PIZZA SALES

ANALYSIS DASHBOARD

By: Zohaib Hassan

Problem Statement

The pizza sales dashboard is created to address the need for a comprehensive and visual representation of the pizza sales data. The aim is to provide a detailed and easily understandable overview of sales performance, helping to identify key trends, best and worst-selling items, and peak sales periods.

Reasons for Creating the Dashboard

1. **Performance Tracking:** To monitor overall sales performance including revenue, order volume, and average order values.
2. **Trend Analysis:** To analyze daily and hourly sales trends, identifying peak sales times and days.
3. **Category Insights:** To understand which pizza categories and sizes contribute the most to sales, enabling better inventory and menu planning.
4. **Best & Worst Sellers:** To identify the top-performing and least popular pizza items, assisting in menu optimization and marketing strategies.
5. **Strategic Decision-Making:** To provide actionable insights that can help in making informed business decisions, such as staffing, promotions, and operational improvements.

Time-Based Data Analysis

1. **Slicer Functionality:** The dashboard includes slicers that allow users to filter and analyze data by different time periods such as years, months, and weeks.
2. **Temporal Insights:** By using these slicers, users can gain insights into seasonal trends, monthly performance variations, and weekly sales patterns, helping in understanding how sales fluctuate over time.
3. **Granular Analysis:** This functionality supports granular analysis, making it easier to pinpoint specific periods of high or low sales activity, thus aiding in more precise planning and decision-making.

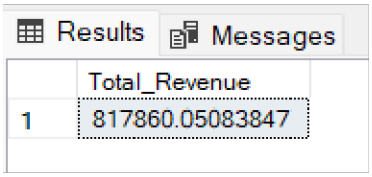
   Overall, the integration of data analytics and slicer functionality in this dashboard empowers the business with the ability to make informed, strategic decisions that enhance sales performance and operational efficiency.

PIZZA SALES SQL QUERIES

A. KPI's

1. Total Revenue:

```
SELECT SUM(total_price) AS Total_Revenue FROM pizza_sales;
```

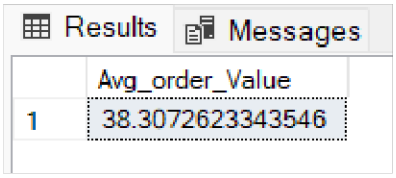


Results | Messages

	Total_Revenue
1	817860.05083847

2. Average Order Value

```
SELECT (SUM(total_price) / COUNT(DISTINCT order_id)) AS Avg_order_Value FROM
pizza_sales
```

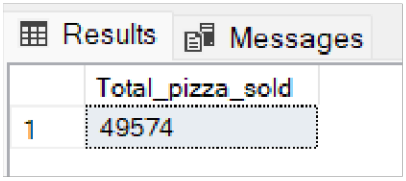


Results | Messages

	Avg_order_Value
1	38.3072623343546

3. Total Pizzas Sold

```
SELECT SUM(quantity) AS Total_pizza_sold FROM pizza_sales
```

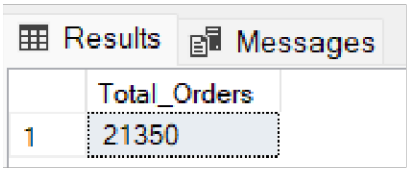


Results | Messages

	Total_pizza_sold
1	49574

4. Total Orders

```
SELECT COUNT(DISTINCT order_id) AS Total_Orders FROM pizza_sales
```

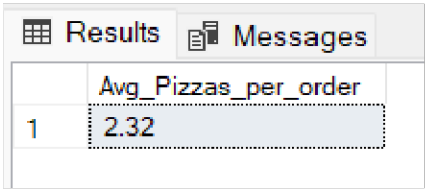


Results | Messages

	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 Avg_Pizzas_per_order
FROM pizza_sales
```



Results | Messages

	Avg_Pizzas_per_order
1	2.32

B. Daily Trend for Total Orders

```
SELECT DATENAME(DW, order_date) AS order_day, COUNT(DISTINCT order_id) AS total_orders
FROM pizza_sales
GROUP BY DATENAME(DW, order_date)
```

Output:

Results | Messages

	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

C. Hourly Trend for Orders

```
SELECT DATEPART(HOUR, order_time) as order_hours, COUNT(DISTINCT order_id) as
total_orders
from pizza_sales
group by DATEPART(HOUR, order_time)
order by DATEPART(HOUR, order_time)
```

Output

Results | Messages

	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

D. % of Sales by Pizza Category

```
SELECT pizza_category, CAST(SUM(total_price) AS DECIMAL(10,2)) as total_revenue,
CAST(SUM(total_price) * 100 / (SELECT SUM(total_price) from pizza_sales) AS
DECIMAL(10,2)) AS PCT
FROM pizza_sales
GROUP BY pizza_category
```

Output

Results Messages

	pizza_category	total_revenue	PCT
1	Classic	220053.10	26.91
2	Chicken	195919.50	23.96
3	Veggie	193690.45	23.68
4	Supreme	208197.00	25.46

E. % of Sales by Pizza Size

```
SELECT pizza_size, CAST(SUM(total_price) AS DECIMAL(10,2)) as total_revenue,
CAST(SUM(total_price) * 100 / (SELECT SUM(total_price) from pizza_sales) AS
DECIMAL(10,2)) AS PCT
FROM pizza_sales
GROUP BY pizza_size
ORDER BY pizza_size
```

Output

Results Messages

	pizza_size	total_revenue	PCT
1	L	375318.70	45.89
2	M	249382.25	30.49
3	S	178076.50	21.77
4	XL	14076.00	1.72
5	XXL	1006.60	0.12

F. Total Pizzas Sold by Pizza Category

```
SELECT pizza_category, SUM(quantity) as Total_Quantity_Sold
FROM pizza_sales
WHERE MONTH(order_date) = 2
GROUP BY pizza_category
ORDER BY Total_Quantity_Sold DESC
```

Output

Results Messages

	pizza_category	Total_Quantity_Sold
1	Classic	14888
2	Supreme	11987
3	Veggie	11649
4	Chicken	11050

G. Top 5 Best Sellers by Total Pizzas Sold

```
SELECT Top 5 pizza_name, SUM(quantity) AS Total_Pizza_Sold
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Pizza_Sold DESC
```

Output

	pizza_name	Total_Pizza_Sold
1	The Classic Deluxe Pizza	2453
2	The Barbecue Chicken Pizza	2432
3	The Hawaiian Pizza	2422
4	The Pepperoni Pizza	2418
5	The Thai Chicken Pizza	2371

H. Bottom 5 Best Sellers by Total Pizzas Sold

```
SELECT TOP 5 pizza_name, SUM(quantity) AS Total_Pizza_Sold
FROM pizza_sales
GROUP BY pizza_name
ORDER BY Total_Pizza_Sold ASC
```

Output

Results Messages

	pizza_name	Total_Pizza_Sold
1	The Brie Carre Pizza	490
2	The Mediterranean Pizza	934
3	The Calabrese Pizza	937
4	The Spinach Supreme Pizza	950
5	The Soppressata Pizza	961

NOTE

If you want to apply the Month, Quarter, Week filters to the above queries you can use WHERE clause. Follow some of below examples

```
SELECT DATENAME(DW, order_date) AS order_day, COUNT(DISTINCT order_id) AS total_orders
FROM pizza_sales
WHERE MONTH(order_date) = 1
GROUP BY DATENAME(DW, order_date)
```

Here MONTH(order_date) = 1 indicates that the output is for the month of January. MONTH(order_date) = 4 indicates output for Month of April.

```
SELECT DATENAME(DW, order_date) AS order_day, COUNT(DISTINCT order_id) AS total_orders
FROM pizza_sales
WHERE DATEPART(QUARTER, order_date) = 1
GROUP BY DATENAME(DW, order_date)
```

Here DATEPART(QUARTER, order_date) = 1 indicates that the output is for the Quarter 1. MONTH(order_date) = 3 indicates output for Quarter 3.