

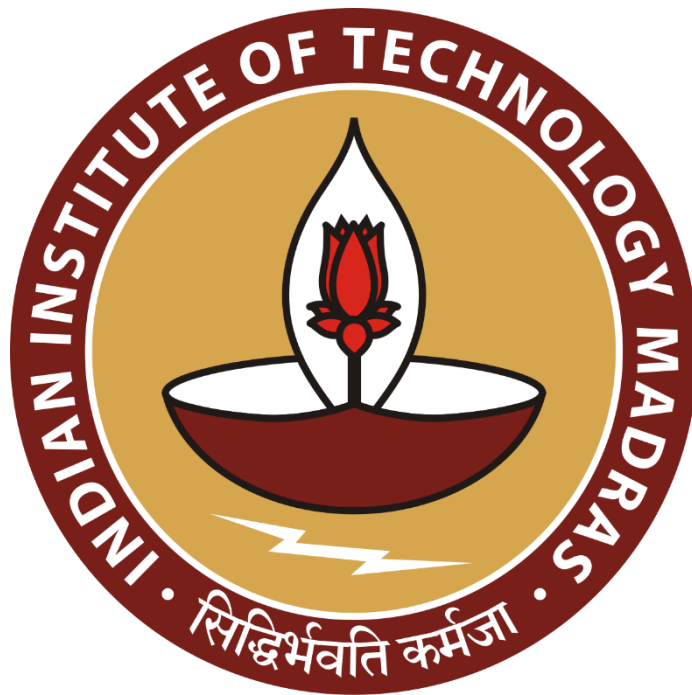
# **Enhancing Sales Strategy at Subhash General Stores in Changing Market Dynamics.**

**A Proposal report for the BDM capstone Project**

Submitted by

Name: G.Ravi Teja

Roll number: 21f1005274



IITM Online BS Degree Program,  
Indian Institute of Technology, Madras, Chennai  
Tamil Nadu, India, 600036

## Contents

1	Executive Summary and Title	3
2	Organisation Background	3
3	Problem Statement (Listed as objectives)	4
3.1	Problem statement 1	4
3.2	Problem statement 2	4
3.3	Problem statement 3	4
4	Background of the Problem	4
5	Problem Solving Approach	5
6	Expected Timeline	5
7	Expected Outcome	6

## **Declaration Statement**

I am working on a Project titled “Enhancing Sales Strategy at Subhash General Stores in Changing Market Dynamics”. I extend my appreciation to Mr K.Subramanyam, 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: 

Name: G. Ravi Teja

Date: 04-10-2023 (4th October 2023)

# 1 Executive Summary and Title

Subhash General Stores, Chirala, is a well-established fertilizer shop, that sells fertilizers and pesticides for farmers and gardeners for over four decades. Located at 21-1-185, Near By Perala Market, Andhra Ratna Road-523155, Chirala, Andhra Pradesh, the shop has earned a reputation for quality products and exceptional customer service.

The major problem facing Sri Subrahmanyeswara Fertilisers is a significant decline in sales and customer footfall over the past two years, and also the irregularity in the inventory.

To address the decline in sales and enhance profitability, the project will adopt a data-driven approach. Descriptive Analysis for clear understanding of current trends and patterns in sales, and inventory management. Given the seasonal nature of the business, will also employ time series analysis.

The expected outcome of this project is to identify the customer buying behaviour, analyze market trends as per seasons, and devise an effective sales strategy for better inventory management that can increase sales and ultimately lead to improved profitability.

Ref:

1. <https://jsdl.in/DT-99DQYGCL>

## 2 Organization Background

Subhash General Stores was founded by K.Subramanyam in 1991, which was named after his late father name K.Subhash. Since the beginning only Subramanyam was managing the business along with few labor workers. So far, 15 labor workers were changed, and currently there are 2 labor workers working at the shop.

Over the years, Subhash General Stores has witnessed substantial success, maintaining a loyal customer base from nearby villages such as Burllavaripalem, Thotavaripalem, Gavinivaripalem, papayipalem, kothapeta, Vetapalem, Panilapalli, Karenchedu, Swarna, etc. The annual turnover of the shop until 2018 was upto 4 crores per year. However, since 2019 the shop encountered a decline in sales down to 2 crores due to few internal and external factors. To combat these challenges, the shop seeks to implement a data-driven sales strategy to regain its market share and boost profitability.

### 3 Problem Statement (Listed as objectives)

#### 3.1 Problem statement 1:

Analyze customer buying behavior and preferences to understand their fertilizer purchasing patterns and identify potential opportunities for targeted marketing.

#### 3.2 Problem statement 2:

Develop a data-driven sales strategy for better management of the inventory.

#### 3.3 Problem statement 3:

Identify the reasons behind the decline in sales and customer footfall at Subhash with a focus on the impact of the RBK Scheme.

### 4 Background of the Problem

The decline in sales and customer footfall at Subhash General Store, Chirala, has become a major concern for the business. Several internal and external factors have contributed to this pressing issue, impacting the profitability and sustainability of the shop.

The internal challenges are inventory management and maintaining an optimal stock level, leading to potential stockouts in some cases, which is due to the shift in customer behavior in the peak season such as Nov, Dec, Jan and Feb. Owner claims that there are several cases of where many customers want a product which was in outstock.

The external cause of the decline in sales is the implementation of the Raythu Bharosa Kendra (RBK) Scheme by the Andhra Pradesh Government, which basically built fertilizers shops in the villages itself, in turn made the farmers to buy products from there. In Raythu Bharosa Kendra, the fertilizers stock directly goes to the listed kendras prior to the private shops like Subhash General Stores. And hence the kendras have the abundance of stock always and farmers go there easily. The presence of at least three competitor shops within a 500-meter radius is another external factor impacting the Subhash General Stores sales.

Ref:

1. <https://www.thehindu.com/news/national/andhra-pradesh/fertilizers-to-be-delivered-at-the-doorstep-of-farmers/article32735786.ece>

## 5 Problem Solving Approach

Upon proper understanding of the problems, I proceed to collect the data. I observed that they only have the unstructured data in books!! But to bring conclusions to the above mentioned problems I need digital data.

Step 1 - Data Collection: So, First step in approaching the problems is to convert the unstructured data to structured data by manually entering them in the excel sheets.

Step 2 - Data Cleaning: Once the data is ready in excel, I will do a quick Data Cleaning using pandas python library to see if I missed any cells, or added any duplicates.

Step 3 - Descriptive Analysis ( Tool - Python Pandas Library ): With the cleaned data, I proceed to do Descriptive analysis to summarize and visualizing the existing data to gain a clear understanding of the customer trends. I plan to calculate revenue based on the existing data, and use it for further analysis.

Step 4 - Data Visualizations ( Tool - Python Matplotlib Library ): To tackle the problem of customer buying behaviour, I will check how various products are sold in each month, and make a line chart to do time series analysis of these sales. Analyze and segment customers based on their fertilizer purchasing patterns, preferences, and demographics. This will enable targeted marketing efforts

Step 5 - Draw Insights: To tackle the better inventory management, I will create a bar chart for the products sales over the year to see which products are sold often in the year, which can give an understanding to manage the inventory properly. To find which villages are more attracted to the shop, will create a histogram of villages. And Will create various other possible plots to find hidden messages in the data.

Finally, Based on the insights gained from data analysis and market research, will draw conclusions develop a data-driven sales strategy that can be profitable to the Subhash General Stores.

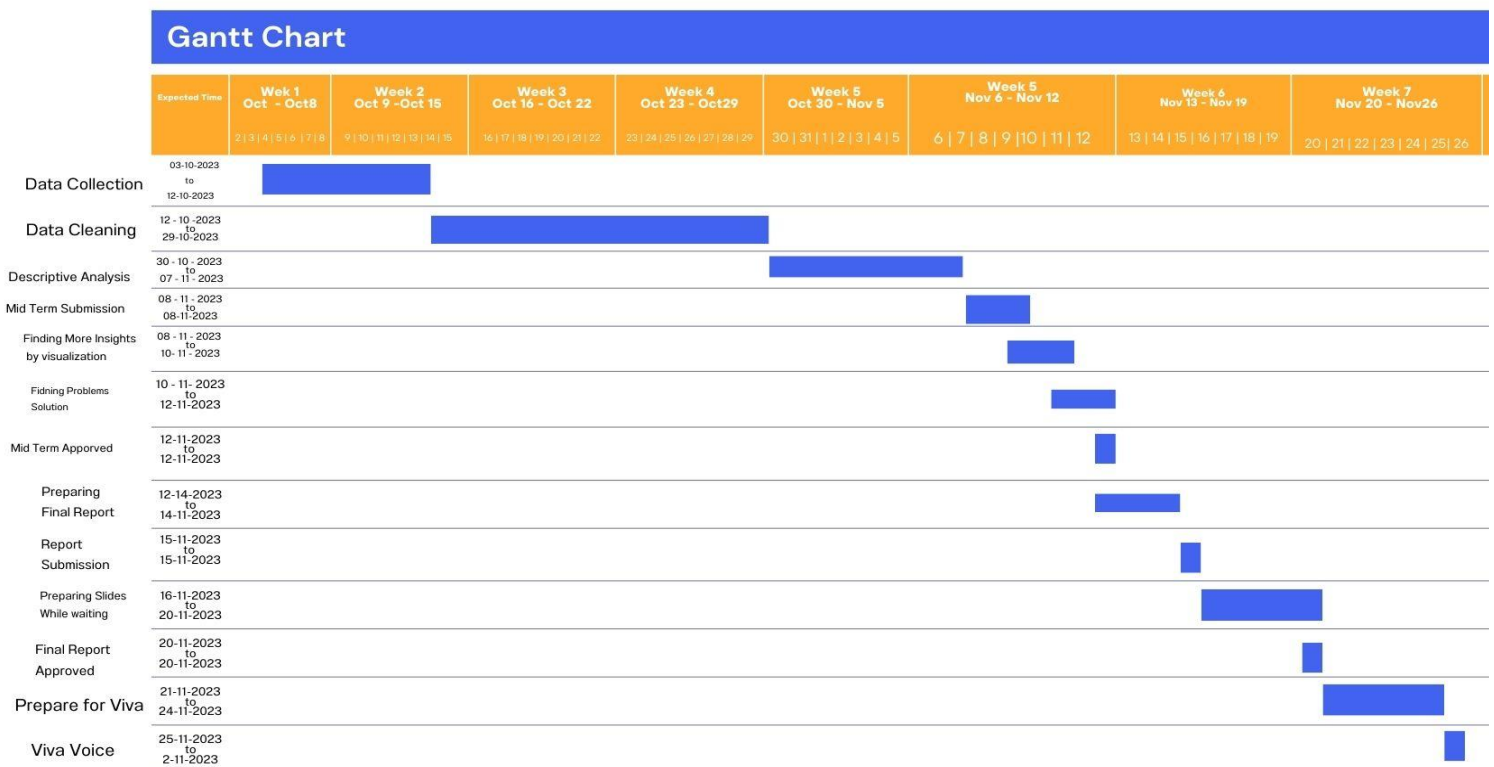
## 6 Expected Timeline

### 6.1 Work Breakdown Structure:

1. Data Collection ( 1week ): All the data available in shop is in the format of unstructured data in books, and per one day itself they are using half of a bill book ( almost 100+ customers ), so it will take a lot of time to take pictures of all the data. The owner didn't allow take the books to home, so I have to take picture of them at their office.
2. Preparation of Data and Data Cleaning(2.5 weeks): As the data is unstructured, I need to convert all the data to excel sheets which will take atleast 2 weeks to get down 1 year of data. And atleast half a week to clean the data.
3. Descriptive Analysis and Visualizations(1.5 week) : Once the data is cleaned, Using pandas to clean data would take one week. And to make useful visualization with the data would take half the week.

4. Finding Meaningful Insights by Visualizations (0.5 week) : I will try various visualizationa and it will take half a week to identify the meanings and hidden messages from the visualizations.
5. Finding Problem Solutions(0.5 Week): With the observed insights, Will make conclusion and final solutions for the problem statements, and this would take half a week.
6. Preparing Final Report (1 week): By having all the problem solutions and Data Analysis, it would take half a week to make a detailed final report.

## 6.2 Gantt chart:



## 7 Expected Outcome

- 7.1 Insights into customer buying behavior and preferences, enabling targeted marketing efforts.
- 7.2 Development of a data-driven sales strategy for Better Inventory Management of the Shop.
- 7.3 A deeper understanding of the reasons behind the decline in sales and customer footfall.