BUSINESS DATA MANAGEMENT

—Capstone Project Proposal—

ANALYSIS OF SALES AND MANUFACTURING COSTS FOR AN FMCG COMPANY

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Executive Summary:

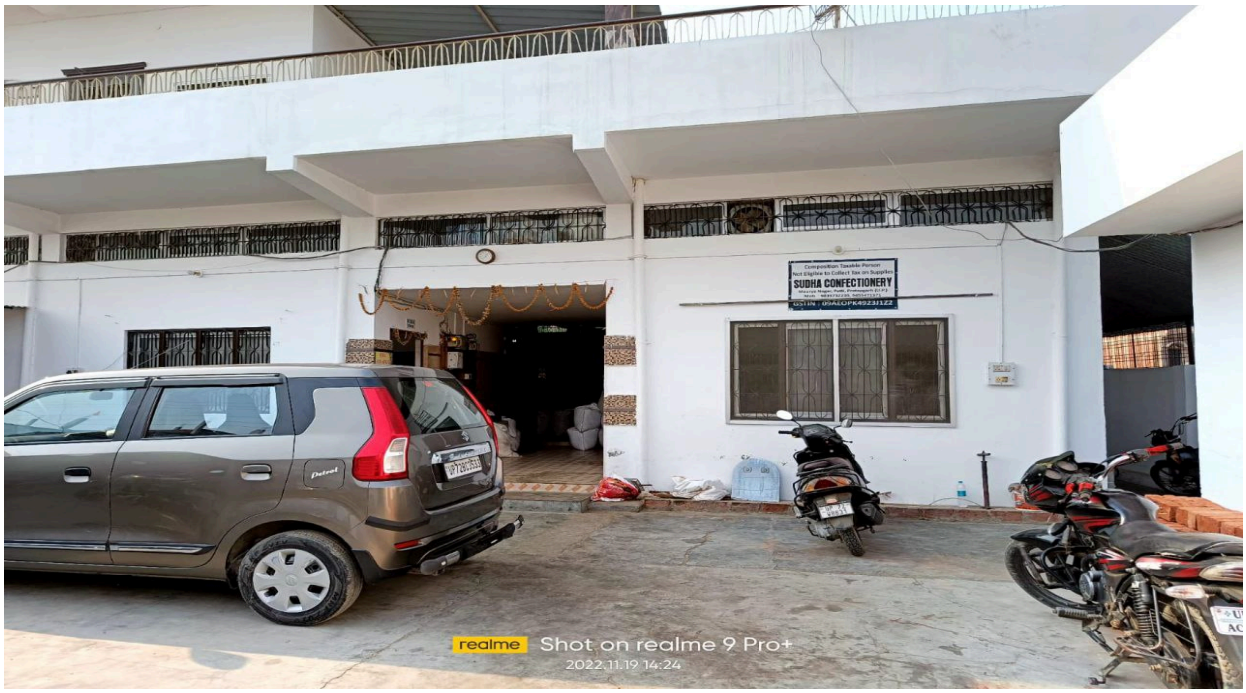
The Business Data Management Capstone Project involved collecting and analyzing data from a small namkeen manufacturer to provide business solutions. The project required organizing, cleaning, preprocessing, and analyzing the data, with the aim of helping the business resolve their problems. The data was collected from the manufacturer's ledger, which recorded their purchases, raw material purchase prices, and sales, including packaging size.

However, it was discovered that the manufacturer only recorded price data on days when they purchased material from their trader, and price data for other days was missing. With the help of the institution and the manufacturer's cooperation, the missing data was obtained from the trader in a timely manner.

Based on the description provided, the project aims to analyze the sales and manufacturing costs of an FMCG company in order to identify problems and find solutions. Therefore, a more appropriate title for the project could be "**ANALYSIS OF SALES AND MANUFACTURING COSTS FOR AN FMCG COMPANY**". This title accurately reflects the primary focus of the project and highlights the goal of using the analysis to improve demand forecasting and sales.

Organization Background:

Sudha Confectionery is a fast-moving consumer goods (FMCG) company based in Patti, Pratapgarh, Uttar Pradesh, that specializes in manufacturing namkeen under the brand name 'Shyam Namkeen'. The company operates with a small team of approximately 10 employees across various departments including manufacturing, packaging, and marketing. The location of the company in an inhabitant area presents challenges in terms of working hours. Sudha Confectionery has been in operation for the past 5 years and is owned by Mr. Anuj Kumar and Mr. Anurag Kumar. The company produces over 25 products, which are categorized into 10 regular and 8 premium items. The products are packaged in pocket packs, family packs of 500g and 1 kg, as well as a 3kg pack, which is mainly targeted for B2B sales. As a small company with limited capital, Sudha Confectionery purchases raw materials on a daily basis. Currently, the company supplies Shyam Namkeen within a 150 km radius of their production facility.



Problem Statement:

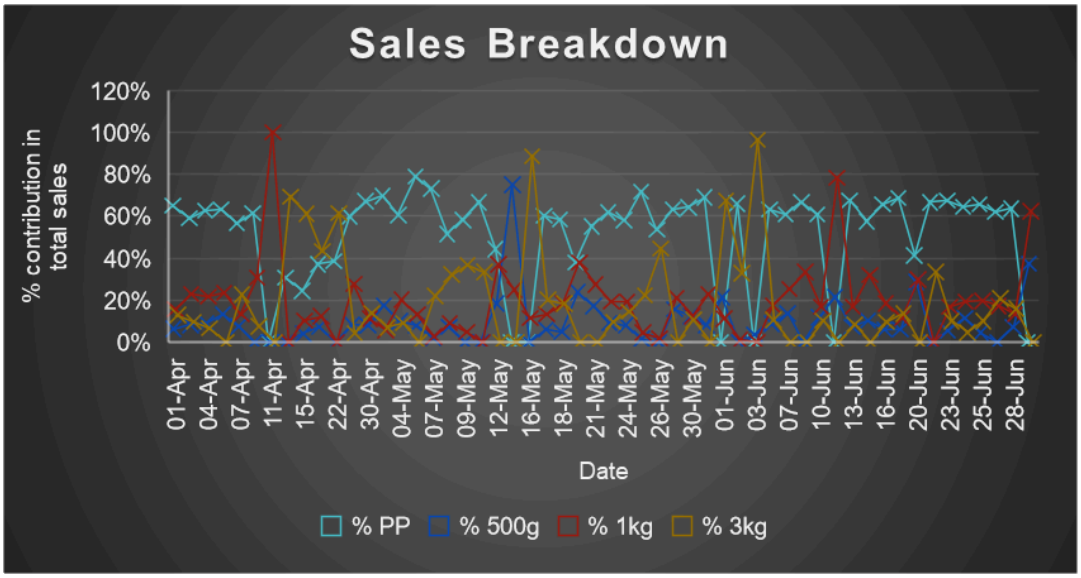
- A significant portion of the company's sales is driven by one particular SKU, highlighting potential opportunities to improve the performance of the other products.
- The limited number of days available for manufacturing in a month presents a challenge for meeting production goals
- The cost of raw materials is subject to significant fluctuations, creating challenges for maintaining consistent production costs and pricing.

Problem Background:

Although the company manufactures four different SKUs, it has been discovered through discussions with the owner that the majority of the company's revenue is generated by a single SKU, specifically the pocket pack. However, despite the pocket pack's success in terms of revenue, it is not as profitable as the larger pack sizes. In fact, the sales breakdown highlights a significant gap in the quantity sold between the pocket packs and the 500g packs. According to a pie chart, the pocket pack contributes to around 60% of the total revenue.

The production of namkeen involves the use of various raw materials, such as refined oil, gram flour, refined wheat flour, peanuts, chana dal, masoor dal, food colors, and spices. However, the prices of these raw materials, especially oil, dal, and flour, are subject to daily revisions. The proprietor has indicated that it is possible to control prices when some of the major raw materials have a variable cost, but unfortunately, most of the raw materials used in this business experience significant price fluctuations. As a result, the cost of the finished product is also highly variable. The owners have highlighted that

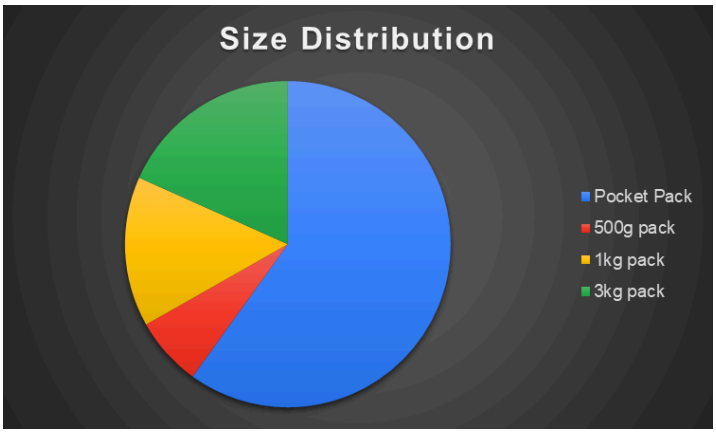
this has led to situations where the profit margin reduces significantly, but they are unable to increase their selling price due to market competition.



Upon examining the production sheet, it was noticed that the number of production days is relatively low. To increase production output, one solution could be to increase the number of working days. However, the primary reason for the low production days is the unavailability of labor. To avoid adding an extra burden to the company, the owners have opted to hire daily wage laborers only when production is required. This strategy has helped them manage labor costs but has limited the number of production days.

Problem Solving Approach:

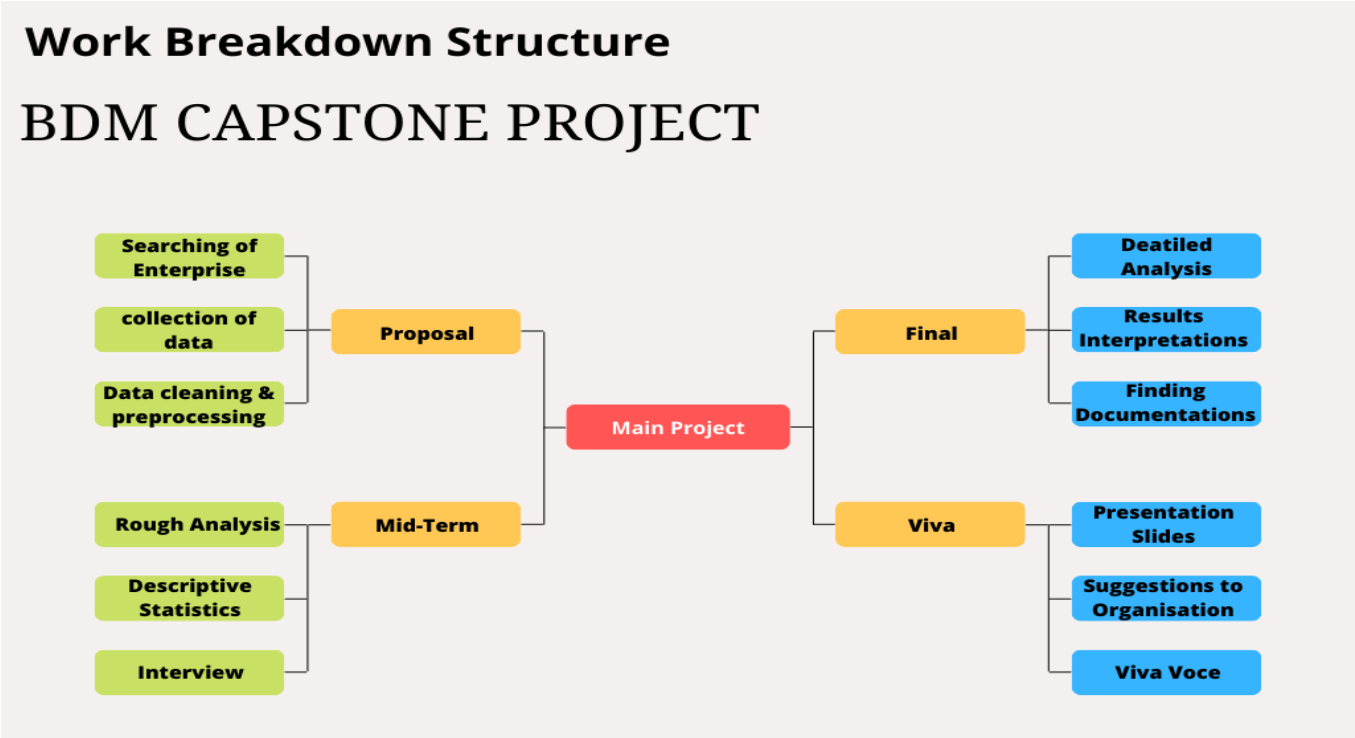
In this scenario, we have a customer-centric company that is not very large. The data collected consists of raw material purchase data and daily market prices for these materials and has been visualized in a line graph using MS Excel. This analysis reveals that the price of refined oil is volatile without any clear pattern, but there is some pattern in other raw materials like chana dal, masoor dal, maida, and peanuts.

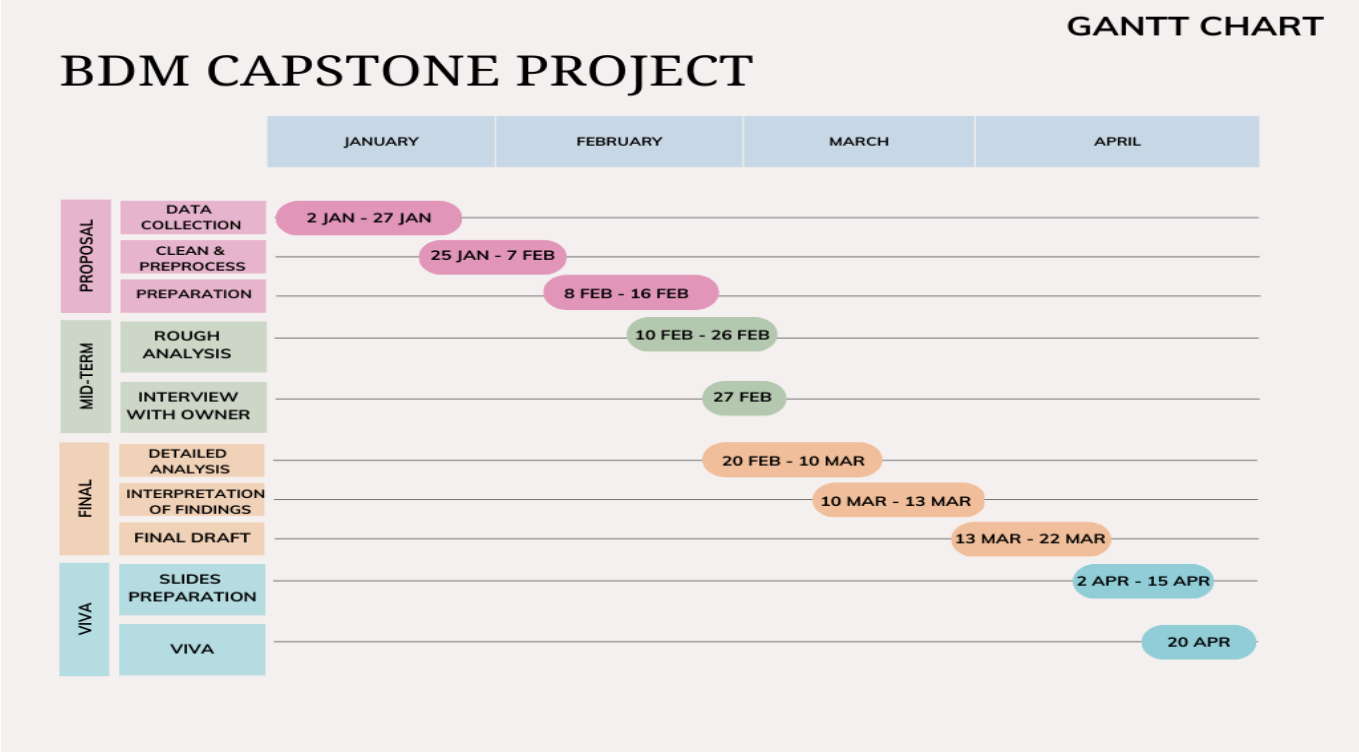


Moving on to sales data, a pie chart was created to compare revenue generated by different product sizes. The chart shows that the smallest pack generates more than half of the revenue, while the 500g pack generates the least. During conversations with the company, it was revealed that the margins for the Rs 10/- pack can only be regulated by changing the weight of the product due to consumer preference for the pocket size pack. However, the sales strategy for other packs needs to consider the prices of similar products offered by other companies. The gap between pocket packs and 500g packs could be filled by adding SKU.

Based on the data provided by the company and the outcomes shown in the bar graph, it appears that the company's manufacturing is not being done regularly, but their sales remain relatively constant. By increasing their manufacturing output on a daily basis, the company has the potential to reduce their labor costs and increase their production levels. Additionally, if the company has readily available SKUs, they could introduce new products into the market to address the manufacturing gap and improve their overall production efficiency. In this way, implementing a daily manufacturing schedule and expanding their product offerings could potentially solve the issues highlighted by the data analysis.

Expected Timeline:





Expected Outcomes:

- Developing a product that fits the market gap, with features and pricing that appeal to the target audience.
- Developing strategic partnerships with key suppliers to secure favorable pricing and supply arrangements.
- Implementing lean manufacturing principles to reduce waste and improve production flow.