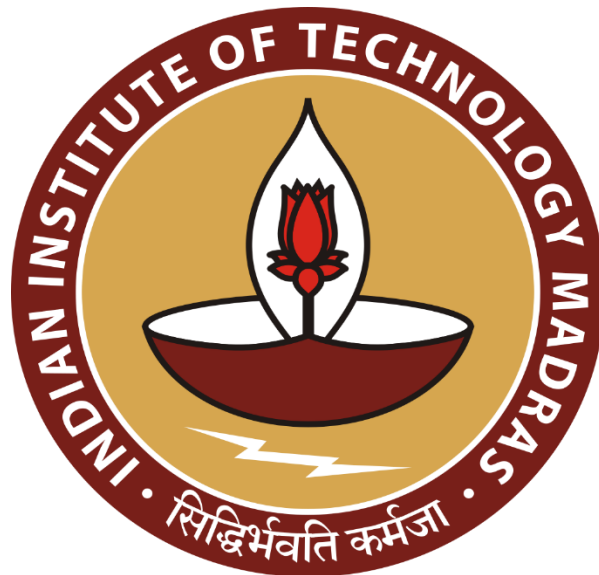# Analysis of Sales Pattern and facilitate organization to reduce the Cash Flow Mismatch

A Proposal report for the BDM Capstone Project

Submitted by

Name: **CHELAKARRI ANANTHA SAI SRIKAR**

Roll number: **21f1004284**

IITM Online BS Degree Program,

Indian Institute of Technology, Madras, Chennai

Tamil Nadu, India, 600036

Contents

Declaration Statement

I am working on a Project Title **"Analysis of Sales Pattern and facilitate organization to reduce the Cash Flow Mismatch".** I extend my appreciation to **Rajashekar Textiles**, 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 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 :

Name : CHELAKARRI ANANTHA SAI SRIKAR

Date : 29/06/2024

1   Executive Summary and Title

The project focuses on a medium-sized textile shop located in Kurnool, Andhra Pradesh. This B2B business provides readymade sarees, dress materials, and handlooms to retailers.

The major issues that the organization is facing are Inventory Management and Cash Flow Mismatch. The organization struggles to understand customer demand, resulting in excess stock and an imbalance between the timing of cash inflows and outflows.

Steps to address these issues:

1. Collect and load stock, sales, and purchase data into Excel.
2. Clean the data for analysis.
3. Analyze data, grouping by month to assess monthly stock levels.

By analyzing monthly sales and purchase data, this project aims to provide insights into product performance. This will help the organization manage inventory more effectively, reducing excess stock and freeing up cash for paying suppliers or other expenses. The main objective is to identify the best-performing stocks to make better buying decisions and reduce cash flow mismatch. Additionally, this analysis will help in labor management by identifying busy days during the week, allowing for better scheduling and resource allocation.

The expected outcome is to improve inventory management, enhance cash flow, and provide insights for better decision-making, ultimately supporting the business's financial stability and operational efficiency.

2   Organization Background

The organization that I am working with is Rajashekar Textiles, which is a for-profit organization. This textile shop is a distribution centre for various retail shops. It is established in the year 1996 by Anand Rao with an investment of 2 lakhs, and is now run by his son Rajashekar. The shop, located on about 2000 square yards in the old bus-stand area of Kurnool city, distributes products to the customers in villages and talukas within a 100-kilometer range

across 3-4 districts. The inventory mainly consists of sarees, followed by dress materials and other handlooms. This shop gets its products from Surat, Bangalore, Kolkata, Varanasi and Balotra. The shop has about 15 members of staff with owner Rajashekar guiding them. With nearly three decades of experience in the textile industry, Rajashekar Textiles utilizes its extensive knowledge and expertise to consistently offer customers the highest quality and most up-to-date products available.

3   Problem Statement

3.1   Improve understanding of customer needs to minimize excess inventory and optimize pricing strategies for surplus stock.

3.2   Align cash inflows from customers with outflows to suppliers to mitigate Cash Flow Mismatch and enhance liquidity management.

3.3   Enhance labour management practices to provide competitive salaries, effectively manage employee leave and maintain workforce satisfaction.

4   Background of the problem

The first problem revolves around better grasping of what customers truly want, to reduce unnecessary stock and refine pricing for extra inventory. When a business doesn't fully understand customer preferences, it often results in overstocking items that don't sell well, leading to wasted resources and storage costs. And pricing surplus stock becomes challenging without insights into customer demand, causing potential losses. By improving customer understanding, business can align their inventory with actual needs and develop smarter pricing strategies that maximize profit while clearing out surplus.

The second problem stems from a misalignment between cash inflows from customers and outflows to suppliers, causing cashflow mismatches. Customers pay late, while suppliers demand quicker payments, leading to liquidity challenges. This imbalance can disrupt operations and hinder growth. Improving this enhances liquidity management and ensures smoother financial operations.

The third problem is a most common problem in most of the businesses. Ineffective labour management leads to dissatisfaction and them not working to their potential causing problems in the business. Inadequate salaries, poor leave management and unaddressed workforce needs lead to high turnover and low morale. Enhancing labour practices with competitive pay, efficient leave policies, and a focus on employee satisfaction boosts retention and productivity.

5 Problem Solving Approach

To address the challenge of maintaining better inventory management, reducing cash flow mismatch and handling the employees better, Rajashekar Textiles will be advised a simple and clear problem solving approach. This approach involves multiple stages, and with each stage we learn more and more insights about the persisting problem and take strategic decisions to solve them.

1. **Loading data to the Excel from pdf:** In this step, we load stock and sales data from PDF to Excel. It involves extracting information using software tools. This process converts unstructured PDF data into a structured Excel format for analysis and reporting. This step enables smooth data accessibility, better inventory and sales tracking, informed decision making.

2. **Data Cleaning and Preprocessing:** Once the data is loaded into excel, various cleaning and preprocessing methods are implemented. This step involves refining and transforming the raw data into usable format for analysis. It includes removing duplicates, correcting errors, handling missing values and standardizing formats. This step ensures data accuracy and consistency, which is suitable for an analysis. Doing this step effectively enables better decision making and more accurate predictions.

3. **Data Analysis and Assumption Derivation:** Now that the data is ready for the analysis, we summarize sales data to identify trends and patterns. Then calculate some of the key metrics such as average, peak sales period etc. For visualization, we might be using suitable graphs. And also we might be finding some correlations between features for a better customer understanding. We might be providing the organization an effective inventory management to reduce cash flow mismatch to some extent and we might also

explore some short-term financing options to manage temporary cash flow shortfalls. We might use the sales data and payment schedules to forecast future cash inflows and outflows. Then we analyse the sales data based on weekdays, conduct some feedback surveys of employees in the organization and come up with a better strategic plan for a good labour management and a healthy working space.

4. **Deriving Recommendations from Analysis:** Based on my analysis, I might be coming out with some strategic recommendations aimed at optimizing inventory management, reducing cash flow mismatch and enhancing labour practices to improve satisfaction and efficiency.

In summary, the problem-solving approach for Rajashekar Textiles involves data-driven analysis. With better inventory management, reducing cash flow mismatch and enhancing labour practices, the organization will be able to make good stand in textile industry.

6   Expected Timeline

Breakdown of the work:

1. **Collection of Data:** 3rd of July, 2024
2. **Data Cleaning and Preprocessing:** 4th of July, 2024
3. **Finding Insights:** 5th to 8th of July, 2024
4. **Preparing Mid Term Submission:** 9th of July, 2024
5. **Results of Proposal Submission:** 10th of July, 2024
6. **Results of Mid Term Submission:** 15th of July, 2024
7. **Finding Problem's Solutions:** 22nd of July, 2024 to 02nd of August, 2024
8. **Writing Report for Final Submission:** 02nd to 9th of August, 2024
9. **Making Corrections and Submitting the Final Submission:** 12th to 15th of August, 2024
10. **Results of Final Submission:** 20th of August, 2024

Gannt Chart:

GANNT CHART FOR THE TIMELINE AFTER WRITING PROPOSAL
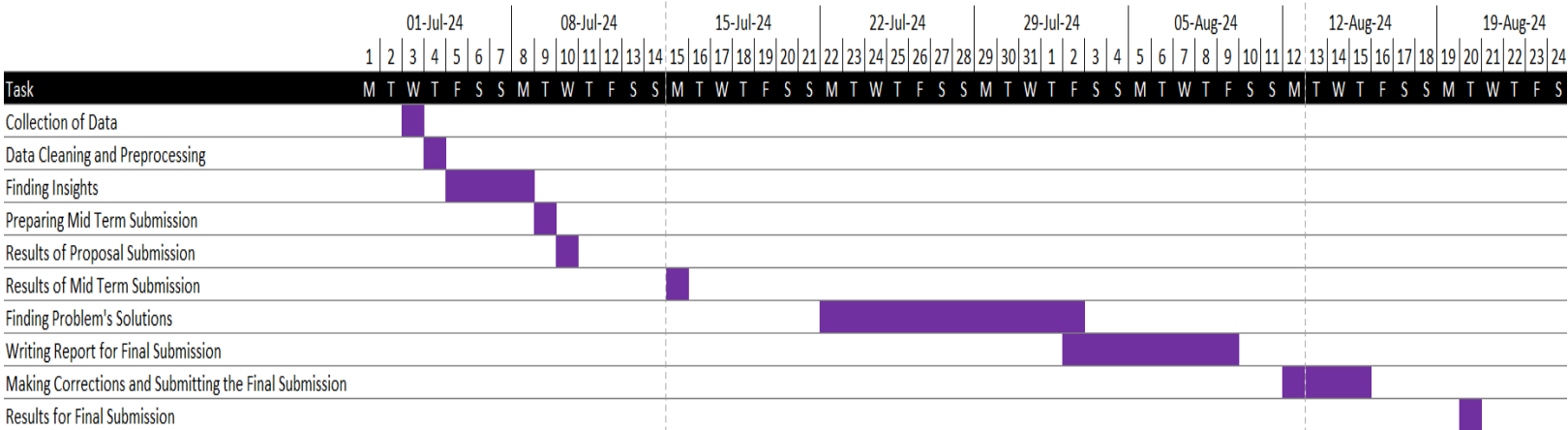
7   Expected Outcome

The expected outcome of this project is the overall better management of Inventory, improved cash flow and a better working atmosphere for the employees. Based on the insights obtained from the data analysis, the organization could look to enhance its marketing strategies and take advantage of new opportunities. By carefully analyzing the sales patterns and learning customer needs, Rajashekar Textiles may consider implementing a different strategic approach to meet their business needs, and their customer needs. By reducing the over stocks, the organization frees up the cash that was previously tied up in unsold goods, improving liquidity and reducing cash flow mismatch. By identifying the slow moving inventory, the organization can plan their sales strategies differently so that there are low cash flow problems. By finding the most busy days in a week, organization can plan their labour holidays and leaves accordingly. With this data-driven approach and methodical planning, organization may enhance its presence in the market, drive revenue growth and achieve a competitive edge in textile business.