

# Optimizing Revenue Streams and Operational Efficiency: A Data-Driven Approach for a Clothing Manufacturing and Export Company

A Proposal report for the BDM capstone Project

Submitted by  
Name: Navya Tyagi  
Roll number: 22f1001270



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

# Contents

1. Executive Summary and Title
2. Organization Background
3. Problem Statement
4. Background of the Problem
5. Problem Solving Approach
6. Expected Timeline
7. Expected Outcome

## Declaration Statement

I am working on a Project titled “Optimizing Revenue Streams and Operational Efficiency: A Data-Driven Approach for a Clothing Manufacturing and Export Company”.

I extend my appreciation to **JK Clothing**, 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: Navya Tyagi

Date: 05/12/2023

## **1. Executive Summary and Title**

JK Clothing, a prominent export-oriented company under JK Handicrafts, specializes in high-quality garment manufacturing with a 15-year legacy. The company prides itself on excellence, delivering chemical-free products globally and maintaining an impeccable track record.

The challenge lies in enhancing sales, optimizing inventory management, and understanding customer preferences. JK Clothing faces obstacles in targeted marketing, inventory control, and aligning products with evolving customer needs.

The envisioned approach involves leveraging data analytics to drive solutions. By analyzing sales data, customer behavior, and inventory trends, the aim is to tailor marketing strategies, optimize inventory levels, and refine product offerings. This data-driven strategy seeks to enhance sales performance, reduce return rates, and improve operational efficiency.

The solution envisages a holistic approach—precise inventory management, personalized marketing, and product refinement—to address market challenges and solidify JK Clothing's position as a preferred supplier in the global market for quality garments and textiles.

## **2. Organizational Background**

JK Clothing, a subsidiary of JK Handicrafts headquartered in Jaipur, India, stands as a premier export-driven enterprise with over 15 years of industry expertise. Renowned for its superior garment manufacturing and global exports, JK Handicrafts has garnered acclaim for delivering top-tier products to esteemed international clients.

Distinguished by its diverse portfolio, JK Clothing specializes in a wide array of garments and prides itself on crafting chemical-free products, prioritizing safety and uncompromised quality. Notably, the company boasts an impeccable track record, having upheld an exceptional standard with zero complaints regarding product quality.

Committed to fostering enduring client partnerships, JK Clothing prioritizes delivering unparalleled quality while maintaining competitive pricing. Its unwavering dedication to precision craftsmanship, safety protocols, and unwavering customer satisfaction positions the company as a trusted and favored supplier in the global market for distinctive home textiles and handicrafts.

## **3. Problem Statement**

### **3.1 Problem Statement 1: Enhancing Sales Performance**

We aim to find effective strategies using sales data to increase product sales and expand market reach within specific customer segments.

### **3.2 Problem Statement 2: Inventory Optimization for Cost Efficiency**

We need methods to optimize inventory management practices by leveraging data-driven insights to forecast demand accurately, thereby reducing excess stock while ensuring product availability to meet customer demand efficiently.

### **3.3 Problem Statement 3: Customer Behavior Analysis for Product Enhancement**

Understanding customer preferences and behavior patterns through data analysis is crucial for refining product offerings and tailoring marketing strategies, aiming to enhance customer engagement and satisfaction levels.

## **4. Background of the problem**

The challenges faced by JK Clothing in boosting sales, managing inventory efficiently, and understanding customer preferences arise from both internal and external factors.

### **Main Causes of Problems**

- Sales Performance: Limited understanding of customer behavior and ineffective marketing strategies contribute to stagnant sales.
- Inventory Management: Inaccurate forecasting leads to surplus or shortage of products, impacting overall efficiency and finances.
- Customer Preferences: Lack of insights into what customers want hampers product development and targeted marketing efforts.

### **Internal Challenges**

Internally, JK Clothing struggles with disconnected data systems, hindering decision-making across departments.

### **External Factors**

Externally, global competition, economic changes, and evolving consumer trends affect JK Clothing's supply chain and market reach.

Resolving these challenges requires leveraging data analysis to improve decision-making. By addressing these issues, JK Clothing aims to enhance its market position and efficiency in a competitive global market.

## **5. Problem Solving Approach**

### **1. Enhancing Sales Performance:**

- Data-Driven Marketing: Analyze sales data to understand customer segments and preferences. Tailor marketing strategies based on this analysis.
- Market Analysis: Utilize sales data and feedback to pinpoint potential growth areas. Focus efforts on markets showing untapped potential.

### **2. Optimizing Inventory Management:**

- Demand Forecasting: Use historical sales data for predictive analysis. Determine optimal stock levels and reorder points to avoid shortages or excess stock.

- Inventory Tracking: Implement real-time monitoring to control inventory effectively, ensuring products are available as needed.

### 3. Understanding Customer Preferences:

- Behavior Analysis: Utilize data mining to comprehend customer behavior and sentiment. Analyze feedback for identifying trends and preferences.
- Product Development: Apply insights to improve existing products or develop new ones aligned with customer preferences.

### Implementation Strategy:

- Self-Integration: Ensure personal alignment and coordination across tasks and strategies, consolidating insights from individual analysis.
- Continuous Improvement: Regularly review and adapt strategies based on real-time data and observed market changes.
- Invest in Personal Skill Set: Strengthen analytical capabilities for ongoing data interpretation and decision-making.

This structured approach aims to leverage data effectively, guiding individual decision-making and driving improvements in sales, inventory management, and customer satisfaction for JK Clothing.

## 6. Expected Timeline

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
Work Breakdown Structure (WBS)				Week 1							Week 2							Week 3							Week 4							
				20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
TASK	Start date	End date	Duration	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M
Data Collection	11/20/2023	11/20/2023	1																													
Data Cleaning	11/21/2023	11/21/2023	1																													
Brainstorming/ Data Analysis	11/22/2023	11/30/2023	9																													
Preparing proposal	12/1/2023	12/1/2023	1																													
Finding insights	12/2/2023	12/2/2023	1																													
More Data Analysis	12/3/2023	12/7/2023	5																													
Preparing Mid term submission	12/8/2023	12/9/2023	2																													
Working on final solution	12/10/2023	12/11/2023	2																													
Preparing Final Submission	12/12/2023	12/15/2023	4																													
Preparing slides	12/16/2023	12/18/2023	4																													

Figure 1:Expected timeline for completion of project

## 7. Expected Outcome

**Improved Inventory Planning:** Enhanced understanding of product demand for better inventory management.

**Return Analysis:** Identification of high-return products and reasons behind returns for strategic adjustments.

**Customer Demographics:** Refined knowledge of customer segments and preferences for targeted marketing.

**Sales Enhancement:** Improved sales strategies through analysis of customer behaviors.

**Optimal Pricing Insights:** Understanding price sensitivity for competitive pricing decisions.

**Market Penetration Strategies:** Identification of untapped markets for expansion.

**Operational Efficiency:** Data-driven decision-making for enhanced operational processes.