Sundarayatan Store: A Strategic Analysis for Business Enhancement
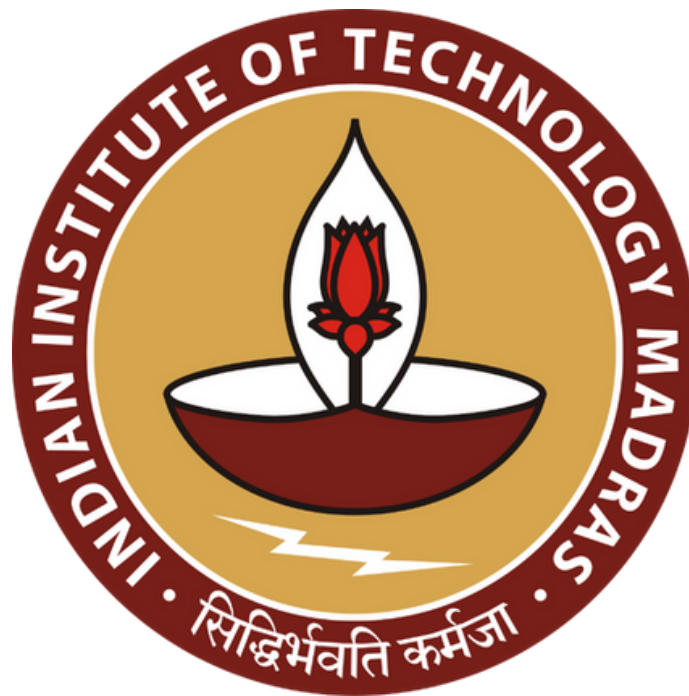## A Proposal report for the BDM Capstone Project

Submitted by

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Declaration Statement

I am undertaking a project titled "**Sundarayatan Store: A Strategic Analysis for Business Enhancement**". I would like to sincerely thank **Sundarayatan Store** for their cooperation and for granting me access to essential resources that facilitated the completion of this 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 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 hereby 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: Avinash Kumar

Date: 11th June 2025

Executive Summary :

The business I am analyzing operates as a medium-scale grocery store situated near NIT More in Patna. I selected this particular store for the following reasons:
 • Its location is close to where I reside, making regular access convenient.
 • The store operates at a scale that aligns well with the scope of my project.
 • The store owner was cooperative and willing to provide access to business-related information.
 • I frequently shop at this store and have built a rapport with the owner.
 • The owner has a basic educational background, which helped him understand the objectives of my proposal.
 • The analysis will be conducted using Microsoft Excel for time-series data handling, charting, and ratio computations.

Data Collection :

I have personally gathered data directly from the store owner using the following sources:
  • Handwritten store registers,
  • Inventory logs,
  • Copies of previous transaction bills and invoices.

Data collection is planned for around 60 days, ensuring structured and consistent gathering of sales and pricing information. This approach supports meaningful business insights and helps build an effective business model. The products currently being tracked include:
  • Rice
  • Atta (wheat flour)
  • Toor Dal
  • Moong Dal
  • Urad Dal
  • Sugar
  • Cooking Oil
  • Ghee
  • Milk and Dairy Products (such as milk, curd, paneer, cheese, etc.)
  • Dry Fruits (including almonds, cashews, raisins, and similar items)
  • Ice Cream
  • Cold Drink (soft beverages like cola, soda, etc.)

Organization Background:

Name: Sundarayatan Store
Owner: Mr. Ravi Kumar
Address: NIT More, Patna – 800006

- Sundarayatan Store is a local grocery shop that caters to the daily needs of nearby residents by offering commonly used products such as pulses, sugar, salt, cooking oils, ghee, dry fruits, and similar essentials.
  The store sees an average daily footfall of 130–160 customers and earns estimated monthly revenue of over ₹10 lakhs. It operates daily from 7:30 AM to 9:00 PM.
  Its strategic location in a residential area, along with its proximity to NIT college, attracts both local residents and student customers. This consistent and diverse customer base makes it ideal for a focused business data analysis.

- The store was established in the early part of 2006. Mr. Ravi Kumar made an initial investment of approximately ₹1,00,000 to launch the business. A portion of this investment was used for setting up the physical infrastructure, while the remainder was allocated to stocking the inventory.

- Through personal discussions with the owner and some observations on my part, I learned that the store was running successfully until the widespread growth of online shopping platforms. Since then, the store has experienced a notable decrease in customer footfall, sales volume, and overall profitability.

Problem Statement:

Based on my frequent visits to Sundarayatan Store and detailed discussions with its owner, Mr. Ravi Kumar, I observed that the store enjoys strong customer relationships and consistent sales. However, a few operational challenges have been identified:

- The overall net profit generated by the store does not meet expectations, despite decent daily transactions.
- The inventory is often overstocked, leading to potential issues such as spoilage, product deterioration, and unnecessary holding costs.

Considering the above concerns, the objectives of the project are outlined as follows:

1. Inventory Optimization: Conduct an in-depth analysis of the store's inventory with respect to sales trends and procurement patterns to reduce overstocking and minimize waste.
2. Profit Margin Evaluation: Assess the current profit margins and identify actionable strategies to enhance profitability.
3. Customer Retention & Competitive Strategy: Analyze customer preferences and pricing strategies to improve retention and remain competitive with nearby stores and online platforms.

Background of the Problem:

- After an in-depth conversation with the owner, Mr. Ravi Kumar, it was observed that Sundarayatan Store was functioning well before the rapid rise of digital shopping alternatives. However, during and following the COVID-19 lockdown period, many loyal customers shifted towards online grocery delivery platforms, attracted by competitive pricing, convenience of home delivery, and frequent promotional offers.
- Being a regular customer of this store, I have personally noticed that although it is located in a densely populated area near several residential apartments and enjoys a strong relationship with its customers, the store has been struggling to scale up its fixed infrastructure and improve long- term profitability.
  - A key issue appears to be the lack of accurate sales forecasting and inefficient inventory control, resulting in overstocking or wastage of products.
  - Additionally, certain items such as dry fruits and cooking oils are priced marginally higher than at competing stores (both physical and online), potentially reducing customer retention.

Considering these observations, this project presents a suitable opportunity to apply the concepts and analytical tools covered in the course to perform a structured analysis of the business. The goal is to suggest effective, data-driven strategies that can improve inventory management, enhance profit margins, and strengthen the store's competitive position in the evolving retail landscape.

Problem-Solving Strategy:

Methods and Justification

The primary data collected for this analysis is time-series data, which offers a robust framework for identifying trends over time. This allows for the creation of various visualizations, such as trend lines and scatter plots, to help uncover patterns and insights. I will leverage the power of pivot tables for in depth analysis, enabling me to create pie charts, stacked bar charts, and other visual tools to better understand the data. In addition, by applying key financial ratios taught in the course, I aim to compute essential financial metrics. These calculations will help in addressing the core problems identified in the project, providing a solid foundation for the business analysis.

Data Collection Strategy with Justification

Given the wide array of products offered by the seller, I have chosen to focus on 12 specific products to simplify both the data collection and analysis processes. By limiting the number of products, I can draw more conclusive insights without overcomplicating the analysis. The variables collected for these selected products include:

- Cost Price
- Selling Price
- Quantity Sold
- Quantity Purchased

With these key data points, I will calculate vital financial metrics such as Revenue, Expenditure, Gross Profit, Net Profit, Profit Margin, and Average Inventory. Additionally, I will compute several important financial ratios, including Return on Capital Employed (ROCE), Gross Profit Ratio, and Net Profit Ratio. These ratios are critical in evaluating the financial health and performance of the business. I will also gather data on capital investment, liabilities, fixed assets, variable assets, labor costs, and transportation expenses to support the calculations of the aforementioned ratios. This comprehensive data collection will enable me to conduct a thorough financial analysis and provide actionable insights.

Tools Used for Analysis and Their Justification

Given that the data collected largely falls under the category of time-series data, Microsoft Excel has been chosen as the primary tool for data processing and analysis. Excel offers a versatile environment for handling structured data, performing calculations, and creating visual insights with ease. The key tools and features being used for the analysis include:

- Pivot Tables: To efficiently summarize, filter, and compare data across rows and columns.
- Excel Functions: Functions like VLOOKUP, COUNTIF, COUNTIFS, and logical operators are being utilized to search, count, and apply conditional logic to the dataset.

- Data Visualization Techniques: For interpreting trends and patterns, a range of charting tools are being used, such as:

  - Pie Charts
  - Stacked Histograms
  - Histograms
  - Scatter Plots
  - Heat Maps etc.

These tools allow for a comprehensive examination of the store's financial and operational metrics enabling insights that are both visual and data-driven. Excel is particularly suited for this type of project because of its accessibility, powerful built-in features, and ease of use for iterative data analysis.

Expected Timeline:

Data collection is planned to cover approximately 60 days of sales records, focusing on time-series tracking of key grocery items. Once collected, the data will be cleaned, visualized, and analyzed using structured methods.
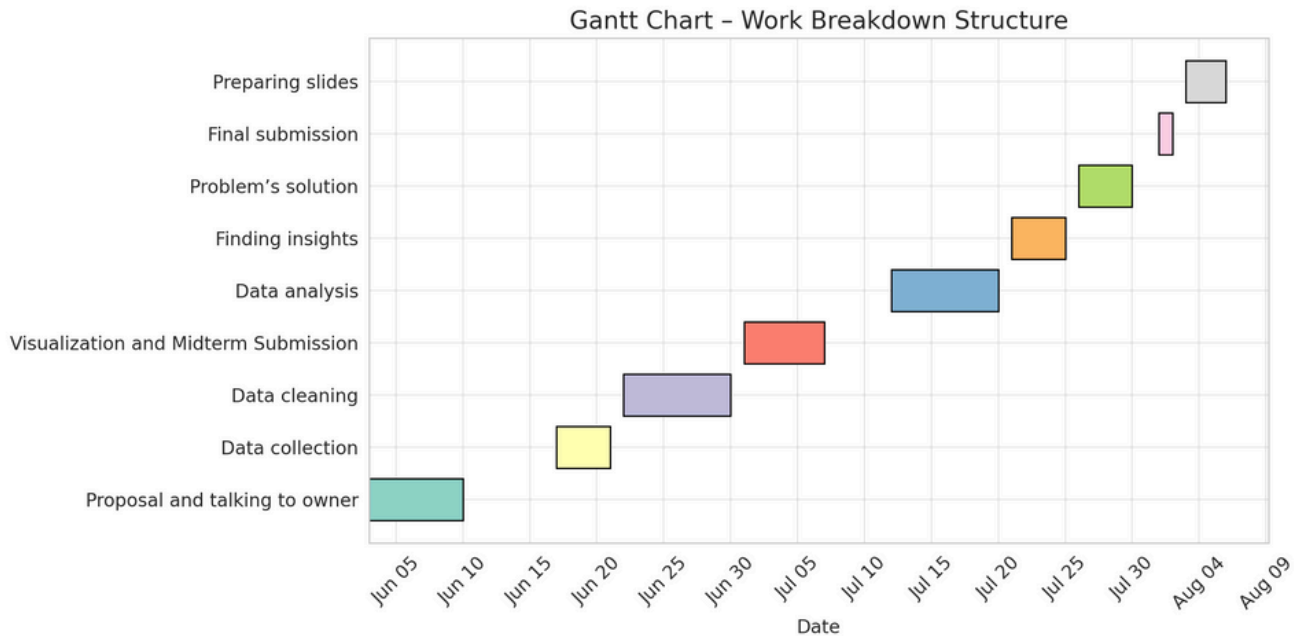
Work Breakdown Structure(WBS):

Task	Start Date	End Date
Proposal and talking to owner	Jun 3, 2025	Jun 10, 2025
Data collection	Jun 17, 2025	Jun 21, 2025
Data cleaning	Jun 22, 2025	Jun 30, 2025
Visualization and Midterm Subm	Jul 1, 2025	Jul 7, 2025
Data analysis	Jul 12, 2025	Jul 20, 2025
Finding insights	Jul 21, 2025	Jul 25, 2025
Problem's solution	Jul 26, 2025	Jul 30, 2025
Final submission	Aug 1, 2025	Aug 2, 2025
Preparing slides	Aug 3, 2025	Aug 6, 2025

Project Workflow Summary
Proposal → Data Collection → Cleaning → Visualization → Analysis → Solution → Report

Gantt chart:

Outcome Expectations:

- Provide better business organization support to the store owner by preparing pivot tables, charts, and visual dashboards that make the data easier to understand and act upon.
- Recommend an optimized inventory management strategy by identifying patterns in product movement, sales, and wastage. Propose a profit-enhancing action plan, outlining specific
- suggestions that aim to improve operational efficiency and increase the overall profit margin of the business based on data insights.