-By Bhavya Balyan

# PIZZA SALES ANALYSIS

# WELCOME TO
# PIZZA INDUSTRY

Pizza has become a universally loved dish, with a rapidly growing market worldwide. In such a competitive industry, understanding sales patterns and consumer preferences is essential for business growth

# OBJECTIVE OF THE ANALYSIS

## OBJECTIVE

- To identify sales trends.
- To understand customer preferences.
- To optimize business performance.

## TOOLS

- Power BI for data visualization and report generation.
- Calculate metrics like running totals, moving averages, and growth rates.
- Generate KPIs for customer behaviour, credit utilization, and delinquency risk.

# METRICS

## BASIC

- RETRIEVE THE TOTAL NUMBER OF ORDERS PLACED.
- CALCULATE THE TOTAL REVENUE GENERATED FROM PIZZA SALES.
- IDENTIFY THE HIGHEST-PRICED PIZZA.
- IDENTIFY THE MOST COMMON PIZZA SIZE ORDERED.
- LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES.

## INTERMEDIATE

- JOIN THE NECESSARY TABLES TO FIND THE TOTAL QUANTITY OF EACH PIZZA CATEGORY ORDERED.
- DETERMINE THE DISTRIBUTION OF ORDERS BY HOUR OF THE DAY.
- JOIN RELEVANT TABLES TO FIND THE CATEGORY-WISE DISTRIBUTION OF PIZZAS.
- GROUP THE ORDERS BY DATE AND CALCULATE THE AVERAGE NUMBER OF PIZZAS ORDERED PER DAY.
- DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE.

## ADVANCED

- CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE.
- ANALYZE THE CUMULATIVE REVENUE GENERATED OVER TIME.
- DETERMINE THE TOP 3 MOST ORDERED PIZZA TYPES BASED ON REVENUE FOR EACH PIZZA CATEGORY.

# MATRICS #1

BASIC

The total number of orders placed using DAX (Data Analysis Expressions)

```
TOTALORDERS =
COUNT(ORDERS[ORDER_ID])
```

## Analysis questions

# Retrieve the total number of orders placed.

## Visualisation

Drag the TotalOrders measure into a card visualization

# MATRICS #2

BASIC

Compute the total revenue

```
TOTALREVENUE =

 SUMX(
ORDER_DETAILS,
ORDER_DETAILS[QUANTITY] *
RELATED(PIZZAS[PRICE]))
```

## Analysis questions

# Calculate the total revenue generated from pizza sales

## Visualization

Drag the TotalRevenue measure onto a card visualization

# MATRICS #3

BASIC

Create a Measure for the Highest Price.

```
HIGHESTPRICE =
MAX(PIZZAS[PRICE])
```

## Analysis questions

# Identify the highest-priced pizza

## Visualization

Use a Card visualization to display the highest price

# MATRICS #4

BASIC

Create a Measure to Count Pizza Sizes

```
SIZEFREQUENCY =

COUNTROWS(ORDER_DETAILS)
```

## Analysis questions

# Identify the most common pizza size ordered

## Visualization

Using a card visualization SizeFreuency

# MATRICS #5

BASIC

Create a Measure for Total Quantity

```
TOTALQUANTITY =

SUM(ORDER_DETAILS[QUANTITY])
```

## Analysis questions

# List the top 5 most ordered pizza types along with their quantities

## Visualization

Create a matrix visualization
Drag TotalQuantity measure into the visual to display quantities.

# MATRICS #6

Intermediate

Create a measure for quantity of each pizza category ordered

```
TOTALQUANTITYBYCATEGORY =

  SUMX(
      ORDER_DETAILS,
      ORDER_DETAILS[QUANTITY] *
RELATED(PIZZA_TYPES[CATEGOR
Y])
  )
```

## Analysis questions

# Join the necessary tables to find the total quantity of each pizza category ordered

## visualization

Use a table Drag category from Pizza_Types and TotalQuantityByCategory into the visual

# MATRICS #7

Intermediate

Create a measure to count the number of orders for each hour

```
ORDERSBYHOUR =
COUNT(ORDERS[ORDER_ID])
```

## Analysis questions

# Determine the distribution of orders by hour of the day

## Visualization

Use a bar chart AND Drag OrdersByHour to the Values field

# MATRICS #8

Intermediate

Calculate the total pizzas for each category

```
CATEGORYWISEPIZZAS =

 COUNTROWS
(ORDER_DETAILS)
```

## Analysis questions

# Join relevant tables to find the category-wise distribution of pizzas

## Visualization

Use a Pie Chart visualization and Drag category from Pizza_Types CategoryWisePizzas Values field

# MATRICS #9

Intermediate

- In the Orders table, add a calculated column to find the total number of pizzas ordered per date

- Create a Measure for average pizzas

```
TOTALPIZZASPERDATE =
CALCULATE(
    SUM(ORDER_DETAILS[QUANTITY]),
    RELATED(ORDERS[DATE])
)
```

```
AVERAGEPIZZASPERDAY =
AVERAGEX(
    SUMMARIZE(ORDERS, ORDERS[DATE], "TOTALPIZZAS", SUM(ORDER_DETAILS[QUANTITY])),
    [TOTALPIZZAS]
)
```

## Analysis questions

# Group the orders by date and calculate the average number of pizzas ordered per day

## Visualization

Use a Line Chart for Visualization

# MATRICS #10

Intermediate

- Create a Revenue Measure

- Create a Ranking Measure

```
REVENUEBYTYPE =
SUMX(
    ORDER_DETAILS,

ORDER_DETAILS[QUANTITY]
* RELATED(PIZZAS[PRICE])
)
```

```
RANKBYREVENUE =
 RANKX(
    ALL(PIZZA_TYPES),
    [REVENUEBYTYPE],

    ,DESC
)
```

## Analysis questions

# Determine the top 3 most ordered pizza types based on revenue

## Visualization

Use a bar chart to display the names and revenue of the top 3 pizza types

# MATRICS #11

ADVANCED

- Calculate Total Revenue by Pizza Type

```
REVENUEBYTYPE =
 SUMX(
   ORDER_DETAILS,
 ORDER_DETAILS[QUANTITY]
 * RELATED(PIZZAS[PRICE])
 )
```

- Calculate the Total Revenue

```
TOTALREVENUE =
SUMX(
   ORDER_DETAILS,
 ORDER_DETAILS[QUANTITY]
* RELATED(PIZZAS[PRICE])
)
```

- Calculate the Percentage Contribution

```
REVENUEPERCENTAGE =
[REVENUEBYTYPE] /
[TOTALREVENUE] * 100
```

## Analysis questions

# Calculate the percentage contribution of each pizza type to total revenue

## Visualization

Use a KPI Visualization

# MATRICS #12

ADVANCED

- Create a Revenue Measure

- Create a Cumulative Revenue Measure

```
REVENUE = SUMX(
    ORDER_DETAILS,

ORDER_DETAILS[QUANTITY]
* RELATED(PIZZAS[PRICE])
)
```

```
CUMULATIVEREVENUE =
CALCULATE(
    [REVENUE],
    FILTER(
        ALL(ORDERS[DATE]),
        ORDERS[DATE] <=
MAX(ORDERS[DATE])
    )
)
```

## Analysis questions

# Analyze the cumulative revenue generated over time.

## Visualisation

Use a Line Chart and add date and CumulativeRevenue

# MATRICS #13

ADVANCED

Calculate Revenue for Each Pizza Type

Rank Pizza Types Within Categories

```
REVENUEBYTYPE = SUMX(
    ORDER_DETAILS,

ORDER_DETAILS[QUANTITY]
* RELATED(PIZZAS[PRICE])
)
```

```
RANKWITHINCATEGORY =
RANKX(
    FILTER(
        ALL(PIZZA_TYPES),
        PIZZA_TYPES[CATEGORY]
=
EARLIER(PIZZA_TYPES[CATEG
ORY])
    ),
    [REVENUEBYTYPE],
    ,
    DESC
)
```

## Analysis questions

# Determine the top 3 most ordered pizza types based on revenue for each pizza category

## Visualisation

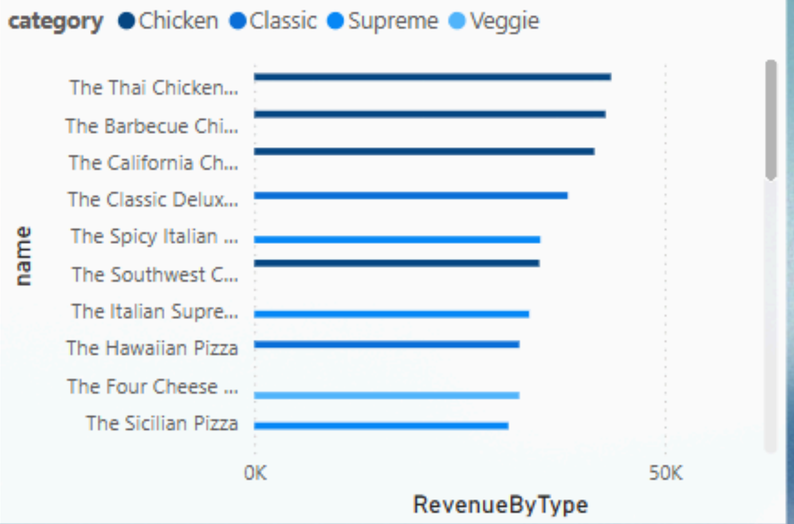
Use a matrix visualization

# DASHBOARD

Category: All

| Total orders | Total Revenue | Hightest priced pizza | Total Sales | Highestest Price |
|---|---|---|---|---|
| 21K | 817.86K | 269.75 | 817.86K | 35.95 |

## RevenueByType and RevenuePercentage by name and category

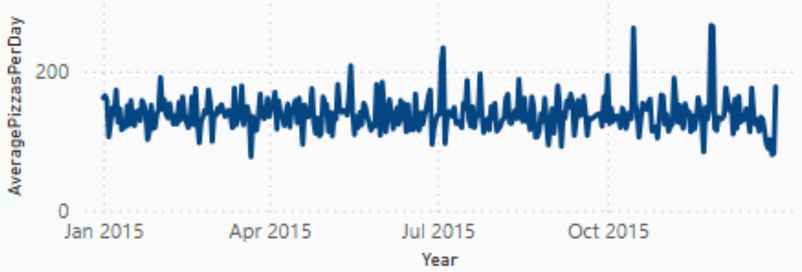



| name | category | RankByRevenue | RevenueByType |
|---|---|---|---|
| The Thai Chicken Pizza | Chicken | 1 | 43,434.25 |
| The Barbecue Chicken Pizza | Chicken | 2 | 42,768.00 |
| The California Chicken Pizza | Chicken | 3 | 41,409.50 |
| The Classic Deluxe Pizza | Classic | 4 | 38,180.50 |
| **Total** | | **1** | **1,65,792.25** |

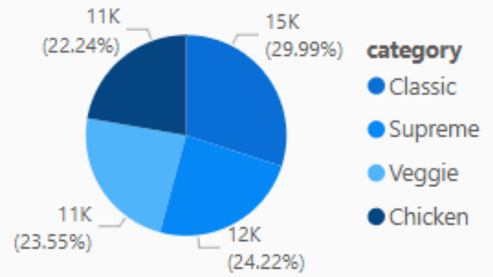
## Top 5 Most Ordered Types

| name | TotalQuantity |
|---|---|
| The Barbecue Chicken Pizza | 2432 |
| The Classic Deluxe Pizza | 2453 |
| The Hawaiian Pizza | 2422 |
| The Pepperoni Pizza | 2418 |
| The Thai Chicken Pizza | 2371 |
| **Total** | **12096** |

## Average Pizzas Per Day by Months



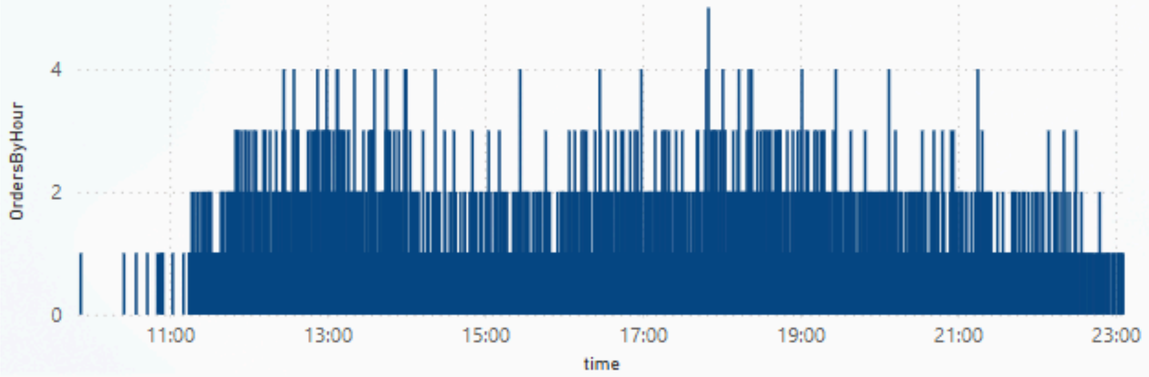

## category-wise distribution of pizzas



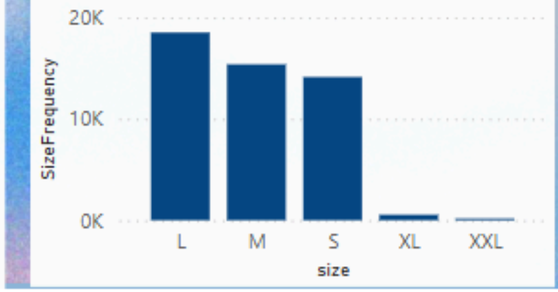

## CumulativeRevenue by date

817.86K

## OrdersByHour by time




## Count of Orders for each size



# CONCLUSION

The analysis highlights key sales trends, including the top-performing pizza categories and types, along with their revenue contributions. These insights provide actionable strategies for optimizing offerings, targeting customer preferences, and improving efficiency. By leveraging this data, businesses can enhance customer satisfaction, boost revenue, and drive sustained growth in a competitive market.

# THANK YOU!

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