

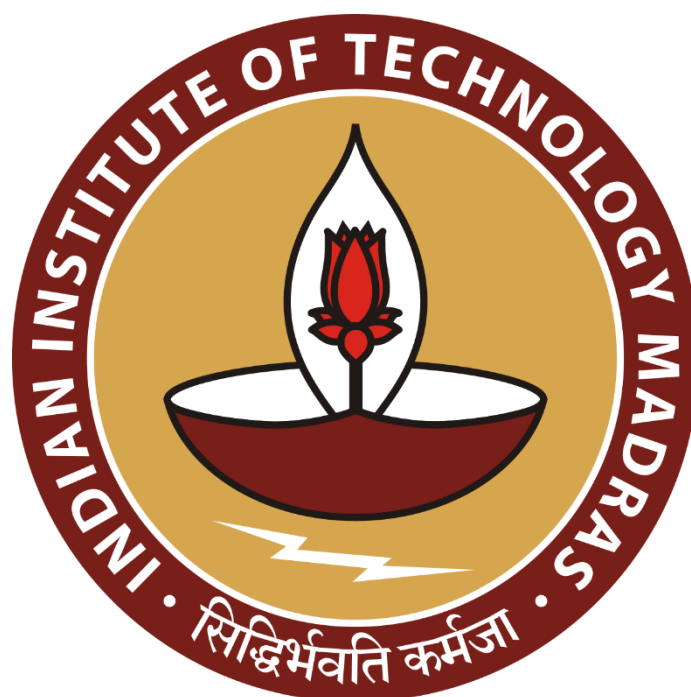
**A Strategic Enhancement Plan for Sri Sai Laundry Services at BITS Pilani,  
Hyderabad Campus**

**A Proposal Report for the BDM Capstone Project**

Submitted by

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### Declaration Statement

I am working on a Project Title “A Strategic Enhancement Plan for Sri Sai Laundry Services at BITS Pilani, Hyderabad Campus”. I extend my appreciation to **Sri Sai Laundry Professional Dry Cleaners**, 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 analysed to assure its reliability.

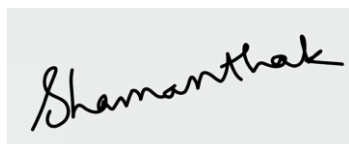
Additionally, I affirm that all procedures employed for the purpose of data collection and analysis have been duly explained in this report. The outcomes and inferences derived from the data are an accurate depiction of the findings acquired through thorough analytical procedures.

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:

A handwritten signature in black ink, appearing to read "Shanthak", is written on a light gray rectangular background.

Name: Mallu Shanthak Reddy

Date: 2<sup>nd</sup> March 2025

## **2. Executive Summary**

Sri Sai Laundry Professional Dry Cleaners, an establishment in the BITS Pilani Hyderabad community since 2010. They offer wide range of laundry services including washing, drying and ironing primarily to students and faculty. The business is currently incurring losses, wastage of raw materials and operational inefficiencies. Key issues include space constraints leading to restricted order capacity, weather conditions causing unexpected delays and wastage of materials, and high transportation costs for outsourcing dry-cleaning services are leading to losses. Using data analysis through this proposal I want to give feasible solutions by data driven solutions for optimizing storage options, weather adaptive strategies and in-house dry-cleaning facilities in order to eliminate the losses. Implementing these will improve the revenue and profits, reduce operational costs by eliminating the unnecessary usage of raw materials and enhance customer satisfaction.

## **3. Organization Background**

### **a. Business Overview**

Sri Sai Laundry Professional Dry Cleaners has been a trusted laundry service provider for over a decade at BITS Pilani Hyderabad Campus. Mr. Venkat has established this business in 2010, and he is running it since then. The business operates six days a week, from 9AM to 9PM, with Mondays as a weekly holiday. The business currently has 12 employees not including the proprietor.

### **b. Services and Operations**

They offer a range of services including washing, drying, ironing and dry cleaning. While washing, drying and ironing are being handled at the facility, dry cleaning is currently outsourced due to financial and equipment constraints. The high demand from student community makes service efficiency critical for the business success.

### **c. Financial Overview**

As mentioned by the proprietor, Mr. Venkat, the business generates an estimated annual income of ₹25,00,000. However, operational losses inclusive of the transportation costs and outsource dependencies are limiting the profit margins and causing losses. Addressing these challenges through strategic corrections can lead to much higher profits and improve the customer service.

#### **4. Problem Statement**

Business is facing operational challenges that are directly impacting their profits, sales and cost management. The problems include :

##### **a. Space Constraints**

Currently the laundry facility has limited space, leading to disorganized storage and congestion. Due to this, they are unable to accommodate a higher number of daily orders restricting a potential revenue. Without better space optimization, the business cannot scale up operations despite increasing demands.

##### **b. Weather-Induced Service Disruptions**

The business is currently dependent on open-air drying methods making them vulnerable to weather conditions. During monsoons, drying time increase causing delays and customer dissatisfaction. Apart from this, improperly dried clothes require rewashing which is leading to unnecessary expenses on detergent, water, electricity and labour. By eliminating the weather dependency, the business can cut down unnecessary operating costs while improving service reliability.

##### **c. Dry Cleaning outsourcing expenses**

The absence of in-house dry cleaning equipment is making the service outsourced leading to transportation costs and dependency on third party vendors. These expenses are significantly cutting down the profits. I am looking forward to evaluate the feasibility of setting up in-house dry cleaning equipment by looking at the financials of the business.

#### **5. Background of the Problem**

##### **a. Space Constraints**

The facility was initially designed for a smaller customer base but as time passed on the demand increasing as the campus population grew. As a result, the business is not able to process additional orders properly. The current storage and layout is preventing scalability and causing the loss of potential revenue growth.

##### **b. Weather-Induced Service Disruptions**

Unprotected drying areas are causing delays especially during monsoon seasons. This is leading to unpredictable delivery times and the re-wash costs due to incomplete drying is further adding to the operational costs by reducing the profit margins.

**c. Dry Cleaning outsourcing expenses**

Outsourcing dry cleaning services is causing a significant transportation costs and third party vendor expenses. This is limiting the profits and even incurring losses few times. By reducing the reliance on third party providers the business can increase their profits while maintaining the current pricing system.

**6. Problem Solving Approach**

To address these challenges, I have designed the following structured problem solving approach using the data collected from the business.

**a. Space Optimization to increase Sales and Revenue**

I have collected “Income from Washing & Ironing”, consisting of the daily orders, customer room number along with bill amount. Using this data I will do ‘Clustering analysis’ by grouping customer according to their rooms into high, medium and low demand clusters based on order data collected. Using ‘K-Means clustering’, high-demand orders will be stored closer to the processing area for faster retrieval, while low-demand orders will be placed separately to reduce congestion. This approach will also help predict peak demand periods, allowing better planning and minimizing delays. In this way the business can handle more orders per day, increase revenue without requiring additional space.

**b. Weather adaptation strategies to reduce losses**

Using the same data which I have mentioned above, I have planned to do ‘Regression Analysis’ to predict high risk drying delay periods by correlating with weather data. Additionally, I have also collected “Operational Costs” data from this I will perform a ‘Cost-benefit analysis’ on feasibility of cloth dryers. This investment aims to reduce the losses from rewashing and cut operational costs. This will also ensure a long term profitability.

**c. Eliminating outsourcing to improve profit margins**

The financial data I have collected clearly indicates the transportation costs for the outsourcing of dry cleaning services. This even caused a clear loss which I have seen from the data in one month. By conducting, ‘Cost-benefit analysis’ to compare the outsourcing costs vs potential investment for an in-house dry cleaning unit. Acquiring this equipment will eliminate external dependency, remove the transportation costs and improve profits for existing prices itself.



## **8. Expected Outcome**

The successful implementation of the above proposed solutions will result in multiple benefits for the business and will also significantly improve the current financial situation. Optimizing the current available space by restructuring storage areas based on the demand will allow more orders to be processed per day. This will directly increase the revenue and business will be able to increase its customer base.

By integrating weather adaptive methods such as installing dryer and predictive scheduling will reduce number of delayed orders. Even prevent rewash scenarios reducing the expenses on detergent, water, electricity and labour.

Conducting a cost-benefit analysis for an in-house dry cleaning unit will eliminate the transportation and third party vendor costs. This will have a very good positive impact as the business will generate more profits while maintaining the same costs for each service. Through these improvements, Sri Sai Laundry services will achieve greater profits, good operational efficiency and maintain a good customer base.