

# Analytic Study of a Pan Asian Restaurant

A Midterm report for the BDM capstone Project

Submitted by

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# 1 Executive Summary

Crazy Noodles is a Pan-Asian restaurant operating in Ahmedabad, Gujarat. The restaurant operates in B2C capacity offering various Chinese Thai, Japanese, Multicuisine, and Oriental cuisine options, to a range of medium-to-high end customers. The restaurant is located in the Bodakdev area of Ahmedabad, which is a prime locality for eateries and gathering. Despite its geographical presence and strong culinary variety within the market, the business faces challenge to maintain a good profit margin while balancing food delivery commissions charged by the food delivery partner companies. Due to increasing trend for food delivery, a major part of revenue is used for food delivering app's commission. The food delivery companies take 25% of the sales acquired by the business through their platform. This reduces the overall profit of the company. Another challenge faced is the inconsistency of restaurant staff. The employees assigned to the business are leaving the restaurant within a small timeframe, which reduces the restaurant's workforce and leads to a decline in every-day workflow.

To address these challenges, a comprehensive analytical approach is proposed, focusing on the distribution of sales and employee attendance. This involves an in-depth analysis of past sales transactions to identify trends in daily revenue fluctuations, seasonal impacts, and factors influencing overall sales performance. Discussions with the business owner will help assess pricing strategies and market positioning to optimize profitability. Additionally, examining employee attendance records will provide insights into workforce consistency, absenteeism trends, and staffing efficiency during peak periods. By evaluating work schedules, shift adherence, and staff availability, the root causes of workforce instability can be identified. Gathering feedback from employees will further enhance understanding of workplace conditions, training effectiveness, and management practices, ultimately contributing to a more stable and productive work environment.

## 2 Proof of originality of the Data

Firm's Name:	Exhilarating Endeavours LLP
Business Name:	Crazy Noodles
Business Address	GF 12, Times Square Arcade II, Nr. Sindhu Bhawan Road, Bodakdev, Ahmedabad 380058
Owner's Name	Mr. Hiren D Shah -

Audio of Interaction with Business Owner: [Link](#)

Letter: [Link](#)



*Fig 1. Me along with the Business Owner at the Business place.*

The business owner utilises two primary methods for Recording Data:

- 1. Register Book:** Used at the restaurant for recording the monthly sales data, updated every week.
- 2. Muster Roll:** Used to record attendance of staff workers and their Time in and Time out.

[illegible][illegible]

*Fig 2. Snapshot of various Data Recordings.*

### 3 Metadata

- Data Format: CSV (Comma-Separated Values) and Excel/Sheets (XLSX)
- Range: November 1, 2024, to December 31, 2024
- Units of Measurement for Features involving Money: Indian Rupee (₹)

### Information about the Sales Data:

Sales collected on the daily basis:

- Date: Date of the sale.
- Sales: Total sales of the day.
- Deposit: Money left from the previous day and deposited subsequently
- Bill: No of Bills generated
- Guest: No of guests served by the restaurant
- Card: Payment through the credit or debit card
- Zomato: Sales achieved through Online food delivery service Zomato
- Swiggy: Sales achieved through Online food delivery service Swiggy
- Gpay: Payment through UPI payment
- Cash: Payment through cash

Explanation: The sum of sales through Zomato, Swiggy, Card, Gpay and Cash results in the column Sales. The sale occurs generally during meal times, at lunch between 12pm to 2:30 pm and dinner between 7:30 pm to 10:30 pm. The restaurant is still open during the evening time.



*Fig 3. Sales acquired throughout the month of November '24*



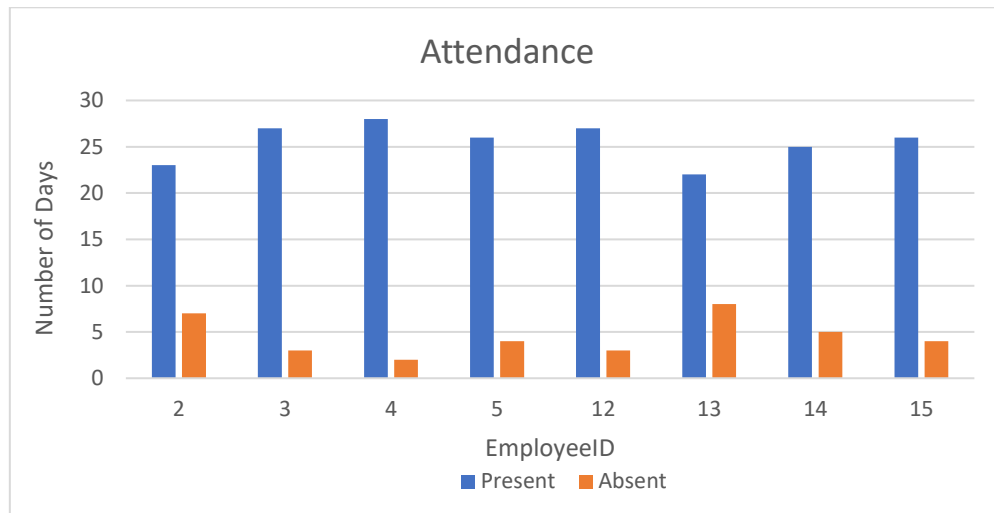
*Fig 3. Sales acquired throughout the month of December '24*

### **Information about the Employee Data:**

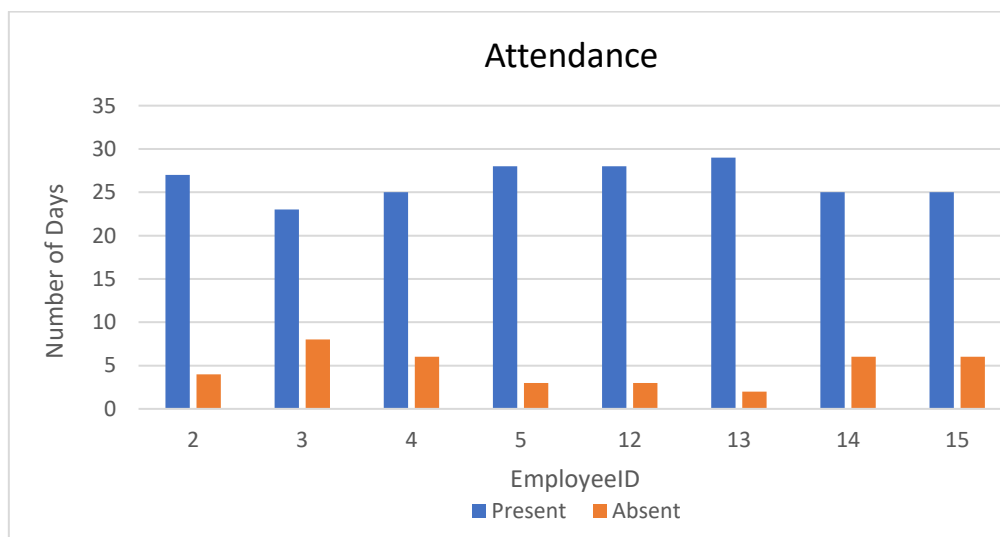
Attendance of the staff:

- EmployeeID: Unique ID for each employee
- Designation: what the required staff person does
- Time out: Time at which they leave everyday
  - Time In: Time at which they arrive everyday
  - Rest-Period: Time that they rest between the shifts
  - Attendance: Marked A for absent and P for Present

Explanation: There are 8 staff members assigned to the franchise, 4 of them are cooks and 4 of them are waiters. The Data received about the employee attendance indicates irregular leave pattern.

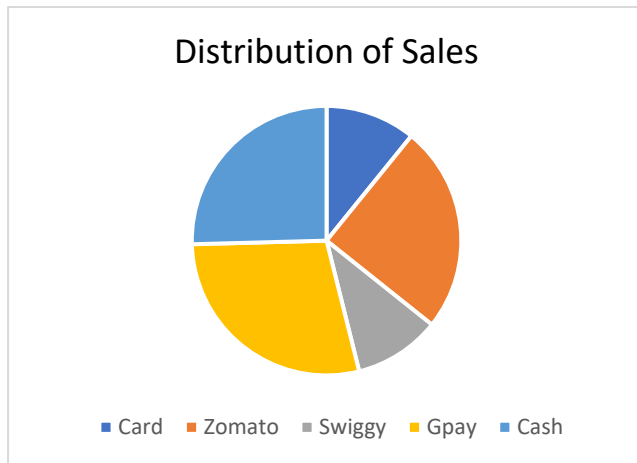


*Fig 4. Bar Chart depicting Attendance in Nov'24 according to EmployeeId*



*Fig 5. Bar Chart depicting Attendance in Dec'24 according to EmployeeId*

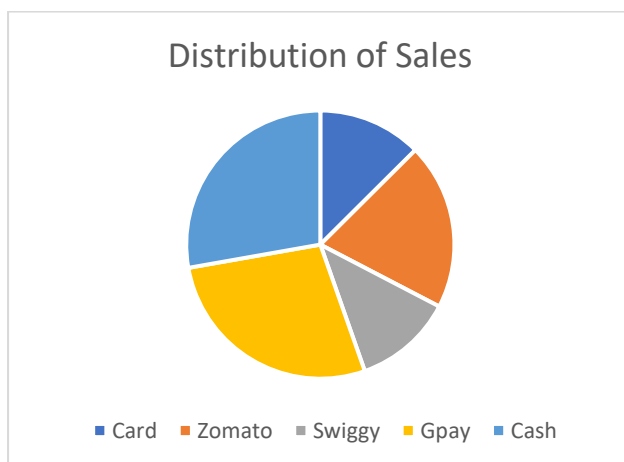
## 4 Descriptive Statistics



Sales	323228
Cash	35071
Zomato	80465
Swiggy	33610
G-pay	92119
Cash	82257

*Fig 6. Pie Chart depicting distribution of sales in November '24*

From the total of 100% of sale in November '24, Zomato and Swiggy (Food Delivery services) consists of 35% of the total sales. while dine-in sales constitute of 65%.



Sales	378001
Cash	47444
Zomato	76031
Swiggy	45307
G-pay	104426
Cash	105083

*Fig 7. Pie Chart depicting distribution of sales in December '24*

From the total of 100% of sale in December '24, Zomato and Swiggy (Food Delivery services) consists of 32% of the total sales. while dine-in sales constitute of 68%.



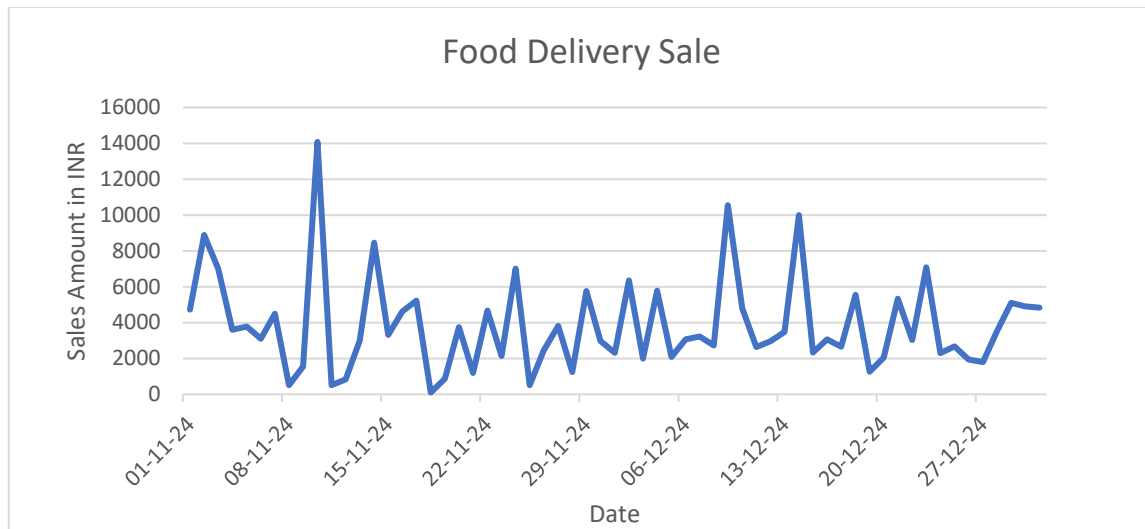


Fig 8. Sales acquired by Online Food delivery Services

Average Sales for Online Food delivery services is about 3,859 INR. With the Minimum value being 100, and the Maximum value being 14,075 on the single day.

Count	61
Sum	235413
Average	3859.22951
Min	100
Max	14075

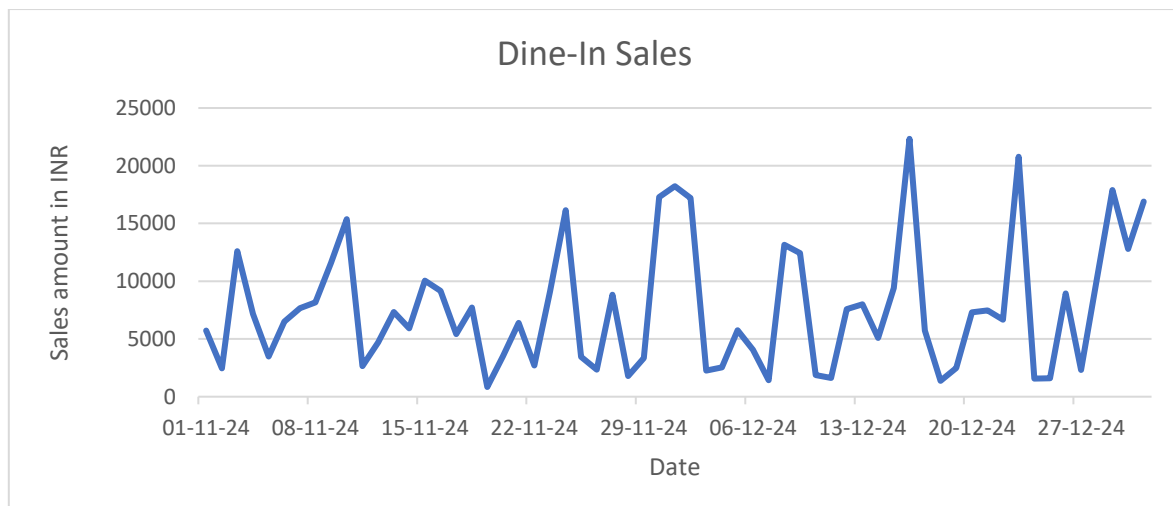
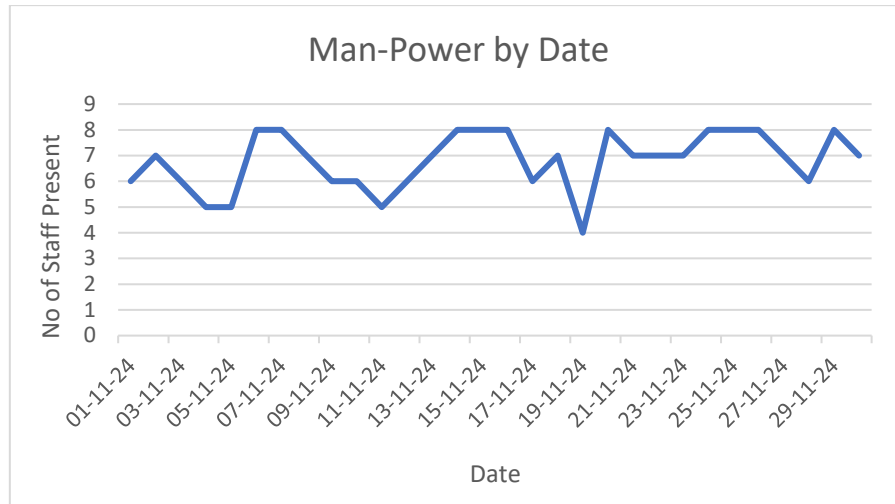


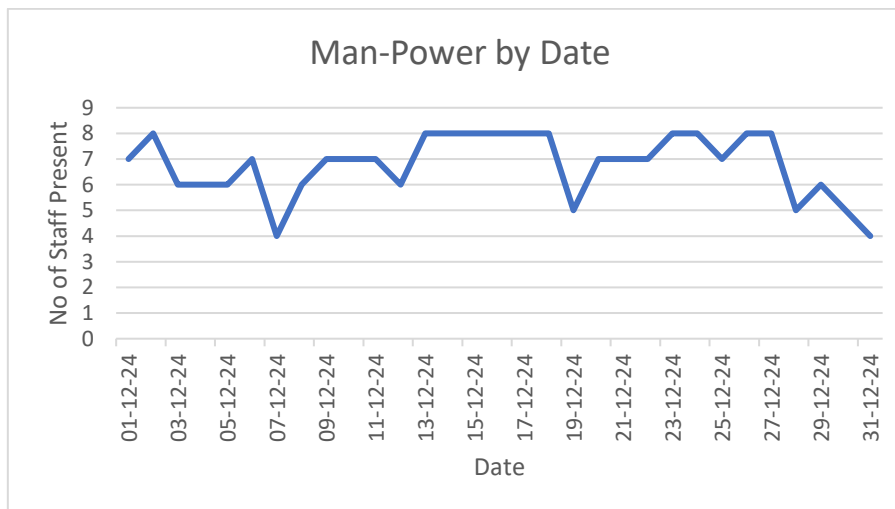
Fig 9. Sales acquired by Dine-In Sales

Average Sales for Dine-In is about 7,645 INR. With the Minimum value being 838, and the Maximum value being 22,332 on the single day.

Count	61
Sum	466400
Average	7645.90164
Min	838
Max	22332



*Fig 10. Man-power of November '24*



*Fig 11. Man-power of December '24*

## 5 Detailed Description of Analysis and Methods

The analysis process for the project involves a combination of quantitative and qualitative methods, each chosen for their ability to address specific aspects of the business's challenges.

- Extensively utilised spreadsheets and their functions for various calculations essential to the analysis process. Tasks such as computing the Total Sales across different routes or determining the percentage of sales distribution were efficiently handled using spreadsheet functionalities. Spreadsheets provided a familiar and user-friendly interface for conducting complex calculations and aggregating data. Functions such as SUM, AVERAGE, etc were employed to streamline the process of summarising and analysing large datasets.

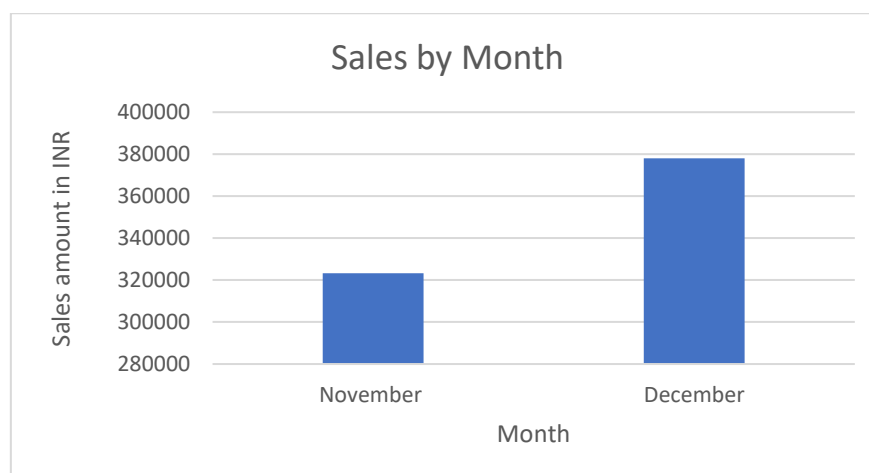
- Time-Series Analysis: This method is particularly suitable for financial data, which is inherently time-dependent. By examining trends, patterns, and variations over time, we can gain insights into the business's financial health and performance. This method stands out because it allows for understanding of trends based on historical data, which is crucial for setting margins and making informed business decisions. For example, this method can help us observe attendance among staff members and uncover trends that might help us improve the financial health of the business.

- Conversations: Engaging with the business owner provides qualitative insights that are not captured by quantitative data alone. Understanding the owner's perspective on sales decisions and employee behaviour is essential for tailoring recommendations that are practical and actionable.

The chosen methods are more appropriate than others because they offer a comprehensive view of the business's operations, combining hard data with the owner's subjective experiences. This holistic approach ensures that recommendations are not only data-driven but also grounded in the reality of the business environment. The combination of time-series analysis, statistical computation, and conversations offers a balanced and thorough understanding of the business's challenges and opportunities.

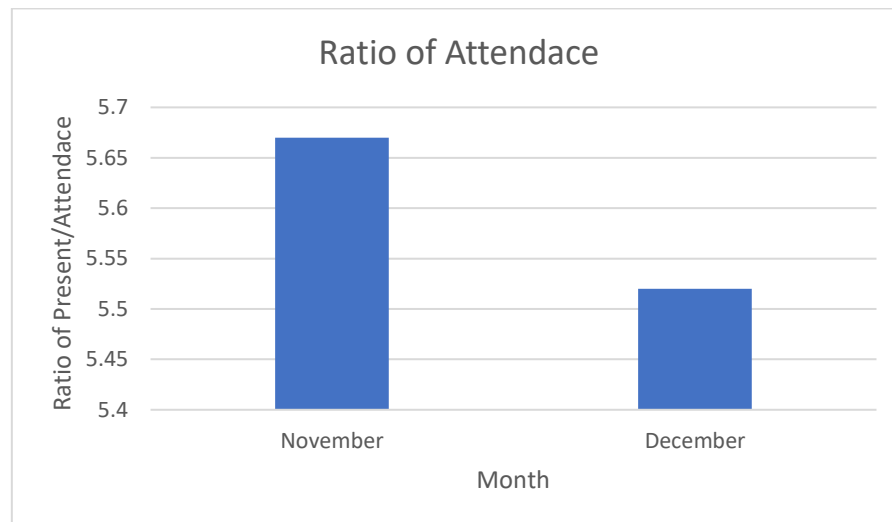
## 6 Results and Findings

A key observation from the figure is that the average daily sales in November were noticeably lower compared to December. This trend suggests a potential seasonal effect, likely driven by increased consumer spending during the festive season in December. The holiday period often sees a surge in shopping activity, promotions, and holiday-related purchases, which could have contributed to the higher sales figures.



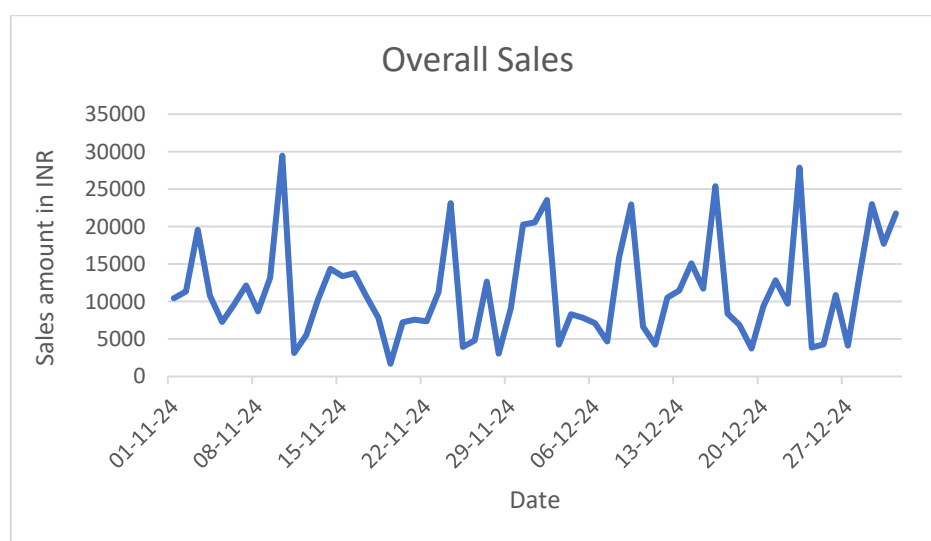
*Fig 12. Depiction of Sales turned by Months*

Another key observation, from the figure is that the staff attendance ratio in November remained similar to that in December. This trend indicates that there was no significant improvement in staff behavior, even during the peak seasonal period when increased manpower was likely required.



*Fig 13. Ratio of Man-Power by Months*

Lastly, the findings reveal an inconsistent pattern in total sales over the course of two months. This fluctuation could be attributed to factors such as an unstable workforce, leading to operational inefficiencies, or increased competition from nearby restaurants affecting customer footfall and sales performance.



*Fig 14. Overall Sales pattern from November '24 and December '24*