

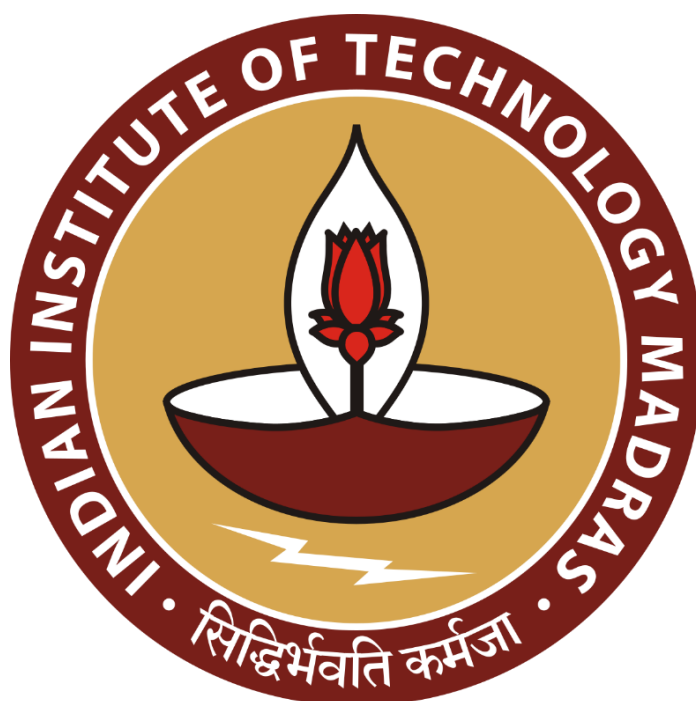
Title of the Project :-

Investigating the challenges that Pharmacy encounters: An Extensive and Comprehensive Analysis.

A Proposal report for the BDM capstone Project

Submitted by :-

Name :- Achin Aggarwal
Roll number :- 22f1001390



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

Contents

1	Executive Summary and Title (200 Words)	3
2	Organization Background (150 Words)	3-4
3	Problem Statement (Listed as objectives) (50-75 Words)	4
3.1	Problem statement 1: Explanation in 1-2 lines	4
3.2	Problem statement 2: Explanation in 1-2 lines	4
3.3	Problem statement 2: Explanation in 1-2 lines	4
4	Background of the Problem (200 Words)	4-5
5	Problem Solving Approach (400 Words)	5-6
6	Expected Timeline	6-7
7	Expected Outcome	8

Declaration Statement

I am working on a Project Title “**Investigating the challenges that Pharmacy encounters: An Extensive and Comprehensive Analysis**”. I extend my appreciation to **Jindal Medical Store**, 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.

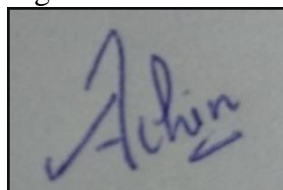
Additionally, I affirm that all procedures employed for the purpose of data collection and analysis have been duly explained in this report. The outcomes and inferences derived from the data are an accurate depiction of the findings acquired through thorough analytical procedures.

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 :- Achin Aggarwal

Date :- 04-11-2024

1 Executive Summary and Title

Title : - Investigating the challenges that Pharmacy encounters: An Extensive and Comprehensive Analysis.

This project focuses on a medical store located in Palwal, a small business that plays a critical role in the community by providing essential medicines and healthcare products. Operating in the B2C segment, this medical store faces various challenges that impact its ability to deliver effective service to customers, especially during the ongoing pandemic when healthcare needs are heightened.

The major issues identified include supply chain delays, regulatory compliance hurdles, customer service limitations, and financial constraints like delayed payments. These problems can reduce the store's efficiency and affect its ability to provide necessary medications consistently and quickly to customers.

To address these challenges, I will analyze the operations of the selected medical store, identifying key areas for improvement. By studying various approaches such as personalized customer service, implementing credit policies, introducing diverse payment options, and improving inventory management, I aim to develop solutions that make the store's operations smoother and more efficient.

The outcome of this project will help the medical store owner optimize their business operations, reduce delays, prevent the sale of counterfeit medicines, and enhance customer satisfaction. Ultimately, this will contribute to a more reliable healthcare service for the community and support the store's long-term success.

2 Organization Background

Name of the Firm :- Jindal Medical Store

Owner's Name :- Narender Jindal

Location :- Near Bus Stand, Palwal, Haryana

Jindal Medical Store is a small, community-centered pharmacy that provides essential healthcare products and medications to local residents. Owned by Narender Jindal, this pharmacy is a critical resource for the community, especially during times when access to medical supplies is urgent. However, like many small businesses in the healthcare sector, Jindal Medical Store faces several operational challenges.

One key issue the owner faces is managing inventory effectively. With a wide variety of medications to stock, ranging from everyday pain relievers to prescription drugs, keeping track of supply levels is difficult. This can result in shortages, overstocking, and ultimately impact the store's profitability and customer satisfaction.

Additionally, pending customer payments have become an ongoing challenge, affecting cash flow

and profitability. Although Mr. Jindal has tried various approaches, including early payment discounts and reminders, these issues persist. This project aims to identify tailored solutions to address these challenges, enhance operational efficiency, and support the store's success in a competitive marketplace.

3 Problem Statement

3.1 Expired Medicines :- Managing the stock of medicines to prevent expiry is a challenge. Expired products result in financial losses and impact customer trust.

3.2 Delayed Bill Payments :- Frequent delays in customer payments affect the cash flow, limiting the store's ability to restock essential medicines on time.

3.3 Inventory Management :- Inefficient inventory tracking leads to overstocking or stockouts, disrupting the supply of critical medications and impacting profitability.

Addressing these challenges is essential for the sustainable operation of Jindal Medical Store. Effective solutions will help optimize inventory management, reduce financial strain from delayed payments, and prevent losses from expired stock. By tackling these problems, the store can enhance customer satisfaction, improve cash flow, and maintain a reliable supply of essential medications for the community. This project aims to propose actionable strategies to overcome these obstacles and strengthen the store's overall business operations.

4 Background of the Problem

In a chemist shop, effective management of inventory and finances is essential for smooth operations and customer satisfaction. However, Jindal Medical Store faces recurring challenges that compromise its efficiency and reliability.

One critical issue is the presence of expired medicines, which not only results in revenue loss but also poses serious health risks to customers. This problem arises from poor inventory management and a lack of awareness among staff regarding expiration dates. Without systematic tracking, expired products remain on shelves, endangering consumer health and damaging the shop's reputation.

Inventory management as a whole is another pressing concern. Inadequate systems for monitoring stock levels lead to frequent stockouts or overstocking, both of which hinder profitability. The absence of a dedicated inventory management system means staff often lack awareness of current stock levels, leading to wastage and reduced service quality.

A third issue is the accumulation of pending customer payments. This problem stems from the lack of a formal credit policy and limited payment options, which result in delayed payments and

disrupt cash flow. Cash flow issues prevent timely restocking of essential medicines and strain the business financially. Additionally, inconsistent follow-up on outstanding payments contributes to cash shortages and can impact customer trust.

Addressing these internal and external challenges is essential for the store's sustainable growth and its ability to serve the healthcare needs of the community effectively. This project will analyze these issues further to develop strategic solutions tailored to the unique demands of the medical retail sector.

5 Problem Solving Approach

To address the issues faced by Jindal Medical Store, a comprehensive approach has been developed that integrates data analysis and visualization tools to provide actionable insights. This approach will focus on inventory management, revenue analysis, and payment tracking.

a. Methods and Justification:

To analyze the shop's revenue and identify inefficiencies, sales data will be collected and examined from September 2024 to October 2024. The data will be visualized using various types of charts to enable clearer insights. Pie charts will categorize sales data by product type, providing a visual breakdown of which types of medicines contribute most significantly to revenue. Bar graphs will be employed to highlight the highest-selling products and identify the top revenue-generating SKUs. Additionally, graphs will be used to illustrate the impact of pending payments on revenue. Time-series data will show sales trends over specific intervals, which can reveal peak periods, seasonal demand fluctuations, or sales lulls. This approach provides a multi-dimensional view of revenue sources and potential losses, allowing for targeted improvement strategies.

b. Data Collection and Justification:

The data collection process will involve tracking daily sales information for a sample of ten commonly sold medicines. The selection of ten medicines is strategic; it balances depth of analysis with feasibility, ensuring sufficient data for trend identification without overwhelming the process. Data on daily transactions, customer payments, and outstanding balances will be collected in a systematic manner, recorded initially in a notebook and later transferred to an Excel sheet for structured analysis. The data collection period spans two months, capturing a significant sample size to observe typical business patterns while allowing midterm results to be assessed. The focus on customer payment status, sales quantity, and revenue provides a detailed picture of cash flow and inventory turnover, both critical for informed business decision-making.

c. Analysis Tools and Justification:

Microsoft Excel and Google Sheets will serve as primary tools for data entry, cleaning, and analysis. These tools are accessible, flexible, and user-friendly, making them ideal for small business applications. Features like charts, tables, pivot columns, and filters will allow data to be organized, processed, and visualized efficiently. Separate sheets will be created to manage different aspects of the analysis, from categorizing inventory items to tracking customer payments. The functionality of these tools supports fast, efficient analysis and enables the generation of reports that are easy for the shop owner to interpret and act upon.

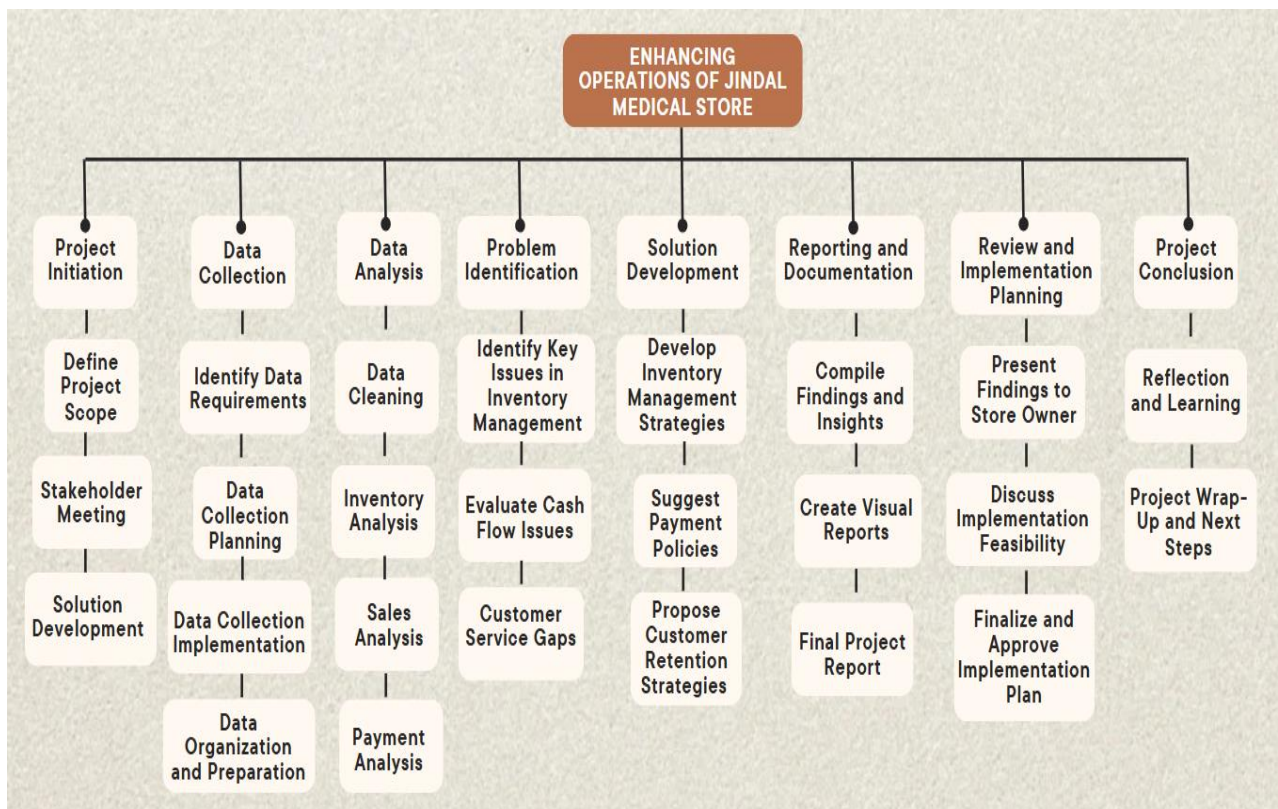
d. Data Visualization and Trend Analysis:

Various charts and graphs will be created to visualize the collected data effectively. Pie charts will illustrate the proportion of different medicine categories, which aids in identifying the most popular product types. Bar graphs will display the top revenue-generating SKUs, allowing the owner to focus on key products. Time-series data visualization will uncover sales trends, highlighting peak sales periods and potential seasonal demand shifts. These visualizations make the data insights easily understandable and actionable, empowering the owner to make informed decisions regarding restocking, promotional activities, and operational improvements.

By implementing this structured approach to data collection and analysis, Jindal Medical Store can gain a comprehensive understanding of its revenue streams, inventory dynamics, and payment status. Insights derived from this analysis will guide improvements in inventory management, reduce losses from expired medicines, and streamline cash flow by addressing payment delays. Ultimately, these data-driven strategies will enable the shop owner to make decisions that enhance profitability, operational efficiency, and customer satisfaction, fostering long-term growth for the business.

6 Expected Timeline

6.1 Work Breakdown Structure:



Google Drive Link for Work BreakDown Structure :-

<https://drive.google.com/file/d/1eg6zGIEnQ-G3OiBGpHcS6Z2weyKVQqJ2/view?usp=sharing>

6.2 Gantt chart

A	B										C					D				E				
Project Title	Enhancing Operations of Jindal Medical Store																							
Business Name	Jindal Medical Store										Project Start :-					10-28-2024								
Project Lead	Achin Aggarwal																							
	TASK										START					DAYS				END				
1	BDM PROJECT																							
1.1	Collecting Data										10/28/2024					3				10/30/2024				
1.2	Data Cleaning										10/31/2024					2				11/1/2024				
1.3	Finding Insights										11/1/2024					1				11/1/2024				
1.4	Preparing Proposal Submission										11/2/2024					3				11/4/2024				
1.5	Finding More Insights while waiting for approval										11/4/2024					2				11/5/2024				
1.6	Proposal Approved										11/5/2024					1				11/5/2024				
1.7	Preparing Mid Term Submission										11/5/2024					6				11/10/2024				
1.8	Finding More Insights while waiting for approval										11/10/2024					3				11/12/2024				
1.9	Mid Term Approved										11/12/2024					1				11/12/2024				
1.10	Finding Problem's Solutions										11/12/2024					2				11/13/2024				
1.11	Preparing Final Submissions										11/13/2024					3				11/15/2024				
1.12	Preparing slides while waiting for approval										11/15/2024					4				11/18/2024				
1.13	Final Approved										11/18/2024					1				11/18/2024				
G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	

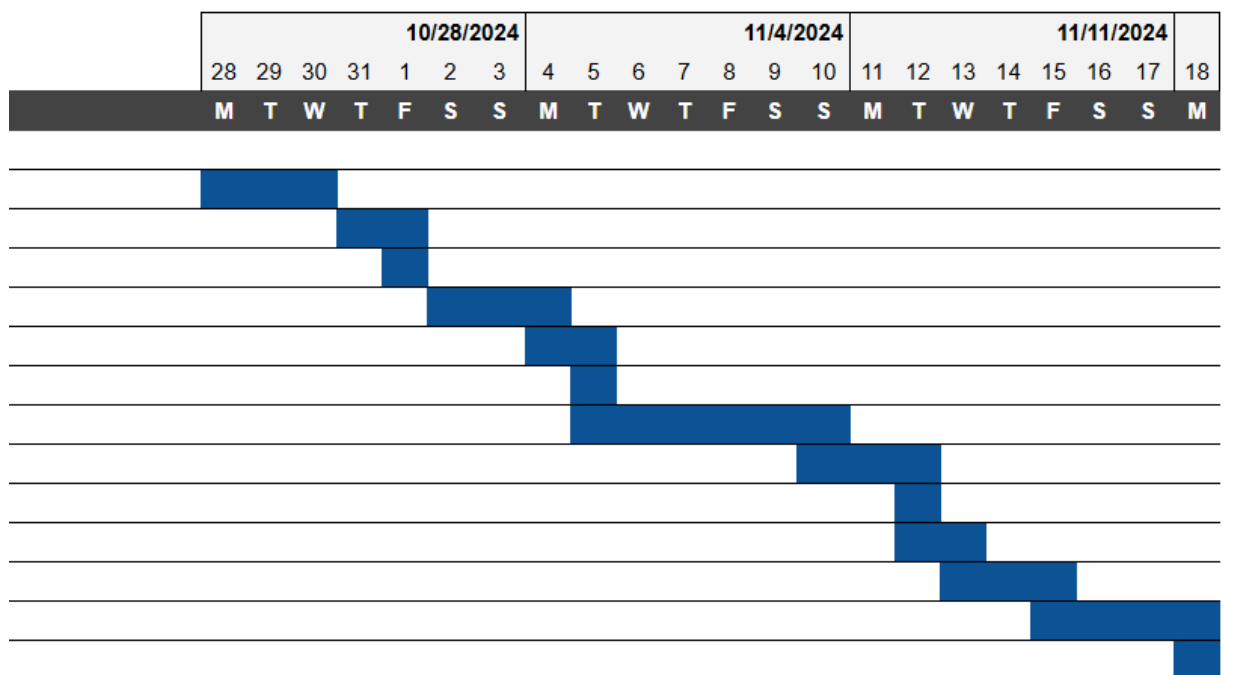


Figure 1 Expected timeline for completion of project

7 Expected Outcome

This capstone project is designed to bring significant benefits to both the medical store owner and myself as a Business Data Management (BDM) student at IITM. By implementing data-driven solutions, the store owner can achieve better inventory planning, enabling him to understand which products sell the most and when to restock to avoid overstocking or stockouts. This improvement in inventory control will also help reduce losses from expired medicines, directly impacting profitability.

Through a detailed analysis of sales and payment data, the project will also highlight key trends and patterns in customer purchasing behavior, allowing for better demand forecasting and targeted marketing efforts. Additionally, insights from customer payment history will assist in establishing credit policies that minimize pending payments and enhance cash flow, ensuring a steady financial base for business growth.

For me, this project offers valuable, hands-on experience in applying BDM principles to real-world challenges, from data collection to actionable insights. By addressing practical issues like supply chain management and customer service, I am gaining skills that will shape me into a well-rounded business professional. Overall, this project serves as a bridge between academic learning and real-world application, benefiting both the business owner and my own professional growth.

Submitted by :-

Name :- Achin Aggarwal
Roll number :- 22f1001390