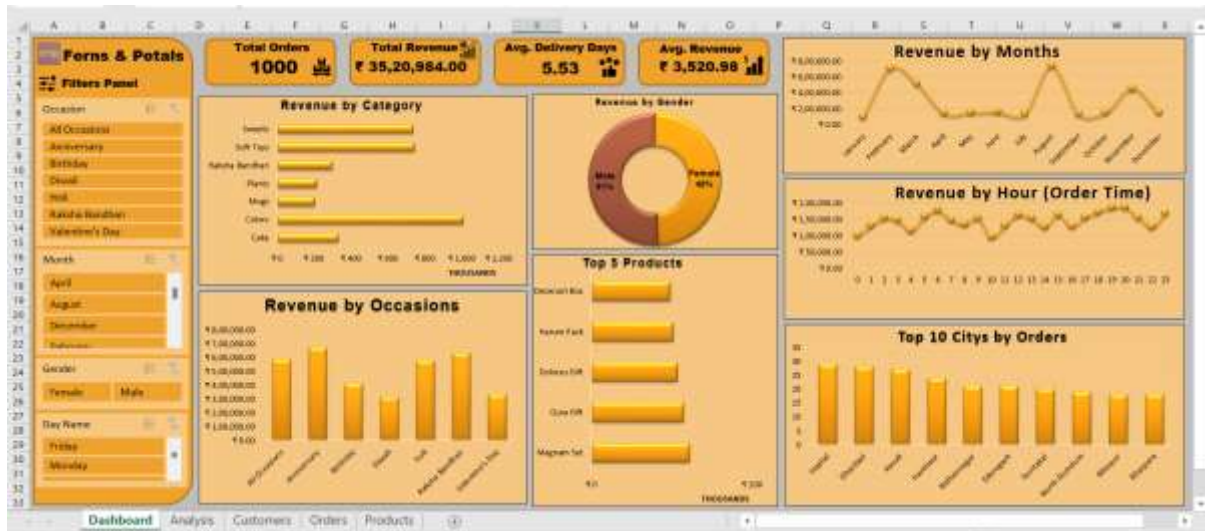# Ferns & Petals Sales Analysis

Company: Ferns & Petals (FNP)

Analyst Name: Harsh Belekar

Tool Used: Microsoft Excel (Power Query, Power Pivot, Pivot Tables, Dashboard)

Dashboard:

Executive Summary

This project analyzes sales data from **Ferns & Petals (FNP)** for the year 2023. The company delivers gifts for multiple occasions such as Diwali, Valentine's Day, Raksha Bandhan, Birthdays, Anniversaries, and Holi.

The objective of this analysis was to understand **sales performance, customer behavior, and product profitability**, and help the business improve its sales strategy and customer satisfaction.

The dataset included **orders, customers, and product information**, which was cleaned, transformed, and modeled using Power Query and Power Pivot. The final insights were visualized using an interactive Excel dashboard.

Key Findings

- Total Revenue: **₹ 35,20,984**
- Total Orders: **1000**
- Average Delivery Time: **5.53 days**
- Average Revenue per Order: **₹ 3,520**
- Top product categories: **Colors, Sweets, Soft Toys**
- Highest revenue occasions: **Anniversary, Raksha Bandhan, Valentine's Day**
- Top customer cities: **Imphal, Dhanbad, Kavali**

Final Recommendation

FNP should focus on **high-revenue occasions**, optimize **delivery times**, and expand **top-performing product categories** to maximize future growth.

Business Problem & Objective

FNP wants to understand:

1. What is the total revenue generated in 2023?
2. How long does delivery typically take?
3. Which months perform best in terms of sales?
4. Which products and categories generate the most revenue?
5. What is the spending behavior of customers?
6. Which cities contribute the highest orders?
7. Does order quantity impact delivery time?
8. Which occasions bring the highest revenue?
9. Which products are popular for specific occasions?

This project provides a data-driven solution to answer all these business questions.

Dataset Overview

Three CSV files were provided:

1. Customers.csv

- Customer ID
- Customer Name
- City
- Gender
- Contact Details

2. Products.csv

- Product ID
- Product Name
- Category
- Price
- Occasion Type

3. Orders.csv

- Order ID
- Customer ID
- Product ID
- Quantity
- Order and Delivery Dates

- Location
- Occasion

Data Volume:
- Customers: 200+
- Products: 70+
- Orders: 1000
- Year: 2023

Data Cleaning & Preparation (Power Query)

Steps performed:

✔ Extract

Loaded all CSV files into Power Query.

✔ Transform

- Fixed date format (DD-MM-YYYY → Excel date).
- Split date & time columns.
- Removed duplicates and blank records.
- Standardized city names and categories.
- Trimmed and cleaned text fields.
- Converted prices, quantities, and IDs to correct data types.

✔ Load

Clean data loaded into the Excel Data Model.

Data Modeling (Power Pivot)

A **Star Schema** was designed:

Fact Table

- **Orders Table**
  Contains: Order ID, Customer ID, Product ID, Quantity, Revenue, Dates, Occasion, Location

Dimension Tables
- **Customers Table**
- **Products Table**

Relationships

- Orders ↔ Customers → Customer_ID

- Orders ↔ Products → Product_ID

Calculated Measures (DAX)

- Total Revenue
- Average Revenue
- Average Delivery Days
- Monthly Revenue
- Product Revenue Ranking
- City-wise Order Count

Analysis Performed

The following analyses were completed using DAX, pivot tables, and charts:

1. Total Orders & Total Revenue
2. Average Revenue Per Order
3. Average Delivery Days
4. Revenue by Category
5. Revenue by Occasion
6. Revenue by Gender
7. Monthly Revenue Trends
8. Hourly Order Trends
9. Top 5 Products by Revenue
10. Top 10 Cities by Order Count

Dashboard & Visual Insights

The final dashboard visualizes:

✔ Overall Metrics

- Total Orders: **1000**
- Total Revenue: **₹ 35,20,984**
- Avg. Delivery Days: **5.53**
- Avg. Revenue per Order: **₹ 3,520**

✔ Key Charts

- Revenue by Category
- Revenue by Occasion
- Revenue by Month
- Revenue by Order Time (Hourly Trends)
- Top 5 Revenue-generating Products
- Top 10 Cities by Orders
- Revenue by Gender (Male vs Female)

Dashboard allows filtering by:

- Occasion
- Month
- Gender
- Day Name

Key Findings

1. Highest Revenue Occasions

- Anniversary
- Raksha Bandhan
- Valentine's Day

2. Best-Selling Categories

- Colors
- Sweets
- Soft Toys

3. Top Revenue Products

- Deserunt Box
- Quia Gift
- Magnam Set

4. Top Performing Months

- February
- March
- August

5. Top Ordering Cities

- Imphal
- Dhanbad
- Kavali

6. Customer Demographics

- Revenue: 51% Male vs 49% Female (almost equal)
- Popular gifting category: Colors & Soft Toys

7. Delivery Insights

- Average delivery time: **5.53 days**
- Larger order quantities do **not** significantly delay deliveries.

Business Recommendations

✔ Focus Marketing Campaigns on

- Anniversary
- Raksha Bandhan
- Valentine's Day

These occasions bring the highest revenue.

✔ Stock More High-Demand Products

Especially in the **Colors, Sweets, and Soft Toys** categories.

✔ Expand in High-Order Cities

- Imphal
- Dhanbad
- Kavali

✔ Improve Delivery Efficiency

Target to reduce average delivery days from **5.53 → 3 days**.

✔ Personalized Customer Offers

Segment customers by occasion buying behavior and offer discounts.

Conclusion

The Ferns & Petals Sales Analysis project successfully provides a clear understanding of **sales trends, customer preferences, product performance, and operational efficiency** for the year 2023.

With the insights discovered and recommendations provided, FNP can significantly:

- Increase revenue
- Improve customer satisfaction
- Optimize delivery operations
- Strengthen product strategy

The interactive dashboard gives a powerful end-to-end view of business performance and supports data-driven decision-making.