FRESHCO HYPERMARKET - Insights and Observations Report

1. Order Distribution at Slot and Delivery Area Level

- **High Volume Areas:**
  - HSR Layout dominates with 15,657 orders, accounting for 68.6% of total orders, indicating it as a key delivery hub.
  - ITI Layout follows with 3,946 orders (17.3%), while Harlur contributes 1,309 orders (5.7%).
- **Low Volume Areas:**
  - Smaller zones like Richmond Town, Kadubeesanhali, and Brookefield collectively contribute less than 5 orders each.
- **Slot-Based Distribution:**
  - Morning slots have the highest share with 5,389 orders, while Late Night slots have the least (1,589 orders).
  - HSR Layout demonstrates consistent demand across all slots, peaking during Morning (3,749) and Night (3,582).
- **Observation:** Efficient resource allocation during Morning and Night slots in HSR and ITI Layout can enhance operational efficiency.

2. Areas with Monthly Order Increase (Jan-Sep)

- **Strong Growth Areas:**
  - HSR Layout shows a steady monthly increase, culminating in 2,606 orders in September—a 143% increase from January.
  - ITI Layout saw significant growth, from 264 orders in January to 917 in September, highlighting a notable demand spike.
- **Seasonal Trends:**
  - August and September exhibit the highest overall order volumes (2,874 and 4,197 respectively), indicating seasonal factors influencing consumer behavior.
- **Growth Leaders:** Harlur saw a sharp rise in August and September, with an almost 10x increase compared to early months, signaling emerging demand hotspots.
- **Observation:** Focused marketing and logistical resources in high-growth areas like HSR, ITI Layout, and Harlur during peak months can capitalize on demand surges.

3. Delivery Charges as a Percentage of Product Amount (Slot and Month Level)

- **Slot-Based Analysis:**
  - Late Night deliveries incur the highest delivery charges (12.26% average), reflecting higher operational costs during this slot.
  - Morning and Afternoon slots maintain relatively lower percentages, averaging around 5.29% and 5.09% respectively.
- **Monthly Trends:**
  - January records the highest delivery charge percentage (10.71%), possibly due to increased demand post-holiday season.
  - A significant reduction is observed in September (2.08%), hinting at promotional efforts or increased operational efficiency.
- **Observation:** Strategically reducing delivery charges during off-peak slots (Morning and Afternoon) could drive additional volume.

4. Discount as a Percentage of Product Amount (Slot and Month Level)

- **Slot-Based Discounts:**
  - Late Night slots consistently receive lower discounts (3.73%), suggesting reduced competition or consumer preference for convenience.
  - Night slots offer the highest average discount (6.82%), potentially to encourage late-evening orders.
- **Monthly Discounts:**
  - August saw a peak average discount of 20.82%, indicating aggressive promotional campaigns.
  - Discounts significantly drop in February (0.65%), possibly aligning with lower demand periods.
- **Observation:** Maintaining consistent discount levels in competitive slots (Morning and Evening) can drive consistent order volumes.

5. Discount Distribution by Drop Area and Slot Level

- **Top Discounted Areas:**
    - Bilekahalli leads with an average discount of 7.77%, including high discounts during Night slots (29.73%).
    - Harlur follows with a 9.70% average discount across all slots, highlighting promotional focus in this area.
- **Low Discounted Areas:**
    - Bellandur, Sarjapur Road (1.14%) and Green Glen (4.22%) receive significantly lower discounts, indicating stable demand.
- **Observation:** A data-driven approach to target discounts in slow-moving zones like Bellandur and Bommanahalli could enhance order penetration.

Strategic Recommendations

1. **Order Fulfillment Efficiency:**
    - Prioritize Morning and Night slots in HSR and ITI Layout for optimized logistics.
    - Enhance Late Night infrastructure to reduce delivery costs.
2. **Promotional Strategies:**
    - Leverage aggressive discounts in August and September to capitalize on peak demand.
    - Focus promotions in emerging areas like Harlur to boost market share.
3. **Delivery Charges Optimization:**
    - Reduce charges for Afternoon and Morning slots to attract price-sensitive consumers.
4. **Resource Allocation:**
    - Scale operations in high-growth areas like HSR Layout and ITI Layout during peak months.

6. Completion Rate by Day of the Week (Sunday to Saturday)

Insight Summary:

- The overall **average completion rate** across all days and time slots is exceptionally high at **99.55%**, indicating excellent service delivery consistency.
- Among time slots, **evening (99.63%)** and **morning (99.57%)** show the highest average completion rates, suggesting efficient operations during these periods.
- **Thursday (99.64%)** and **Sunday (99.70%)** exhibit the highest completion rates, with Sunday outperforming other days, which could indicate effective management of weekend operations.
- **Saturday (99.39%)** and **Tuesday (99.53%)** show relatively lower completion rates, especially during night slots. This might indicate challenges in handling late-night orders on weekends and Tuesdays.

Actionable Insight:

- Further investigation into operations during Saturday nights and Tuesday nights is recommended to maintain uniform service quality.

7. Completion Rate at Drop Area Level

Insight Summary:

- Completion rates for most delivery areas are **100%**, showcasing exemplary service reliability.
- Certain areas like **Indiranagar (87.24%)**, **Viveka Nagar (85.71%)**, **Domlur, EGL (75.00%)**, **Marathahalli (66.67%)**, **Bellandur, ETV (50.00%)**, **Cox Town (50.00%)**, and **Whitefield (0.00%)** show lower completion rates, with Whitefield being particularly concerning with no completions.
- Most high-performing areas, including **JP Nagar**, **Bellandur - Sarjapur Road**, and **Basavanagudi**, consistently achieve 100% completion rates, highlighting operational excellence in these zones.

Actionable Insight:

- Focus on improving operational efficiency in **Indiranagar**, **Viveka Nagar**, **Domlur**, **Whitefield**, and other underperforming areas. Specific strategies like additional delivery staff, improved routing algorithms, or better resource allocation may address these issues.

8. Completion Rate by Number of Products Ordered

Insight Summary:

- Orders with **23 to 25 products** have a **100% completion rate**, suggesting exceptional handling of large-basket orders.
- Completion rates remain consistently high for orders with **13 to 22 products**, averaging between **99.63% and 99.93%**.
- Orders with fewer items (1–6) show slightly lower completion rates, especially single-item orders (99.43%), indicating possible inefficiencies in processing small orders.

Actionable Insight:

- Enhance operational strategies for smaller orders to bring their completion rates closer to larger orders. This could involve optimizing delivery routing for low-basket-size orders or ensuring better quality checks for such deliveries.

Analysis for Question 9 (Patterns in Completion Rate)

1. **Overall Performance**: Completion rates are consistently high at **99.55%**, showcasing strong operational efficiency.
2. **Day & Slot Trends**:
    - **Best Days**: Sunday (**99.70%**) and Thursday (**99.64%**) perform the best, especially in evening slots.
    - **Challenging Times**: Slight dips on **Saturday night** and **Tuesday night** indicate room for improvement.

3. **Drop Area Variations**:
    - Most areas achieve **100% completion rates**, but **Whitefield (0%)**, **Indiranagar (87.24%)**, and **Viveka Nagar (85.71%)** require attention.
4. **Order Size Patterns**:
    - **Large orders (23-25 items)** show **100% completion rates**.
    - **Small orders (1-6 items)** are slightly lower, with single-item orders at **99.43%**.

Actionable Insights:

- Improve delivery efficiency for **Saturday and Tuesday nights**.
- Address underperformance in **Whitefield, Indiranagar**, and other low-completion areas by enhancing staffing and routing strategies.
- Optimize workflows for small orders to align their completion rates with larger orders.

10. Completion rate at source level

Insight Summary:

- **Organic** achieves the **highest completion rate (99.63%)**, indicating strong engagement and smooth fulfillment for organically acquired customers.
- **Facebook (99.58%)** and **Snapchat (99.57%)** are close performers, highlighting their reliability as acquisition channels.
- **Offline Campaigns (99.44%)** and **Instagram (99.46%)** exhibit slightly lower completion rates, hinting at minor inefficiencies in conversion or process optimization.
- Overall, the completion rates are highly consistent, with a narrow range across all channels (99.44%–99.63%).

Actionable Insight:

- **Enhance Offline Campaigns:** Investigate offline-to-online transitions to improve completion rates.
- **Optimize Instagram Engagement:** Refine targeting and streamline order processes for Instagram users.
- **Leverage Organic Best Practices:** Replicate the success strategies of the Organic channel across others to enhance efficiency.

11. Customer Lifetime Value (LTV) Analysis

Insight Summary:

- Customer **APQ2413449** has the highest LTV at **₹60,925**, indicating strong loyalty and potential for repeat business.
- Other key contributors include **ZQB198457 (₹54,149)** and **XXV119663 (₹45,593)**, representing a substantial portion of total revenue.
- A steep decline in LTV is observed beyond the top few customers, with the 10th customer (**WDE1131845**) at **₹39,057**, showing concentration among a few high-value customers.
- The **top 50 customers** account for a significant share of the total revenue of **₹7,963,632**, highlighting their importance.
- Heavy reliance on high-LTV customers poses a risk if any disengage, underscoring the need to diversify and uplift lower-tier customers.

Actionable Insights:

- Introduce **loyalty programs** to incentivize and retain high-LTV customers.
- Develop targeted strategies like **upselling and cross-selling** to increase the LTV of lower-tier customers.
- Regularly track and analyze LTV trends to adapt marketing and operational strategies.

12. Report on Aggregated Customer Lifetime Value (LTV) by Acquisition Month

Insight Summary:

- Over **200 customers** were acquired in January 2021, reflecting the success of marketing efforts during this period.
- A wide variety of customer identifiers highlights opportunities for tailored segmentation and targeted marketing.
- Acquisitions dropped in February and March 2021, signaling the need to sustain marketing momentum post-January.
- LTV patterns may vary across acquisition months. Segmenting customers based on acquisition timing can optimize retention strategies.

- A heavy reliance on January customers increases vulnerability to disengagement or attrition within this group.
- The strategies used in January can be analyzed and adapted for future campaigns to replicate success.

Actionable Insights:

- Analyze January's campaigns to identify effective tactics (e.g., promotional offers or specific channels) and replicate them in future acquisition drives.
- Implement segmentation and tailored engagement strategies for customers acquired in different months to maximize LTV.
- Enhance retention efforts for January-acquired customers to reduce attrition risk and sustain revenue.
- Maintain consistent marketing efforts in subsequent months to distribute acquisition more evenly.

14. Average Revenue per Order at Different Acquisition Source Levels

Insight Summary:

- **Snapchat** has the highest average revenue per order at **₹344.16**, making it the most lucrative acquisition source.
- **Google** follows closely with an average revenue of **₹342.55**, showcasing its effectiveness in driving high-value orders.
- **Instagram** reports the lowest average revenue orders at **₹301.10**, indicating potential underperformance in customer acquisition or engagement.
- **Facebook** and **Offline Campaigns** generate similar average revenues at **₹328.10** and **₹326.01**, respectively, reflecting moderate but steady contributions.
- **Organic traffic** contributes an average revenue of **₹323.56**, underscoring its reliability and cost-efficiency as a non-campaign-driven source.
- The overall average revenue per order across all sources is **₹328.38**, serving as a benchmark to evaluate individual source performance.

Actionable Insights:

- Increase budget allocation to Snapchat to leverage its superior revenue-generating potential.
- Conduct a detailed review of Instagram campaigns, focusing on targeting, content, and conversion strategies to improve performance.
- Maintain and possibly expand Google campaigns to solidify its position as a top-performing channel.
- Continue investing in SEO and content marketing to sustain and grow organic traffic, which offers a cost-effective revenue stream.
- Explore scaling offline efforts in regions or demographics where they show significant impact.
- Regularly review and optimize all acquisition channels to reduce dependency on any single source and ensure balanced revenue growth.

15. Average Revenue per Order at Different Acquisition Source Levels

Insight Summary:

- **Snapchat** emerges as the most lucrative acquisition source, with an **average revenue per order of ₹344.16**, indicating its strong potential in attracting high-value customers.
- **Google** follows closely, achieving an average revenue of **₹342.55**, showcasing its efficiency as a reliable and effective channel for customer acquisition.
- **Instagram** has the lowest average revenue per order at **₹301.10**, suggesting a need to evaluate its campaign strategies to better target high-spending customers.
- **Facebook** and **Offline Campaigns** show moderate performances, with average revenues of **₹328.10** and **₹326.01**, respectively, indicating consistent but unspectacular results.
- **Organic traffic** contributes an average revenue of **₹323.56**, highlighting its cost-effective potential, as it does not require significant marketing expenses.

Key Observations:

- The overall average revenue per order across all sources stands at **₹328.38**, providing a benchmark for performance assessment.

- A significant gap is observed between the highest-performing source (**Snapchat**) and the lowest-performing source (**Instagram**), suggesting room for improvement in the latter.
- While **Snapchat** and **Google** dominate, **Organic traffic** and **Offline Campaigns** provide stable, cost-efficient alternatives.

Actionable Insights:

1. Invest in Snapchat and Google Campaigns Allocate additional marketing budget and resources to these platforms to capitalize on their proven ability to generate high-value customers.
2. Optimize Instagram Strategies like Reassess content, audience targeting, and ad placements on Instagram to boost its revenue performance.
3. Leverage Organic Traffic Continue to invest in SEO and content marketing to sustain and potentially increase organic traffic, which delivers reliable revenue without incurring significant costs.
4. Investigate new markets or customer segments to enhance the effectiveness of offline acquisition efforts.

16. Patterns in Order Rating Across Slots: Insights and Observations

Insight Summary:

- The **average order rating is 4.87**, reflecting high customer satisfaction overall.
- **Afternoon** achieves the highest rating at **4.90**, indicating peak satisfaction, likely due to better service and menu options.
- **Late Night** has the lowest rating at **4.84**, highlighting areas for improvement in service or offerings.
- Total delivery charges were **₹235,058**, and discounts totalled **₹257,895**, suggesting active use of promotions to drive satisfaction.
- The **Afternoon slot** saw the highest engagement, with **₹87,976 in delivery charges** and **₹67,236 in discounts**, linking higher discounts to better ratings.

Actionable Insights:

1. Enhance Late Night Experience, improve delivery efficiency, expand menu options, and offer targeted discounts to boost ratings.
2. Scale promotions during peak satisfaction hours and replicate successful strategies across other slots.
3. Optimize discounts through A/B testing to balance customer retention and profitability.
4. Collect Late Night customer feedback to identify and address key issues.

17. Average Delivery Time at Month and Delivery Area Level

Insight Summary:

- **Whitefield** and **Cox Town** have the shortest average delivery times, with **1-4 minutes** across the months, indicating efficient operations in these areas.
- **Bellandur (Ecospace)** and **HSR Layout** show fluctuating delivery times, averaging between **18-42 minutes**, with notable delays in May (42 minutes), suggesting potential seasonal challenges.
- **Mahadevapura** and **Brookefield** have the highest average delivery times, peaking at **2:27** and **1:31**, respectively, indicating significant operational inefficiencies or logistical constraints.
- **The overall average delivery time** for all areas is **24 minutes**, but areas like **Koramangala**, **Sarjapur Road**, and **Vimanapura** exhibit delays, averaging over **30 minutes**.
- The **top-performing months** (January, February, March, July, and September) maintain consistent delivery times around **19-22 minutes**, highlighting optimal operations during these periods.

Actionable Insights:

- Optimize Operations in High-Delay Areas, focus on improving logistics and operational efficiency in **Brookefield** and **Mahadevapura** by exploring faster routes or increasing delivery staff.
- Address the spikes in delivery times during **May** (e.g., HSR Layout, Bellandur) by improving capacity planning and resource allocation during peak seasons.

- Focus on improving delivery times in **Koramangala**, **Sarjapur Road**, and **Vimanapura** by optimizing traffic management or adjusting delivery windows.
- Maintain the efficiency seen in **Whitefield** and **Cox Town** and apply best practices from these areas to other zones with higher delivery times.
- Enhance delivery processes in areas with frequent delays by utilizing technology for real-time monitoring and route optimization.

18. Average Delivery Time at Month and Weekends/Weekdays

Insight Summary:

- **Weekdays** show a consistent average delivery time of **23 minutes**, while **weekends** exhibit a slightly longer average of **25 minutes** across all months.
- **May** stands out with the highest delivery times, with **42:34** minutes on weekdays and **48 minutes** on weekends, indicating potential delays during peak periods.
- **February**, **March**, **July**, and **September** maintain efficient delivery times around **19-20 minutes** for both weekdays and weekends, suggesting optimized operations during these months.
- The **overall average delivery time** for weekdays is **23 minutes**, while weekends average at **25 minutes**, showing a slight increase in delivery times on weekends, likely due to higher order volumes or traffic congestion.
- **April** and **May** show the most significant differences between weekdays and weekends, with weekends having slightly longer delivery times, averaging around **29-48 minutes**, indicating possible operational challenges or higher demand on weekends.

Actionable Insights:

- Investigate the causes of higher weekend delivery times, such as increased demand or logistical challenges, and optimize resource allocation or delivery windows.
- Replicate the operational efficiencies seen in **February, March, July, and September** for both weekdays and weekends to reduce delivery times across all periods.
- During high-traffic months like **May**, consider enhancing capacity planning, increasing workforce during weekends, and exploring alternative delivery routes to minimize delays.

- Continuously monitor weekday and weekend delivery trends to ensure that adequate resources are in place for both periods, especially during peak times.

19. Analysis of Average Delivery Time by Slot

Insight Summary:

- **Quickest Slot:** Late-night deliveries are the fastest, with an average delivery time of **17 minutes**, suggesting efficient handling during this period.
- **Other Slots:** Night deliveries follow at **22 minutes**, while morning, evening, and afternoon slots take **25 minutes**, representing consistent performance across these times.
- **Overall Average:** The overall average delivery time across all slots is **24 minutes**, reflecting a generally well-optimized delivery process.

Actionable Insights:

- **Maintain Efficiency in Late-Night Deliveries:** Continue leveraging the factors contributing to faster delivery times during the late-night slot.
- **Investigate Variances:** Analyze why night deliveries are quicker than other slots and explore applying similar practices to morning, evening, and afternoon deliveries.
- **Optimize Peak Times:** Focus on improving delivery times during busier slots (morning, evening, and afternoon) to enhance overall customer satisfaction.

20. Delivery Charges with Slot

Insight Summary:

- The **Late Night** slot exhibits the highest average delivery charge at **₹32.29**, which could be attributed to the premium service required during off-peak hours.
- **Night** deliveries follow closely with an average charge of **₹20.97**, suggesting that late-night hours, while still within the nighttime period, are less expensive than the late-night slot itself.
- **Evening** (₹19.99) and **Afternoon** (₹19.25) slots show slightly lower charges, indicating that these periods are relatively standard, with less demand for expedited or special handling.

- The **Morning** slot has the lowest average delivery charge at **₹18.99**, potentially reflecting the least complex operational processes during early hours.
- Overall, the average delivery charge across all slots is **₹20.64**, with the pattern clearly indicating that later delivery slots tend to have higher charges due to the potential for fewer deliveries, requiring more targeted resources.

Actionable Insight:

- Investigate whether the higher charges for late-night and night deliveries are justified by demand. If not, explore operational efficiencies or promotions to reduce these costs.
- Consider adjusting the pricing structure to make early morning and afternoon deliveries more attractive to customers, while ensuring that late-night slots remain profitable.

21. Delivery Time and Delivery Area

Insight Summary:

- **Whitefield** stands out with the shortest average delivery time of just **1 minute**, which is significantly faster than other areas. This could indicate a highly optimized route or proximity to the delivery hub.
- **Cox Town** follows with an average delivery time of **4 minutes**, which is still relatively fast, possibly due to a well-connected network or a small service area.
- Areas such as **Bellandur (Ecospace, ETV, Green Glen)**, **HSR Layout**, and **ITI Layout** have delivery times averaging between **22–31 minutes**, suggesting moderate complexity in logistics or slightly congested delivery routes.
- The longer delivery times are observed in areas like **Mahadevapura** (2 hours 27 minutes), **Brookefield** (1 hour 31 minutes), and **Vimanapura** (1 hour 16 minutes), which may point to congested traffic, longer distances, or logistical inefficiencies.
- The overall average delivery time is **24 minutes**, but it is clear that certain areas significantly deviate from this average, indicating varying levels of service efficiency across the city.

Logical Observations:

- Areas like Whitefield and Cox Town benefit from optimized routes, lower traffic, or more localized delivery zones, which naturally result in shorter delivery times.
- Delivery zones like Mahadevapura and Brookefield could be facing challenges such as higher traffic congestion, more complex delivery routes, or longer distances from the hub, contributing to longer delivery times.
- The variation in delivery times across different areas likely stems from a mix of factors such as traffic, distance from the distribution center, and service density in these locations.

Actionable Insight:

- For areas with high delivery times, such as Mahadevapura and Brookefield, consider optimizing delivery routes, potentially using advanced traffic prediction tools or diversifying delivery methods (e.g., smaller vehicles or drones in congested zones).
- Apply the operational practices of areas with shorter delivery times (e.g., Whitefield and Cox Town) to slower zones to improve overall delivery efficiency.