

Pizza Business Performance Analysis with SQL



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Project Overview

Analyze pizza sales data to understand ordering patterns, customer segmentation and providing a comprehensive understanding of the data . Advanced analysis aims to uncover insights on pizza preferences, revenue contributions, and long-term growth trajectories.



Functions & Methods Used

Sum ()
Avg()
Round()
Groupby()
Orderby()
Ranking_window_functions()
Subquery



Questions answered using SQL (KPIs)

What are the total number of orders placed ?

Result Grid		Filter Rows:
	Total_orders	
▶	21350	

How many total Pizzas sold?

Result Grid		Filter Rows:
	Pizzas_ordered	
▶	49574	

What is the Revenue generated throughout the year ?

Result Grid		Filter Rows:
	Revenue	
▶	817860.05	



Questions answered using SQL (KPIs)

Which is the highest prized pizza ?

Result Grid				Filter Rows:	Export:
	name	size	price		
▶	The Greek Pizza	XXL	35.95		

Most preferred pizza size ?

Result Grid			Filter Rows:
	size	Orders	
▶	S	1811	

Most popular pizza among the customers ?

Result Grid			Filter Rows:
	name	orders	
▶	The Classic Deluxe Pizza	2416	
	The Barbecue Chicken Pizza	2372	
	The Hawaiian Pizza	2370	



Questions answered using SQL (KPIs)

Which pizza types have higher order frequency ?

	pizza_type_id	Orders
▶	classic_dlx	2416
	bbq_ckn	2372
	hawaiian	2370
	pepperoni	2369
	thai_ckn	2315

How the orders and sales distributed among the categories ?

	category	orders	Amount
▶	Classic	14579	220053.1
	Supreme	11777	208197
	Veggie	11449	193690.45
	Chicken	10815	195919.5

Which are the top 5 most expensive pizzaz ?

	name	size	price
▶	The Greek Pizza	XXL	35.95
	The Greek Pizza	XL	25.5
	The Brie Carre Pizza	S	23.65
	The Italian Vegetables Pizza	L	21
	The Barbecue Chicken Pizza	L	20.75



Questions answered using SQL (KPIs)

Which are the most sold pizzas in every category ?

category	name	Count	rnk
Chicken	The Barbecue Chicken Pizza	2372	1
Chicken	The Thai Chicken Pizza	2315	2
Chicken	The California Chicken Pizza	2302	3
Classic	The Classic Deluxe Pizza	2416	1
Classic	The Hawaiian Pizza	2370	2
Classic	The Pepperoni Pizza	2369	3
Supreme	The Spicy Italian Pizza	1887	1
Supreme	The Sicilian Pizza	1887	1
Supreme	The Italian Supreme Pizza	1849	2
Supreme	The Prosciutto and Arugula Pizza	1428	3
Veggie	The Four Cheese Pizza	1850	1
Veggie	The Vegetables + Vegetables Pizza	1510	2
Veggie	The Mexicana Pizza	1456	3

Top 5 revenue generating pizzas ?

pizza_type_id	category	Revenue
thai_ckn	Chicken	43434.25
bbq_ckn	Chicken	42768
cali_ckn	Chicken	41409.5
classic_dlx	Classic	38180.5
spicy_ital	Supreme	34831.25





Questions answered using SQL (KPIs)

Order peak hours ?

	Time	Total_Orders
▶	12	2520
	13	2455
	18	2399
	17	2336
	19	2009
	16	1920
	20	1642
	14	1472
	15	1468
	11	1231
	21	1198
	22	663
	23	28
	10	8

Customer segmentation

On Veg & Non-Veg
preference

Result Grid   Filter Rows: <input type="text"/>			
	type	Orders	Revenue
▶	Non-Veg	37171	624169.6
	Veg	11449	193690.45



Questions answered using SQL (KPIs)

What is the average ticket size of each type ?

	pizza_type_id	Average_price
▶	pepperoni	12.5
	hawaiian	13.42
	pep_msh_pep	14.33
	four_cheese	14.82
	five_cheese	15.5
	green_garden	16.08
	mediterraneo	16.08
	mexicana	16.08
	spinach_fet	16.08
	veggie_veg	16.08
	big_meat	16.17
	classic_dlx	16.17
	ital_cpdllo	16.17
	nanolitana	16.17

Revenue contribution of each type ?

	pizza_type_id	revenue_percentage
▶	thai_ckn	5.31%
	bbq_ckn	5.23%
	cali_ckn	5.06%
	classic_dlx	4.67%
	spicy_ital	4.26%
	southw_ckn	4.24%
	ital_supr	4.09%
	hawaiian	3.95%
	four_cheese	3.95%
	sidlian	3.78%
	pepperoni	3.69%
	the_greek	3.48%
	mexicana	3.27%
	five_cheese	3.19%



Questions answered using SQL (KPIs)

Monthly sales and order analysis ?

	MONTH	orders	qty_ordered	Revenue
▶	January	4156	4232	69793.3
	February	3892	3961	65164.3
	March	4186	4261	70397.1
	April	4067	4151	68736.8
	May	4239	4328	71402.75
	June	4025	4107	68230.2
	July	4311	4403	72733.85
	August	4094	4168	68278.25
	September	3819	3890	64180.05
	October	3797	3883	64027.6
	November	4185	4266	70395.35
	December	3862	3938	64734.3

Which days have the highest order count

Result Grid		Filter Rows:
	Day	Pizza_ordered
▶	2023-11-26	266
	2023-11-27	264
	2023-10-15	262
	2023-07-04	234
	2023-07-03	213
	2023-05-15	208
	2023-07-24	196
	2023-10-01	194
	2023-02-01	181



Insights

- In the past year, a total of 21.3k orders were placed, with 49.5k pizzas sold. This indicates an average of more than 2 pizzas per order.
- Small-sized pizzas are the most frequently ordered, with over 1,800 orders, highlighting a strong preference for this size among customers.
- The menu features 32 unique pizzas, offering a wide variety to customers. The prices of these pizzas range from \$9 to \$35, catering to different budget preferences.
- The top three most popular pizzas are the Classic Deluxe Pizza, Barbecue Chicken Pizza, and Hawaiian Pizza.
- Specifically, the Classic Deluxe Pizza leads in popularity with 2,416 orders, while the Brie Carré pizza has the lowest, with 480 orders.



Insights

- Pizzas in the classic category contribute the highest to the overall revenue, accounting for 26.45% of total sales.
- The peak times for pizza orders are during the afternoon (12 PM - 1 PM) and evening (6 PM - 7 PM), suggesting these are the preferred times for customers to enjoy pizza. Conversely, the morning time slot of 9 AM - 10 AM sees the least number of orders.
- A monthly analysis reveals overall growth in sales, though the growth rate remains relatively low.
- Approximately 75% of pizza sales are for non-vegetarian options, with the remaining 25% for vegetarian pizzas, indicating a strong preference for non-vegetarian pizzas among the customer base.



Recommendations

With small-sized pizzas being the most frequently ordered, introducing special offers, discounts, or meal deals centered around small pizzas could attract even more customers.

Ensure there are appealing options in both the lower and higher price ranges to cater to all customer segments.

Capitalize on peak ordering times (12 PM - 1 PM & 6 PM - 7 PM) by offering time-limited discounts or happy hour deals to further boost sales during these periods.

Although non-vegetarian pizzas dominate sales (75%), there is an opportunity to grow the vegetarian segment. Promote vegetarian pizzas more actively through marketing



Conclusion

Our analysis of the past year's pizza sales has provided valuable insights into customer preferences and purchasing patterns. The data shows a strong demand for small-sized pizzas , peak ordering times etc. By leveraging these insights, we can refine our strategies to enhance customer satisfaction, increase sales, and drive sustained growth for our business.

