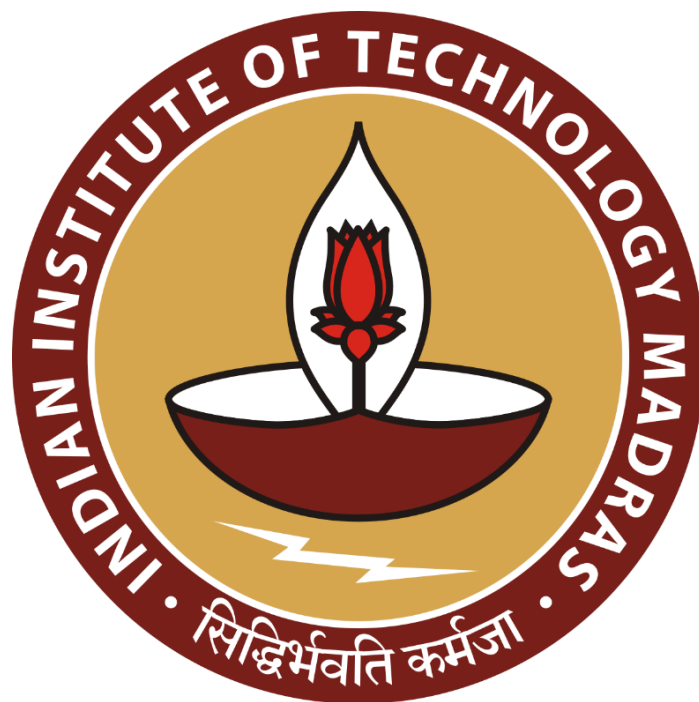# Sales Performance, Profits & Analyzing Shopping Strategy For Sri Agarwal Kirana & General Store

A Proposal report for the BDM capstone Project

Submitted by

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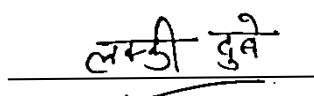
Declaration Statement

I am working on a Project titled **"Sales Performance, Profits & Analyzing Shopping Strategy For Sri Agarwal Kirana & General Store"**. I extend my appreciation to **Mr. Mukesh Kumar Agarwal**, 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.

Signature of Candidate: (**Digital Signature**)

Name: Lucky Dubey

Date: 02/11/2024

1 Executive Summary and Title

This project focuses on a small general store located at Niwaru Rd, Laxmi Nagar, Jhotwara, Jaipur, Rajasthan 302012. Operating as a B2C business ,the store focuses on groceries and daily needs. The store owner faces several big challenges that affect profits, such as poor inventory management, competition from nearby stores, changing prices, transportation problems, and issues with managing the store. These problems have collectively resulted in minimal profit margins and have hindered the store's growth potential.

Effectively solving these challenges is important to increase profits and support steady business growth. This project aims to understand sales data better by looking at pricing trends, customer buying habits, and overall shopping behavior. By studying this information, the project will create strategies for predicting prices, forecasting demand, and maintaining quality. These steps are essential for managing inventory well and making operations more efficient.

Furthermore, the project will focus on understanding customer behavior within the store to tailor marketing and sales strategies that maximize gross profit. Managing stock efficiently will also be important to make sure the store has enough products to meet customer demand without having too much or too little. By using these strategies, the store can manage better, improve customer satisfaction, and increase profits and business growth.

2 Organization Background

Sri Agarwal Kirana & General Stores, situated in Niwaru Rd, Laxmi Nagar, Jhotwara, Jaipur, Rajasthan 302012 [Google Map location] has established itself over the past Six years as a cornerstone of the local community. The store is well-known for its wide range of essential products and services, meeting the different needs of its customers. It offers a large selection, including household items, toiletries, cleaning supplies, groceries, everyday essentials, drinks, milk, curd, and more. The store's commitment to quality and customer satisfaction has earned it the unwavering trust and loyalty of the local residents. Regular costumer consistently choose Sri Agarwal Kirana & General Stores for their daily needs, appreciating his behavior, kindness and reliability it's offers.

By maintaining a balance between affordability and profitability, the store makes sure it offers fairly priced items while keeping a good profit margin.. This strategic approach not only supports the community's economic well-being but also secures the store's position as a trusted and vital resource for all its customers' everyday needs.

3   Problem Statements

3.1   Not Understanding Customer Preferences

To analyze and look at sales data to see price trends, buying habits, and customer behavior using advanced tools and methods to find useful information.

3.2   Overstocking and Understocking

To find high-profit items and improve inventory management strategies, while focusing on managing the store as a whole, using data analytics and sales trends to make sure that the inventory changes to meet customer needs and expectations.

3.3   Incorrect Demand Forecasting

To evaluate inventory management practices during peak seasons and monthly cycles, ensuring adequate stock levels and planning for future demands effectively. Implementation of these practices will minimize stockouts and optimize supply chain efficiency.

4   Background of the Problem

Sri Agarwal Kirana & General Stores had always prided itself on offering competitive prices and a wide range of products. But without real-time data analysis to understand these shifts, the store struggled to adjust its pricing strategy effectively. This led to occasional overstocking of slow-selling items and understocking of popular products, impacting overall profitability.

Major cause of problems

- Inconsistent availability of high-profit items resulting in missed sales opportunities.
- Weak promotional efforts, like discounts and combo offers, for items that sell slowly limit their sales potential.

- Not having flexible pricing strategies to react to competitors leads to lose customers and lower profit margins. Internal problems

- The store faces transportation issues when there's high demand for certain items that leads to delays and stockouts.

- Unexpected decrease in price of a provision when its availability is more in the store.

- Inconsistent inventory records due to manual tracking methods can cause occasional mistakes in stock levels and increase the risk of human error.

External problems

- The store's unusual opening and closing hours have allowed competitors to attract and take away important customers.

- Increased competition from new stores offering specialized products and aggressive pricing.

- Lack of technology leverage for better customer insights and offering personalization techniques puts the store at a disadvantage in a competitive retail environment.

5 Problem Solving Approach

5.1 Methods to be used with Justification

- Data collected from the store is processed and some information changed.

- To get an idea about the data, data to be plotted into various charts and trendlines. For visualization of the data, create individual charts (like bar charts, pie charts).

- Data will be summarized using tools like pivot tables and identify the highest profit margin areas that can be recognized using tables.

- Calculate descriptive statistics for key variables such as sales quantity, prices, and total cost, including mean, median, minimum, maximum, and standard deviation. This will give an overview of the central tendency and distribution of the variables.

5.2 Data Collection Techniques

- Daily sales data collection is organized into an excel as the owner is maintaining a system and entering every product sale into it.

- The sales items in data had a unique code as a label. So, convert every code to its respective label.

- Categorized the sold items to know the customer choices/preferences better.

- Analyze sales trends periodically to identify popular items and optimize inventory management accordingly.

5.3 Analysis Tools with justification

After Collecting daily sales data from the shop owner and extracting required fields, loaded data into Excel sheets with columns like Date, Item name, Category, Price, Quantity, Total price, Tax amount, Total amount, Profit. This comprehensive data collection ensures I have the necessary information readily available for in-depth analysis.

To do analysis following tools will be used:

- **Google Sheets or Excel**: These tools are used to efficiently collect, clean and organize raw data for further processing.

- **Tableau**: To create insightful visualizations that help identify sales patterns, trends, and outliers, facilitating better decision making.

- **MS Word & PowerPoint**: These tools are useful in documenting findings, preparing reports and presenting analysis effectively to stakeholders.

- **Python**: To perform advanced data analysis.
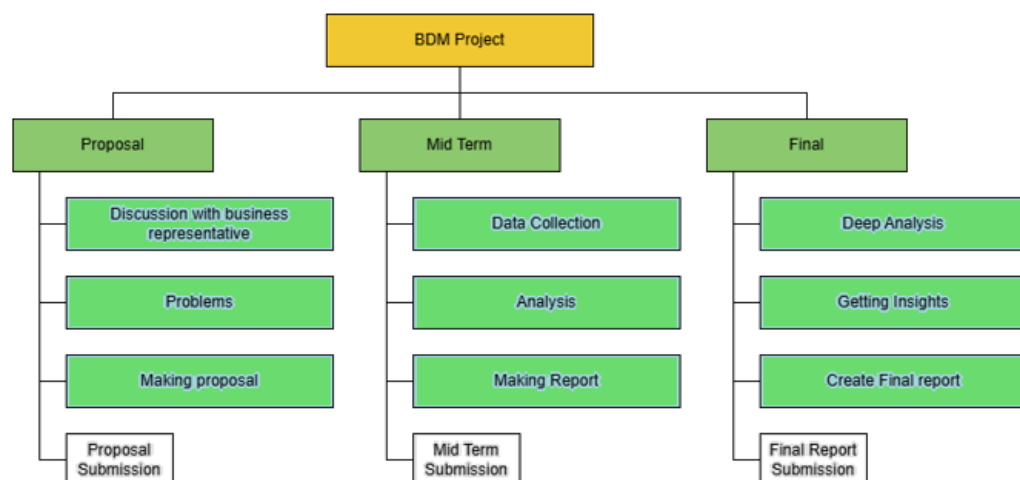
6 Expected Timeline

6.1 Work Breakdown Structure

Figure 1: Work Breakdown Structure of project.

6.2   Gantt chart

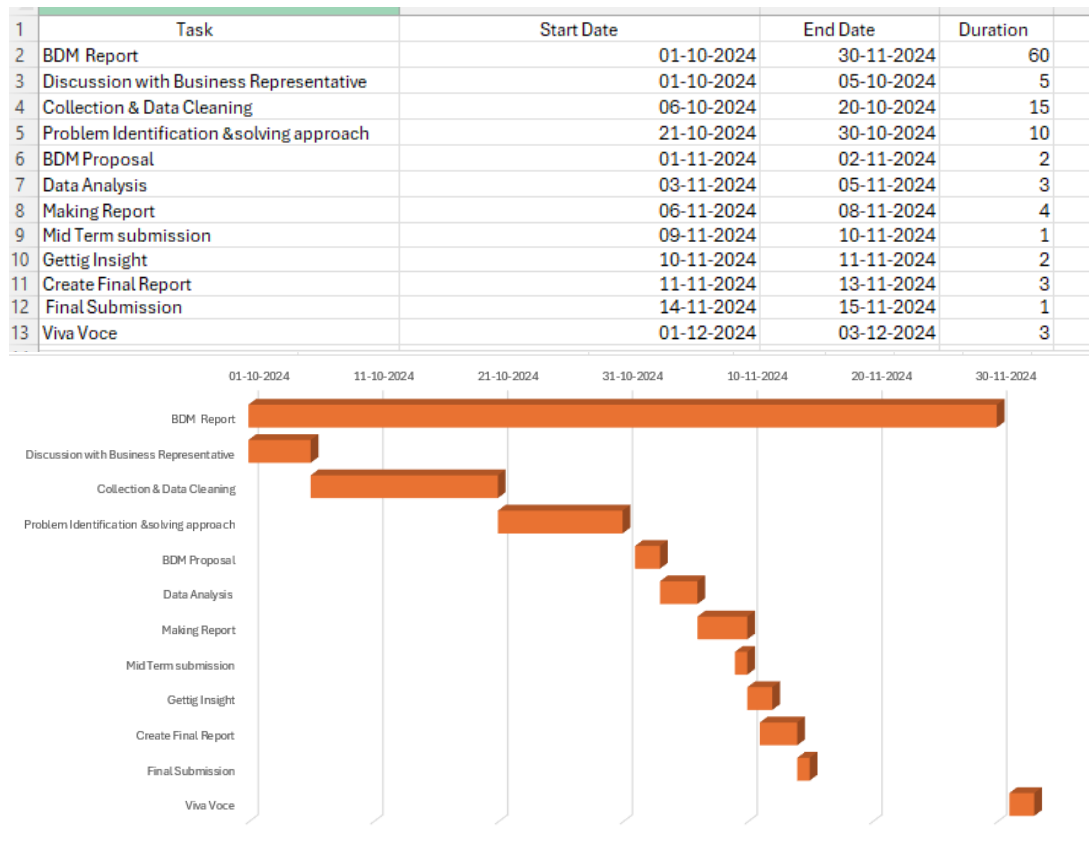|	Task	Start Date	End Date	Duration
1	Task	Start Date	End Date	Duration
2	BDM Report	01-10-2024	30-11-2024	60
3	Discussion with Business Representative	01-10-2024	05-10-2024	5
4	Collection & Data Cleaning	06-10-2024	20-10-2024	15
5	Problem Identification &solving approach	21-10-2024	30-10-2024	10
6	BDM Proposal	01-11-2024	02-11-2024	2
7	Data Analysis	03-11-2024	05-11-2024	3
8	Making Report	06-11-2024	08-11-2024	4
9	Mid Term submission	09-11-2024	10-11-2024	1
10	Gettig Insight	10-11-2024	11-11-2024	2
11	Create Final Report	11-11-2024	13-11-2024	3
12	Final Submission	14-11-2024	15-11-2024	1
13	Viva Voce	01-12-2024	03-12-2024	3

Figure 2: Expected timeline for completion of project.

7   Expected Outcome

- **Improve Inventory Management**: The analysis will provide a clearer understanding of sales trends, enabling better inventory planning. By identifying which products sell best during specific seasons or months, the business can optimize stock levels to meet customer demand effectively.

- **Preventing Price Decrease**: Identifying provisions based on the data analysis which might go through sudden price decrease in advance, to mitigate potential losses.

- **Ensure that products are available by improving transportation**: Making sure that there will be no issue in transportation, by ensuring continuous availability of high-demand items in the store.

- **Marketing Strategies Optimization:** Using information from sales data, we can create focused marketing campaigns to promote popular products and take advantage of new trends. This will help increase overall sales and get customers more involved.