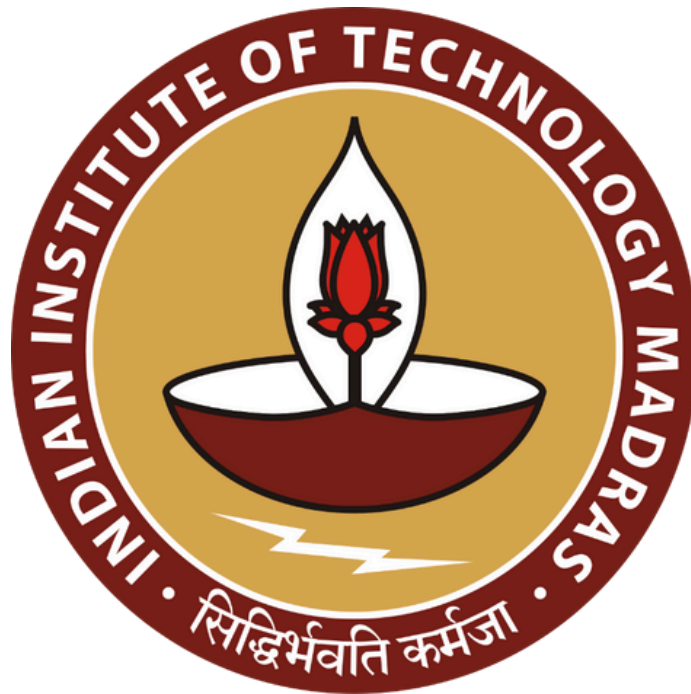# Business Process Optimization for a Local Retail Shop

A Proposal report for the BDM capstone Project

Submitted by

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Declaration Statement

I am working on a Project Title **"Business Process Optimization for a Local Retail Shop"** . I extend my appreciation to **Jai Ambe Traders** , 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 through 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 information 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 agree that all the recommendations are business-specific and limited to this project exclusively, and cannot be utilized for any other purpose with an IIT Madras tag. I understand that IIT Madras does not endorse this.

Signature of Candidate:

Name: Sagar Kumar

Date: 13th Jun 2025

2. Executive Summary

The project is based on a medium-scale grocery store which is located in Gorakhpur district, Uttar Pradesh. This store serve to both small business owners and individual customers, offering products in wholesale as well as in retails.

The major business challenges faced by JAI AMBE TRADERS include large amounts of inventory held in stock, frequent product wastage due to expiry or rodent damage and high levels of customer credit. All of which contribute to reduced profitability and cash flow issues.

To get rid of these challenges, the project will utilize various data analysis techniques, including:
- Trend analysis to understand credit repayment patterns and identify high risk customers
- Inventory turnover analysis to optimize stock levels and reduce wastage
- To reduce expiry related and rodent related product waste, the store will adopt FIFO methods, digital expiry alerts, and regular pest control.

The expected outcome of this project is to provide actionable recommendations that can help the store reduce money blockage due to excess inventory, improve credit management, and increase overall profitability through better business process optimization.

3. Organization Background

M/s Jai Ambe Traders is a medium scale grocery store located near the Government Medical College in Gorakhpur district, Uttar Pradesh. Established in 2010 by Mr. Shambhu Kumar, the store initially focused on retail sales, serving to the daily needs of the local population. After his death, the business was taken over by his son, Mr. Rajan Kumar, who now manages operations. Under his leadership, the store expanded to supply small business stores as well as individual customers, offering both wholesale and retail services.

Jai Ambe Traders currently employs six staff members who work in two shifts to ensure continuous service until 10 PM. Despite its success, the store faces significant challenges including high levels of credit given to customers, managing new arrived products and inventory wastage due to rodents and product expiry. Addressing these issues through data analysis and process optimization forms the core focus of this project.

4. Problem Statement (Listed as objectives)

After having interactions with the shop owner, I got the following problem statements:

- High levels of credit extended to customers create financial stress and limit cash flow for daily operations.
- Difficulty in managing and tracking new arrival products affects stock rotation and product availability.
- Inventory wastage due to rodents and expiry leads to product loss and lower profitability.

5. Background of the Problem

The following are the factors of these problems:

- Rajan built good relationships with his customers, which earned him their trust. Out of goodwill, he started offering them products on credit. Gradually, some customers began taking advantage of this kindness and delayed their payments. Due to lack of proper credit tracking, a large amount got stuck, affecting daily cash flow and regular stock purchases.

- Rajan aimed to grow and expand the store by introducing a wider range of new products. While the expansion brought in more variety, managing the new stock became increasingly difficult. Without a proper system for stock rotation and real-time tracking, many items were left unsold. This mismanagement led to unnecessary losses, reducing overall profitability despite the store's growth efforts.

- As the store expanded, Rajan felt the need for additional storage space and started using a godown to stock extra inventory. However, with growing stock came the challenge of proper monitoring and care. Due to lack of regular checks and poor storage conditions, many items were left unattended. Over time, rodents and insects began damaging the goods, and expiry dates were often missed. This led to frequent product wastage, financial losses, and declining product quality.

6. Problem Solving Approach

To address the business issues identified at Jai Ambe Traders, I will apply multiple simple but effective analytical methods:

1. **Credit Analysis**: I will check each customer's credit history to find those who delay payments. This will help create a better credit policy and ensure timely follow-ups to improve cash flow.
2. **Inventory Turnover & Wastage Analysis**: I will analyze when products arrive, how often they sell, and if they were wasted. This will help reduce overstocking and losses from rodents or expired goods.
3. **Sales and Trend Analysis**: I have collected 6 months of sales data (from October 2024 to March 2025) to spot patterns like which products sell well in which months, which are slow-moving, and where profits or losses come from.
4. **Customer Segmentation**: Customers will be grouped based on how often they buy, how much they buy, and whether they are retail or wholesale customers. This will help provide better service and targeted credit terms.

These methods are chosen because they are practical, easy to understand, and helpful in making smart decisions.

The data will be collected for the time period of 6 months (October 2024 to March 2025). I will focus on the following key variables:
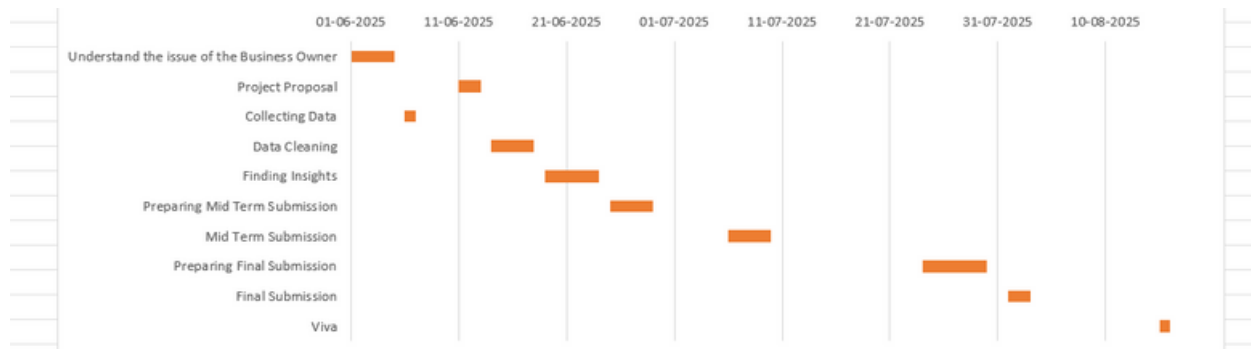
- Cost Price
- Selling Price
- Quantity Sold
- Number of Wasted Items due to expiry or damage
- Customer Credit Amounts
- Status of credit of customers

7. Expected Timeline

7.1 Work Breakdown Structure:
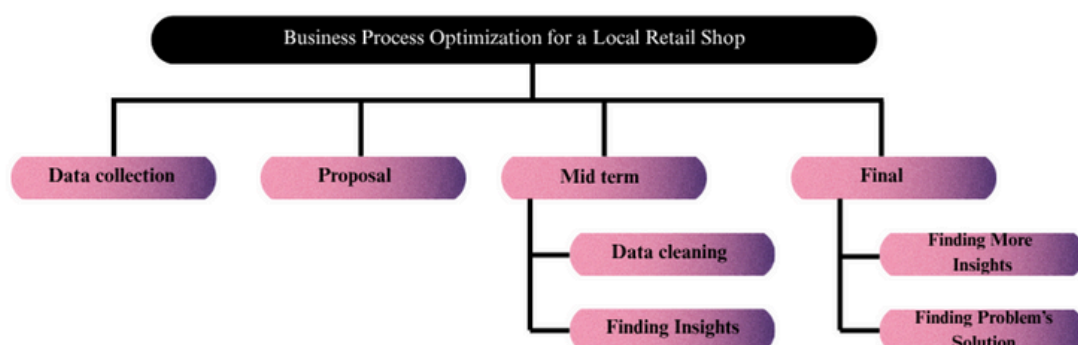
7.2   Gantt chart

8. Expected Outcome

• Improvement in credit recovery and reduction in delayed payments by identifying high-risk customers and setting clear credit policies.

 • Better inventory planning and reduction in product wastage due to expiry and rodent damage through timely stock rotation and tracking.

 • Improved understanding of customer buying patterns, helping in targeted promotions and better service for both retail and wholesale buyers.

The main reason for these outcomes is the use of effective data analysis techniques, better credit and inventory management practices, and smart customer segmentation. Some short-term guidance and support by me will help implement these changes smoothly at the store.

Thanks For Reading