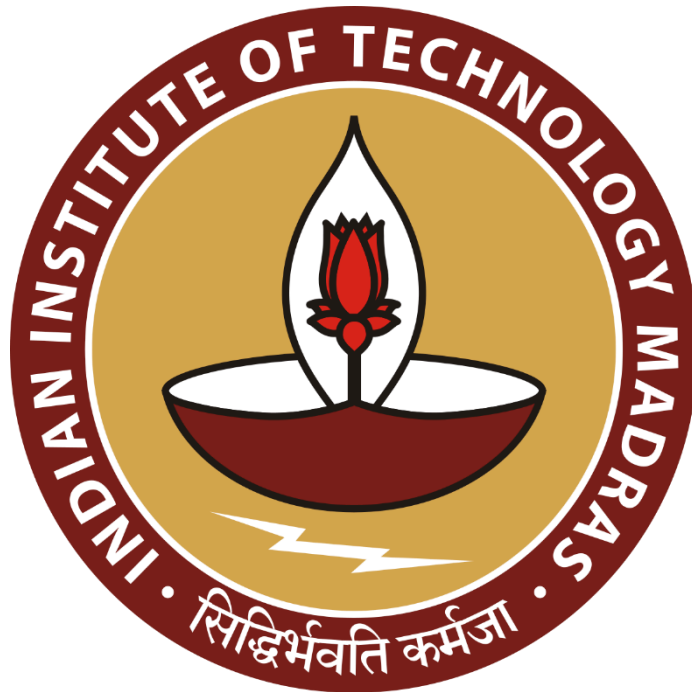# Case Study of Pizza Planet

Proposal report for the BDM capstone Project

Submitted by

Name: Mohd Saalim

Roll number: 23f3000878@ds.study.iitm.ac.in

IITM Online BS Degree Program,

Indian Institute of Technology, Madras, Chennai

Tamil Nadu, India, 600036

Contents

Declaration Statement

I am working on a project called "**Case Study of Pizza Planet**". I extend my appreciation to **Mohd Faizan,** the owner of **Pizza Planet**, 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: Mohd Saalim

Date: July 10, 2025

Executive Summary and Title

Pizza Planet is a newly opened restaurant in **Najibabad**, offering premium-quality pizzas and a variety of popular dishes, with delivery support through platforms like **Zomato** and Swiggy.

As the business gains momentum, the owners are now focused on implementing **marketing strategies** to increase visibility and customer engagement. However, despite having collected operational data, they face challenges in extracting useful insights due to unorganized records and a **lack of analytical structure**. Without understanding key patterns in customer behavior, order trends, and sales performance, it becomes difficult to create targeted campaigns or make data-driven decisions.

To address these challenges, I will do a structured analysis using Excel, Google Sheets, or Python libraries such as **pandas**, **NumPy**, and **matplotlib**. The first step involves cleaning and organizing the raw data into a usable format. Then, using spreadsheet functions like **VLOOKUP(), SUMIF(), COUNTIF(), AVERAGEIF(),** and **OFFSET()**, or their Python equivalents, we can identify critical patterns like best-selling items, peak order timings, and customer preferences. These findings will be visualized using **bar graphs, pie charts, or scatter plots** to support intuitive decision-making. This approach will empower Pizza Planet to implement focused marketing strategies, optimize offerings, and improve customer satisfaction through evidence-based insights.
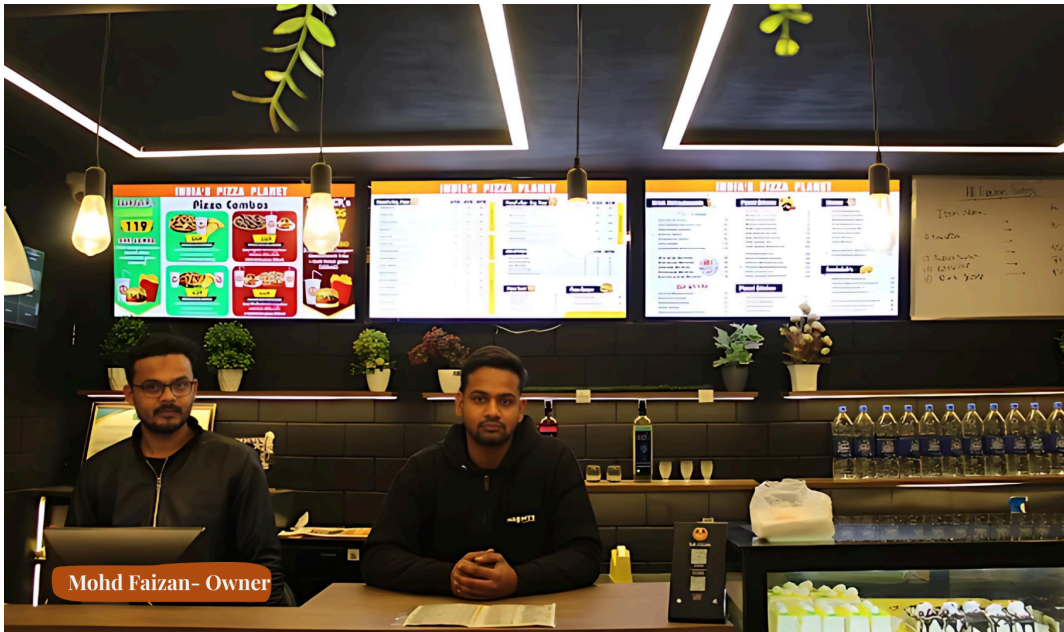
Organization Background

Image 1: Pizza Planet Restaurant

Pizza Planet is an emerging pizza restaurant in **Najibabad**, committed to delivering top-tier quality with a focus on flavor, freshness, and customer experience. While new to the local food scene, the brand is deeply rooted in a strong entrepreneurial legacy. The name "Pizza Planet" draws inspiration from its sister brand, **Cake Planet**—a thriving bakery founded in 2010 and operated by **Mohd Imran**. This bakery has earned a solid reputation for quality and innovation in Najibabad.

Pizza Planet is the brainchild of **Mohd Faizan**, Imran's younger brother, who, like his sibling, inherited a deep understanding of business from their late father—a respected baker who once served the same community. Faizan and Imran have carried forward their family's passion for food, combining traditional values with modern strategies and technologies. Today, both brothers are leading successful ventures in a small city, demonstrating how local businesses can scale through innovation and vision.

Problem Statement (Listed as objectives)

a) **Lack of Data Analysis and Patterns For Marketing**
Pizza Planet collects operational data but doesn't analyze it to identify customer preferences, peak order times, or product trends. This limits their ability to create targeted and effective marketing campaigns.

b) **Unstructured Sales Data Limits Insightful Decision-Making**
Pizza Planet uses both Pet Pooja and Excel, but lacks a unified, analyzable dataset. This prevents clear understanding of sales trends, best-sellers, and customer behavior.

c) **No System to Track Customer Feedback or Loyalty**
Customer feedback is collected inconsistently, and there's no data on repeat customers. This limits the ability to improve service or design retention strategies.

Background of the Problem

As a growing business in a competitive food market, Pizza Planet faces several operational and strategic challenges rooted in data usage and customer engagement. While the restaurant collects valuable data through Pet Pooja and Excel, the **lack of a structured approach** prevents effective analysis. Without consolidating and cleaning this data, **identifying trends** like top-performing dishes, customer preferences, or peak sales hours becomes difficult. This directly affects day-to-day decision-making and limits long-term planning.

Internally, the business **lacks** a streamlined system for tracking **customer feedback and loyalty**. Since feedback is gathered informally and not stored systematically, insights on customer satisfaction, repeat visits, or areas of improvement remain hidden. This impacts service quality and customer retention efforts.

Externally, the competitive pressure from other local restaurants and delivery platforms (e.g., Zomato, Swiggy) demands strong, data-backed marketing strategies. However, Pizza Planet currently does not analyze its data for promotional impact or demographic trends, resulting in generic campaigns with **limited ROI**.

These issues primarily arise from rapid growth, limited technical infrastructure, and a focus on day-to-day operations over long-term strategy. Together, they create a gap between available data and actionable insights—hindering growth, marketing efficiency, and customer retention.

Problem Solving Approach

To address the challenges faced by Pizza Planet, the focus will be on using structured data analysis to guide better decision-making in areas like operations, marketing, and customer retention. I divided it into six steps:

1. Data Collection & Cleaning
 The first step is to gather data from different sources like Pet Pooja (their POS system) and Excel sheets where they log orders. This data will be cleaned—removing duplicates, correcting inconsistencies, and standardizing formats—so it's ready for analysis.

2. Organizing & Exploring the Data
 Once the data is clean, I'll use tools like **sorting, filtering, and pivot tables** in Excel or Google Sheets to explore it. This will help identify patterns—like top-selling items, peak order hours, and differences between dine-in and delivery customers. Visuals such as bar charts, line graphs, and pie charts will make the trends easier to understand and present.

3. Testing What Works (A/B Testing)
 To improve marketing, we'll run small **A/B tests**—like offering two different types of promotions to see which performs better. This helps understand what kind of messaging or offers actually nudge customer behavior and improve responses.

4. Segmenting Customers (ABC Model)
 Using the **ABC model**, I'll divide customers into three groups based on how often and how much they order. Group A (high-value repeat customers) will be a priority for loyalty programs, while Group B and C will be targeted with **nudges**—like personalized offers or reminders to order again.

5. Improving Feedback & Loyalty Tracking
 Since customer feedback is collected inconsistently, I'll suggest a simple feedback system—maybe using **QR codes on packaging linked to a form**. Analyzing this feedback along with sales data can show which aspects of service or food quality need attention and how satisfied the repeat customers are.

6. Reporting & Recommendations
 Finally, I'll create a dashboard that summarizes everything—sales trends, customer segments, and feedback scores—so the team can easily monitor performance. From there, I'll recommend practical actions like adjusting peak-hour staffing or launching specific weekend offers.

Expected Timeline
This year's company data will be gathered, then cleaned by eliminating unnecessary fields. Subsequent analysis will yield critical insights and solutions to the outlined business problems. The project's detailed breakdown and timeline are visually represented in the accompanying flowchart (Work Breakdown Structure) and Gantt Chart, respectively.
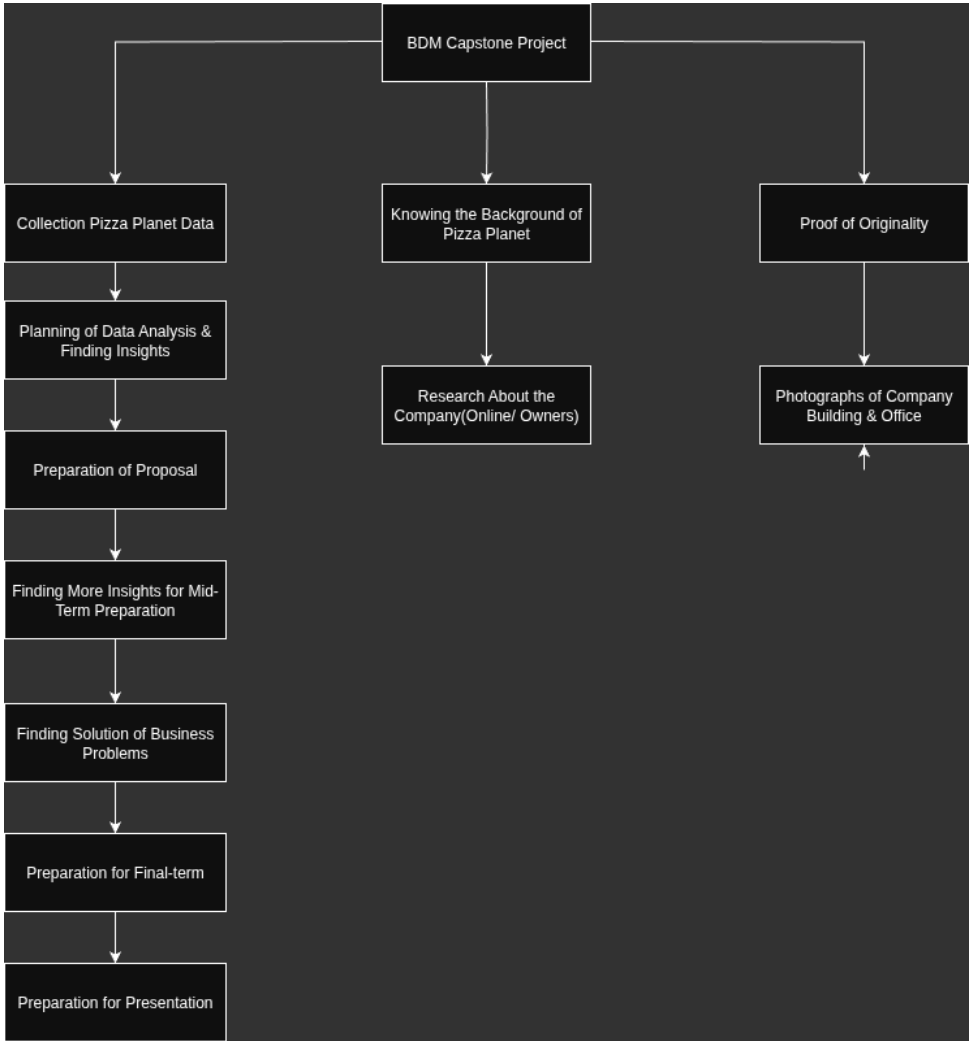
Work Breakdown Structure:

Figure 1: Work Breakdown Structure
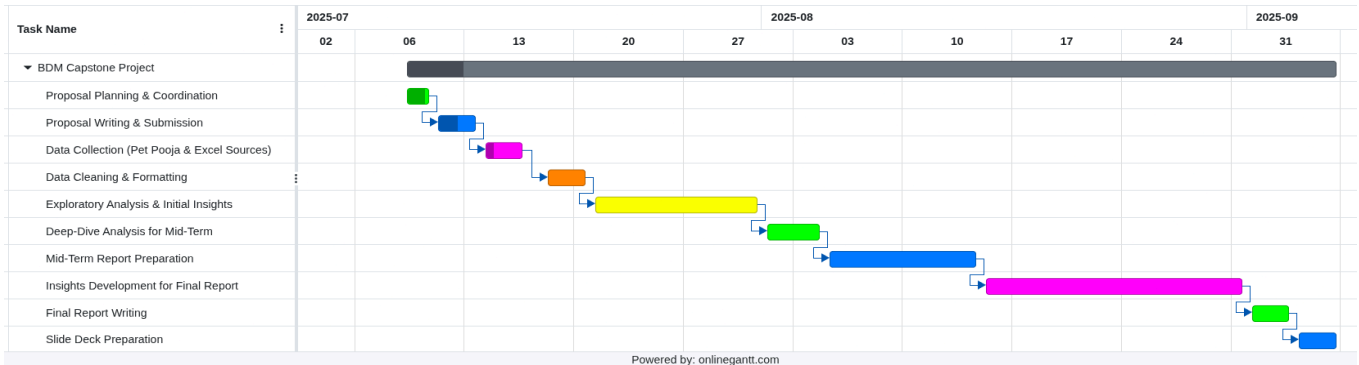
Gantt chart:

Figure 2: Expected timeline for completion of project.

Expected Outcome

By implementing this data-driven approach, Pizza Planet is expected to gain **clearer visibility** into its operations, **customer behavior**, and **marketing performance**. With clean and consolidated data, the team will be able to track key metrics like best-selling items, peak order hours, and sales by platform (Zomato, Swiggy, dine-in), making it easier to plan inventory, staffing, and promotions.

Through customer segmentation using the ABC model, the restaurant can **personalize offers and loyalty strategies** to different customer groups—encouraging repeat visits and improving customer retention. The introduction of a feedback system will provide **consistent insights into customer satisfaction**, helping the team address service gaps quickly.

Marketing efforts will become more targeted and measurable with A/B testing, allowing Pizza Planet to understand **which campaigns or offers perform best**. Regular dashboards and visual reports will also support quicker, data-backed decisions without having to dig into raw spreadsheets every time.

Overall, the goal is to help Pizza Planet move from instinct-based decisions to a more structured, **insight-led approach**—supporting long-term growth in a competitive local market.

<u>END OF REPORT</u>