Zomato Customer Segmentation Analysis

By Michael Austria

Summary: My analysis started with several questions and hypotheses:

Which ages generate the highest total amount? ANS: around early 20s
Does one gender generate more total order amounts? ANS: Male
What occupations generate the highest total amount? ANS: Student
What is our customers' monthly income? Answer in the report below
Does this correlate with the order amounts? ANS: No
What education qualifications generate the highest order amounts? ANS: Graduate
Who are our key customers? ANS: 23-year-old single graduate male

Hypothesis:
Higher education qualifications generate higher sales amounts.
Monthly income is correlated to higher sales amounts.
Younger people generate higher total amounts.

Based on the data, the questions I initially posed were answered and disproved my hypotheses. The result is a customer profile that we can use to better target our marketing efforts toward our key consumers.

Breakdown:

The analysis began with data cleaning, where I checked the data for null values and duplicate values in the tables from users.csv and order.csv. Finding none, I moved on to correct spelling, where I found a spelling error and replaced it with the correct spelling. An example is replacing "Self-Employeed" with "Self Employed". Next, I created a relationship between the tables in Tableau using the "User ID" columns.

The first visualization is the sum of the sales amount by monthly income and occupatio of our consumers. We wanted to know what the occupation and monthly income of our customers is who purchased the highest sales amount from us. The stacked bar chart shows us that the occupation is student with no monthly income. In terms of people with occupations, students appear in all five categories. Housewives appear in the no income. Employees have appeared in all categories from below Rs. 10000 to more than 50000. Self-employed customers have income above 10000. In terms of the question on whether total sales is positively correlated with monthly income, my initial assumption was this to be true, but the data shows that this is not the case. Sales totaling 451,000,000 INR came from students who have no monthly

income. The next highest amount of sales came from employees with a monthly income of 25,001 - 50,000. Thus, there is no significant correlation with income and sales amounts.

Sales Amount by Monthly Income and Occupation

Monthly Income

Occupation
- Employee
- House wife
- Self employed
- Student
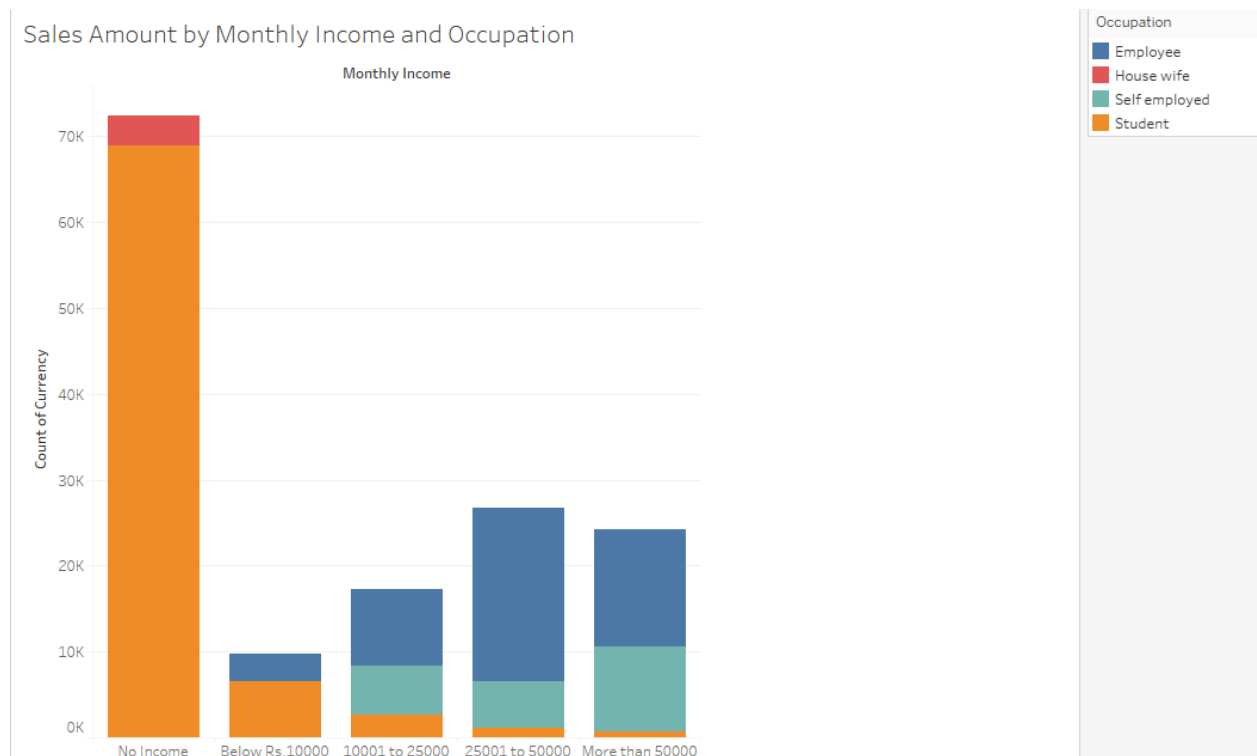
The second visualization shows the sum of sales by consumer age and marital status, where it is clear that customers aged 23 and are single contribute the most to the sales amount, as there are under 180 million sale numbers. Single customers also accounted for the most sales up to age 26.

Spending per Age and Marital Status

Marital Status
- Married
- Prefer not to say
- Single
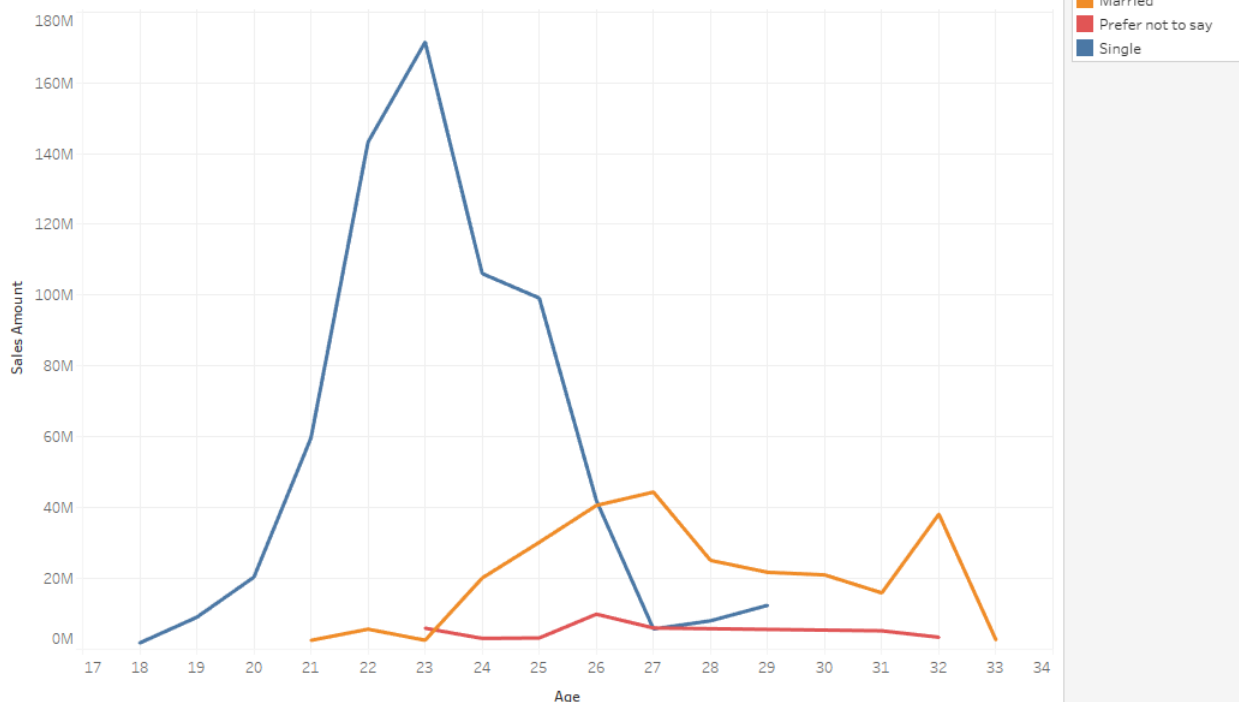
The third visual shows the sales amount by education qualification. The highest sales amount came between graduates and post-graduates, where the sales amount was 446 million and 445 million INR, respectively. The other groups' sales were smaller than the other two groups. One thing to note is that with the group referred to as "School", these people are pursuing a bachelor's degree. Customers with "Graduate" have earned their Bachelor's degree and are pursuing a Master's degree. "Post-Graduate" and "Ph.D" are customers who have earned their Master's degree and pursuing a higher level of education, whether it is a doctorate or a special certification. Therefore, my hypothesis that people with higher education generate higher sales is somewhat incorrect, as those who are "Post-Graduate" and "Ph.D" are in the category of higher education, compared to those who are in the "Graduate" category.

Spending per Education Level

Educational Qualifications
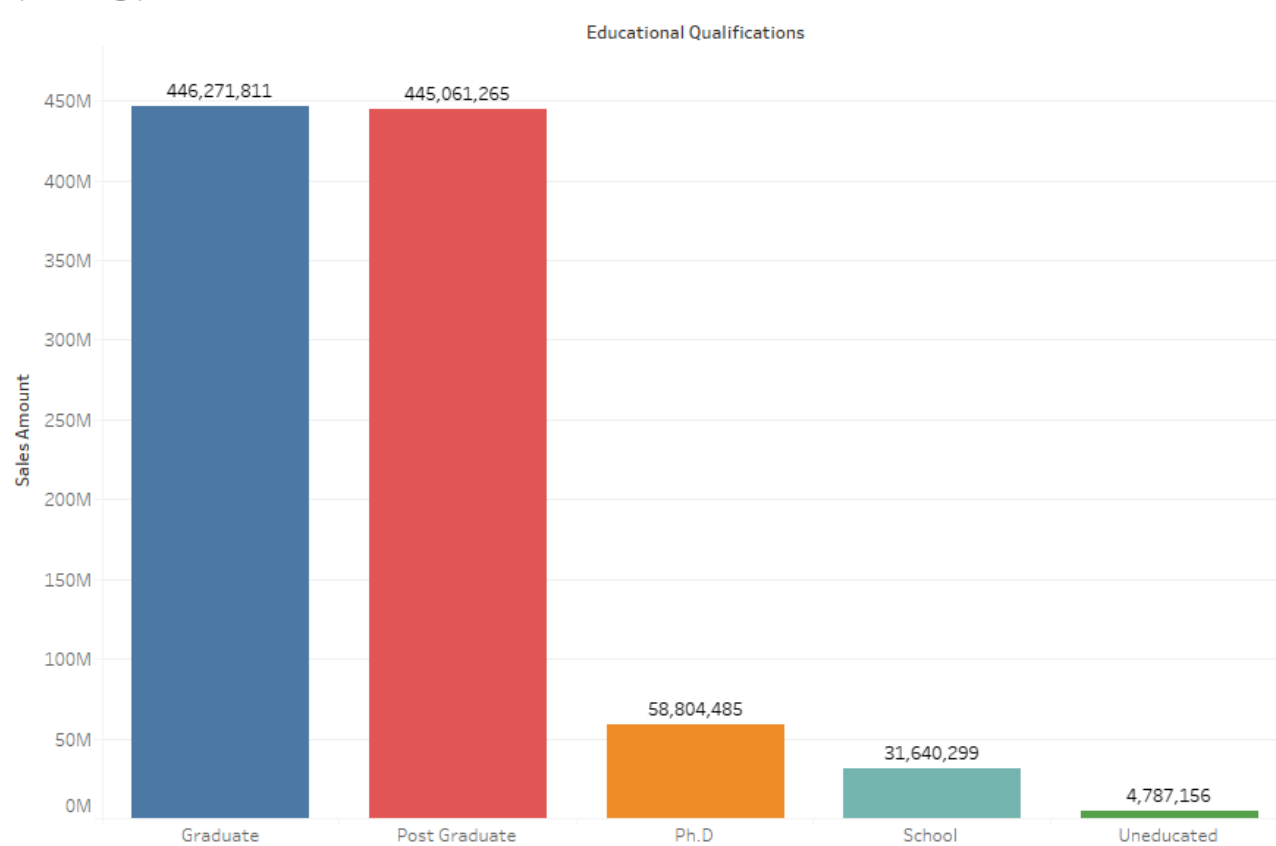
The fourth visualization displays the sales by gender, where males have led in sales compared to females.
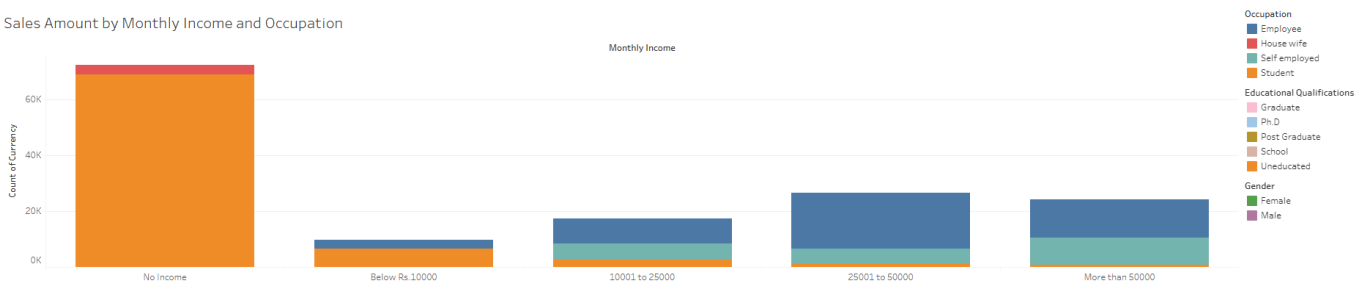
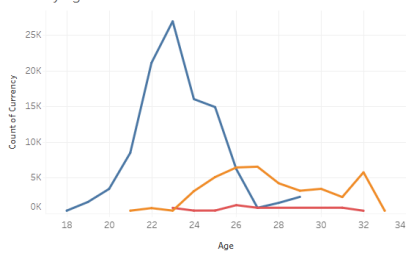## Spending per Month by Gender And Occupation

Gender
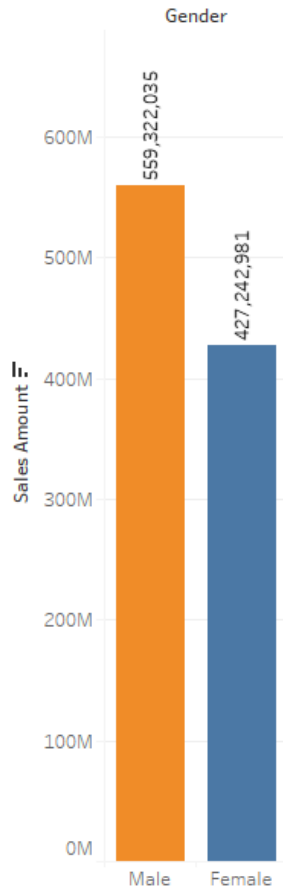
Conclusion and recommendation

After performing this analysis, I have come up with the following profile of our key consumer: a 23-year-old male who is a graduate student and has no monthly income. My findings are customers that who match these characteristics are responsible for the highest total amount of sales for our company. Based on these observations, my recommendation is to target our marketing efforts toward customers who fit this profile. This profile is summarized by the following dashboard:
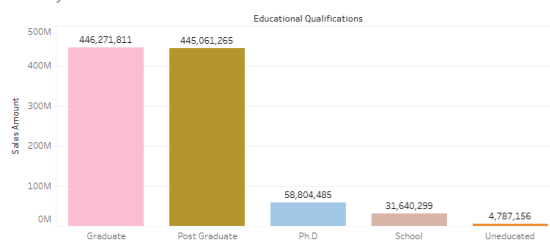
Sales Amount by Monthly Income and Occupation

Monthly Income

Count of Currency

60K
40K
20K
0K

No Income | Below Rs.10000 | 10001 to 25000 | 25001 to 50000 | More than 50000

Occupation
- Employee
- House wife
- Self employed
- Student

Educational Qualifications
- Graduate
- Ph.D
- Post Graduate
- School
- Uneducated

Gender
- Female
- Male

Sales by age

Count of Currency

25K
20K
15K
10K
5K
0K

18 20 22 24 26 28 30 32 34

Age

Sales by Education Level

Educational Qualifications

Sales Amount

500M
400M
300M
200M
100M
0M

Graduate	Post Graduate	Ph.D	School	Uneducated
446,271,811	445,061,265	58,804,485	31,640,299	4,787,156

Sales by Gender

Gender

Sales Amount

600M
500M
400M
300M
200M
100M
0M

Male	Female
559,322,035	427,242,981