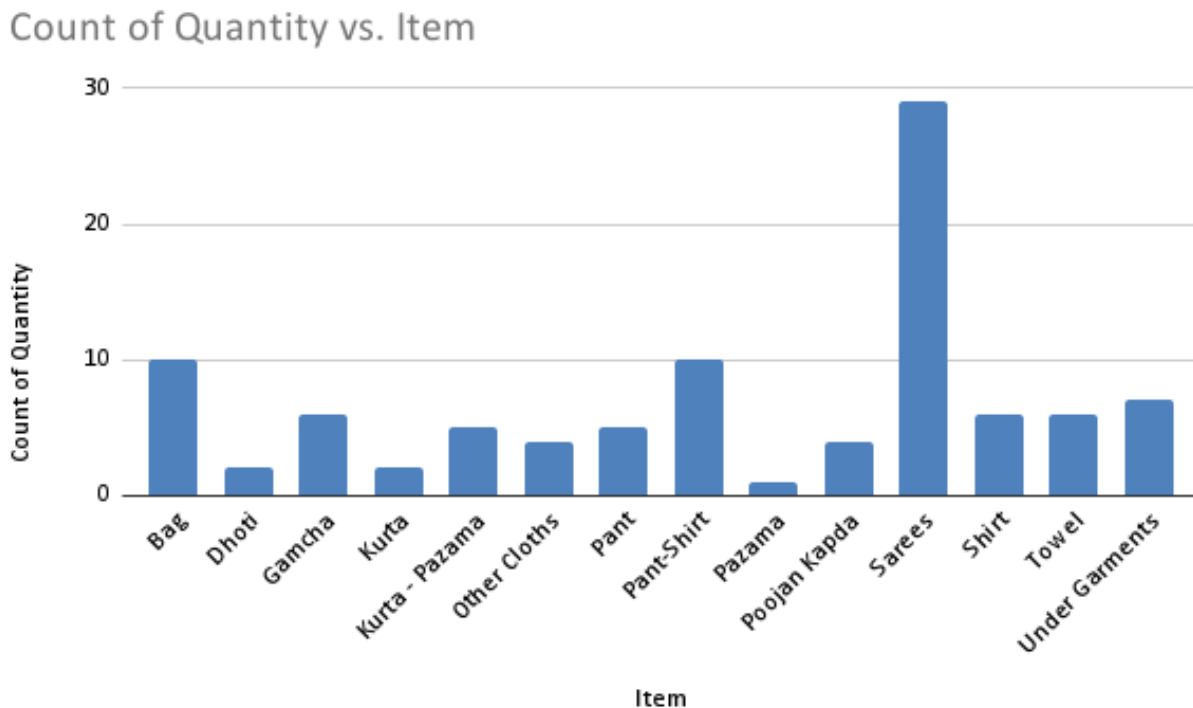


Figure 1: - Column Chart

3.2 Pareto Chart Result –

In the business, revenue is important and which item generates how much revenue should know, so here when I did the analysis, I got that Sarees is the most revenue generator and Pajama is the least generator for the shop.

In the Pareto Chart, it can be seen clearly which item has how much revenue for the shop.

It is because the shop has more demand for Sarees items and Pant-Shirt items and focusing on these items.

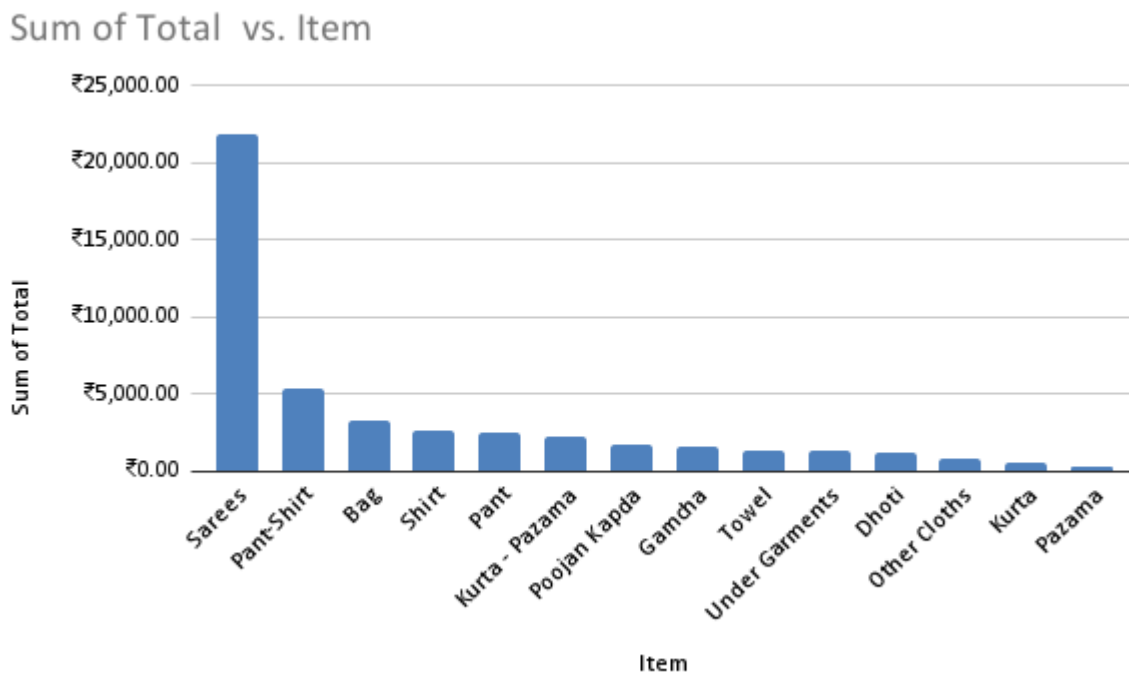


Figure 2: - Pareto Chart

3.3 Time Series Chart Result –

In the business, how is selling going each day? To answering this question, I did analysis and created a time series chart.

It can be seen in the chart that on 10th November, Sales and revenue were high but on 12th November, sales were high but revenue was low on that day.

On 16th and 29th November, sales were very low.

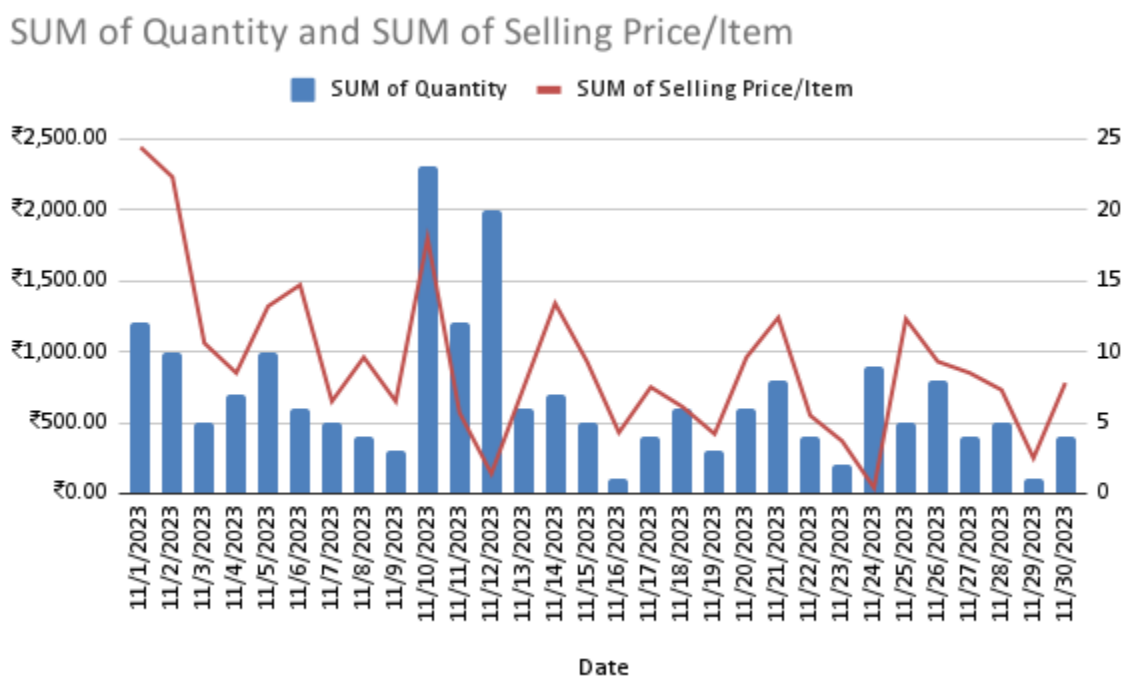


Figure 3: - Time Series Chart

3.4 Bar Chart Result –

In the business, profit also matters and for this, I did the analysis and created a bar chart.

Which item has how much profit in the November month for the shop, it can be seen in the bar chart.

Here, the Item 'Sarees' has the most profit for the shop, and the item 'Pajama' has the least profit for the shop.

Other items don't have much more profit.

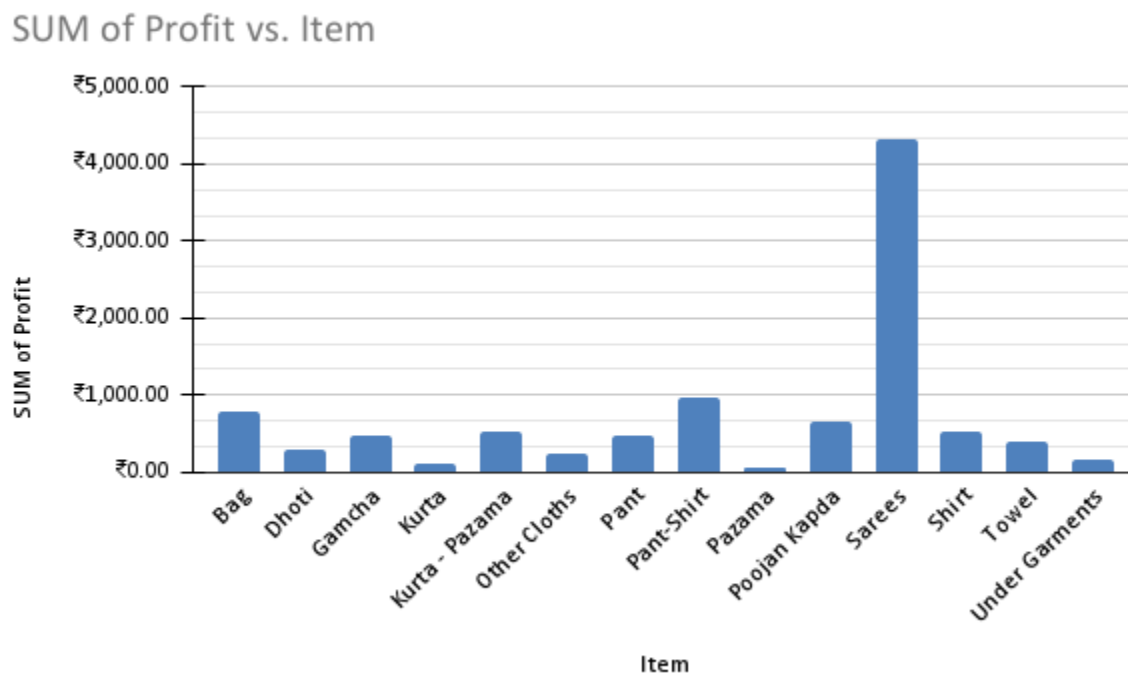


Figure 4: - Bar Chart

3.5 100% Stacked Column Chart Result –

After creating a stacked column chart, it can be seen which item has demand, and here is the day-wise proportion of each item.

It is clear that the item 'Sarees' is a daily selling item.

There are many items in the shop and what items has more proportion, can be seen.

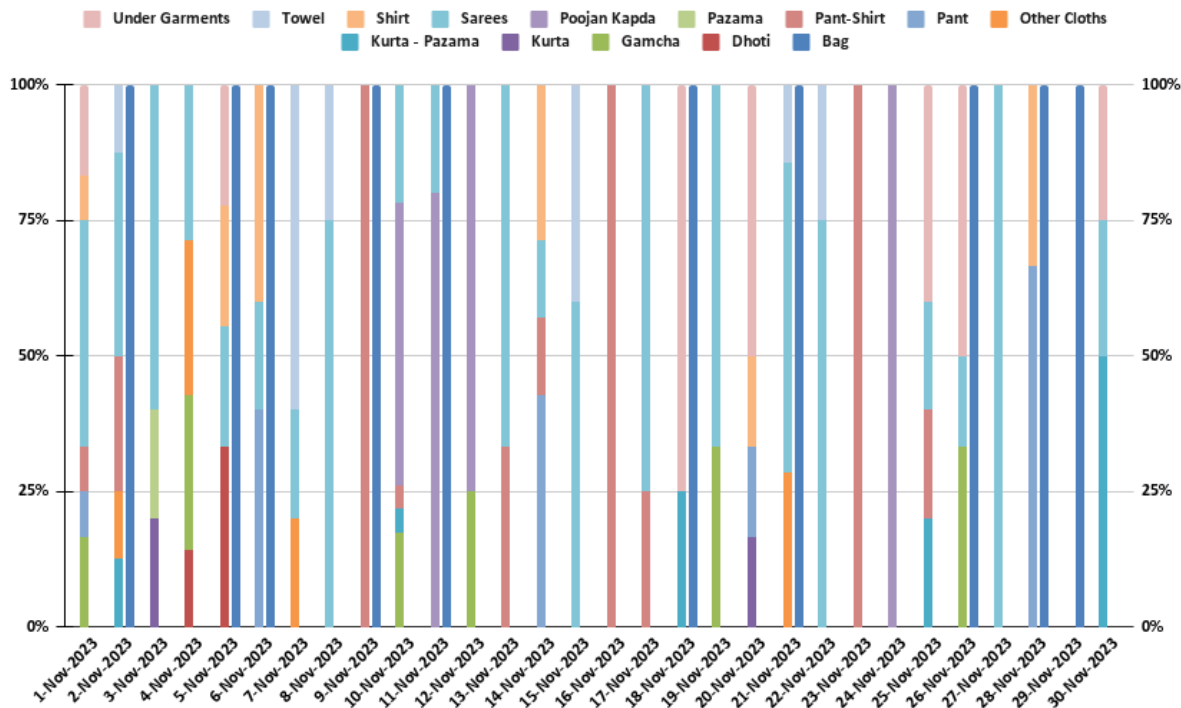


Figure 5: - 100% Stacked Column Chart

3.6 Profit Margin –

It can be seen that 'Sarees' has the most revenue but how much profit margin for the shop.

So here it is –

Total Revenue of The Shop is - ₹46,910.00

Total Cost – ₹36,880.00

Total Profit – ₹10,030.00

Now here if we calculate profit margin then,

Profit Margin is 21.38%

The Profit Margin is decent for the shop.

4. Interpretation of Results and Recommendations

The Shop is facing some problems for this I did some analyses to get some insights to get rid of or minimize those problems.

When I did analyses, I got some insights, and depending on those, there are some recommendations for the shop.

Recommendations are –

4.1 Inventory Management –

In business, inventory is important and its management should be good. When I did analyses then I got which items were in demand and what customers wanted more.

Here if they see the column chart and stacked column chart, it can be seen that item 'Sarees' is in demand and for the shop, it is highest in selling and second is 'Pant-Shirt'.

So, it is recommended to the shop that for those items, inventory should be stocked more, and for other items like 'Pajama', 'Kurta' could be stocked less.

4.2 Focus on Trend –

In the ever-evolving world of fashion, staying attuned to current trends is crucial for the success of a clothing shop.

It is essential to adapt to the evolving landscape to meet customer expectations.

Here if they see analyses then it can be seen that what is in trend and for the shop 'Sarees' is in trend.

November month revenue for the shop is Rs. 46,910/- and in this major contributor item is 'Sarees' so, the shop should increase range of this as well as for 'Pant-Shirt'. It could lead to generating more revenue for the shop and engage more customers.

4.3 Customer needs –

Running a successful clothing shop involves understanding and meeting the diverse needs of customers.

Customers seek a wide range of clothing options. It is essential to stay updated on the latest fashion trends.

Additionally, customers value quality and durability. Ensuring that the clothing sold in the shop is made from high-quality materials builds trust and encourages repeat business. There are many shops in the market so, customers have many choices, for this, there is an option of online shopping. Offering online shopping options, an intuitive website, and efficient checkout processes contribute to customer satisfaction.

4.4 Reach to more varieties –

The shop is dealing in men and women clothes and as we see the analysis, Sarees has highest selling item for the shop. If shop also focus on kids wear then shop revenue might increase. Nowadays parents buy clothes for their children more than them. So if shop will invest in this and focus on this then it will be seen that shop might perform well and increase revenue and engage more customers for the shop.

4.5 Conclusion –

There are some insights I got after various analyses. By these, I have some recommendations for the shop which might help the shop to minimize or get rid of those problems.

Focusing on trends and knowing customer needs could help the shop increase revenue and get rid of other problems.

If the shop follows the above recommendations, then it might help the shop in its business and could go ahead in its field.