

Decomposition for Zomato - Sean Henry

Objective: Explore customer demographics to pinpoint viable market strategies and understand consumer behavior

Summary: With the right demographic data, we can spend more marketing to the most enthusiastic clients and stop spending to reach those who aren't interested - lowering costs per lead and sale. We can see who our brand and services appeal to the most based on this demographic information, determine what is considered regular user activity, and calculate possible cost allocation of marketing based on sales data. This will require a combination of datasets in order to match up findings.

- **What questions do you want to answer with your dashboard?**
 - Q: Who do our services (Zomato) appeal to the most? What is the makeup of our clientele?
 - Q: Consumer behavior: What is the order frequency based on these demographics?
 - Q: Understand which products and services different groups of customers want and can afford.
 - Q: What is considered an "active" customer? What is the client retention rate?
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- **What hypotheses do you have?**
 - #1) "Bigger households mean busier lives meaning an increased need for conveniences." - Does an increase in family size positively correlate a stronger demand for our services? If so, what kinds/types of services are most frequently sought out for this demographic? In-dining or food delivery?
 - #2) "Higher monthly income means more disposable income" - What is the most expensive service that a user can purchase? If assigned an income tier, how much does each band of income is willing to spend?
 - #3) Those with a student as Occupation and Age under 25 years tend to request our spend less compared to those in other occupations, but they carry the majority of users.
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- **What visualizations will be used?**
 - Scatterplot to present Hypotheses # 1 & # 2
 - Horizontal Bar charts to compare specified Demographics with average spending during a specified period - a bubble chart would also be visually pleasing for presentation
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- **How do you need to work with data prior to assembling the dashboard?**
 - What columns indicate manual entry by customers - indicated by variance in answers? This can lead to misspellings & typos that need to be sought out
 - Consolidate synonymous data in increments
 - Can the 'user' dataset be blended with the 'orders' data set to determine order frequency and other tasks listed above? Blend by user_id column

- Using the same data blend, we can determine an “active” roster of customers and the frequency of activity at our restaurants.
- Translate INR to USD or visa versa? Indian Rupees to United States Dollars
- **What metrics/parameters do you want to investigate and what to include in the dashboard?**
 - Calculate user metrics for behavioral cohorts in a spreadsheet, such as LTV and CAC
 - To determine user activity, I must match user_id with orders. This will help show who has not been an active customer and omit where needed (or find some relation to seasonal order/use of services)
 - Average spend per order per chosen demographics to draw a pattern
 - DAU — the number of Daily Active Users
 - WAU — the number of Weekly Active Users
 - MAU — the number of Monthly Active Users