

Dashboard and Data Visualization

Excel: The Ultimate Tool

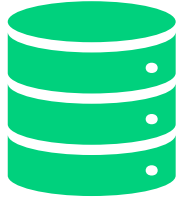
Favour James



Data visualization is the graphical representation of information and data. It helps us understand complex data, identify trends, and make informed decisions. Excel provides powerful tools for creating effective data visualizations.

A dashboard is a collection of visualizations, metrics, and key performance indicators (KPIs) consolidated on a single screen for monitoring and analysis. It is used to track business performance across various metrics and provide insights that support strategic decision-making.

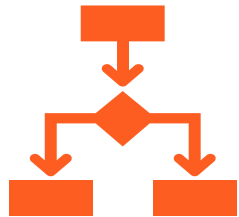
INTRODUCTION



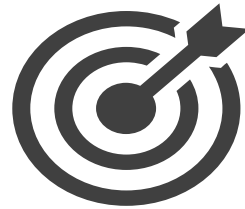
Real-Time Data: Immediate access to current data.



Efficiency: Quickly digest a large amount of information.



Improved Decision Making: Visual insights lead to better executive decision-making.

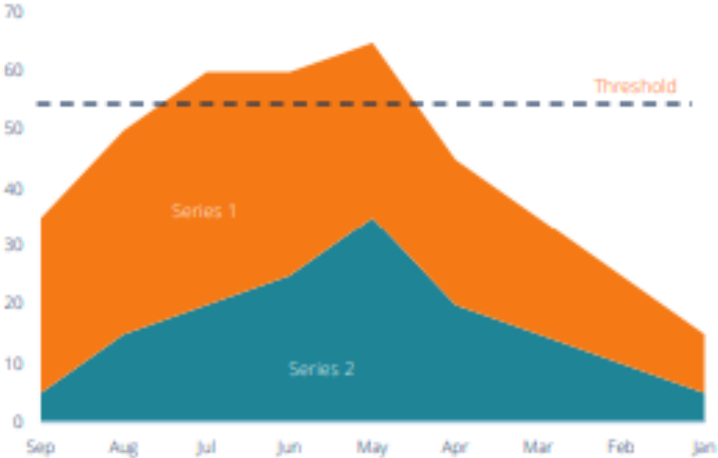


Customization: Tailored to meet specific needs and goals.

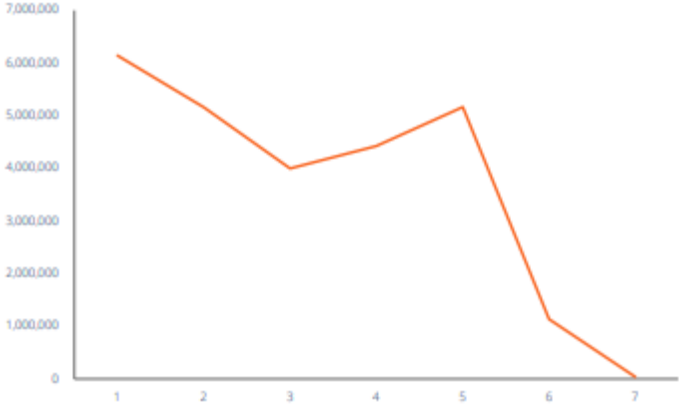
Benefits of Using Dashboards

VISUALS

Area Chart: Show changes in data composition over time.



Line Chart: Show trends over time.



Card: Highlight key data points.



Bar & Column Chart: Compare values across categories.

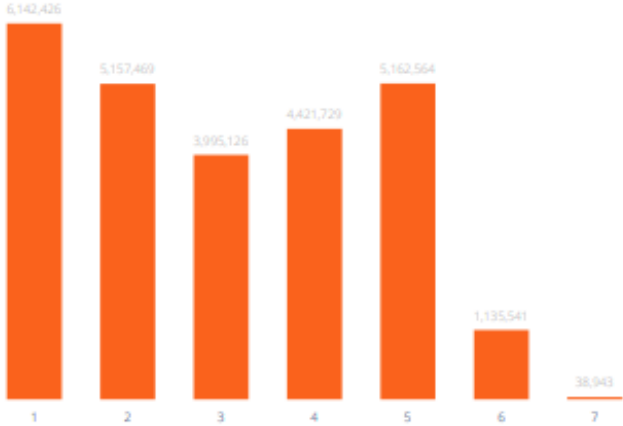


Table: Condense data into key metrics.

	Revenue Growth					
	0%	5.0%	10.0%	15.0%	20.0%	
Exit Multiple	-	19.22	23.73	29.09	35.43	42.88
7.0x	20.85	25.92	31.97	39.13	47.56	
8.0x	22.47	28.11	34.85	42.83	52.24	
9.0x	24.10	30.31	37.72	46.53	56.92	
10.0x	25.73	32.50	40.60	50.23	61.60	

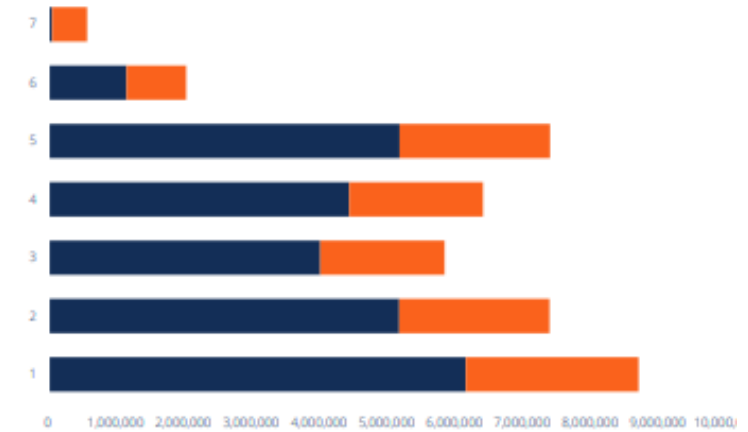
Gauge: Monitor key performance indicators (KPIs) at a glance.



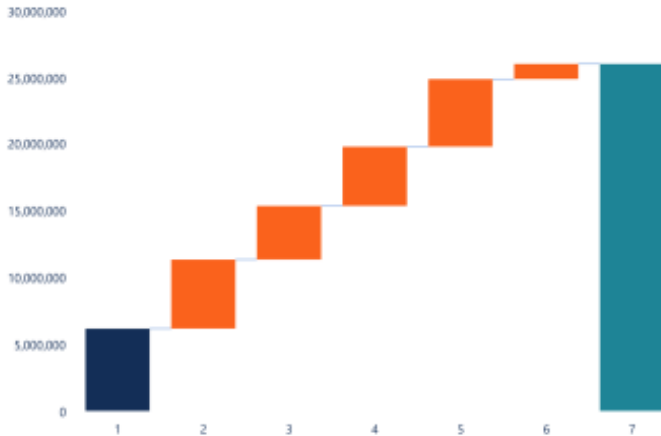
Heat Maps: Highlight data density.

Exit Multiple	Revenue Growth				
	0%	5.0%	10.0%	15.0%	20.0%
-	19.22	23.73	29.09	35.43	42.88
7.0x	20.85	25.92	31.97	39.13	47.56
8.0x	22.47	28.11	34.85	42.83	52.24
9.0x	24.10	30.31	37.72	46.53	56.92
10.0x	25.73	32.50	40.60	50.23	61.60

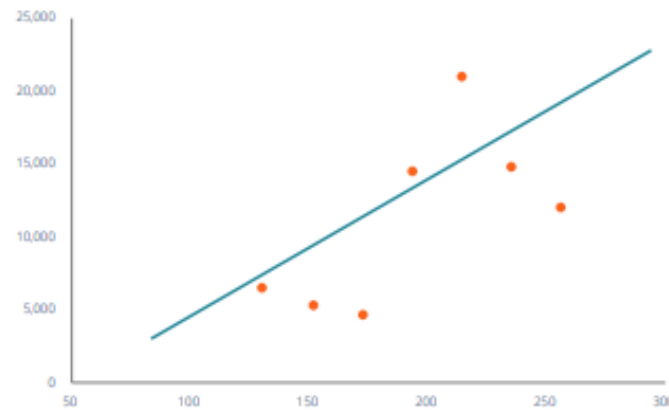
Stacked bar: Understand the composition of different categories.



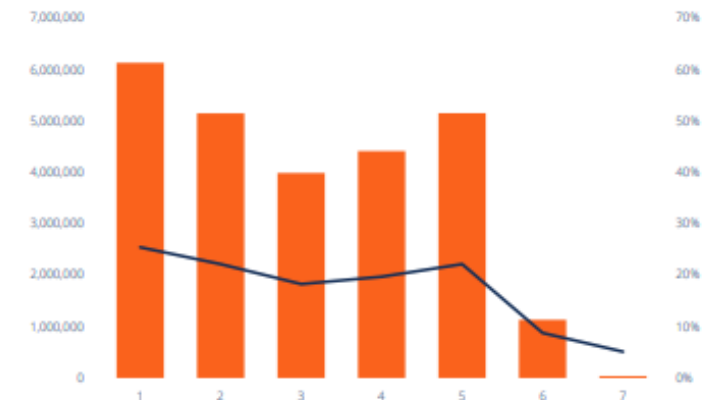
Waterfall: Show the net value after a series of positive and negative contributions



Scatter Plot: Show relationships between variables.



Column and line: Highlight relationships between two datasets



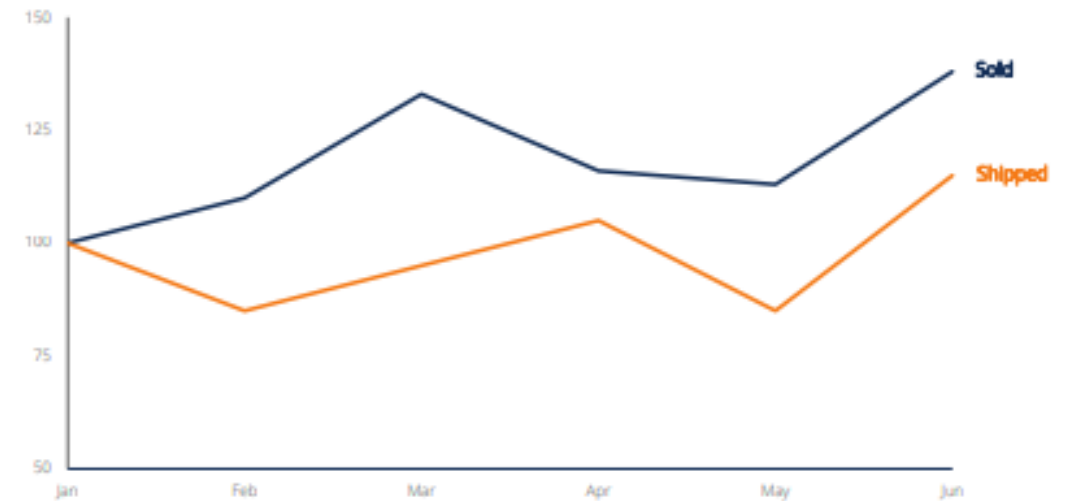
Visual Exercise

Difference between the first and the second chart

Sold versus Shipped



Sold versus Shipped



Setting Up Your Excel Dashboard



Planning:

What metrics are most important for this business?

What periods are most relevant?

Who is going to read this?

What decisions will they make from it?



Excel Tools and Features:

Power Query

Pivot Table

Pivot Chart

Slicer



Designing:

Size and Orientation

Charts versus tables, versus text

Design principles.

Corporate style guide.



Best Practices for Effective Dashboards



Clarity: Keep it simple and easy to understand.



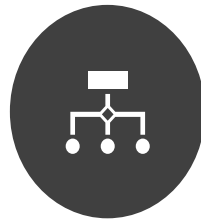
Consistency: Use uniform colors and styles.



Accuracy: Ensure data accuracy.



Relevance: Include only essential information and choose the right chart type.



Interactivity: Enable users to interact with the data.



Key Takeaways

Power of Visualization: Effective tool for data analysis.

Excel's Capabilities: Versatile for creating impactful dashboards.

Continuous Learning: Keep exploring and enhancing your skills.



Next: Practical

Pizza Sales Analysis

Dataset:

<https://www.kaggle.com/datasets/nextmillionaire/pizza-sales-dataset>

Color Palettes:

<https://www.color-hex.com/>

Data View

pizza	order	pizza_name	quantity	order_date	order_time	unit_price	total_price	pizza_size	pizza_category	pizza_ingredients	pizza_name
1	1	hawaiian_m	1	01-Jan-15	11:38:36 AM	13.25	13.25	M	Classic	Sliced Ham, Pineapple, The Hawaiian Pizza	
2	2	classic_dlx_m	1	01-Jan-15	11:57:40 AM	16	16	M	Classic	Pepperoni, Mushrooms, The Classic Deluxe	
3	2	five_cheese_l	1	01-Jan-15	11:57:40 AM	18.5	18.5	L	Veggie	Mozzarella Cheese, Prov The Five Cheese Pi	
4	2	ital_supr_l	1	01-Jan-15	11:57:40 AM	20.75	20.75	L	Supreme	Calabrese Salami, Capo The Italian Suprem	
5	2	mexicana_m	1	01-Jan-15	11:57:40 AM	16	16	M	Veggie	Tomatoes, Red Peppers The Mexicana Pizza	
6	2	thai_ckn_l	1	01-Jan-15	11:57:40 AM	20.75	20.75	L	Chicken	Chicken, Pineapple, Ton The Thai Chicken F	
7	3	ital_supr_m	1	01-Jan-15	12:12:28 PM	16.5	16.5	M	Supreme	Calabrese Salami, Capo The Italian Suprem	
8	3	prsc_argla_l	1	01-Jan-15	12:12:28 PM	20.75	20.75	L	Supreme	Prosciutto di San Daniel The Prosciutto anc	
9	4	ital_supr_m	1	01-Jan-15	12:16:31 PM	16.5	16.5	M	Supreme	Calabrese Salami, Capo The Italian Suprem	
10	5	ital_supr_m	1	01-Jan-15	12:21:30 PM	16.5	16.5	M	Supreme	Calabrese Salami, Capo The Italian Suprem	
11	6	bbq_ckn_s	1	01-Jan-15	12:29:36 PM	12.75	12.75	S	Chicken	Barbecued Chicken, Rec The Barbecue Chic	
12	6	the_greek_s	1	01-Jan-15	12:29:36 PM	12	12	S	Classic	Kalamata Olives, Feta Ci The Greek Pizza	
13	7	spinach_supr_s	1	01-Jan-15	12:50:37 PM	12.5	12.5	S	Supreme	Spinach, Red Onions, Pi The Spinach Supre	
14	8	spinach_supr_s	1	01-Jan-15	12:51:37 PM	12.5	12.5	S	Supreme	Spinach, Red Onions, Pi The Spinach Supre	
15	9	classic_dlx_s	1	01-Jan-15	12:52:01 PM	12	12	S	Classic	Pepperoni, Mushrooms The Classic Deluxe	
16	9	green_garden_s	1	01-Jan-15	12:52:01 PM	12	12	S	Veggie	Spinach, Mushrooms, T The Green Garden	
17	9	ital_cpello_l	1	01-Jan-15	12:52:01 PM	20.5	20.5	L	Classic	Capocollo, Red Peppers The Italian Capoco	
18	9	ital_supr_l	1	01-Jan-15	12:52:01 PM	20.75	20.75	L	Supreme	Calabrese Salami, Capo The Italian Suprem	
19	9	ital_supr_s	1	01-Jan-15	12:52:01 PM	12.5	12.5	S	Supreme	Calabrese Salami, Capo The Italian Suprem	
20	9	mexicana_s	1	01-Jan-15	12:52:01 PM	12	12	S	Veggie	Tomatoes, Red Peppers The Mexicana Pizza	
21	9	spicy_ital_l	1	01-Jan-15	12:52:01 PM	20.75	20.75	L	Supreme	Capocollo, Tomatoes, G The Spicy Italian Pi	
22	9	spin_pesto_l	1	01-Jan-15	12:52:01 PM	20.75	20.75	L	Veggie	Spinach, Artichokes, To The Spinach Pesto	
23	9	veggie_veg_s	1	01-Jan-15	12:52:01 PM	12	12	S	Veggie	Mushrooms, Tomatoes, The Vegetables +V	
24	10	mexicana_l	1	01-Jan-15	1:00:15 PM	20.25	20.25	L	Veggie	Tomatoes, Red Peppers The Mexicana Pizza	
25	10	southw_ckn_l	1	01-Jan-15	1:00:15 PM	20.75	20.75	L	Chicken	Chicken, Tomatoes, Rec The Southwest Ch	
26	11	bbq_ckn_l	1	01-Jan-15	1:02:59 PM	20.75	20.75	L	Chicken	Barbecued Chicken, Rec The Barbecue Chic	
27	11	cali_ckn_l	1	01-Jan-15	1:02:59 PM	20.75	20.75	L	Chicken	Chicken, Artichoke, Spir The California Chic	

pizza_id: A unique identifier assigned to each distinct pizza variant available for ordering.

order_id: A unique identifier for each order made, which links to multiple pizzas.

pizza_name_id: An identifier linking to a specific name of the pizza.

quantity: The number of units of a specific pizza variant ordered within an order.

order_date: The date when the order was placed.

order_time: The time when the order was placed.

unit_price: The cost of a single unit of the specific pizza variant.

total_price: The aggregated cost of all units of a specific pizza variant in an order.

pizza_size: Represents the size of the pizza (e.g., small, medium, large).

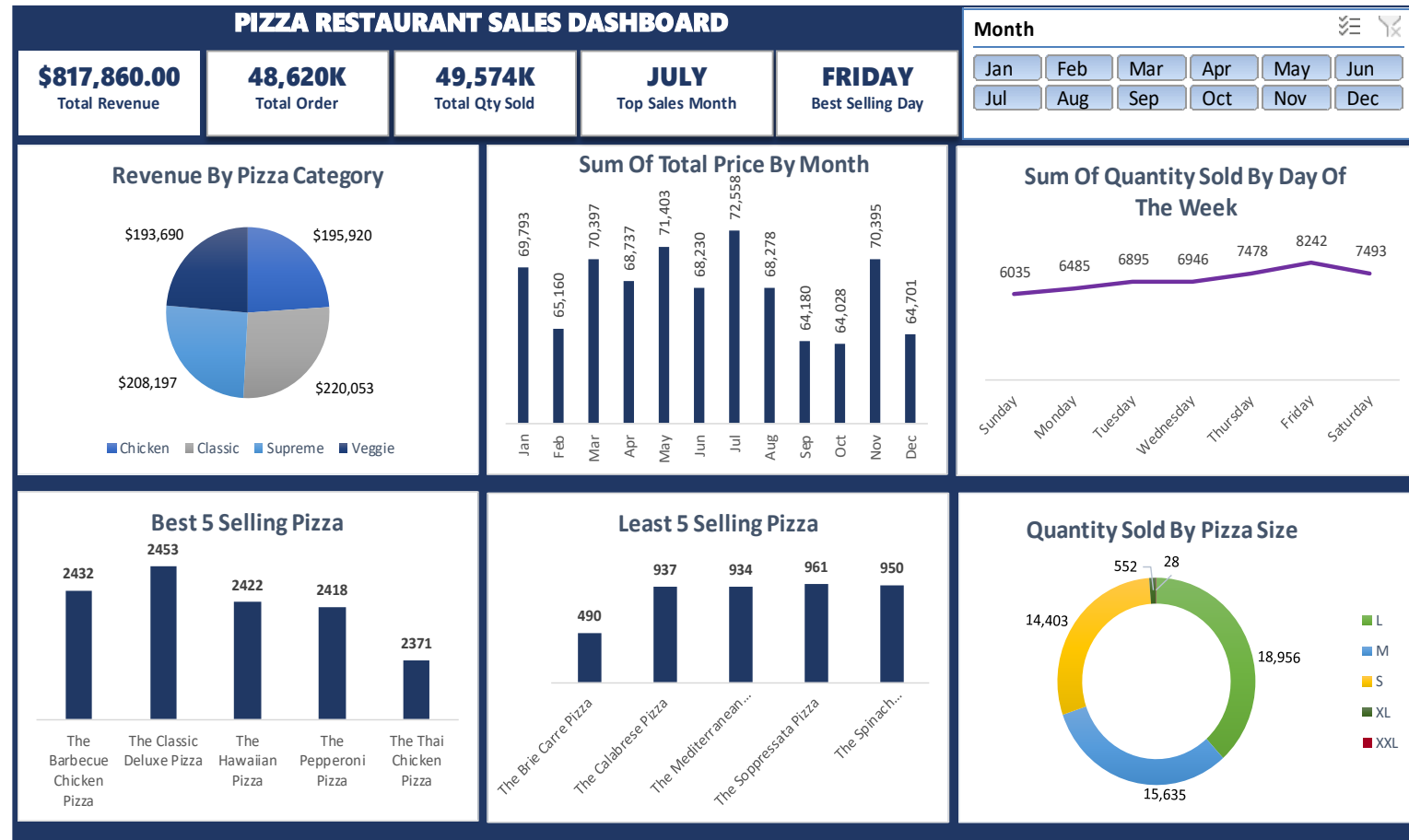
pizza_category: Indicates the category of the pizza, such as vegetarian, non-vegetarian, etc.

pizza_ingredients: Provides a list or description of the ingredients used in the pizza.

pizza_name: Specifies the name of the specific pizza variant ordered.

Key Metrics

- Total Revenue
- Total Order
- Total Quantity Sold
- Revenue by Pizza Category
- Revenue by Month
- Quantity of Pizza Sold by Month
- Quantity of Pizza Sold by Size
- Best Selling Pizza
- Least Selling Pizza





THANK YOU