**KPI REQUIREMENT**

1. *To calculate the Sum of the total price of all pizza orders*

SELECT SUM (total\_price) AS TOTAL\_REVENUE FROM Pizza\_Sales

**OUTPUT**

A screenshot of a computer screen

Description automatically generated

1. To calculate the average order, i.e. the average amount spent per order, calculated by dividing the total revenue by the total number of orders.

SELECT SUM (total\_price) / COUNT (DISTINCT order\_id) AS AVERAGE\_ORDER\_VALUE from pizza\_sales.

**OUTPUT**

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Description automatically generated

1. ***Total Pizzas Sold***: We shall further calculate the sum of the quantities of all pizzas sold.

SELECT SUM (quantity) AS Total\_Pizza\_Sold FROM Pizza\_Sales

**OUTPUT**

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1. ***Total Orders***: The total number of orders placed.

SELECT COUNT (DISTINCT order\_id) AS Total\_Orders FROM Pizza\_Sales

**OUTPUT**

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1. ***Average Pizzas Per Order***: The average number of pizzas sold per order, calculated by

dividing the total number of pizzas sold by the total number of orders. To derive the true value in decimal, we use the cast function.

SELECT CAST (CAST (SUM (quantity)AS **DECIMAL** (10,2)) / CAST(COUNT(DISTINCT order\_id)AS **DECIMAL** (10,2)) AS **DECIMAL** (10,2)) AS AVERAGE\_OIZZA\_PER\_OEDER from pizza\_sales

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**CHARTS REQUIREMENT**

1. **Daily Trend for Total Orders:** Create a bar chart that displays the daily trend of total orders over a specific time period. This chart will help us identify any patterns or fluctuations in order volumes on a daily basis. How many total numbers of orders were placed each week.

(**Daily Trend)**

SELECT DATENAME (DW, order\_date) AS ORDER\_DAYS, COUNT (DISTINCT order\_id) AS TOTAL\_ORDERS

FROM pizza\_sales

GROUP BY DATENAME (DW, order\_date)

**OUTPUT**

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1. **Monthly/ Hourly/ Weekly Trend for Total Orders:**

Create a line chart that illustrates the hourly trend of total orders throughout the day. This chart will allow us to identify peak hours or periods of high order activity.

**(Hourly Trend)**

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**

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**OUTPUT**

1. **Percentage of Sales by Pizza Category:**

Create a pie chart that shows the distribution of sales across different pizza categories. This chart will provide insights into the popularity of various pizza categories and their contribution to overall sales.

SELECT pizza\_category, SUM (total\_price) \* 100 / (SELECT SUM(total\_price)FROM pizza\_sales) AS TOTAL\_PERCENTAGE\_SALES\_PER\_PIZZA\_CATEGORY

FROM pizza\_sales

GROUP BY pizza\_category

**OUTPUT**

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If we are to filter for the first month f the year (January), then,

SELECT pizza\_category, SUM (total\_price) AS TOTAL\_SALES\_BY\_PIZZA\_CATEGORY, SUM (total\_price) \* 100 / (SELECT SUM(total\_price)FROM pizza\_sales) AS TOTAL\_PERCENTAGE\_SALES\_PER\_PIZZA\_CATEGORY

FROM pizza\_sales

WHERE MONTH (order\_date) = 1

GROUP BY pizza\_category

**OUTPUT**

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If we want to apply the Month, Quarter, Week, filters, to the above queries, you can use WHERE clause.

***9. Percentage of Sales by Pizza Size:***

Generate a pie chart that represents the percentage of sales attributed to different pizza sizes. This chart will help us understand customer preferences for pizza sizes and their impact on sales.

*-- WE also need to reduce the decimal point.*

SELECT pizza\_size, CAST (SUM (total\_price) AS **DECIMAL** (10,1)) AS TOTAL\_SALES\_BY\_PIZZA\_CATEGORY,

CAST (SUM (total\_price) \* 100 / (SELECT SUM(total\_price) FROM pizza\_sales WHERE DATEPART(QUARTER, order\_date) = 2) AS **DECIMAL** (10,2)) AS TOTAL\_PERCENTAGE\_SALES\_PER\_PIZZA\_CATEGORY

FROM pizza\_sales

WHERE DATEPART (QUARTER, order\_date) = 2

GROUP BY pizza\_size

ORDER BY TOTAL\_PERCENTAGE\_SALES\_PER\_PIZZA\_CATEGORY ASC

**OUTPUT**

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1. ***Total Pizzas Sold by Pizza Category:***

Create a funnel chart that presents the total number of pizzas sold for each pizza category. This chart will allow us to compare the sales performance of different pizza categories.

SELECT pizza\_category, SUM (quantity) AS Total\_Pizza\_Sold

FROM pizza\_sales

GROUP BY pizza\_category

**OUTPUT**

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Description automatically generated

1. ***Top 5 Best Sellers by Revenue, Total Quantity and Total Orders:***

Create a bar chart highlighting the top 5 best-selling pizzas based on the Revenue, Total Quantity, Total Orders. This chart will help us identify the most popular pizza options.

SELECT TOP 5 pizza\_name, SUM (quantity) AS Total\_Pizza\_Sold, Sum(total\_price) AS Total\_Revenue

FROM pizza\_sales

GROUP BY pizza\_name

ORDER BY SUM (quantity) DESC

**OUTPUT**

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**Recommendation:**

1. **Continuous Monitoring and Evaluation:** Regularly execute the provided SQL queries to gather KPIs and assess trends. This will enable real-time insights into the business performance, aiding in timely decision-making.
2. **Utilize Visualization Tools Effectively:** Leverage Power BI or Tableau to create visual representations of the obtained data. This will enhance the interpretability of trends and patterns, providing a more accessible means for stakeholders to grasp the information.
3. **Dynamic Filtering for Deeper Analysis:** Implement dynamic filters, such as Month, Quarter, and Week, to allow for a more granular analysis of data. This will provide the flexibility to delve deeper into specific timeframes and uncover nuanced trends.
4. **Refine Decimal Precision for Clarity:** When calculating percentages and sales figures, consider refining decimal precision for clarity in the visualization. This ensures that the presented data is not only accurate but also easily interpretable.
5. **Top and Bottom Performers Analysis:** Regularly assess the top and bottom performing pizzas based on Revenue, Total Quantity, and Total Orders. This analysis can offer valuable insights into customer preferences and guide marketing and inventory management strategies.

**Conclusion:**

In conclusion, the recommended approach involves a combination of SQL queries for robust data gathering and visualization tools for dynamic dashboard analysis. The provided queries cover key metrics and chart requirements, offering a comprehensive understanding of pizza sales data. By implementing the outlined recommendations, the organization can derive actionable insights, enhance decision-making processes, and adapt strategies to optimize overall business performance. Regular monitoring and refinement of analytical methods will contribute to sustained success in the dynamic landscape of the pizza sales industry.