

Problem Statement

The goal is to analyze the 2015 pizza sales dataset to evaluate business performance through key metrics and visualizations, providing insights into sales trends, customer preferences, and product performance.

KPI Requirements

- Total Revenue: Sum of the total price of all pizza orders.
- Average Order Value: Total revenue divided by the total number of orders.
- Total Pizzas Sold: Sum of quantities of all pizzas sold.
- Total Orders: Total number of orders placed.
- Average Pizzas per Order: Total pizzas sold divided by the total number of orders.

Chart Requirements

Visualizations to identify trends and insights in pizza sales data:

- Daily Trend for Total Orders: Bar chart showing daily order volume trends over time.
- Hourly Trend for Total Orders: Line chart illustrating hourly order patterns to identify peak periods.
- Percentage of Sales by Category: Pie chart displaying the sales distribution across pizza categories.
- Percentage of Sales by Pizza Size: Pie chart highlighting sales distribution by pizza size to reveal customer preferences.
- Total Pizzas Sold by Category: Funnel chart comparing the sales performance of different pizza categories.
- Top 5 Best Sellers by Total Pizzas Sold: Bar chart showcasing the top 5 pizzas by units sold.
- Bottom 5 Worst Sellers by Total Pizzas Sold: Bar chart identifying the bottom 5 pizzas by units sold to highlight underperforming items.

1. Total Revenue

```
select SUM(total_price) as Total_Revenue from [pizza_sales excel file.xlsx - pizza_sales]
```

100 %

Results	
Messages	
	Total_Revenue
1	817860.05083847

2. Average Order Value

```
select SUM(total_price) / COUNT(DISTINCT(order_id)) AS Average_Order_Value from [pizza_sales excel file.xlsx - pizza_sales]
```

	Average_Order_Value
1	38.3072623343546

3. Total pizzas sold

```
select SUM(quantity) as Total_Pizzas_Sold from [pizza_sales excel file.xlsx - pizza_sales]
```

	Total_Pizzas_Sold
1	49574

4. Total Orders

```
select COUNT(DISTINCT(order_id)) as Total_Orders from [pizza_sales excel file.xlsx - pizza_sales]
```

	Total_Orders
1	21350

5. Average Pizzas per order

```
select CAST(CAST(SUM(quantity) AS DECIMAL(10, 2)) / CAST(COUNT(DISTINCT(order_id)) AS DECIMAL(10, 2)) AS DECIMAL(10, 2)) as Average_Pizzas_Per_Order from [pizza_sales excel file.xlsx - pizza_sales]
```

	Average_Pizzas_Per_Order
1	2.32

6. Daily Trend

```
SELECT DATENAME(DW, order_date) as order_day, COUNT(DISTINCT(order_id)) as Total_Orders
from [pizza_sales excel file.xlsx - pizza_sales]
GROUP BY DATENAME(DW, order_date)
```

	order_day	Total_Orders
1	Saturday	3158
2	Wednesday	3024
3	Monday	2794
4	Sunday	2624
5	Friday	3538
6	Thursday	3239
7	Tuesday	2973

7. Hourly Trend

```
SELECT DATEPART(HOUR, order_time) as order_hours, COUNT(DISTINCT(order_id)) as
Total_Orders from [pizza_sales excel file.xlsx - pizza_sales]
GROUP BY DATEPART(HOUR, order_time) ORDER BY DATEPART(HOUR, order_time)
```

	order_hours	Total_Orders
1	9	1
2	10	8
3	11	1231
4	12	2520
5	13	2455
6	14	1472
7	15	1468
8	16	1920
9	17	2336
10	18	2399
11	19	2009
12	20	1642
13	21	1198
14	22	663
15	23	28

8. Percentage of Sales by Pizza Category for the month of January

```
SELECT pizza_category, SUM(total_price) as Total_Sales ,
SUM(total_price) * 100 / (SELECT SUM(total_price) FROM [pizza_sales excel file.xlsx -
pizza_sales] WHERE MONTH(order_date) = 1)
AS Sales_Percentage FROM [pizza_sales excel file.xlsx - pizza_sales]
WHERE MONTH(order_date) = 1
```

GROUP BY pizza_category

	pizza_category	Total_Sales	Sales_Percentage
1	Classic	18619.4000015259	26.6779189176038
2	Chicken	16188.75	23.1952780348435
3	Veggie	17055.4000778198	24.4370162489706
4	Supreme	17929.7499866486	25.6897867985821

9. Percentage of Sales by Pizza Size

```
SELECT pizza_size, SUM(total_price) as Total_Sales, CAST(SUM(total_price)*100/(SELECT SUM(total_price) FROM [pizza_sales excel file.xlsx - pizza_sales]) AS DECIMAL(10, 2)) AS PCT
FROM [pizza_sales excel file.xlsx - pizza_sales] GROUP BY pizza_size ORDER BY PCT DESC
```

	pizza_size	Total_Sales	PCT
1	L	375318.701004028	45.89
2	M	249382.25	30.49
3	S	178076.49981308	21.77
4	XL	14076	1.72
5	XXL	1006.6000213623	0.12

10. Percentage of Sales by Pizza Size Per Quarter

```
SELECT pizza_size, SUM(total_price) as Total_Sales, CAST(SUM(total_price)*100/(SELECT SUM(total_price) FROM [pizza_sales excel file.xlsx - pizza_sales] WHERE DATEPART(QUARTER, order_date) = 1) AS DECIMAL(10, 2)) AS PCT
FROM [pizza_sales excel file.xlsx - pizza_sales]
WHERE DATEPART(QUARTER, order_date) = 1
GROUP BY pizza_size
ORDER BY PCT DESC
```

	pizza_size	Total_Sales	PCT
1	L	95229.6502571106	46.37
2	M	61159	29.78
3	S	45384.2499523163	22.10
4	XL	3289.5	1.60
5	XXL	287.600006103516	0.14

11. Total Pizzas Sold by Pizza Category

```
SELECT pizza_category, SUM(quantity) as Total_Quantity_Sold , CAST(SUM(total_price) AS DECIMAL(10, 2)) as Total_Sales
FROM [pizza_sales excel file.xlsx - pizza_sales]
GROUP BY pizza_category
ORDER BY Total_Quantity_Sold DESC
```

	pizza_category	Total_Quantity_Sold	Total_Sales
1	Classic	14888	220053.10
2	Supreme	11987	208197.00
3	Veggie	11649	193690.45
4	Chicken	11050	195919.50

12. Top 5 Best-selling Pizzas

```
SELECT TOP 5 pizza_name, SUM(quantity) as Quantity_Sold, CAST(SUM(total_price) AS
DECIMAL(10, 2)) AS Total_Sales
FROM [pizza_sales excel file.xlsx - pizza_sales]
GROUP BY pizza_name
ORDER BY Quantity_Sold DESC
```

	pizza_name	Quantity_Sold	Total_Sales
1	The Classic Deluxe Pizza	2453	38180.50
2	The Barbecue Chicken Pizza	2432	42768.00
3	The Hawaiian Pizza	2422	32273.25
4	The Pepperoni Pizza	2418	30161.75
5	The Thai Chicken Pizza	2371	43434.25

13. Bottom 5 Worst Selling Pizzas

```
SELECT TOP 5 pizza_name, SUM(quantity) as Quantity_Sold, CAST(SUM(total_price) AS
DECIMAL(10, 2)) AS Total_Sales
FROM [pizza_sales excel file.xlsx - pizza_sales]
GROUP BY pizza_name
ORDER BY Quantity_Sold
```

	pizza_name	Quantity_Sold	Total_Sales
1	The Brie Carre Pizza	490	11588.50
2	The Mediterranean Pizza	934	15360.50
3	The Calabrese Pizza	937	15934.25
4	The Spinach Supreme Pizza	950	15277.75
5	The Soppressata Pizza	961	16425.75