Food Trends Understanding Customer Preferences in FB

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INTRODUCTION

1. The F&B industry has transformed rapidly due to:
    - Online food delivery platforms
    - Digital payments
    - Data-driven decision making
2. Changing lifestyles and technology have influenced how, what, and when customers order.
3. Understanding customer behavior is crucial for competitiveness and strategic planning.

OBJECTIVES

Main Goal:

To analyze and visualize customer preferences insights in the F&B sector using Power BI.

Specific Objectives:

- Analyze demographics and preferences
- Identify product and category trends
- Study order patterns and satisfaction
- Compare platform-based performance
- Examine regional and seasonal variations
- Forecast future food trends
- Develop an interactive Power BI dashboard
- Provide data-driven business recommendations

TECHNOLOGIES USED

- Power BI – Utilized for interactive dashboard creation and visualization.
- Power Query – Helped in data transformation and integration from multiple sources.
- DAX (Data Analysis Expressions) – Applied for calculations, KPIs, and advanced analytics.
- Microsoft Excel – Used for data cleaning and preparation before import.
- Charts & Visual Tools – Used for effective data representation and storytelling.

Home Page (Overview and Key Metrics)

The Home Page serves as the central navigation hub of the dashboard, titled "Food Trend Analysis: Customer Behavior and Market Insights." It provides a structured overview of all six analytical modules that explore sales, customer behavior, product preferences, regional trends, seasonal insights, and future forecasting.

Sections Represented:

- Sales Overview – Snapshot of total revenue, total orders, and ratings.
- Customer Insights – Demographic and behavioral 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 And Revenue Analysis

The Sales & Performance Insights page provides a comprehensive view of business efficiency and profitability through key metrics such as total revenue, orders, average order value, and profit margin. Line and bar charts display revenue trends across time, highlighting weekend and evening peaks when customer activity is highest. A category-wise analysis reveals that Fast Food and Beverages contribute the largest share to revenue, while Healthy Options show steady growth among health-conscious consumers.

A funnel chart tracks the customer order journey from placement to delivery, showcasing a strong conversion rate of nearly 90%, reflecting operational effectiveness. The payment mode breakdown indicates the growing dominance of UPI and Wallet payments, especially in urban areas. Additionally, heatmaps reveal that sales are most active during Friday to Sunday evenings, aiding resource planning.

Overall, this page transforms raw sales data into actionable insights, helping the business monitor performance, identify high-demand segments, and optimize operations for improved profitability and customer satisfaction.

Customer Demographics and Behavior

This page focuses on profiling the customers based on demographic and behavioural data such as age group, gender, income level, and satisfaction rating. Visuals include:

- Bar chart: Orders by age group
- Donut chart: Gender-based order distribution
- Tree map: Category preference by gender
- Scatter plot: Customer rating vs. total order value

By linking demographic data with spending and preference patterns, this page helps identify key customer segments.

Insights Highlight:

The analysis shows that the 18–30 age group accounts for over 45% of total orders, with females showing a slightly higher preference for desserts and beverages, while males prefer fast food and snacks. Customers with higher income levels tend to spend more per order and exhibit greater brand loyalty.

Product & Category Insights

The third page examines the performance of different food categories and products.

Visuals include:

- Stacked column chart: Revenue contribution by category
- Bar chart: Top-selling items
- Box plot: Rating distribution across categories
- Matrix visualization: Average order value and quantity sold per category

These visuals help identify high-performing categories and items, monitor product satisfaction levels, and reveal underperforming items that need attention.

Insights Highlight:

Fast food and beverages emerge as consistent leaders in both revenue and order frequency. Desserts show high customer satisfaction scores but comparatively lower volume, suggesting potential for targeted promotions. Traditional Indian cuisines maintain steady demand in Tier-2 cities, indicating regional preferences.

Regional & Platform Insights

This page explores geographical and platform-based performance variations.

Visuals include:

- Map visualization: Total revenue by region or city
- Bar chart: Orders by platform (Swiggy, Zomato, etc.)
- Stacked bar: Category mix per platform
- Donut chart: Payment mode preference by region
- KPI cards: Top-performing region and best-performing platform

Insights Highlight:

The North region records the highest revenue contribution, accounting for nearly 35% of total sales. Zomato emerges as the dominant platform with 40% of orders, followed by Swiggy. Digital wallet payments are more popular in urban areas, while cash payments remain common in semiurban regions.

Seasonal & Time-Based Trends

This page focuses on the temporal aspect of customer orders, analysing how seasons, time, and days of the week influence consumption patterns.

Visuals include:

- Line chart: Monthly sales trend
- Area chart: Seasonal variations (Winter, Summer, Monsoon)
- Heatmap: Hour-of-day and day-of-week patterns
- Bar chart: Most ordered items per season
- KPI cards: Peak month and off-peak month indicators

Insights Highlight:

Data reveals that fast food peaks during weekends, while desserts and beverages are preferred in summer. The busiest ordering hours fall between 6 PM and 9 PM. Monsoon shows a noticeable rise in comfort food orders such as soups and snacks.

Future Insights & Recommendations

This page is dedicated to predictive insights and strategic recommendations for business growth.

Visuals include:

- Forecast line chart: Predicted future orders/revenue using Power BI's forecasting feature
- Gauge charts: Target vs. actual revenue and customer satisfaction
- Text cards: Key recommendations and takeaways

Insights Highlight:

Forecasting models suggest a potential 10–12% increase in beverage sales during Q2 if targeted promotions are applied. Data correlation between satisfaction ratings and order frequency highlights that higher-rated categories tend to drive repeat purchases.

KEY INSIGHTS

The dashboard provides a comprehensive view of **customer behavior, market patterns, and business performance** in the F&B sector, revealing insights that guide data-driven decisions.

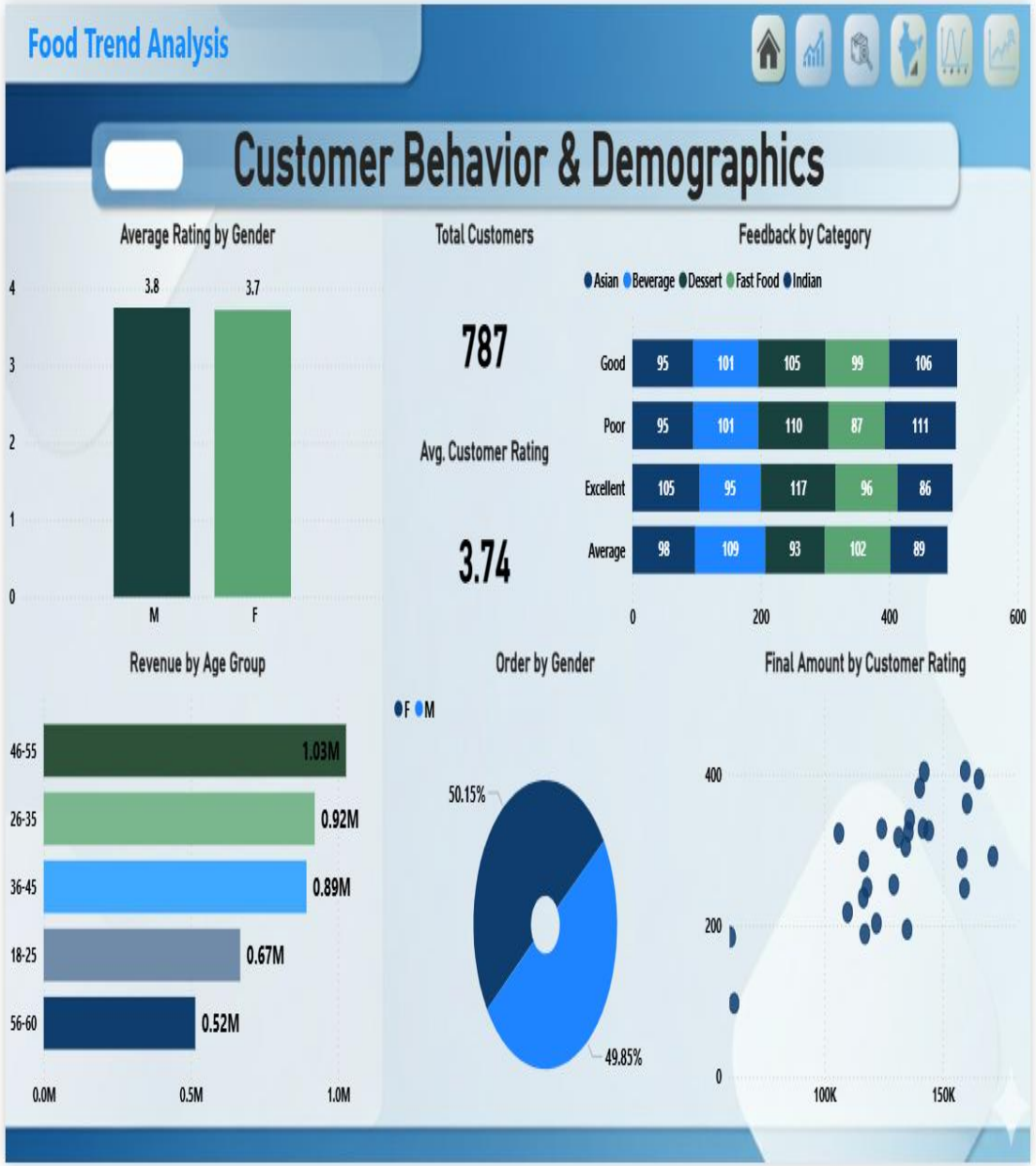
- **Customer Preferences:**
  Fast food and desserts dominate orders, while beverages maintain steady demand year-round. Young adults (18–35) prefer mobile-based online ordering, with higher average spends in metro areas.
- **Product Insights:**
  Burgers, brownies, and biryanis generate the most revenue, balancing moderate prices with high demand. Premium Asian cuisine offers fewer but more profitable orders. Dessert-beverage combinations show strong upselling potential.
- **Regional & Platform Performance:**
  North and West regions lead in revenue. Metro cities drive most orders, while smaller cities grow via digital payments. Swiggy and Zomato together handle ~80% of total sales, with regional variations in dominance.
- **Seasonal & Time Trends:**
  Orders peak on weekends and evenings. Desserts and beverages rise in summer; fast food and Indian cuisine dominate winter. Promotions and festivals significantly boost sales.
- **Operational Insights:**
  Discounts of 10–15% increase order volume and retention. Positive ratings link strongly to repeat purchases, emphasizing product quality and service.

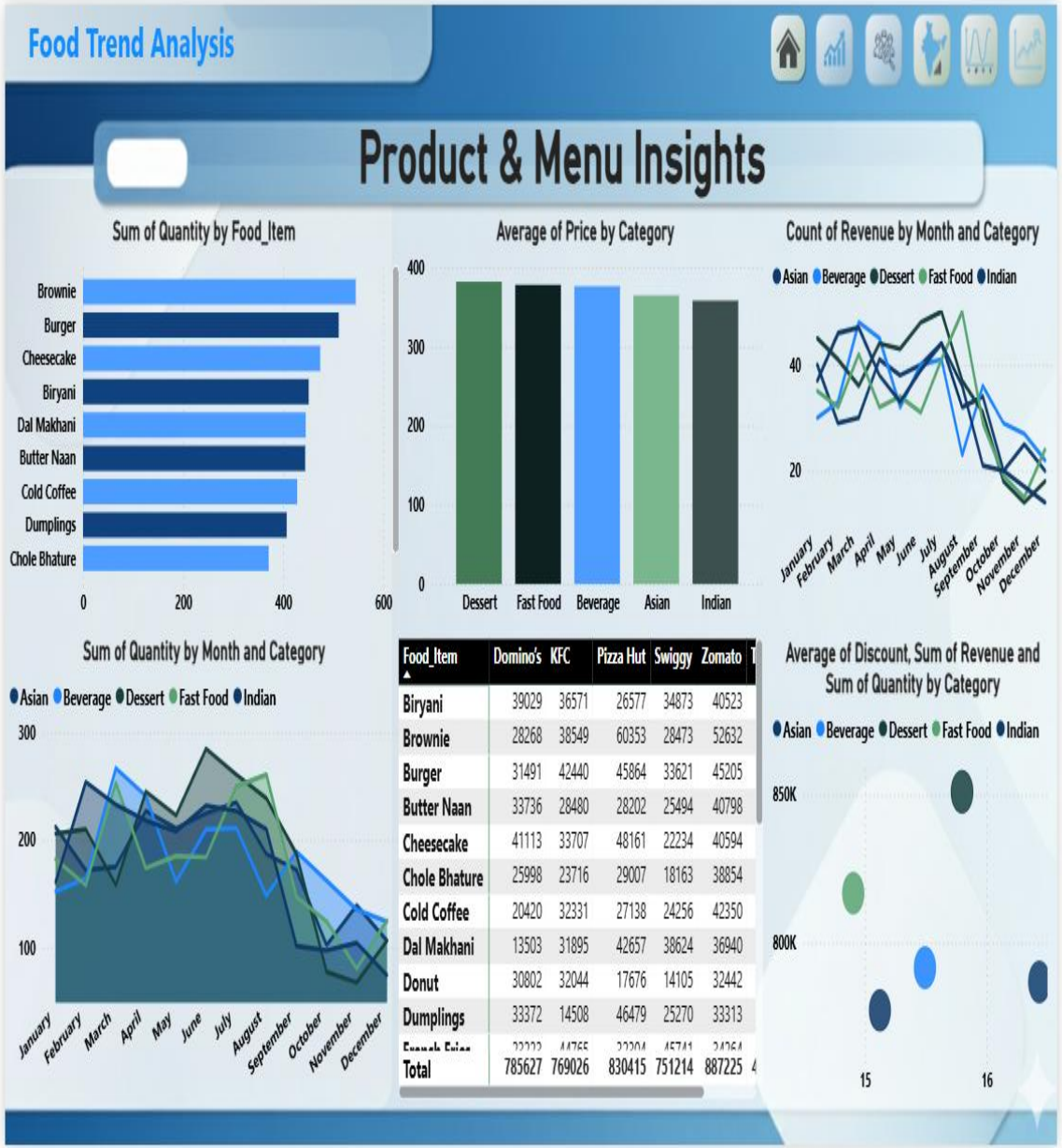
Overall: The analysis highlights how menu mix, pricing, marketing, and customer experience together drive success in the dynamic F&B market.

Food Trend Analysis: Customer Behavior and Market Insights

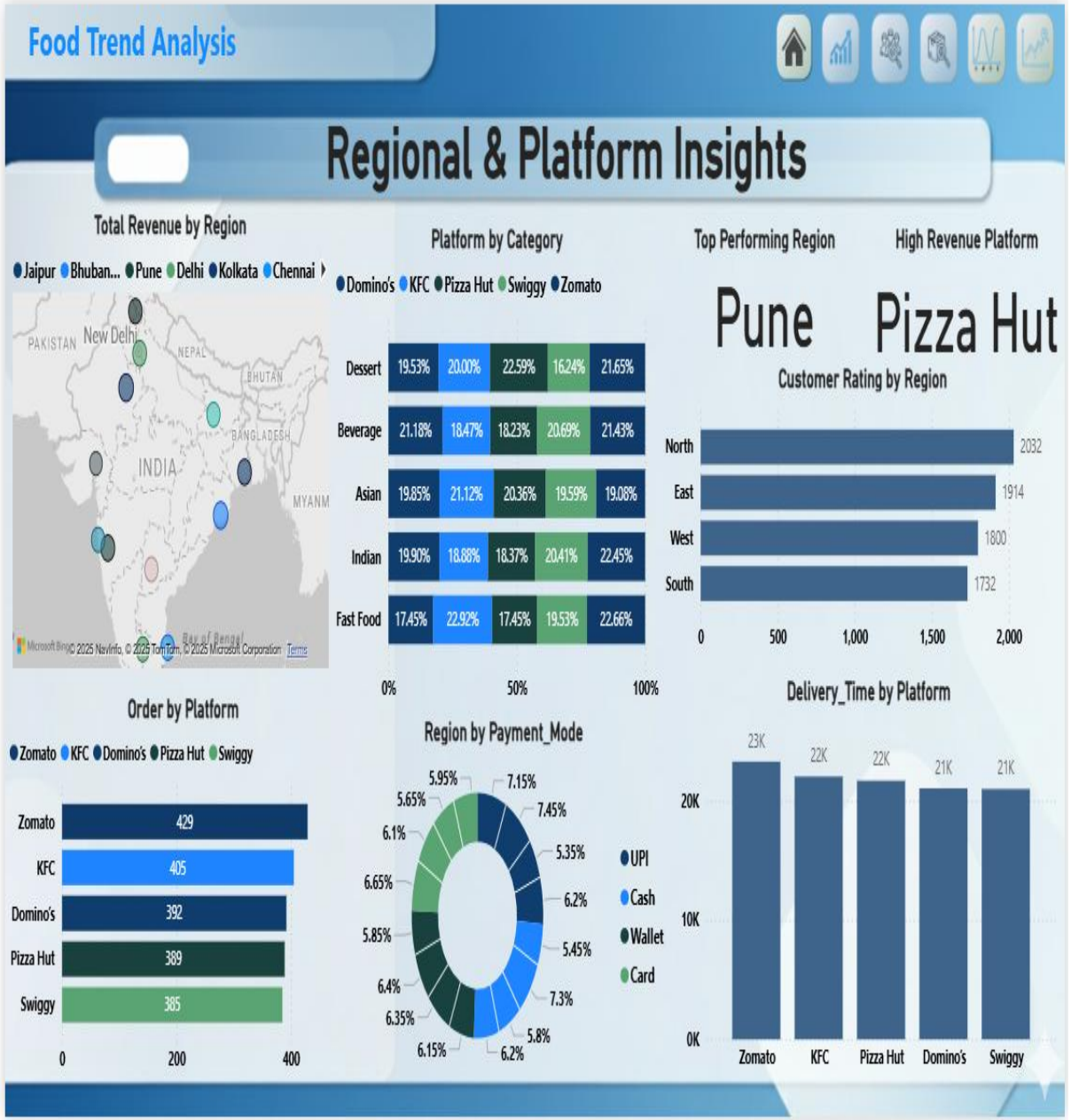
- Sales Overview
- Regional Insights
- Customer Insights
- Seasonal Trends
- Product Insights
- Future Insights

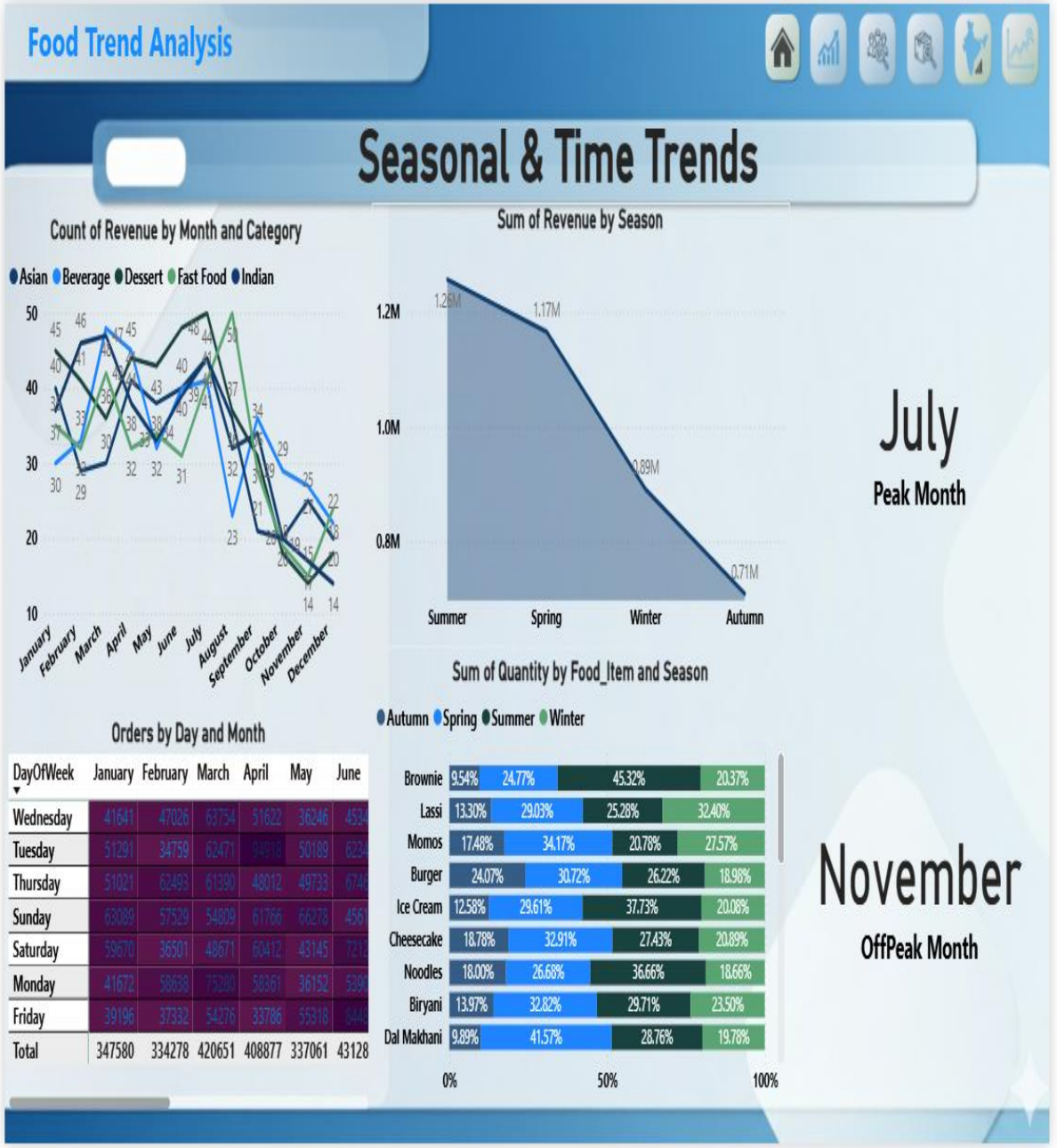
Home | Sales | Customer | Product | Regional | Seasonal | Future Insights

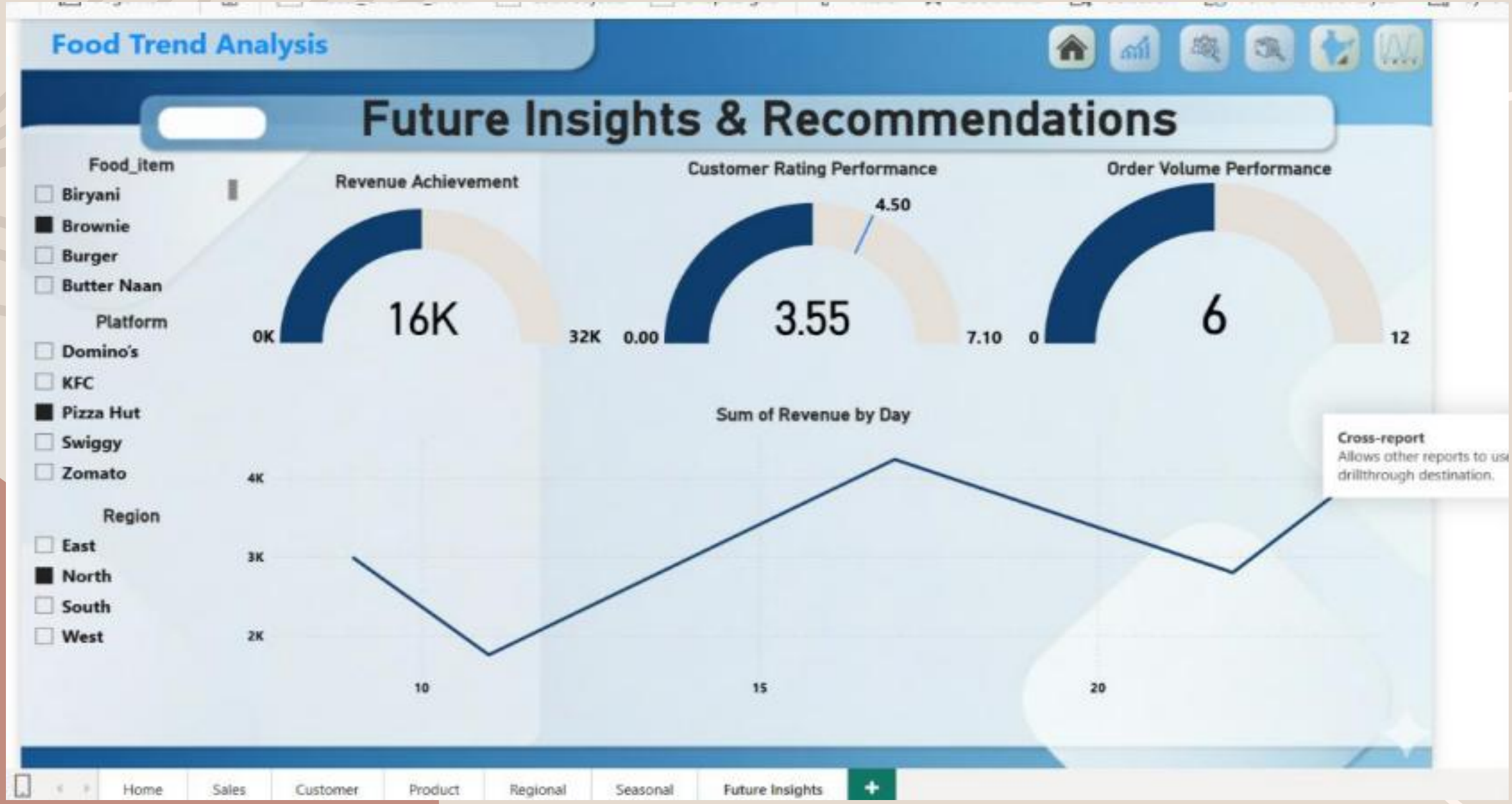




Food_Item	Domino's	KFC	Pizza Hut	Swiggy	Zomato
Biryani	39029	36571	26577	34873	40523
Brownie	28268	38549	60353	28473	52632
Burger	31491	42440	45864	33621	45205
Butter Naan	33736	28480	28202	25494	40798
Cheesecake	41113	33707	48161	22234	40594
Chole Bhature	25998	23716	29007	18163	38854
Cold Coffee	20420	32331	27138	24256	42350
Dal Makhani	13503	31895	42657	38624	36940
Donut	30802	32044	17676	14105	32442
Dumplings	33372	14508	46479	25270	33313
Total	785627	769026	830415	751214	887225


Food Trend Analysis
Regional & Platform Insights
Total Revenue by Region
Jaipur Bhuban... Pune Delhi Kolkata Chennai
PAKISTAN
New Delhi
NEPAL
BHUTAN
BANGLADESH
INDIA
MYANM
Bay of Bengal
Platform by Category
Domino's KFC Pizza Hut Swiggy Zomato
Dessert 19.53% 20.00% 22.59% 16.24% 21.65%
Beverage 21.18% 18.47% 18.23% 20.69% 21.43%
Asian 19.85% 21.12% 20.36% 19.59% 19.08%
Indian 19.90% 18.88% 18.37% 20.41% 22.45%
Fast Food 17.45% 22.92% 17.45% 19.53% 22.66%
0% 50% 100%
Top Performing Region
Pune
High Revenue Platform
Pizza Hut
Customer Rating by Region
North 2032
East 1914
West 1800
South 1732
0 500 1,000 1,500 2,000
Order by Platform
Zomato KFC Domino's Pizza Hut Swiggy
Zomato 429
KFC 405
Domino's 392
Pizza Hut 389
Swiggy 385
0 200 400
Region by Payment_Mode
5.95% 7.15% 5.65% 7.45% 6.1% 5.35% 6.65% 6.2% 5.85% 5.45% 6.4% 7.3% 6.35% 5.8% 6.15% 6.2%
UPI
Cash
Wallet
Card
Delivery_Time by Platform
23K 22K 22K 21K 21K
20K
10K
0K
Zomato KFC Pizza Hut Domino's Swiggy


Food Trend Analysis
Seasonal & Time Trends
Count of Revenue by Month and Category
Asian Beverage Dessert Fast Food Indian
50
40
30
20
10
January February March April May June July August September October November December
Sum of Revenue by Season
1.2M
1.0M
0.8M
1.26M
1.17M
0.89M
0.71M
Summer Spring Winter Autumn
July
Peak Month
Sum of Quantity by Food_Item and Season
Autumn Spring Summer Winter
Brownie 9.54% 24.77% 45.32% 20.37%
Lassi 13.30% 29.03% 25.28% 32.40%
Momos 17.48% 34.17% 20.78% 27.57%
Burger 24.07% 30.72% 26.22% 18.98%
Ice Cream 12.58% 29.61% 37.73% 20.08%
Cheesecake 18.78% 32.91% 27.43% 20.89%
Noodles 18.00% 26.68% 36.66% 18.66%
Biryani 13.97% 32.82% 29.71% 23.50%
Dal Makhani 9.89% 41.57% 28.76% 19.78%
0% 50% 100%
Orders by Day and Month
DayOfWeek January February March April May June
Wednesday 41641 47026 63754 51622 36246
Tuesday 51291 34759 62471 50189
Thursday 51021 62493 61390 48012 49733
Sunday 63089 57529 54809 61766 66878
Saturday 59670 36501 48671 60412 43145
Monday 41672 58638 75280 58361 36152
Friday 39196 37332 54276 33786 55318
Total 347580 334278 420651 408877 337061 43128
November
OffPeak Month


Food Trend Analysis
Future Insights & Recommendations
Food_item
Biryani
Brownie
Burger
Butter Naan
Platform
Domino's
KFC
Pizza Hut
Swiggy
Zomato
Region
East
North
South
West
Revenue Achievement
0K
16K
32K
Customer Rating Performance
0.00
3.55
4.50
7.10
Order Volume Performance
0
6
12
Sum of Revenue by Day
4K
3K
2K
10
15
20
Cross-report
Allows other reports to use
drillthrough destination.
Home
Sales
Customer
Product
Regional
Seasonal
Future Insights

Key Recommendations

- Increase promotional efforts for fast food and beverages during seasonal peaks.
- Strengthen partnerships with Swiggy in high-performing regions.
- Launch targeted campaigns in underperforming regions.
- Enhance digital wallet offers to encourage online payments.
- Use feedback analytics to improve quality in low-rated product categories.

CONCLUSION

The project "Food Trend Analysis: Customer Behavior and Market Insights" demonstrates how Power BI transforms raw data into actionable business intelligence for the Food & Beverage industry.

- Combined analysis of Sales, Customer, Product, Regional, Seasonal, and Forecasting dashboards offers a complete understanding of consumer behavior and business performance.
- Insights reveal:
  - Fast food & desserts dominate orders.
  - Beverages show stable year-round demand.
  - Swiggy & Zomato contribute ~80% of total revenue.
  - Digital payments are stronger in urban areas.
  - Weekends & festivals see peak engagement.
- Power BI enabled interactive exploration through slicers, KPIs, and visuals—turning complex data into clear, accessible insights.
- The project highlights how data-driven decisions enhance marketing, product strategy, and operational efficiency.
- Integrating historical and predictive analytics enables proactive business planning and sustainable growth.

Overall, the dashboard stands as a strategic decision-support tool—bridging data, analytics, and storytelling to drive long-term success.

Thank You