

VIRTUAL INTERNSHIP 6.0



Food Trends: Understanding Customer Preferences in the F&B Industry

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Introduction

The food and beverage industry is rapidly evolving due to technological integration and changing consumer lifestyles. Understanding customer choices and ordering behaviour has become crucial for business sustainability. This analysis explores how data visualization can uncover these insights.

- The F&B industry is evolving rapidly with digitalization and changing lifestyles.
- Online food delivery has transformed customer interactions and preferences.
- Businesses rely on data analytics to identify demand, sales, and satisfaction trends.
- This study explores how data can uncover key insights for growth in the F&B sector.

Why This Dashboard

- ❖ To analyse customer behaviour and spending patterns in one place.
- ❖ Identify popular cuisines and eating habits.
- ❖ Track online ordering trends and favourite food delivery apps.
- ❖ Understand demographics : age, gender, income, and occupation.
- ❖ Measure marketing performance across platforms.
- ❖ Study sustainability awareness and organic food preference.
- ❖ Support data-driven business and marketing decisions.

Problem Statement

Businesses often struggle to align products and services with dynamic consumer expectations. Identifying which factors influence demand like time, region, or category remains a challenge. The study addresses these gaps through comprehensive data-driven exploration.

- ❖ Businesses struggle to understand diverse customer preferences.
- ❖ Lack of clarity on seasonal, regional, and platform-based demand.
- ❖ Difficulty in forecasting sales and aligning offerings to customer needs.
- ❖ The project addresses these issues through data visualization and analytics.

Objectives

- ❖ Analyse customer demographics and purchasing preferences.
- ❖ Identify high-performing categories and underperforming regions.
- ❖ Study seasonal and time-based demand patterns.
- ❖ Evaluate performance across food delivery platforms.
- ❖ Derive data-driven business recommendations for improvement.

Dataset Description

The dataset provides comprehensive information about customer orders and preferences. With multiple attributes, it enables detailed analysis of buying patterns, satisfaction, and operational metrics across varied demographics.

➤ Total Records: ~14000 rows | 20 Attributes

Key Columns:

➤ Customer ID, Age, Gender, Location, Food Category

➤ Platform, Order Value, Rating, Payment Mode

➤ Delivery Time, Season, Feedback Score, Frequency of Orders

➤ Cleaned and processed for consistent, insightful analysis

Tools and Technology Used

This project leverages advanced analytical and visualization tools to convert raw data into actionable insights. Power BI serves as the core platform for transforming datasets into interactive dashboards.

Power BI – dashboard creation and visualization

Excel – data cleaning and organization

DAX – for KPIs and custom calculations

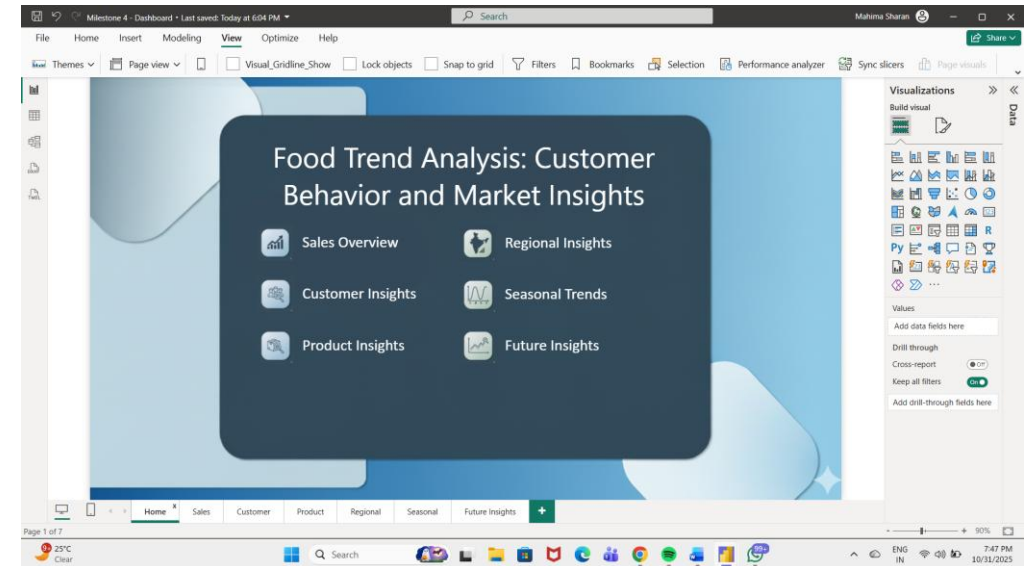
Power Query – for data transformation

Forecasting Tool (Power BI) – for predictive trends

Dashboard Overview

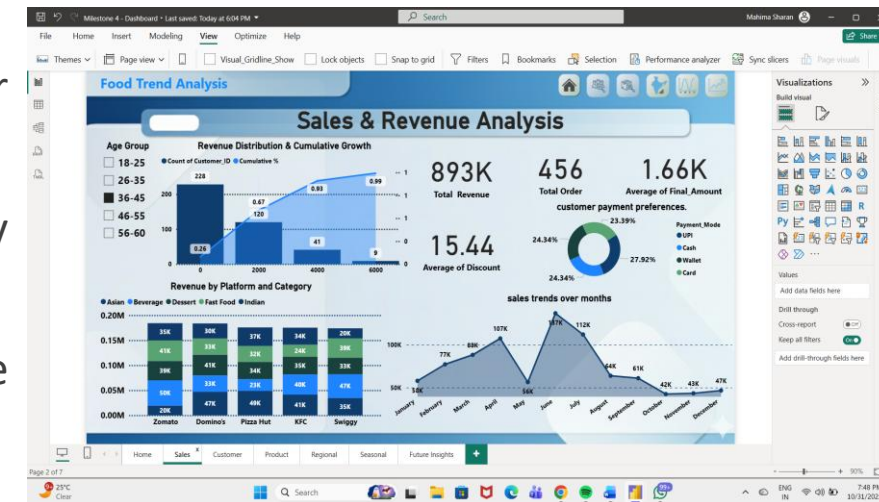
HOME PAGE

- Sales Overview – Snapshot of total revenue, total orders, and ratings.
- Customer Insights – Demographic and behavioural breakdowns.
- Product Insights – Top categories and items.
- Regional Insights – Geographic and platform-based performance.
- Seasonal Trends – Temporal consumption variations.
- Future Insights – Predictive analytics and strategic recommendations..



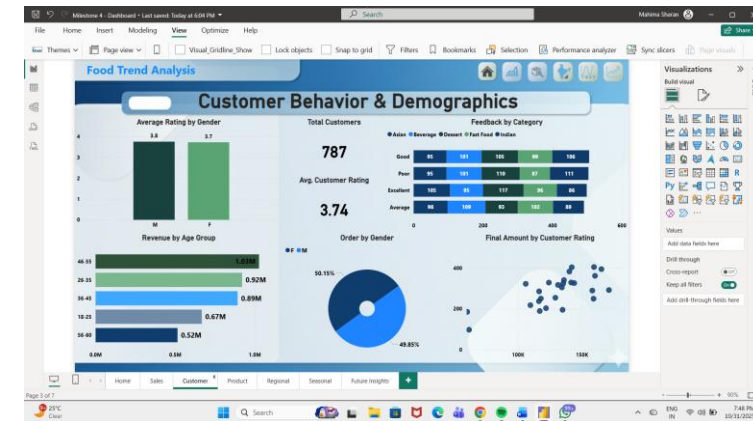
Sales & Performance Insights

- ❖ This dashboard page examines the overall business performance through sales data.
- ❖ It captures patterns in order frequency, timing, and customer activity levels.
- ❖ Understanding performance helps identify high-demand periods and order trends.
- ❖ The analysis also studies customer payment preferences and delivery behaviour.
- ❖ These insights provide a holistic picture of how efficiently operations are managed.
- ❖ Visuals make it easier to monitor key performance indicators in real time.
- ❖ The page aids in recognizing the factors influencing total revenue and growth.
- ❖ Ultimately, it connects business success directly to customer experience.



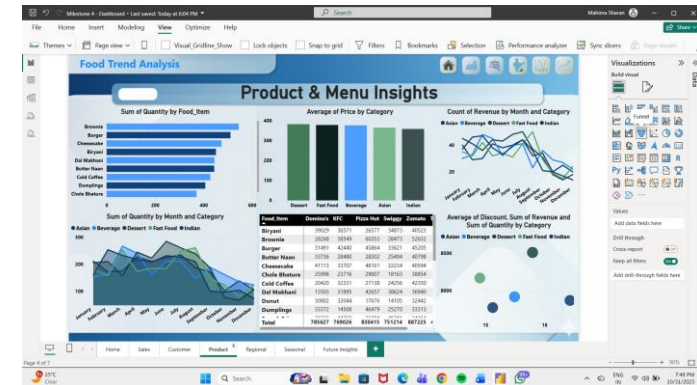
Customer Demographics & Preferences

- ❖ This section focuses on analysing customers based on demographic factors.
- ❖ Age, gender, occupation, and city were studied to understand buying behaviour.
- ❖ The analysis reveals how lifestyle and age influence food preferences.
- ❖ Gender-based trends show almost equal participation in online food orders.
- ❖ Occupation plays a key role, with professionals and students being the most active users.
- ❖ Demographic understanding helps in targeting specific customer groups effectively.
- ❖ Businesses can design marketing strategies aligned with customer segments.
- ❖ This page establishes the foundation for understanding who the real customers are.



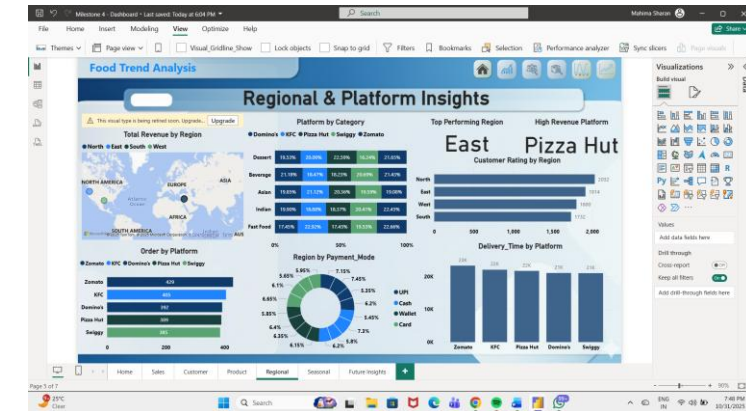
Product Category Analysis

- ❖ This page focuses on identifying which food categories are most preferred.
- ❖ The analysis compares popularity across different categories like fast food, beverages, desserts, and healthy meals.
- ❖ It helps businesses determine which products contribute most to sales and engagement.
- ❖ Category performance often reflects current lifestyle and consumption trends.
- ❖ Insights from this analysis can guide product placement and promotional offers.
- ❖ It also highlights opportunities for improving underperforming categories.
- ❖ Such visualization supports better menu planning and inventory management.
- ❖ The overall outcome helps align offerings with customer expectations.



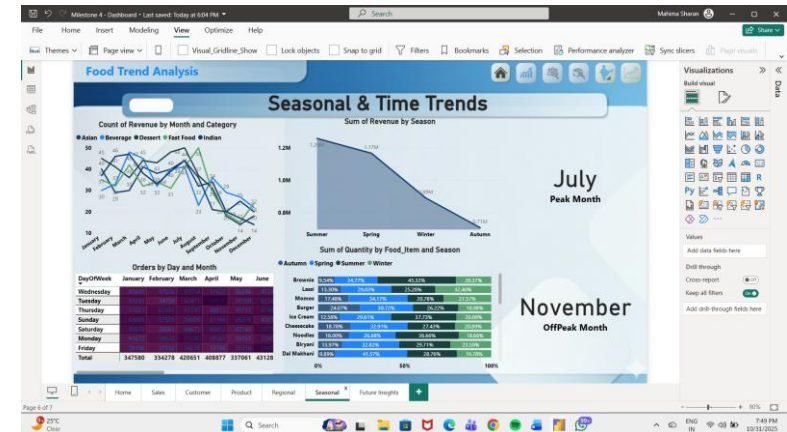
Regional & Platform Insights

- ❖ This page focuses on how food ordering behavior changes across regions and platforms.
- ❖ It compares the performance of different areas to spot regional preferences.
- ❖ Understanding location-based demand helps optimize delivery and marketing strategies.
- ❖ The analysis also compares leading platforms to identify where engagement is higher.
- ❖ Urban and rural trends highlight different spending and ordering behaviors.
- ❖ Such insights support strategic decisions like where to expand or focus resources.
- ❖ Regional performance maps are useful for operational and logistical planning.
- ❖ The goal is to understand geographic influence on customer behavior.



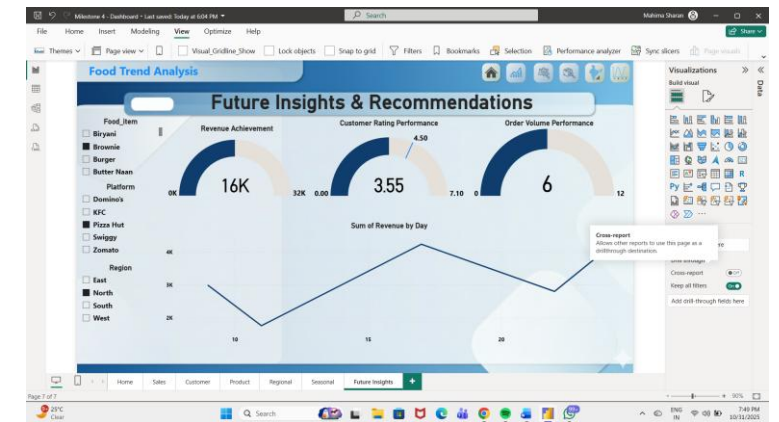
Seasonal & Time-Based Trends

- ❖ This section studies how customer demand varies over time and season.
- ❖ The analysis focuses on months, weekdays, and time of day to spot patterns.
- ❖ Understanding when customers order helps in planning promotions effectively.
- ❖ Businesses can prepare seasonal offers to match customer behaviour.
- ❖ The trends also reflect how weekends differ from weekdays in demand.
- ❖ This helps in workforce planning, resource allocation, and delivery scheduling.
- ❖ Seasonal insights make marketing more targeted and efficient.
- ❖ Time-based analysis ensures better readiness for high-demand periods.



Future Insights & Recommendations

- ❖ The final analytical page provides projections and business recommendations.
- ❖ Forecasting tools are used to predict future sales and customer activity.
- ❖ The insights support planning and decision-making for upcoming quarters.
- ❖ Recommendations focus on improving engagement and revenue growth.
- ❖ It also identifies underperforming areas that require attention.
- ❖ Strategic suggestions are derived from observed behavioral patterns.
- ❖ The goal is to convert analytical insights into actionable business strategies.
- ❖ It concludes the analytical section by aligning data with future planning.



Business Impact

Applying data-driven insights enhances performance and strategic clarity. The outcomes of this project can directly influence sales, customer satisfaction, and market competitiveness.

- Improved decision-making through real-time data insights.
- Better understanding of customer demographics and needs.
- Enhanced operational efficiency and profitability.
- Stronger competitive advantage in the F&B market.

Learnings & Skills Gained

The project fostered both technical and interpersonal skill development. It provided practical exposure to real-world data visualization and analytical reasoning.

- ❖ Power BI proficiency and dashboarding expertise
- ❖ Hands-on experience with Power Query and DAX.
- ❖ Strengthened analytical and visualization abilities.
- ❖ Improved teamwork, coordination, and problem-solving skills.

Conclusion

- ❖ Fast Food and Beverages emerged as top-performing categories.
- ❖ Regional and seasonal patterns significantly affect order trends.
- ❖ Power BI enabled clear and actionable business insights.
- ❖ Insights improve marketing, inventory, and pricing strategies.
- ❖ Data-driven decisions enhance profitability and efficiency.
- ❖ The project establishes a framework for sustained growth and better customer engagement.