Project Report

PROJECT: Zomato Delivery Operations Analysis

INDUSTRY: Food Industry

BI TOOL USED: Power BI by Microsoft

OBJECTIVE

Analyse the provided dataset to identify key insights related to Zomato Orders, financial metrics, and other relevant factors using Power BI.

FINDINGS

- Total orders are over 33000 with highest orders placed for meals and snacks.
- Motorcycles and scooters are the most prominently used delivery vehicles.
- Almost all the orders were placed in metropolitan cities (77% approx) and urban areas (23% approx)
- Average process time was 9.95.
- Majority of the delivery personnel were between the ages of 20-25 and 30-35.
- Average time for delivery was 27 minutes where semi urban areas had almost 50% higher time taken for delivery than metropolitan and urban areas .
- Average process time was quite similar in all three types of cities (metro, urban and semi urban).
- Delivery personnel who got higher ratings were also the ones delivering most of the orders.
- Time taken to deliver the order is similar regardless of the vehicle used, with motorcycles taking up 3 more minutes on average than scooters and electric scooters.
- Average time taken to deliver multiple orders >=2 was significantly higher than to deliver <=1 extra order.
- The peak hours where the highest number of orders are made, is between 5 pm to 11.40 pm.
- Average delivery person ratings were 4.63.
- Very little orders were made on festive days.

GROUP MEMBERS:
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Project Report

Order Volume & Distribution:
- Peak Order Hours: 5 PM – 11:40 PM sees the highest order volume.
- Festival Impact: Surprisingly, very few orders were placed on festive days.

Delivery Time & Traffic Impact:
- Traffic Conditions: Under normal traffic, deliveries take under 30 minutes. During traffic jams, delivery time rises to 37 minutes. Lower traffic levels reduce time by 8 minutes, and clear weather cuts it by 5 minutes.
- Weather Influence: Foggy weather adds 3 minutes to delivery time. Cloudy weather adds 3 minutes to delivery time.

Delivery Vehicles & Efficiency:
- Time Taken by Vehicle Type: Motorcycles take 3 minutes longer than scooters/electric scooters, but they perform better in traffic.
- Multiple Deliveries Impact: Significantly longer delivery times when carrying more than one order.

Delivery Personnel Performance & Customer Ratings:
- Impact of Delivery Time on Ratings: Under 30 minutes → +0.18 rating boost 30-40 minutes → -0.19 rating drop
- Direct correlation between speed & customer satisfaction.
- Best Performing Personnel: Most deliveries & highest ratings given to 20-25 and 30-35 age groups.

Project Report

ACTIONABLE RECOMMENDATIONS

Order Volume & Distribution:

- Implement targeted promotions during festivals to increase order volume.
- Offer late-night discounts to further capitalize on peak hours.
- Expand delivery coverage into semi-urban areas with improved incentives for riders.

Delivery Time & Traffic Impact:

- Use AI-driven route optimization to navigate traffic congestion.
- Encourage pre-scheduled orders in high-traffic areas to manage demand.
- Expand fleet size or offer higher payouts during peak congestion to encourage faster deliveries.

Delivery Vehicles & Efficiency:

- Prioritize motorcycles for high-traffic areas for quicker navigation.
- Optimize the batch delivery system using AI to group orders efficiently.
- Offer higher incentives for single fast deliveries over multiple delayed ones.

Delivery Personnel Performance & Customer Ratings:

- Offer performance-based bonuses for on-time deliveries under 30 minutes.
- Provide training & real-time navigation support to maintain faster deliveries.
- Increase fleet size during peak hours to ensure timely service.

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