

STICKS KEBOB

NEW LOCATIONS ANALYSIS BASED ON CUSTOMER SEGMENTATION AND CLUSTERS

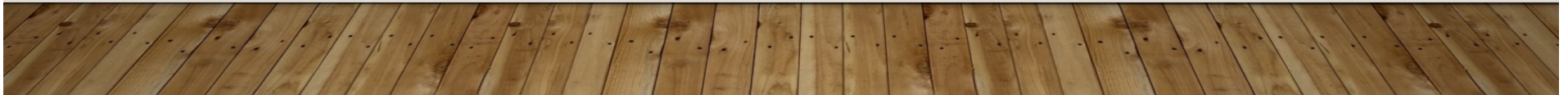
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ABOUT THE DATA

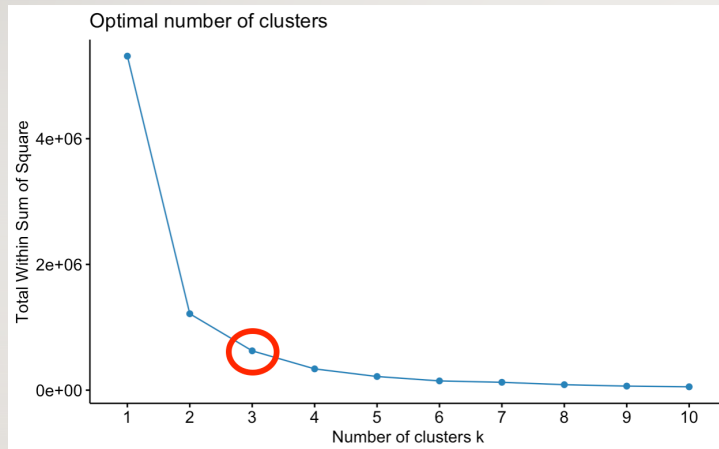
- The data collected is from Survey data
- The raw dataset contained 394 observations of 18 variables
- After scrubbing incomplete records, the data contained 288 observations of 18 variables
- After scrubbing the data and preparing it for a K-means analysis, the data contained 288 observations of 6 variables ("obs", "cust", "plan_carefully", "control_spending", "purchase_local", and "consider_health")

BUSINESS QUESTIONS

- How do people choose a fast food restaurant to visit?
 - a. What is important: location, price, assortment, or cuisine?
- Who do you think are Sticks' customers, and what are their motivations for visiting Sticks?
- What does the survey data tell us about differences between customers and noncustomers?
- What survey questions would you use to identify the customer segments?
- How many customer segments can you estimate from the survey data?
 - a. What are the profiles of the customer segments?
 - b. Which customer segments should Sticks target?
- Provide a recommendation for the location of the next Sticks Kebab Shop based on the segmentation analysis and the demographic profiles of the locations in the following table



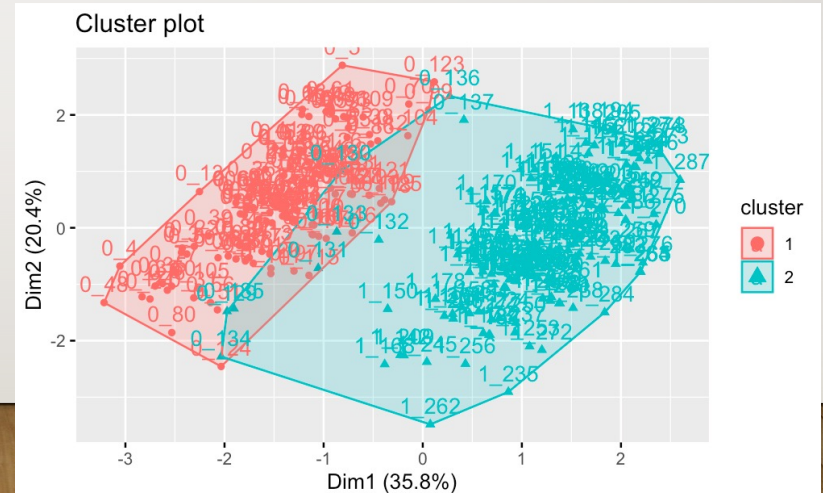
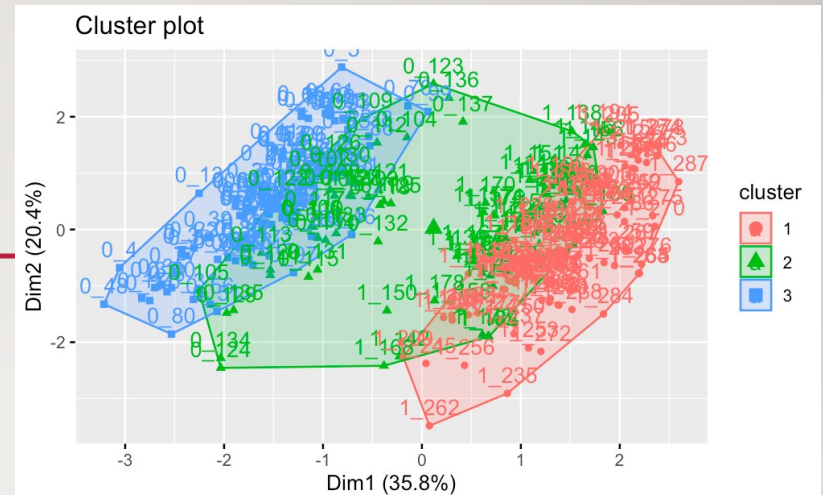
OPTIMAL NUMBER OF CLUSTERS



- The point at which a sharp bend occurs, indicating the number of clusters, appears to be 3.
- This means that our K value will be 3

K-MEANS ANALYSIS

- Two K-Means algorithms were run on the clean data. The first used the 3 centroids, per the Elbow Plot, and the second used only 2. This is because, by simply looking at the plot, there appears to be 2 distinct groups with some data points between them.
- After observing the plot with 2 centers, we see that the red cluster appears to be mostly **Non-Customers** (prefix of zero) and the blue cluster appears to be mostly **Customers** (prefix of one). This tells us that there is a trend in how **Non-Customers** answered the survey and a trend with how **Customers** answered the survey.

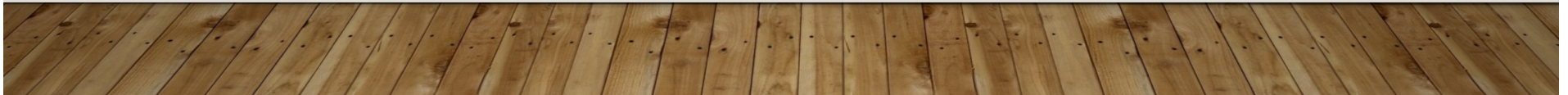


HOW DO PEOPLE CHOOSE A FAST-FOOD RESTAURANT TO VISIT?

WHAT IS IMPORTANT: LOCATION, PRICE, ASSORTMENT, OR CUISINE?

In general, people choose fast-food based on a combination of factors.

- Location can frequently be based on travel routes or home/work location
 - Price sensitivity may go up or down based on economic demography
 - Assortment is typically more valued in cities, or by younger generations
- Sticks location in Richmond, VA surrounded by mix of incomes, mostly “upscale” or “upper midscale”
 - Location just off Broad St (major thoroughfare) opens up potential customer base due to drive-ability
 - Southeast of location is college campus, Carytown and The Fan, which has millennial population likely to be attracted to variety in cuisine, and perceived healthy dining options



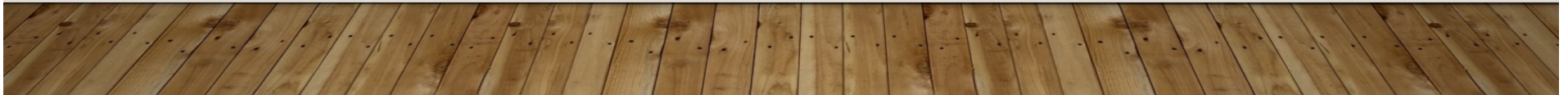
WHO DO YOU THINK ARE STICKS' CUSTOMERS, AND WHAT ARE THEIR MOTIVATIONS FOR VISITING STICKS?

Likely upper-middle class families, probably dual income with at least one “professional” (career requiring an advanced degree or certification), tend to like healthy, locally sourced food, possibly less price sensitive due to higher average incomes, may seek Sticks because of heavy involvement in non-work activities or late hours

- 188 individuals surveyed identify as Sticks' customers
 - 27.65% single, 73.40% families
 - 76.06% earn greater than \$50k/year
 - 21.15% of singles
 - 83.33% of families
- Tended to rate health benefits of food and local products as important, lower responses to “having trouble controlling spending” would seem to correlate highly with preference toward planning ahead

WHAT DOES THE SURVEY DATA TELL US ABOUT DIFFERENCES BETWEEN CUSTOMERS AND NONCUSTOMERS?

- Income for **Non-Customers** tends to be on the lower end (approx. 50% under \$50,000 where as only 10% was \$100,000 and up). Income for **Customers** is rather evenly distributed (\$50,000 to \$100,000 making up a slight majority around 39%)
- 46% of **Customer** respondents were 26-40 years of age, whereas 43% of **Non-Customer** respondents were 41-65 years of age. This tells us that **Non-Customer** respondents tend to be older.
- On average, **Non-Customer** respondents tend to plan things very carefully (average score of 1.8) and bring their lunch to work (average score of 1.4). However they almost never eat lunch at home (average score of 4.4).
- On average, **Customer** respondents tend to either buy lunch at work or skip lunch altogether (each averaging a score of 1.5). However, they will sometimes eat lunch at home (average score of 3.2)



WHAT SURVEY QUESTIONS WOULD YOU USE TO IDENTIFY THE CUSTOMER SEGMENTS?

I. How old do you feel? What's the age on your driver's license (-10)?

II. Do you commute? Do you purchase lunch before work? Do you prefer hot lunch? How far would you be willing to travel for lunch: brisk walk? public transportation? car ride?

I. Demographic identifiers

1. Age, ID, Race/Ethnicity

2. Customer Relationships and Preferences

1. Psychoanalytical (ex. How would you categorize yourself? Trendy, Consistent, or Low Flare / How would you categorize the food you like to eat consistently? Trendy, Consistent, or Low Flare)
2. Relationships (ex. Have you ever eat at Sticks? **If so**, how many times can you remember? Of those times, how many times did you wish you had eaten somewhere else? What was the food/restaurant you were craving? If not, what is your favorite grab-n-go food establishment of choice for lunch? How often out of a given week do you say you eat lunch there in a month? What's your favorite dish?

3. Logistics

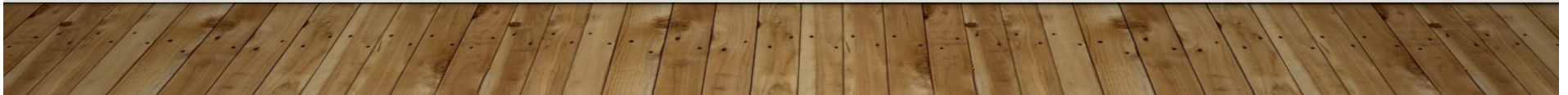
1. **Infrastructure** (e.g., Hwys, traffic patterns, parking, delivery service pick-up) / **Proximity** (e.g., Campuses, Office buildings, transportation hubs, etc.) / **Community hubs** (e.g., public museums, theatre districts, town squares)

SEGMENTATION

- How many customer segments can you estimate from the survey data?
 - Considering that there are 18 fields, there can be at least 18 unique segments.
- What are the profiles of the customer segments?

Segment	Average of Income	Average of plan carefully	Average of control spending	Average of purchase local	Average of consider health	Average of Age
1	2	1	4	2	1	2
2	2	2	3	2	2	3
3	2	2	2	2	2	2
Grand Total	2	2	3	2	2	2

- Which customer segments should Sticks target?
 - We're looking to target men, ages 26-40, with an income level of \$50k-\$100k annually, who consider their health when eating, and do not mind if it is not a local purchase.



RECOMMENDATION FOR THE LOCATION OF THE NEXT STICKS KEBOB SHOP

- We identified the most likely customer, based on survey results of existing customers, to be men, ages 26-65, with an income level of \$50k-\$100k annually.
- Of the desired locations, we believe Hampton Roads, VA would be the best target based on the known customer base; using Claritas data for support
- Not only does this location offer the type of customer that we believe to be our best foundation when investing in a new location, it also offers a large population base of more than 1.7M people which means an opportunity rich geography.

