Recommendations

Question	Answer		Visualisations

What are the busiest days of the week and hours of the day?

Analysis: Sales peak on Saturday and are at their lowest on Wednesday. The sales follow a consistent trend where the Saturday peak slowly falls until midweek, where it begins to rise again. Weekend sale have a significantly larger volume of sales than the weekday sales.

Peak sales on Saturday and Sunday are (approximately) 600,000 and 550,000 respectively. The next highest is Friday with 420,000 purchases. The gap of 130,000 sales between Sunday (2nd) and Friday (3rd) is larger than the 70,000 sales gap between Friday (3rd) and Wednesday (7th/last). Noting a significant uptick in sales over the weekend.

In terms of time the largest number of purchases are made onbetween 09:00 and 16:00. There is a sharp drop off in sales volume after 16:00.

Action: Prioritise directed advertising on weekends by emailing customers on Friday afternoon/evenings and on Satudays with promotional materials. People are more likely to make purchases on these days.If they routinely make weekly purchases there is greater chance of encouraging an impulse buy if they are already making orders on these days.

TOTAL ORDERS BY DAY OF WEEK

LEGEND

Number	Day
0	Saturday
1	Sunday
2	Monday
3	Tuesday
4	Wednesday
5	Thursday
6	Friday

TOTAL ORDERS BY HOUR OF THE DAY

What hours of the day do people spend the most money?

Analysis: The hourly expedature graph shows that the average price of sales in highest between 02:00 and 04:00, peaking at $18. Sales are a consistent £12 at other times. This suggests there is a greater demand for expensive items at these times, most likely to be urgently needed items due to the time and price of sales.

Action: On the sales portals (webste and app) give precidence to high value items from 02:00 to 04:00. Ensure that these items are the main focus of the homepage when customers log in.

Coupled with the previous insight that there are fewest purchases during these hours it indicates that these hours are used by customers focusing on the high priced hours, and all focus during these hours should be in the more exensive items.

AVERAGE ITEM COST BY HOUR BY PURCHASE HOUR

What are some simpler price range groupings to help direct marketing and sales efforts?

Analysis: Products in the $0 - $5 range are the most common (these are designated Low-range products), with over 2 million products at each price point in this range.

But, due to the wider range of Mid-range products (£5 - £15) these have a greater total volume (25 million compared to 11 million).

There is a significant drop off in available items in the High-range bracket, with fewer than 1 million items total of these types.

Action: With the average purchase price being $11 for most hours of the day (see previous poiint), and the majority of items being near this mean purchase price Instacart appears to have a good grasp on the types of items that customers are buying.

This is further corroborated by the low volume of High-range items.

TOTAL AVAILABLE PRODUCTS BY PRICE POINT

TOTAL AVAILABLE PRODUCTS BY PRICING BRACKET

What types of products are most popular? How much income in generated by the most popular departments?

Analysis: The Produce (9 500 000, 30%) and Dairy-Eggs (500 000, 17%) departments have the highest sales volumes and the greatest total income generated.

Ther other top sales departments by income are Beverages (non-alcoholic), Frozen Foods, and Pantry. The most popular department selling non-prishable items is Canned Goods, which is 8th of 21 departments

Large difference between the Produce and Dairy-Eggs sales compared to other departments suggests that customers are using Instacrt to purchase their staple food items. Which coupled with the high volume of sales income generated by Beverages, Frozen foods and Pantry items strengthens this insight.

Action: Instacart's advertising and stock should focus on the staple food and perishable food items that customers are focusing their purchases on. Instacart could increase the sales of these items by allowing customers to opt for a recurring delivery of these staple items to encourage more purchases (as they are perishables that people will restock on a likely weekly basis). Therefore, Instacart will likely prevent customers from going elsewhere for these most popular items if they run out of them at home.

TOTAL SALES MADE BY DEPARTMENTS

GROSS INCOME IN THE TOP SELLING DEPARTMENTS

What's the distribution among users in regards to their brand loyalty? How often do they return to Instacart?

Analysis: The majority of customers fall in the 'Regular Customer' band for loyalty (10 - 40 orders made) with 80,000 customers. Looking at the normalised customer order frequency the majority of regular customers (60%) order from Instacrt frequently (averaging an order every 10 days of fewer), whereas all Loyal customers are also frequent customers.

When comparing the reguarity of spending by New Customers and the Regular (established) Customers the difference is that New Customers are mainly Non-Frequent customers (50%).

Action: Encourage the New Customers (totaling over 6 million) to become Regular Customers by giving insentive to order more frequently. Introduction of schemes such as:
- Easy recurring delivery slots of common staple items
- Introduction of loyalty rewards
- Reduction on delivery costs for regular use

NUMBER OF CUSTOMERS BY LOYALTY RATING

NORMAILSED BREAKDOWN OF THE REGULARITY OF USE BY CUSTOMER LOYALTY CATEGORY

Are there differences in ordering habits based on a customer's region?

Analysis: The number fo customers is greatest in the South (total 54,000 customers) of which 3.5 million are high spenders (averaging $10 or more per spend). But, when looking at the type of spending (high or low spending habits) by region there is no discernable difference between the four geographic regions.

Furthermore, the spending habits, in terms of proporiton of orders made by departments is equal across all regions.

However, instacart has lowest penetration in the Northeast (0.022% of population have an account). and highest in the South (0.095% population penetration).

Action: Region does not make a difference to spending habits. Therefore, Instacart should aim to understand its low marketshare in the Northeast, as this region has the potential for generating greater profits by increasing the customer base. Several reasons could exist:
- Higher competition due to largest population
- Higher population density means less need for delivery services
- Social and ethnicity demographic differences mean that Instacart is not providing the products this region purchases.

The outcome of these further investigations (that cannot be determined with the data available in these analyses) will determine the strategy for national expansion of Instacart's services.

CUSTOMER SPENDING BY REGION

NORMALISED CUSTOMER SPENDING BY REGION

NORMAILSED SPENDING HABITS BY REGION

PERCENTAGE OF POPULATION WITH INSTACART ACCOUNT

Region	Customers	Population (2022)	Percent
South	54193	57040406	0.095%
West	41481	68787595	0.060%
Midwest	38376	78743364	0.049%
Northeast	28581	128716192	0.022%