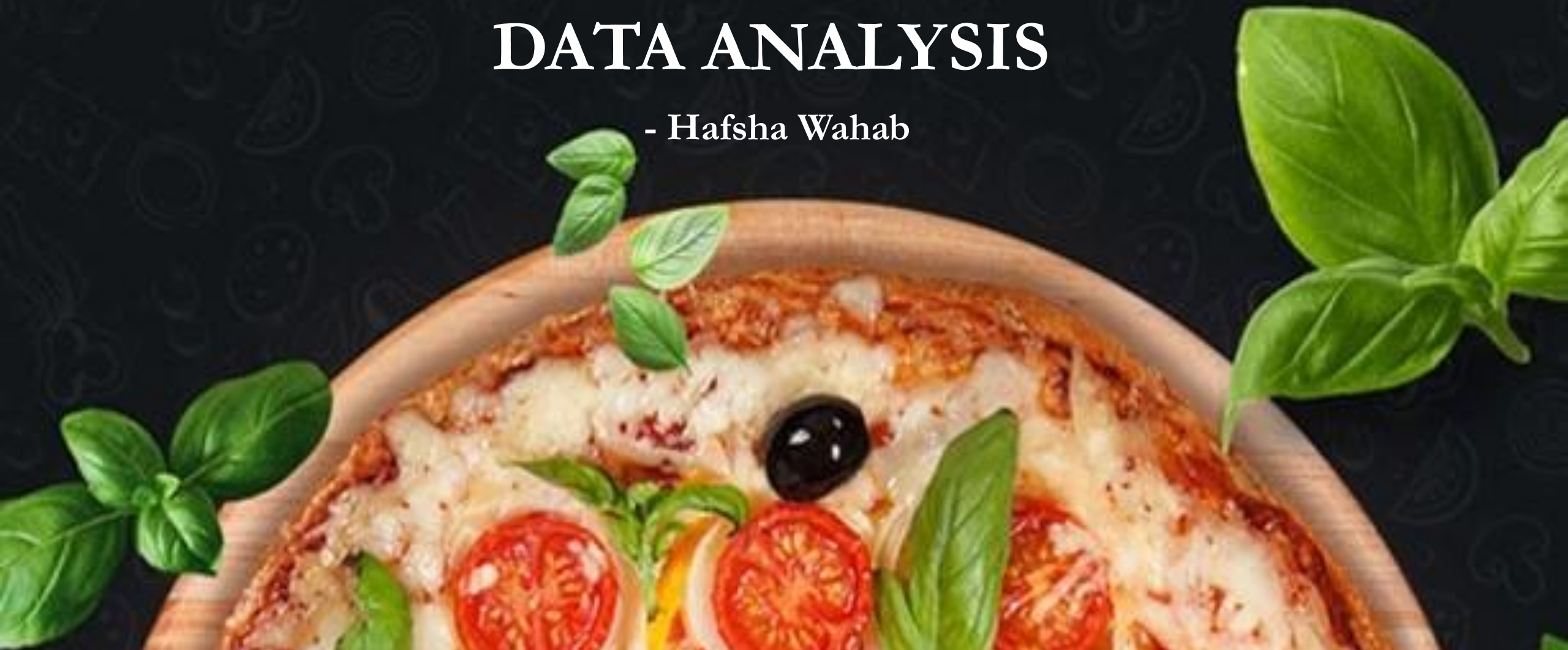


PIZZA PLACE SALES DATA ANALYSIS

- Hafsha Wahab





BACKGROUND

We have been provided with a year's worth of sales from a fictitious pizza place, which includes the date and time of each order and the pizzas served, with additional details on the type, size, quantity, price, and ingredients.

Our analysis involves examining various aspects of pizza sales data to gain insights into customer preferences, market trends, and business performance.

Data source: <https://www.kaggle.com/datasets/mysarahmadbhat/pizza-place-sales>



METHODOLOGY

- Cleaning of the data so that the final data is comprehensible.
- Understanding which fields to use for our purpose.
- Performing necessary calculations using SUM, AVERAGE, COUNTIF, Sorting, VLOOKUP, ROUNDUP, Delimiter functions.
- Creating Pivot tables as per our needs.
- Creating dashboard for easy understanding of the entire analysis.
- Making useful insights and recommendations for the profit of the business.



GOALS

- 1) **Identify Customer Preferences:** The primary goal is to understand customer preferences as it helps in tailoring the menu offerings to serve the customers better.
- 2) **Optimize Menu and Pricing Strategies:** Analyzing pizza sales data helps determine the popularity and profitability of different menu items, thereby maximizing business revenue and profit.
- 3) **Identify Peak Sales Periods:** Analyzing sales data over different time periods allows businesses to identify peak sales periods and understand seasonal patterns. This information helps with inventory management, staffing decisions, and promotional planning to meet customer demand during busy periods.
- 4) **Forecasting and Planning:** Using historical sales data, businesses can develop forecasting models to predict future sales and plan accordingly. This helps in inventory management, production planning, and resource allocation.



KEY PERFORMANCE INDICATORS (KPIs)

- Number of customers each day
- Number of orders in queue at a given time
- Peak hours
- Top bestselling pizza
- Revenue generated in a year
- Seasonality in sale
- Least selling pizza



CONCEPTS USED

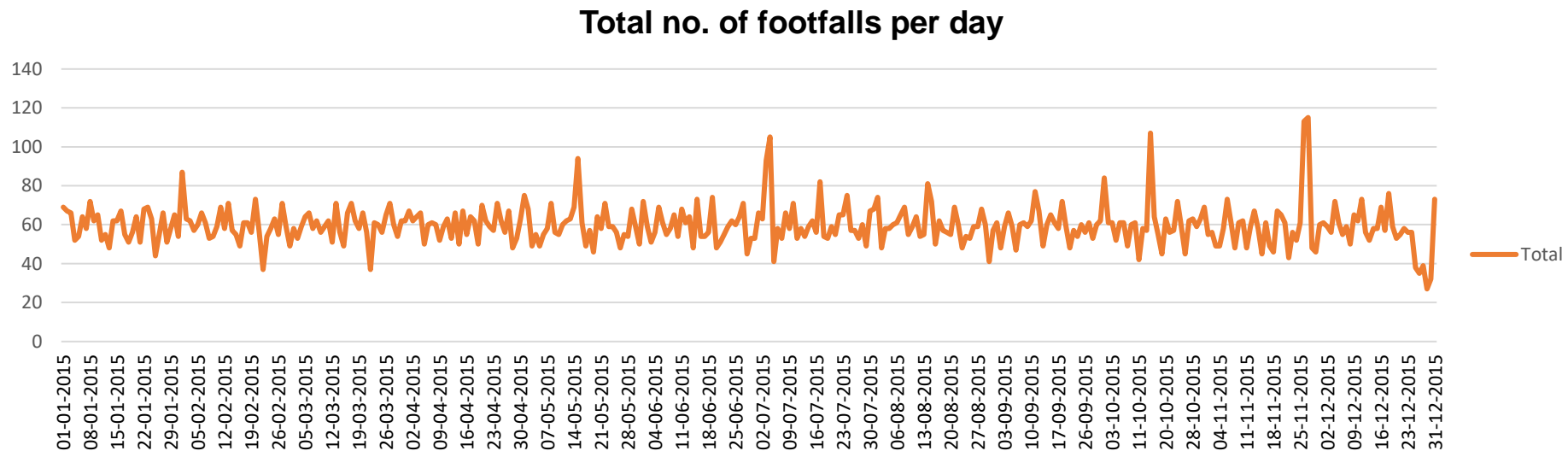
- **SUM, AVERAGE, MULTIPLICATION, ROUNDUP, COUNTIF, Month, Hour formulas**
- **VLOOKUP, removing delimiter, Conditional formatting, Sorting.**
- **Pivot Tables**
- **Charts**

ANALYSIS OF DATA



1a) How many customers do they have each day?

By counting the total number of footfalls per day and taking its average, number of customers per day = 60



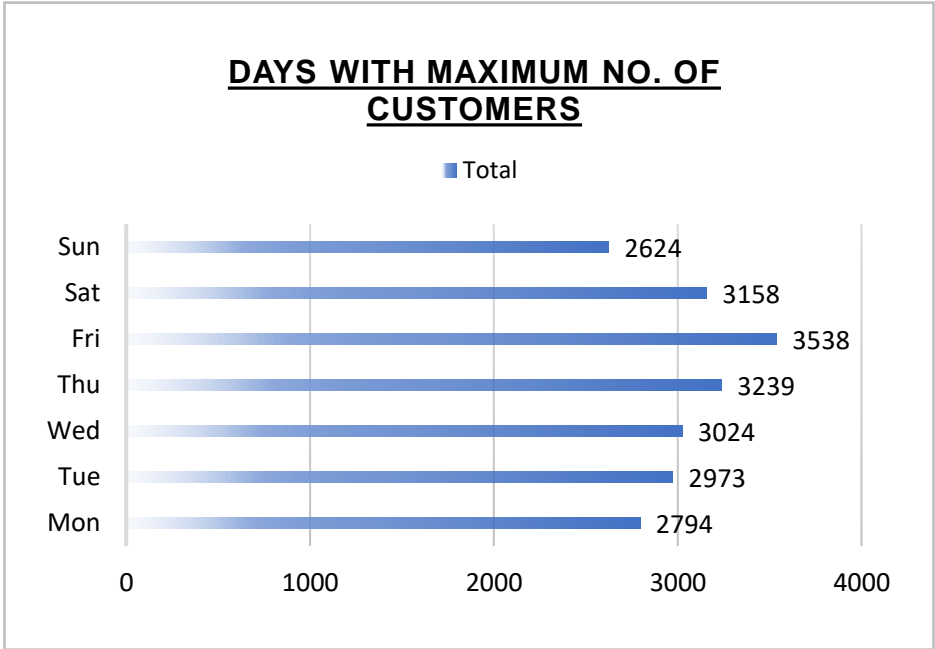
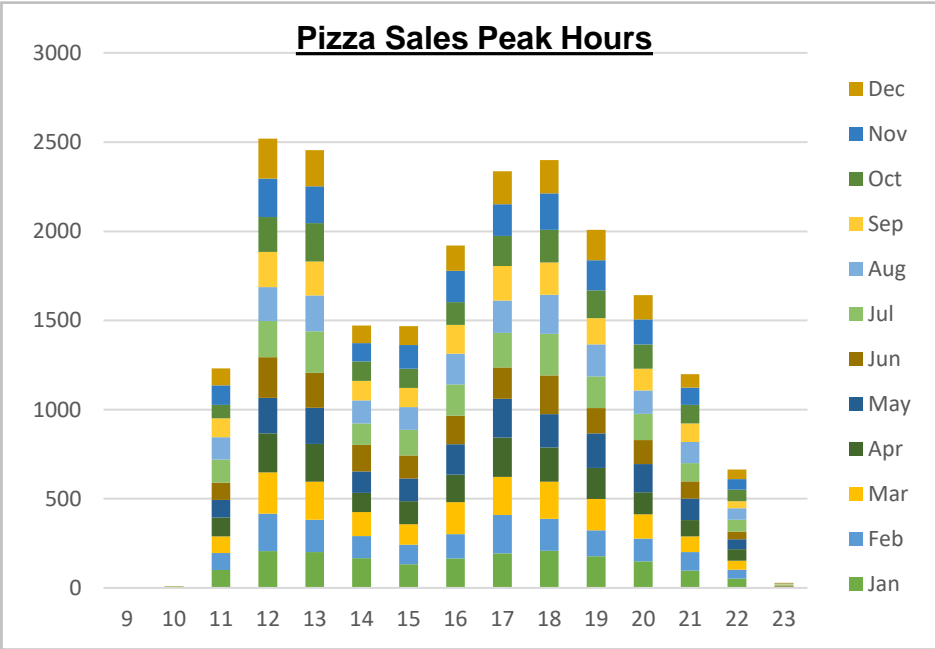
Using the Pivot table we can see the total number of orders per day the pizza shop had fulfilled and also we can see that the highest sale was made on 26th- 27th Nov,2015. 26th November,2015 was Thanksgiving Day.



1b) Are there any peak hours?

As per the given data, the peak hours of pizza sale has been 12 - 1 pm and 5 -7 pm.

Throughout the year, Thursdays - Saturdays are the busiest days in the Pizza Place.





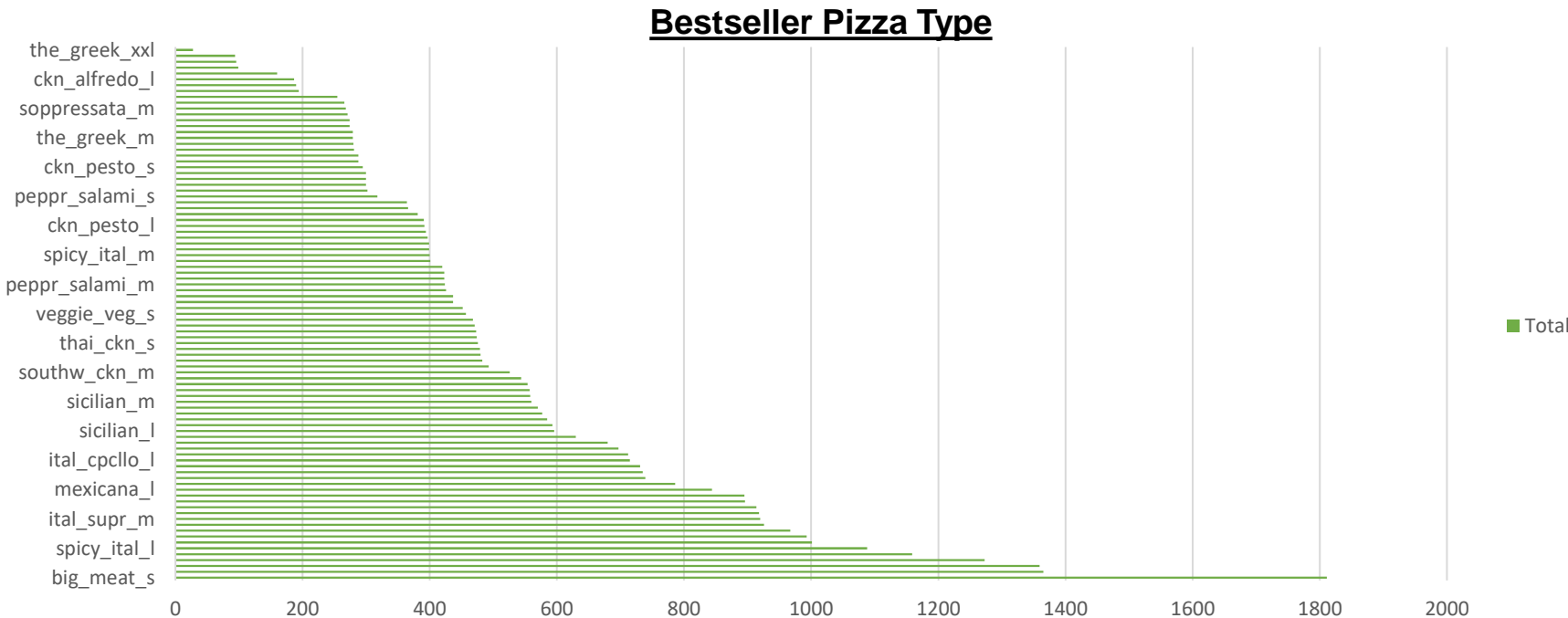
2a) How many pizzas are typically in an order?

By counting the total Order_Details_ID against each Order_ID, we calculated its average and roundedup the value.

Approximate number of pizzas present typically in an order = 3

2b) Do we have any bestsellers ?

By counting the Order_ID against Pizza_ID the bestseller pizza is found to be **Big_meat_small**.





3a) How much money did they make this year?

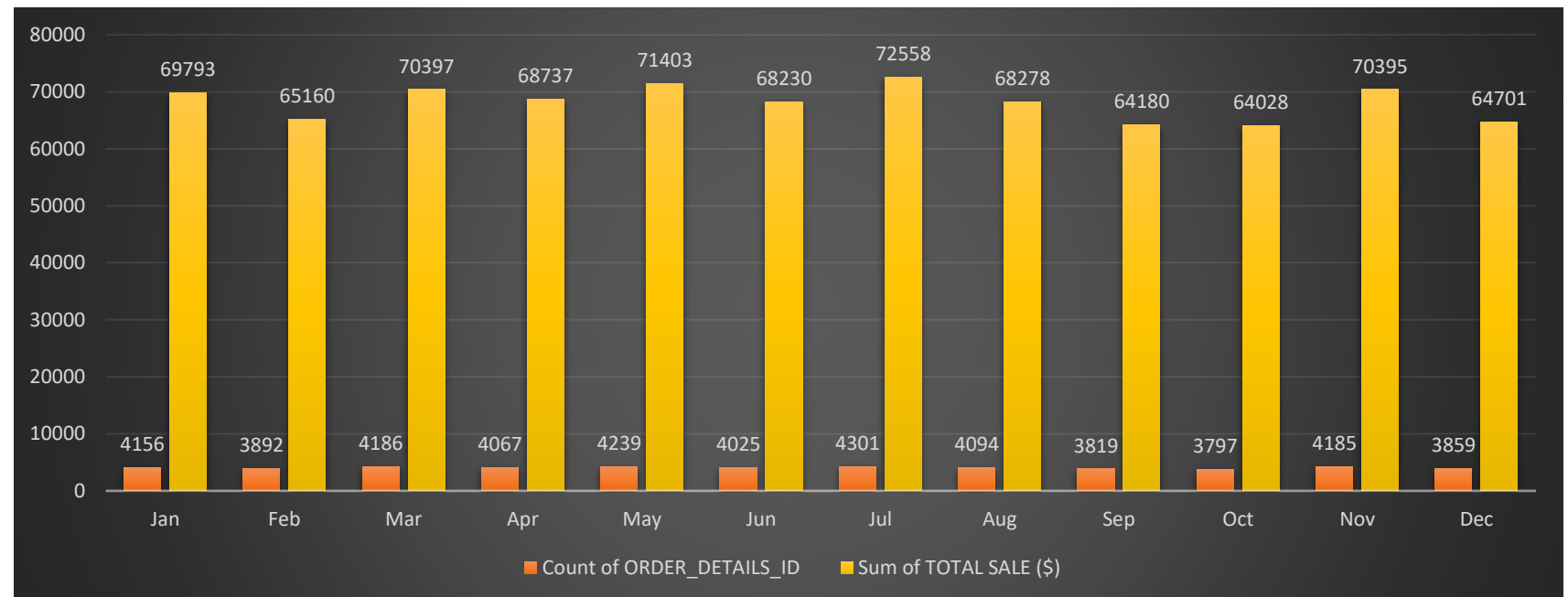
By creating a Pivot table using Month and the Total Sales made per month, we calculated the total revenue.

Total Revenue generated in year 2015 = **\$ 817860**

3b) Can we find any seasonality in the sale?

By using the pivot table, we have found that **May - July** are the seasonal months.

SEASONALITY IN SALES

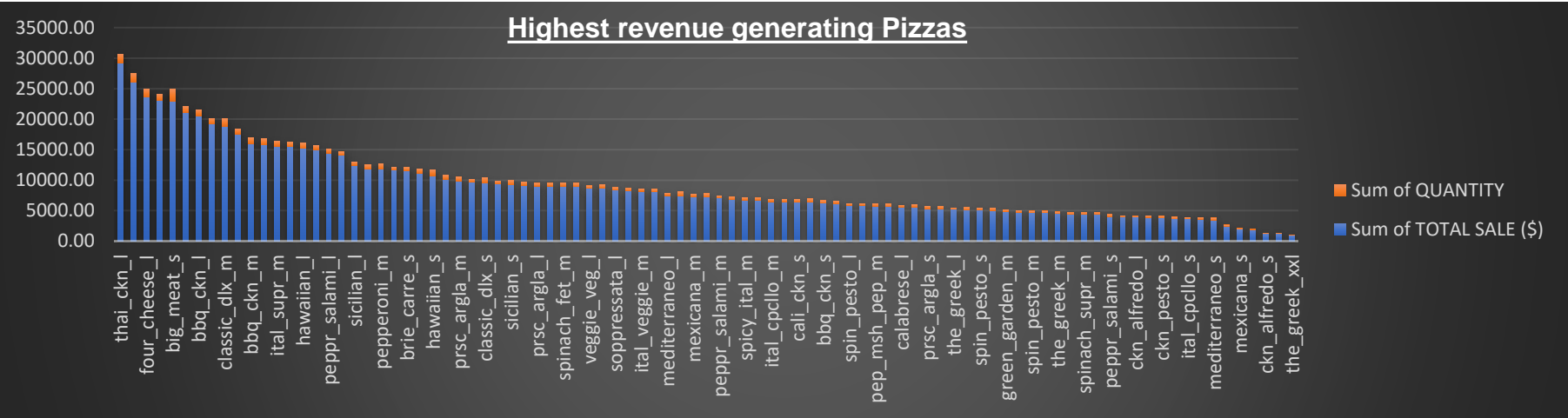




3c) Which pizza has generated the highest revenue in year 2015?

By using Pivot Table we calculated the total sales generated by each pizza_type. It can be seen that **Thai_Chicken_large** has produced largest revenue in a year. And also the other 6 pizza types are the top ones contributing in company's revenue.

PIZZA_ID	Sum of TOTAL SALE (\$)	Sum of QUANTITY
thai_ckn_l	29257.5	1410
five_cheese_l	26066.5	1409
four_cheese_l	23622.2	1316
spicy_ital_l	23011.75	1109
big_meat_s	22968	1914
southw_ckn_l	21082	1016
bbq_ckn_l	20584	992



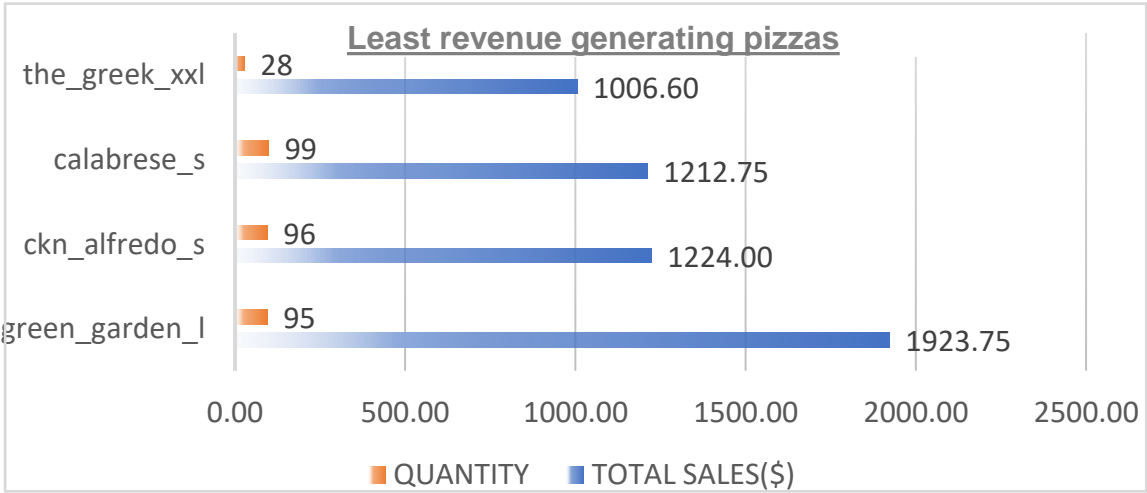


4a) Are there any Pizza they should take off the menu?

By sorting the Pivot table we have found the pizza types that have been ordered least number of times and can be taken off the menu.

The_Greek_xxl had been ordered for only 28 times in a year, as it is also the costliest pizza offered. So, the company can think to take off this pizza from their menu.

PIZZA_CATEGORY	TOTAL SALES(\$)	QUANTITY
green_garden_l	1923.75	95
ckn_alfredo_s	1224.00	96
calabrese_s	1212.75	99
the_greek_xxl	1006.60	28





4b) Should they do any promotion to leverage?

Using the same Sales and Pizza_ID Pivot table we can see that **Classic_dlx_medium** and **Hawaiian_small** have been ordered above 1000 times in a year (which is at par with other top 7 pizzas). Hence, the company can think of promoting these two pizza_types as they have potential to increase their revenue and also help them to bring these 2 pizzas in their top 10.

PIZZA_ID	Sum of TOTAL SALE (\$)	Sum of QUANTITY
big_meat_s	22968.00	1914
thai_ckn_l	29257.50	1410
five_cheese_l	26066.50	1409
four_cheese_l	23622.20	1316
classic_dlx_m	18896.00	1181
spicy_ital_l	23011.75	1109
hawaiian_s	10710.00	1020
southw_ckn_l	21082.00	1016
bbq_ckn_l	20584.00	992



RECOMMENDATIONS



- Pizza Place should focus more on Lunch and Supper sales as these are the peak hours of customers. Also, Fridays and Saturdays are the busiest days as week-off begins. They should also try to be more efficient with staffs and management at these times.
- The Pizza Place should promote more offers on their top 7 bestselling Pizzas as they generate most of the company's revenue.
- Pizza Place should also focus on the ingredients that are required in top bestselling pizzas to optimize their sale.
- They should take off The_Greek_xxl from the menu as it is the least selling pizza and generated minimum revenue.



CONCLUSION

In conclusion, the analysis of pizza sales data has shed light on several important aspects of customer behavior, market trends, and business performance within the pizza industry. By examining the data, we have identified key findings and drawn insights that can guide decision-making and drive business growth.



Thank You 😊