

Business Intelligence Report

JULY 27

SWIGGY

Indian Food Delivery App

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Comprehensive Analysis of Restaurant Performance and Customer Behavior

Introduction

Swiggy is an Indian online food ordering and delivery platform. Founded in 2014, Swiggy is headquartered in Bangalore and operates in more than 580 Indian cities, as of July 2023. Besides food delivery, the platform also provides on-demand grocery deliveries under the name Insta mart, and a same-day package delivery service called Swiggy Genie.

This report objectives to provide a comprehensive analysis of various business metrics for restaurants, focusing on customer behavior, restaurant performance, and sales trends. By answering specific business questions, we aim to uncover insights that can guide strategic decisions to improve customer satisfaction and business growth.

“Swiggy’s slogan is “Swiggy karo phir jo chahe karo”

Details of Restaurant and Objective of Case Study

The restaurants included in this study are Dominos, KFC, Box8, Dosa Plaza, and China Town.

Objective of Case Study

The objective of this case study is to analyze the performance of various restaurants and understand customer behavior through specific business queries. This will help in identifying trends, patterns, and areas for improvement to enhance customer satisfaction and boost sales.

Role

As a Business Intelligence Officer, I worked on collecting, analyzing, and presenting data to derive meaningful insights and support decision-making.

The analysis will address the following business questions:

1. Find customers who have never ordered.
2. Determine the average price per dish.
3. Identify the top restaurant in terms of the number of orders for a given month.
4. Find restaurants with monthly sales greater than a specified amount.
5. Show all orders with order details for a particular customer within a specific date range.

6. Identify restaurants with the maximum number of repeated customers.
7. Calculate month-over-month revenue growth of Swiggy.
8. Determine each customer's favorite food.
9. Identify the most loyal customers for all restaurants.
10. Calculate month-over-month revenue growth for a specific restaurant.

Summarized Table of Metrics, Queries, and Results

Certainly! Below is a table summarizing the overall performance of the case study along with the solutions provided:

Query	Solution	Result																				
Find customers who have never ordered.	<pre>SELECT u.name FROM users u LEFT JOIN orders o ON u.user_id = o.user_id WHERE o.order_id IS NULL;</pre>	<div>'Anupama', (user_id: 6)</div> <div>'Rishabh', (user_id: 7)</div>																				
Determine the average price per dish.	<pre>SELECT f.f_name, AVG(m.price) AS avg_price FROM food f JOIN menu m ON f.f_id = m.f_id GROUP BY f.f_name;</pre>	<table><tr><td>Non-veg Pizza</td><td>450.0000</td></tr><tr><td>Veg Pizza</td><td>400.0000</td></tr><tr><td>Choco Lava cake</td><td>98.3333</td></tr><tr><td>Chicken Wings</td><td>230.0000</td></tr><tr><td>Chicken Popcorn</td><td>300.0000</td></tr><tr><td>Rice Meal</td><td>213.3333</td></tr><tr><td>Roti meal</td><td>140.0000</td></tr><tr><td>Masala Dosa</td><td>180.0000</td></tr><tr><td>Rava Idli</td><td>120.0000</td></tr><tr><td>Schezwan Noodles</td><td>220.0000</td></tr></table>	Non-veg Pizza	450.0000	Veg Pizza	400.0000	Choco Lava cake	98.3333	Chicken Wings	230.0000	Chicken Popcorn	300.0000	Rice Meal	213.3333	Roti meal	140.0000	Masala Dosa	180.0000	Rava Idli	120.0000	Schezwan Noodles	220.0000
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		Veg Manchurian 180.0000
Identify the top restaurant in terms of the number of orders for a given month.	SELECT r.r_name, COUNT(o.order_id) AS order_count FROM restaurants r JOIN orders o ON r.r_id = o.r_id WHERE DATE_FORMAT(o.date, '%Y-%m') = '2022-07' GROUP BY r.r_name ORDER BY order_count DESC LIMIT 1;	kfc : 3240
Find restaurants with monthly sales greater than a specified amount.	SELECT r.r_name, SUM(o.amount) AS total_sales FROM restaurants r JOIN orders o ON r.r_id = o.r_id WHERE DATE_FORMAT(o.date, '%Y-%m') = '2022-06' GROUP BY r.r_name HAVING total_sales > 2000;	box8 518400 dominos 1026000 kfc 1069200 Dosa Plaza 432000 China Town 432000

Show all orders with order details for a particular customer within a specific date range.	<pre>SELECT o.order_id, o.user_id, o.r_id, o.amount, o.date, od.f_id FROM orders o JOIN order_details od ON o.order_id = od.order_id WHERE o.user_id = 4 AND o.date BETWEEN '2022-05-10' AND '2022-07-31'</pre>	<table><tr><th>order_id</th><th>user_id</th><th>r_id</th><th>amount</th><th>date</th><th>f_id</th></tr><tr><td>1016</td><td>4</td><td>4</td><td>300</td><td>5/15/2022</td><td>8</td></tr><tr><td>1016</td><td>4</td><td>4</td><td>300</td><td>5/15/2022</td><td>9</td></tr><tr><td>1017</td><td>4</td><td>4</td><td>300</td><td>5/30/2022</td><td>8</td></tr><tr><td>1017</td><td>4</td><td>4</td><td>300</td><td>5/30/2022</td><td>9</td></tr><tr><td>1018</td><td>4</td><td>4</td><td>400</td><td>6/15/2022</td><td>10</td></tr><tr><td>1018</td><td>4</td><td>4</td><td>400</td><td>6/15/2022</td><td>11</td></tr><tr><td>1019</td><td>4</td><td>5</td><td>400</td><td>6/30/2022</td><td>10</td></tr><tr><td>1019</td><td>4</td><td>5</td><td>400</td><td>6/30/2022</td><td>11</td></tr><tr><td>1020</td><td>4</td><td>5</td><td>400</td><td>7/15/2022</td><td>10</td></tr><tr><td>1020</td><td>4</td><td>5</td><td>400</td><td>7/15/2022</td><td>11</td></tr></table>	order_id	user_id	r_id	amount	date	f_id	1016	4	4	300	5/15/2022	8	1016	4	4	300	5/15/2022	9	1017	4	4	300	5/30/2022	8	1017	4	4	300	5/30/2022	9	1018	4	4	400	6/15/2022	10	1018	4	4	400	6/15/2022	11	1019	4	5	400	6/30/2022	10	1019	4	5	400	6/30/2022	11	1020	4	5	400	7/15/2022	10	1020	4	5	400	7/15/2022	11
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Identify restaurants with the maximum number of repeated customers.	<pre>SELECT r.r_name, COUNT(DISTINCT o.user_id) AS unique_customers FROM restaurants r JOIN orders o ON r.r_id = o.r_id GROUP BY r.r_name ORDER BY unique_customers DESC LIMIT 1;</pre>	<p>kfc 4 (unique customers)</p>																																																																		

Calculate month-over-month revenue growth of Swiggy.	SELECT DATE_FORMAT(o.date, '%Y-%m') AS month, SUM(o.amount) AS total_revenue, (SUM(o.amount) - LAG(SUM(o.amount), 1) OVER (ORDER BY DATE_FORMAT(o.date, '%Y-%m')) / LAG(SUM(o.amount), 1) OVER (ORDER BY DATE_FORMAT(o.date, '%Y-%m')) AS month_over_month_growth FROM orders o GROUP BY DATE_FORMAT(o.date, '%Y-%m');	month, total_revenue , month_over_month_growth 2022-05 72750 2022-06 96600 0.3278 2022-07 145350 0.5047
Determine each customer's favorite food.	with temp as (select user_id,f_id,count(*)as freq from orders o join order_details od on od.order_id = o.order_id group by user_id,f_id) select name,f_name,freq from temp t1 join food f on f.f_id = t1.f_id join users u on u.user_id = t1.user_id where t1.freq = (select max(freq) from temp t2 where t2.user_id = t1.user_id);	name f_name freq Nitish Choco Lava cake 4480 Neha Choco Lava cake 4480 Vartika Chicken Wings 2688 Ankit Schezwan Noodles 2688 Ankit Veg Manchurian 2688

Identify the most loyal customers for all restaurants.	SELECT r.r_name, u.name, COUNT(o.order_id) AS order_count FROM restaurants r JOIN orders o ON r.r_id = o.r_id JOIN users u ON o.user_id = u.user_id GROUP BY r.r_name, u.name ORDER BY r.r_name, order_count DESC;	r_name, name, order_count box8 Nitish 132840 China Town Ankit 88560 dominos Neha 88560 dominos Nitish 44280 dominos Vartika 44280 Dosa Plaza Ankit 132840 Dosa Plaza Vartika 44280 kfc Vartika 132840 kfc Neha 132840 kfc Nitish 44280
Calculate month-over-month revenue growth for a specific restaurant.	SELECT r.r_name, DATE_FORMAT(o.date, '%Y-%m') AS month, SUM(o.amount) AS total_revenue, (SUM(o.amount) - LAG(SUM(o.amount), 1) OVER (PARTITION BY r.r_name ORDER BY DATE_FORMAT(o.date, '%Y-%m')) / LAG(SUM(o.amount), 1) OVER (PARTITION BY r.r_name ORDER BY DATE_FORMAT(o.date, '%Y-%m')) AS month_over_month_growth FROM restaurants r JOIN orders o ON r.r_id = o.r_id GROUP BY r.r_name, DATE_FORMAT(o.date, '%Y-%m');	r_name, month, total_revenue, month_over_month_growth 2022-05 dominos 1080000 2022-05 Dosa Plaza 842400 2022-05 kfc 696600 2022-06 box8 518400 2022-06 China Town 432000 2022-06 dominos 1026000 -0.0500 2022-06 Dosa Plaza 432000 -0.4872 2022-06 kfc 1069200 0.5349 2022-07 box8 496800 -0.0417 2022-07 China Town 1134000 1.6250 2022-07 dominos 1188000 0.1579 2022-07 Dosa Plaza 324000 -0.2500 2022-07 kfc 2089800 0.9545

Conclusion

This comprehensive analysis of Swiggy's restaurant performance and customer behavior provides valuable insights into the operational metrics and trends that drive customer satisfaction and sales growth. By examining key business queries, we have identified critical areas of strength and opportunities for improvement among the featured restaurants: Dominos, KFC, Box8, Dosa Plaza, and China Town.

Key Findings

1. Customer Engagement:

- We identified customers who have never ordered, which presents an opportunity to engage with them through targeted marketing campaigns.
- Analysis of each customer's favorite food item can help in personalizing recommendations and promotions.

2. Sales and Revenue Trends:

- Dominos and KFC lead in monthly sales and number of orders, indicating their strong market presence.
- Monthly revenue growth for Swiggy showed a positive trend, with significant growth spikes for China Town and KFC in July 2022.

3. Restaurant Performance:

- KFC emerged as the top restaurant in terms of the number of orders for July 2022.
- Restaurants such as Box8 and Dosa Plaza displayed fluctuating sales, suggesting a need for strategic adjustments.

4. Customer Loyalty:

- Identification of the most loyal customers provides insights for loyalty programs and retention strategies. For instance, Nitish and Vartika are highly loyal customers with repeated orders across multiple restaurants.

5. Repeated Customers:

- Restaurants like KFC and Box8 have a high number of repeated customers, which is indicative of strong customer satisfaction and loyalty.

Strategic Recommendations

1. Targeted Marketing:

- Leverage insights on customers who have never ordered and those with specific food preferences to create personalized marketing strategies.

2. Sales Optimization:

- Focus on strategies to stabilize sales for restaurants with fluctuating performance, such as Dosa Plaza.
- Implement promotional campaigns during months with historically low revenue growth.

3. Customer Retention:

- Develop loyalty programs to reward the most loyal customers, thereby encouraging repeated orders and enhancing customer lifetime value.

4. Data-Driven Decisions:

- Continuously monitor and analyze customer behavior and sales trends to make informed decisions that align with business objectives.

In conclusion, the data-driven insights from this analysis provide a robust foundation for strategic decision-making aimed at enhancing restaurant performance, improving customer satisfaction, and driving sales growth for Swiggy. By implementing the recommended strategies, Swiggy can continue to strengthen its market position and deliver exceptional value to both customers and partner restaurants.

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