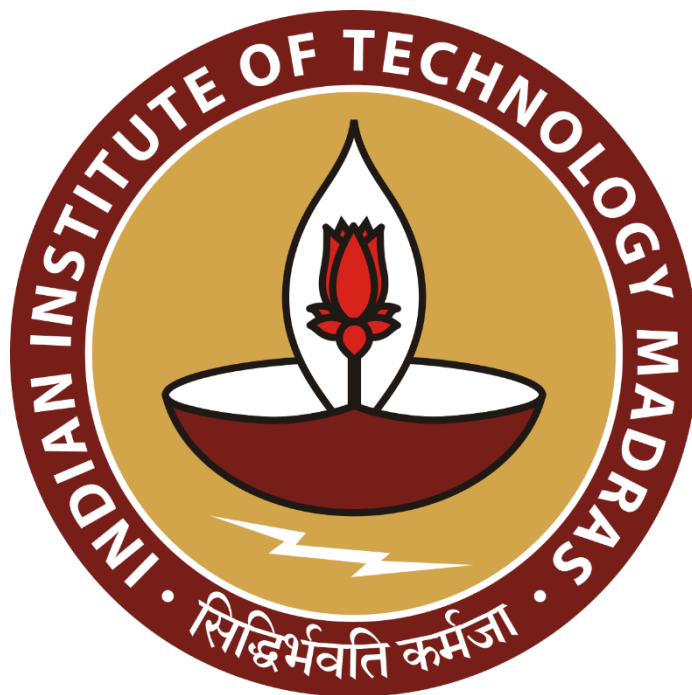


Sales and Service Optimization for Comfort Corporation
A Proposal report for the BDM capstone Project

Submitted by

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Declaration Statement

I am working on a Project titled “Sales and Service Optimization for Comfort Corporation”. I extend my appreciation to **Comfort Corporation India Pvt. Ltd.**, for providing the necessary resources that enabled me to conduct my project.

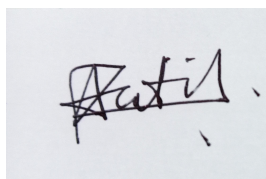
I hereby assert that the data presented and assessed in this project report is genuine and precise to the utmost extent of my knowledge and capabilities. The data has been gathered from primary sources and carefully analyzed to assure its reliability.

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: AYUSHI PANKAJ PATIL

Date: 02/03/2025

1 Executive Summary and Title

Comfort Corporation is a company specializing in air conditioning sales and maintenance, with 23 years of experience. It partners with Daikin Airconditioning India Pvt. Ltd. and provides HVAC solutions across various industries.

The company faces challenges in managing sales revenue, service efficiency, and customer satisfaction due to increasing service requests and sales trends. Sales fluctuations impact profitability, while delays in service response times lower customer retention. The goal of this project is to analyze the company's sales and service data to identify inefficiencies, improve revenue tracking, and optimize service performance.

The approach includes sales trend analysis, customer segmentation, and service report evaluation. Data analysis techniques such as trend forecasting, issue categorization, and cost optimization will be employed. The insights will help improve service delivery timelines, streamline operations, and enhance financial management.

The expected outcome is a more efficient inventory and service strategy, reduced operational delays, and improved customer satisfaction, ultimately increasing profitability.

2 Organization Background

Comfort Corporation has been in the HVAC industry since 2001, specializing in the sales, installation, and maintenance of air conditioning systems. The company is recognized for its competitive pricing, high-quality products, and efficient service delivery. It serves a diverse range of clients, including multinational corporations, commercial buildings, and residential customers.

With a team of Daikin-trained engineers, Comfort Corporation ensures industry-standard solutions tailored to different room applications. The company's growth has been driven by its strong OEM partnership and commitment to excellence in service. However, recent data suggests challenges in optimizing sales and service efficiency, necessitating an in-depth business data analysis to enhance overall performance.

This project will leverage historical sales, service reports, and financial data to develop predictive models and optimize decision-making. The solution approach includes advanced data analytics, business intelligence tools, and automation strategies. The company's annual revenue trends will also be examined to provide deeper insights into financial performance and growth opportunities. Understanding these challenges and implementing data-driven solutions can help in achieving sustainable growth while maintaining high customer satisfaction.

3 Problem Statement

3.1 Problem Statement 1: Sales Revenue Tracking Issues

There is a need to analyze sales trends to optimize inventory and revenue tracking. The lack of real-time tracking impacts decision-making and profitability.

3.2 Problem Statement 2: Service Delays and Customer Satisfaction

Delays in servicing requests and frequent maintenance issues are affecting customer satisfaction. This reduces customer loyalty and leads to revenue loss.

3.3 Problem Statement 3: Cost Optimization

Operational costs need to be analyzed to identify opportunities for cost reduction and efficiency improvement. Unmanaged costs impact overall financial performance.

4 Background of the Problem

Comfort Corporation faces challenges in multiple areas, primarily related to sales performance tracking, service efficiency, and cost optimization. The sales data indicates revenue fluctuations, which can be attributed to inventory mismanagement, seasonal demand variations, or inefficient pricing strategies. Without a structured approach to tracking sales performance, the company may struggle with forecasting demand accurately and optimizing its stock levels, leading to financial inefficiencies.

On the service front, Comfort Corporation has been receiving a growing number of customer complaints regarding service delays, unresolved technical issues, and inefficient problem resolution. A significant portion of service requests includes recurring problems such as water leakage, faulty AC drain pumps, and maintenance backlogs. By analyzing service request trends, technician performance, and resolution times, the company can improve its workflow and enhance customer experience. Streamlining service operations will not only reduce response times but also build long-term customer loyalty and trust in the brand.

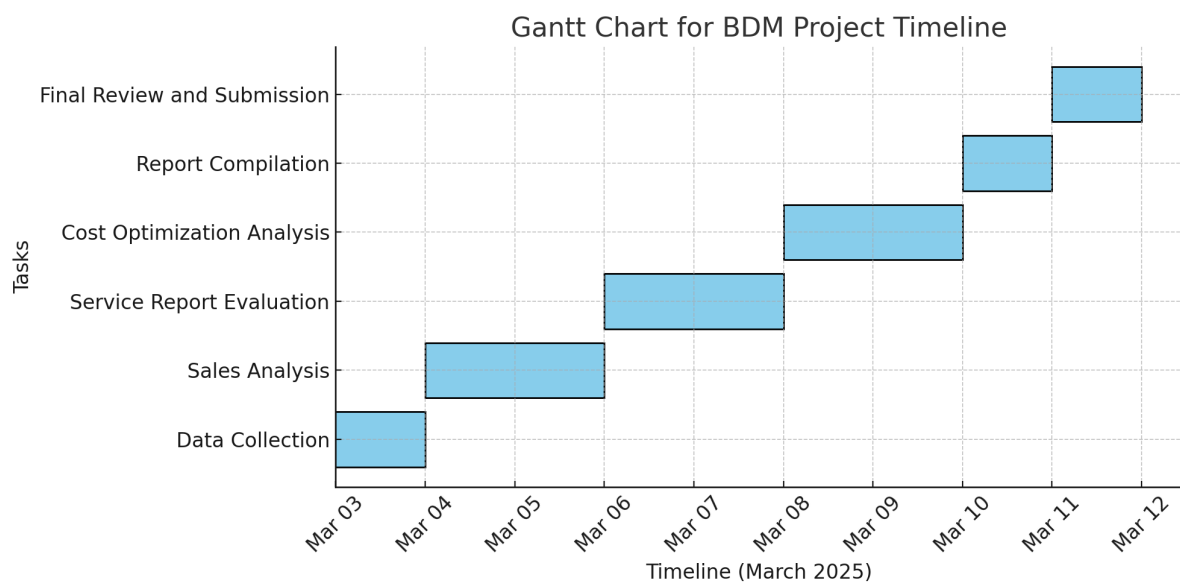
Another major challenge lies in operational costs linked to procurement, servicing, and inventory management. Without effective cost controls, unnecessary expenses can accumulate, affecting profitability. Implementing data-driven strategies to optimize procurement costs, improve service workflow, and minimize wastage will lead to better financial health for the company. A well-structured analysis of these factors will allow Comfort Corporation to improve decision-making and create a sustainable, cost-efficient business model.

5 Problem Solving Approach

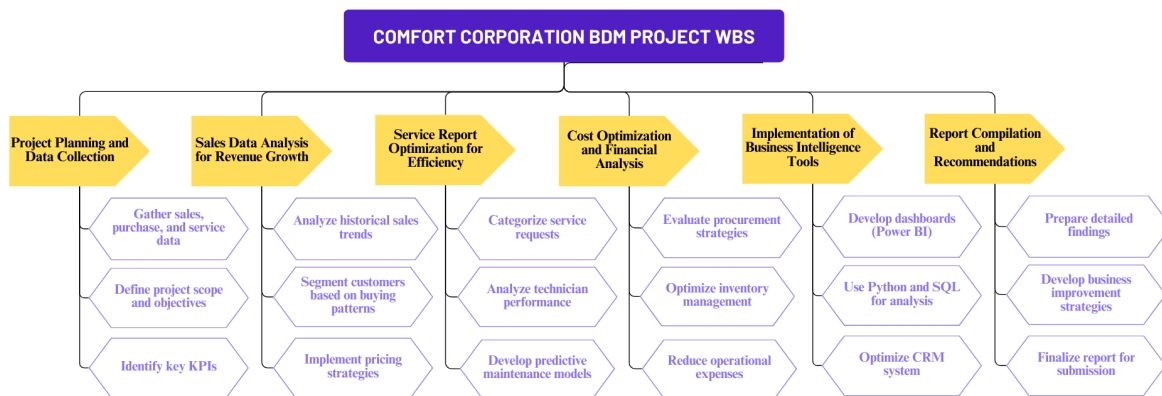
1. Sales Data Analysis for Revenue Growth:
 - 1.1. Identify key sales trends by analyzing historical data to pinpoint seasonal demand fluctuations.
 - 1.2. Segment customers based on purchase patterns to personalize sales strategies and target high-value clients.
 - 1.3. Implement dynamic pricing models using statistical analysis to maximize profit margins.
 - 1.4. Utilize dashboards and visualization tools to monitor real-time sales performance and inventory turnover.
2. Service Report Optimization for Efficiency:
 - 2.1. Categorize and prioritize service requests to ensure faster response times.
 - 2.2. Analyze technician performance metrics, such as service completion rates and customer feedback scores.
 - 2.3. Introduce a predictive maintenance model to proactively identify and address recurring issues before they escalate.
 - 2.4. Optimize resource allocation to ensure maximum efficiency in service delivery, reducing backlogs and operational delays.
3. Cost Reduction and Process Optimization:
 - 3.1. Evaluate procurement costs and supplier efficiency to identify cost-saving opportunities.
 - 3.2. Implement lean inventory management techniques to reduce overstocking and minimize waste.
 - 3.3. Automate repetitive business processes using AI-driven solutions to improve efficiency and reduce manual errors.
 - 3.4. Assess logistics and operational expenditures to streamline service scheduling and minimize unnecessary costs.
4. Tools and Techniques Used:
 - 4.1. Excel & Power BI: For sales trend visualization and financial forecasting.
 - 4.2. Python (Pandas, NumPy, Matplotlib): For in-depth statistical analysis and machine learning-based predictions.
 - 4.3. SQL Databases: For structured data storage, retrieval, and analysis of sales and service records.
 - 4.4. AI-based Predictive Models: To forecast demand trends, optimize maintenance schedules, and identify cost-saving opportunities.
 - 4.5. CRM Software (Zoho, Salesforce, or HubSpot): To manage customer interactions, track service requests, and improve engagement.

6 Expected Timeline

Project Timeline	
Task	Status
Data Collection	Launched ▾
Sales Analysis + Service Report Evaluation	In progress ▾
Proposal Submission	Launched ▾
Cost Optimization Analysis	Not started ▾
Report Compilation	Not started ▾
Final Review and Submission	Not started ▾



Here is my work breakdown structure:



7 Expected Outcome

1. Improved Sales Tracking:
 - 1.1. Clear insights into revenue trends and financial stability.
 - 1.2. Identification of top-performing products and seasonal demand variations.
 - 1.3. More accurate forecasting to ensure inventory is optimized.
2. Optimized Service Efficiency:
 - 2.1. Reduction in service request backlogs, ensuring faster response times.
 - 2.2. Higher customer satisfaction and improved brand reputation.
 - 2.3. Predictive maintenance insights to minimize unexpected service issues.
3. Cost Reduction Strategies:
 - 3.1. Reduced procurement costs through better inventory management.
 - 3.2. More efficient service operations minimizing unnecessary expenses.
 - 3.3. Improved decision-making through data-driven insights.

By implementing these insights, Comfort Corporation can enhance profitability, streamline operations, and improve its competitive edge in the HVAC industry. The long-term impact of these improvements will be increased efficiency, higher revenues, and a better customer experience.