

MediSmart: A Medical Store Analysis



A Proposal report for the BDM capstone Project



Case Study of Akanksha Medicals

Submitted by

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Contents

1	Executive Summary and Title	3
2	Organization Background	3
3	Problem Statement	4
3.1	Inventory Management	4
3.2	Profitability	4
3.3	Product Expiry	4
4	Background of the Problem	4
5	Problem Solving Approach	5
6	Expected Timeline	5
6.1	Work Breakdown Structure	5
6.2	Gantt chart	6
7	Expected Outcome	6

Declaration Statement

I am working on a Project titled “**MediSmart: A Medical Store Analysis**”. I extend my appreciation to Akanksha Medicals, 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: Sanjana Gandhi

Date: 03-09-2024

1 Executive Summary and Title

Title : MediSmart: A medical store analysis

Akanksha Medicals, a small-scale business located in Alwar, Rajasthan, operates as a B2C pharmacy and medical store. The business deals with a wide range of over-the-counter medicines, prescription drugs, and healthcare products, including essential items such as Paracetamol, Ibuprofen, Amoxicillin, and Insulin.

The major challenge faced by the business is related to inventory management and low profitability. The store is currently overstocked on certain items while other essential products are often understocked, leading to expired products and high operational cost. Additionally, rising product prices, unprofitable products, and outdated pricing strategies have affected revenue.

The proposed solution is to implement a Business Data Management System that will track inventory, purchases, and sales in real time, helping to reduce excess stock and provide better financial tracking. By analyzing sales and inventory data using cost-volume-profit analysis, the system will generate useful reports and insights. The ultimate goal is to improve profitability by cutting down on excess inventory, optimizing stock levels, and providing insights that help in financial decision-making.

2 Organization Background

Name : Akanksha Medicals

Owner : Mr. Sanjay gupta

Address : 4/434, Kala Kuan, Aravali vihar, 3/599, Kala Kuan Housing Board, Aravali Vihar, Alwar, Rajasthan 301001

Akanksha Medicals is a locally owned pharmacy located in Alwar, Rajasthan, India. It serves a large customer base with essential medicines, healthcare products, and wellness items. Akanksha Medicals was founded to offer trustworthy and reasonably priced medical services, and it has progressively expanded throughout the area.

In order to meet the demands of the general public, the store has gradually increased the range of goods it offers to include over-the-counter medications, health supplements, and personal hygiene items. Nevertheless, the store has experienced operational inefficiencies, notably in inventory management and sales tracking, much like many small enterprises. There has been an increasing demand for a more structured and data-driven approach to business operations due to the use of manual record-keeping systems.

Ref:

1. <https://maps.app.goo.gl/sY45Xsbw1PYcyDub6>

3 Problem Statement

- 3.1 **Inventory Management:** The store is struggling to maintain optimal stock levels, leading to both overstocking and stockouts of key medicines.
- 3.2 **Profitability:** Rising costs and inefficient pricing strategies are reducing profit margins, impacting the store's bottom line.
- 3.3 **Product Expiry:** Managing product expiry dates is a major concern, with losses incurred due to unsold, expired products.

4 Background of the Problem

Major cause of problems:

The primary issue at store is inefficient inventory management, which affects the stores ability to meet customer demands and increases operational costs. The store often faces the problem of either overstocking medicines, resulting in financial setbacks and increased risk of product expiry, or understocking, leading to lost sale opportunities and customer dissatisfaction.

Internal problems:

In addition, the company's revenues have decreased due to an outdated pricing model that does not take into account the rising cost of products and inflation. The problem has gotten worse by the lack of a clear strategy for monitoring and adjusting costs according to the needs of the company.

External problems:

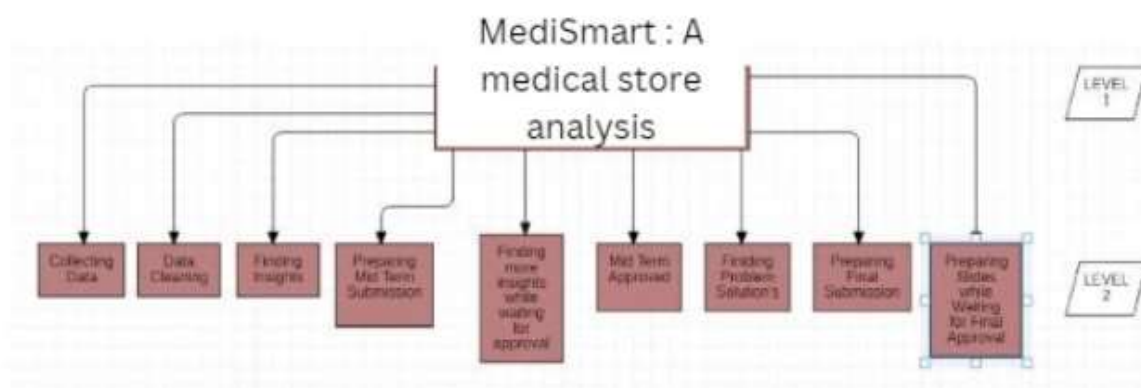
Managing product expiry dates has become a significant challenge, especially for medicines that have a shorter shelf life. Unsold, expired products lead to financial losses and impact the store's ability to rotate stock efficiently.

5 Problem Solving Approach

- 5.1 **Inventory Management System:** The first step is to build an automated inventory management system. This system will track purchases and sales in real-time using databases to store and manage the data. Scripts will be used to trigger alerts when certain products are running low, reducing the chance of understocking. On the other hand, it will also identify products that have been on the shelf for too long to minimize the risk of overstocking and expired products. A monthly inventory turnover report will be generated to track stock levels.
- 5.2 **Sales Analysis:** A sales tracking system will be implemented to analyze which products are selling the most and during which periods. Excel will be used to analyze sales trends over time, and dashboards will provide visual insights. Sales forecasting will help in making better purchasing decisions, ensuring that the right products are stocked at the right time.
- 5.3 **Financial Monitoring:** To solve the problem of inconsistent financial tracking, a reporting system will be developed. The system will calculate key financial metrics such as profit margins, gross profit, and net profit automatically. Real-time reports will help the store's management understand how much they are earning, spending, and saving, enabling them to make data-driven decisions.
- 5.4 **Customer Data Insights:** Lastly, customer purchase data will be collected to better understand buying patterns and preferences. This will help the store stock products that are more likely to be in demand, leading to more sales. A customer demographic analysis (age, gender, and purchase frequency) will also be carried out, and promotions can be customized accordingly.

6 Expected Timeline

6.1 Work Breakdown Structure:



6.2 Gantt chart:

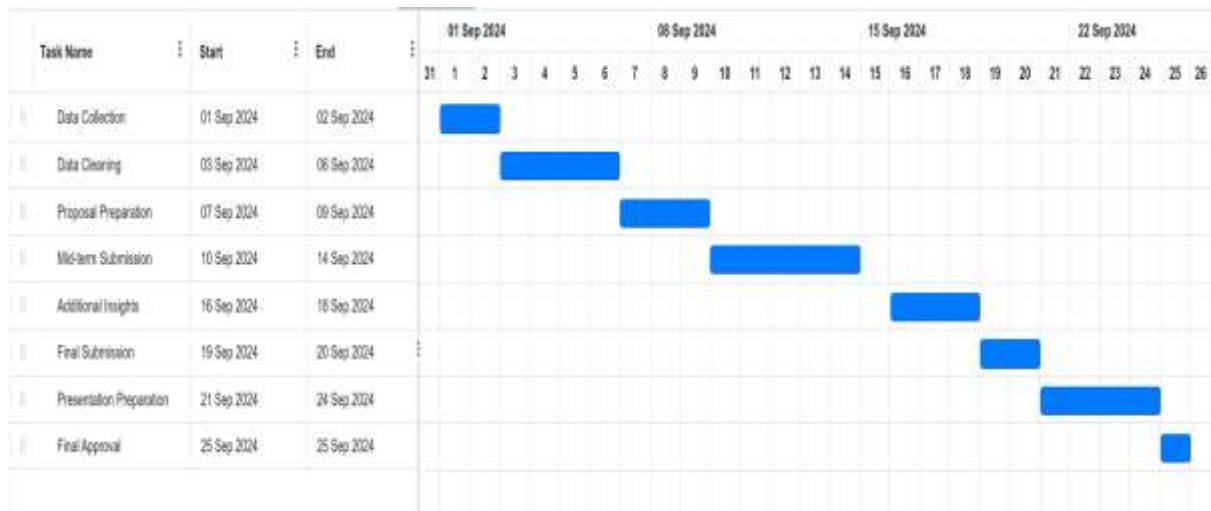


Figure 1 Expected timeline for completion of project.

7 Expected Outcome

- 7.1 **Improved inventory management:** The new system will help the store keep better track of its stock, ensuring that high-demand products are available, while reducing excess inventory that could expire.
- 7.2 **Enhanced financial tracking:** The system will automate the calculation of profit margins, expenses, and revenue, providing the management with real-time insights into the store's financial health.
- 7.3 **Better sales insights:** The store will be able to track which products are selling well and which are not, allowing for better stocking decisions. This will also help in forecasting demand based on past trends.