



Segmentation at Sticks Kebob Shop



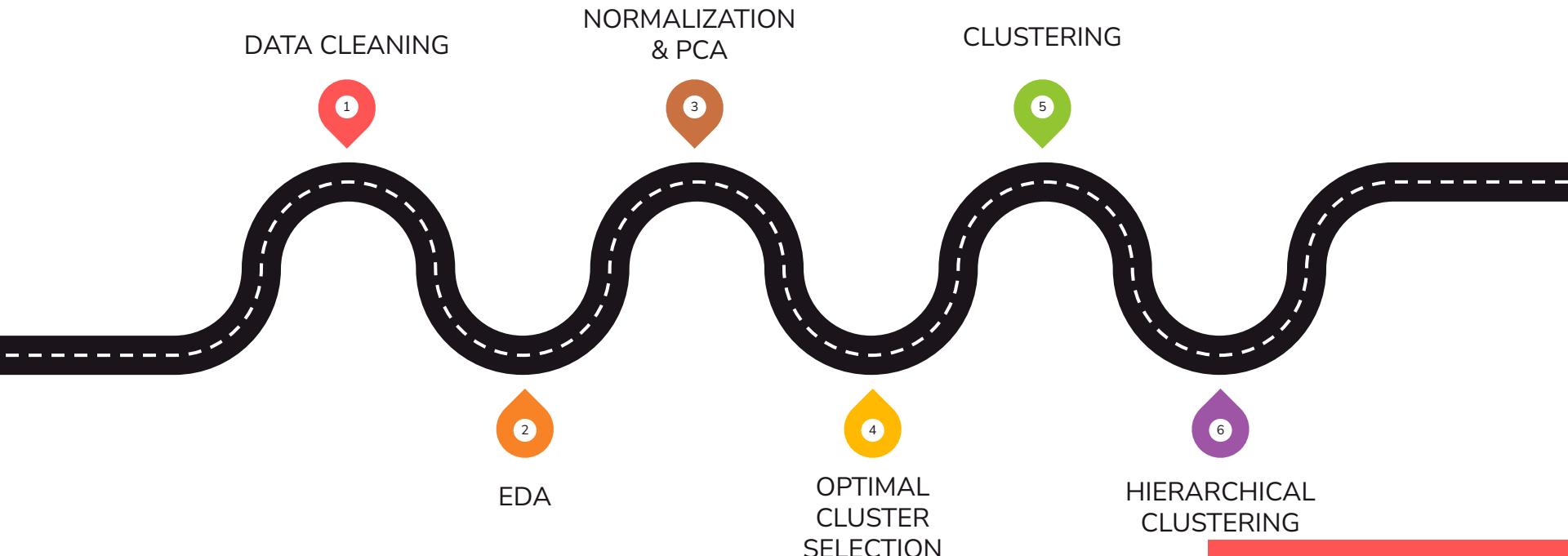
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Introduction

- Sticks Kebob Shop, a quick-service food chain, faces a strategic expansion challenge.
- Expansion decisions rely on careful consideration of consumer demographics, competition, and brand positioning.
- This study examines Sticks' methodical approach to expansion, emphasizing fast-casual dining and diverse menu offerings.
- Special focus is placed on catering to health-conscious and ethnically diverse consumer preferences.



Roadmap



“

1. Who do you think Sticks' customers are, and what are their motivations for visiting Sticks?



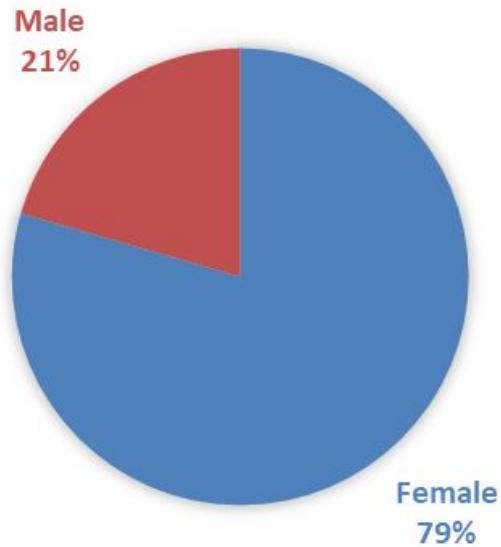
EDA on Customer Survey

Get key insights on the Customer demographics and behavioral patterns

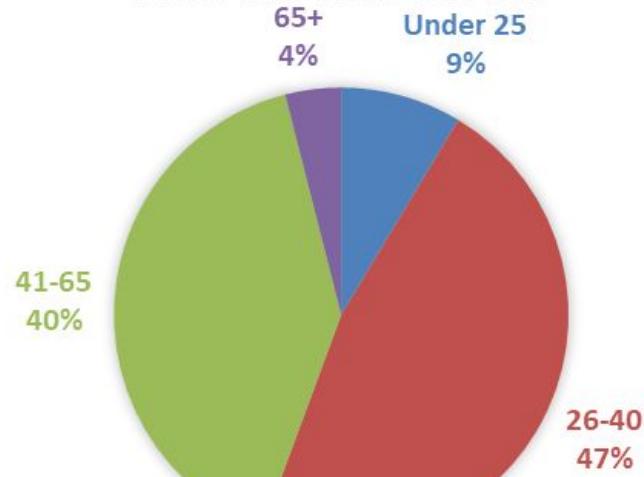


Gender and Age Distribution

GENDER DISTRIBUTION



AGE DISTRIBUTION



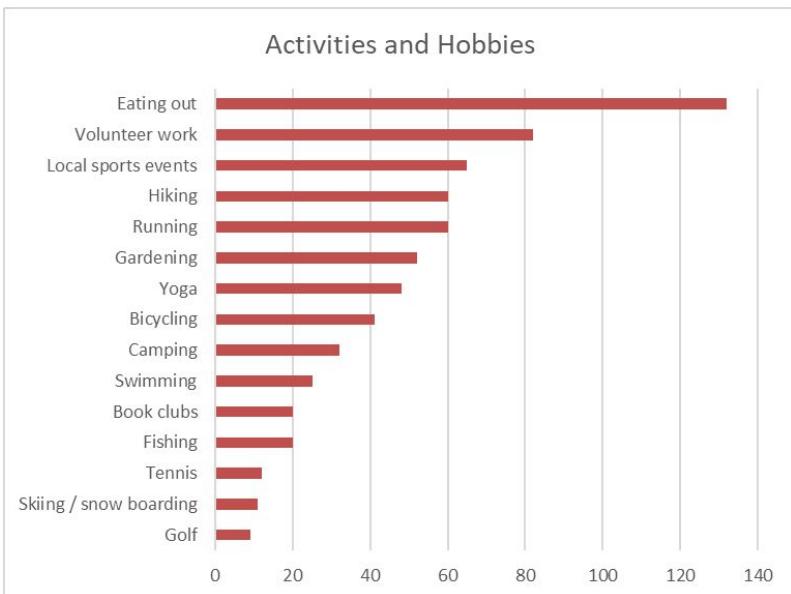
Occupation

Accounts
Educator
Design
Homemaker
Retired
Student
Lawyer

Business Professional



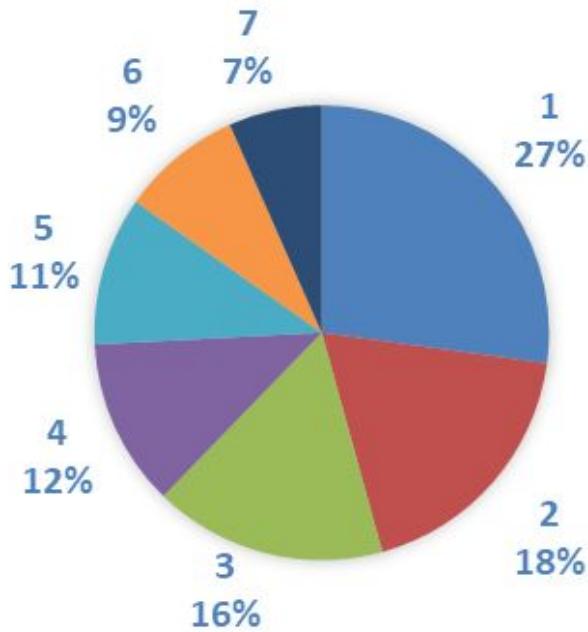
Activities and Hobbies



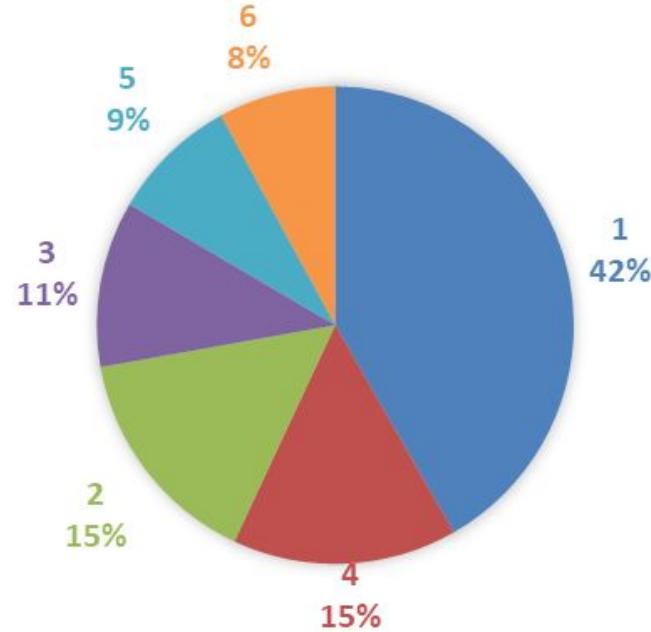
Swimming
Skiing / snow boarding
Local sports events
Bicycling
Gardening
Volunteer work
Hiking
Running
Yoga
Golf
Camping
Fishing
Tennis
Eating out
Book clubs

Eating Habits

EAT AT HOME

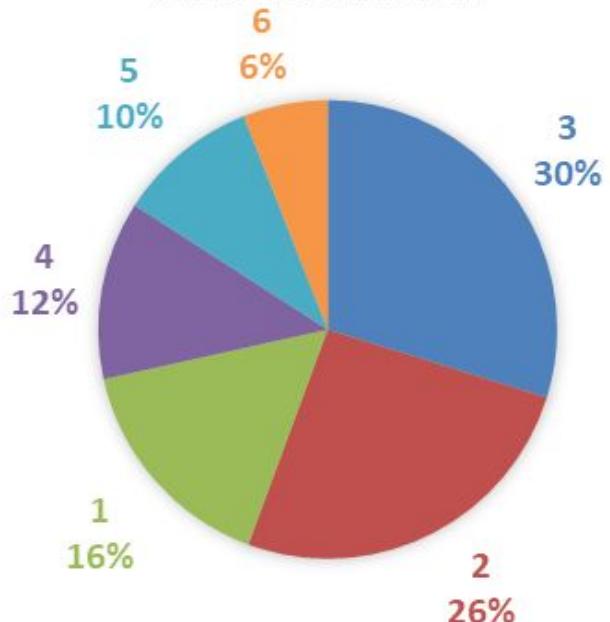


BRING LUNCH TO HOME



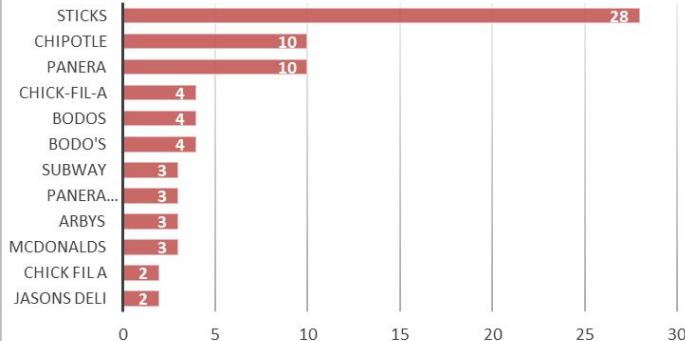
Eating Habits

BUY LUNCH FROM
RESTUARANT

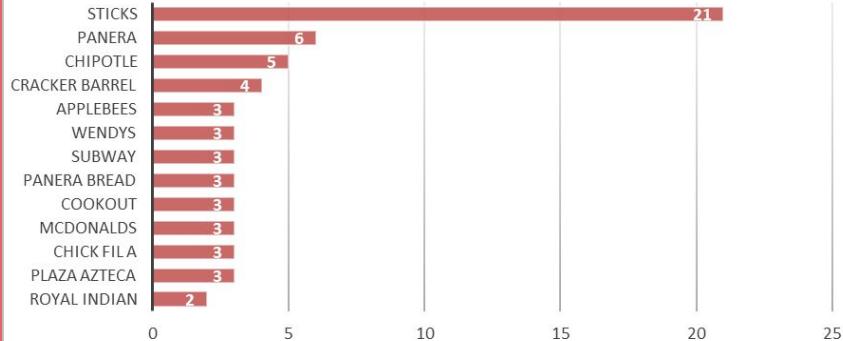


Restaurant Preference

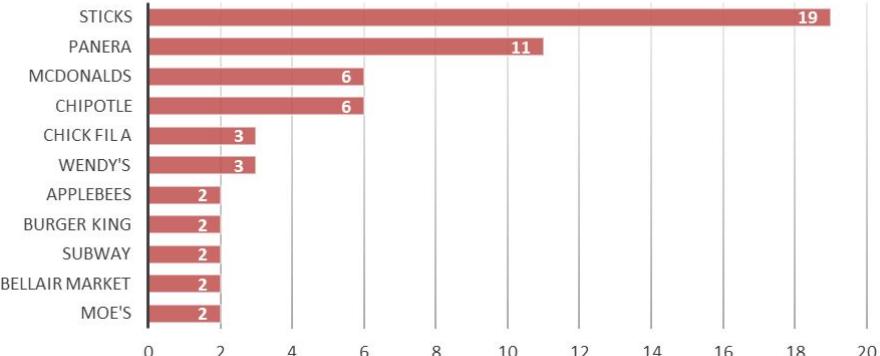
Most frequent restaurant visited



Second Most frequent restaurant visited



Third Most frequent restaurant visited



Visited in past 3 months

VISITED IN PAST 3 MONTHS

2
7%

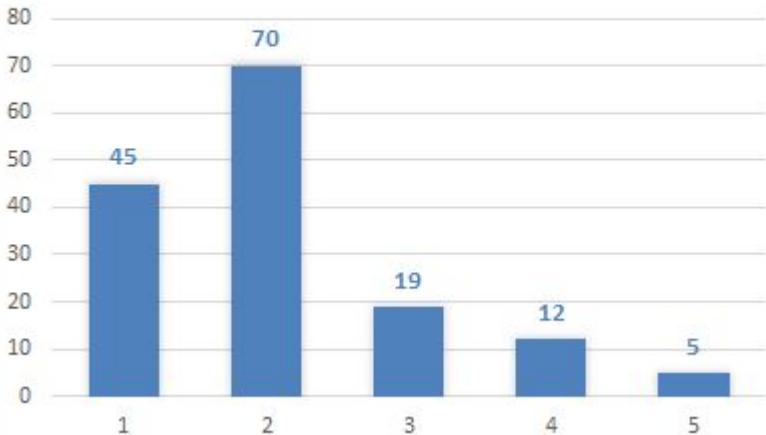
1
93%

How often have the customer visited Sticks for the following occasion

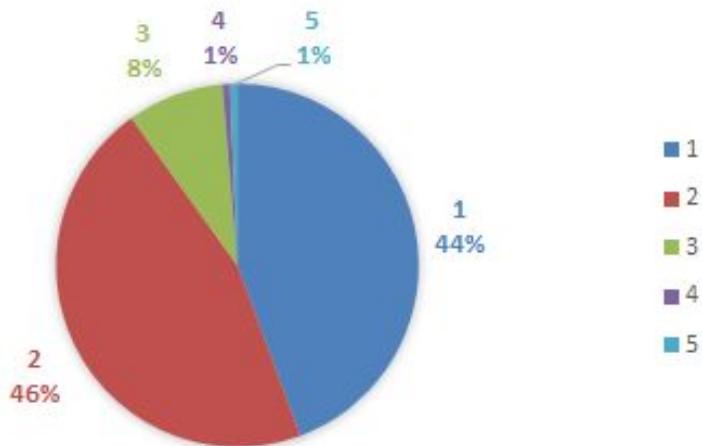


Customer Behaviour

USED COUPON WHEN VISITED A RESTAURANT

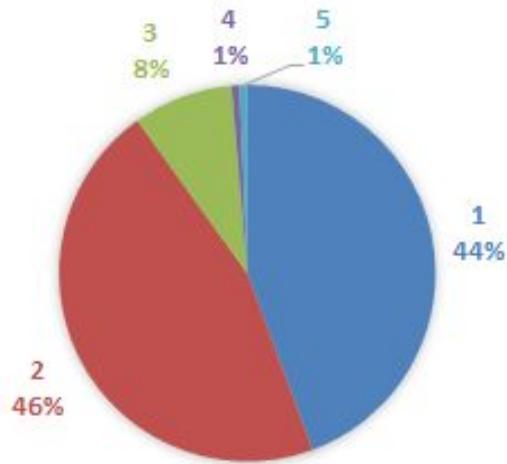


CAREFULLY CONSIDER THE HEALTH BENEFITS

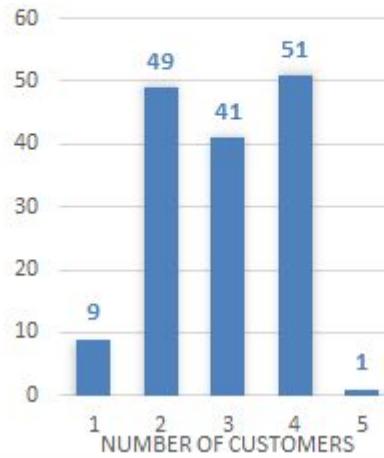


Customer Behaviour

CARE ABOUT LOCAL SOURCING



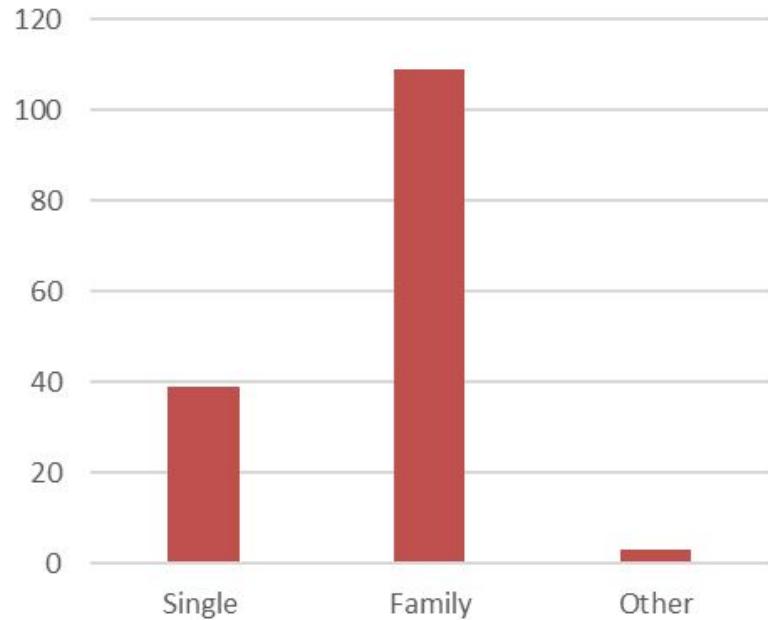
HAVE TROUBLE CONTROLLING MY SPENDING



Income Distribution



Household Type



Income and Household type

Customer Psychology

Please indicate how important the following factors are when you visit a restaurant	Very important	Important	Does not matter	Not important	Do not care
Convenient place to eat	55.63%	39.07%	3.97%	0.66%	0.66%
Variety of menu options	43.05%	47.02%	8.61%	0.66%	0.66%
Good value for money	72.85%	23.84%	2.65%	0.66%	0.00%
Healthy menu options	67.55%	24.50%	7.28%	0.66%	0.00%
Food taste and satisfaction	94.04%	5.96%	0.00%	0.00%	0.00%
Friendly staff	45.03%	51.66%	1.99%	0.66%	0.66%
Pleasant ambiance	33.11%	56.95%	8.61%	0.66%	0.66%
Consistency / reliability	75.50%	23.18%	0.00%	1.32%	0.00%

Customer Psychology

Sticks in comparison to similar restaurants that you visit regularly	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Convenient place to eat	31.13%	27.15%	31.13%	7.95%	1.99%	0.6
Variety of menu options	31.79%	28.48%	32.45%	7.28%	0.00%	0.0
Good value for money	26.49%	23.18%	34.44%	13.25%	1.99%	0.6
Food taste and satisfaction	55.63%	31.79%	11.92%	0.66%	0.00%	0.0
Friendly staff	41.06%	21.19%	34.44%	2.65%	0.66%	0.0
Pleasant ambiance	28.48%	29.80%	38.41%	3.31%	0.00%	0.0
Consistency / reliability	52.32%	27.81%	19.21%	0.66%	0.00%	0.0

Overall Customer Behaviour

Overall Customer Behaviour	Always	Almost Always	Neutral	Almost Never	Never
I tend to plan things very carefully	39.74%	41.72%	17.22%	0.00%	1.32%
I sometimes have trouble controlling my spending	5.96%	32.45%	27.15%	33.77%	0.66%
I think it is important to purchase products that are made locally	29.80%	63.58%	3.31%	1.32%	1.99%
I carefully consider the health benefits of what I eat	44.37%	45.70%	8.61%	0.66%	0.66%

Customer Persona as per the case:

Customer Persona as per the case:

In their 30s

Who has Smartphones

Want food that is healthy and satisfying

The base skewed more towards Women from mid 20s to mid 40s

Professional

Who do not carry lunch from home.

We agree with the base selection of customer persona, but we believe we have a more detailed and targeted persona.



Ideal Customer

- Female
- 25-50 years of age
- Has a family
- Eats of twice/thrice a week
- Business Professional
- Earns 50-100k per annum
- Hobbies : Eating out, volunteering and sports
- Price Conscious
- Prefers
 - Convenience
 - Value for money
 - Healthier menu
- Care about local sourcing
- Carefully considers health benefits
- Love Sticks for it's food taste and satisfaction



2. What survey questions would you use to identify the customer segments?

Customer Segmentation

Demographic

What is your gender?

What is your age?

What is your approximate average annual household income?

How would you best describe your household type? (e.g., single, family with children)

Behavioral

How many times in the last week did you do the following? Buy Lunch at a Restaurant/Food Truck

Please specify the top five restaurants you have visited in the last six months in order of visit frequency.

- Most frequent
- Second most frequent
- Third most frequent

Have you ever visited Sticks Kebob Shop?

Have you eaten at Sticks in the past three months?

In the last month, how many times have you used coupons when you visited a restaurant?

Psychographic

Please indicate how important the following factors are when you visit a restaurant?

- Convenient place to eat
- Variety of menu options
- Good value for money
- Healthy menu options
- Food taste and satisfaction
- Friendly staff
- Pleasant ambiance
- Consistency / reliability

Please indicate your best answers to the following:

- I tend to plan things very carefully.
- I sometimes have trouble controlling my spending.
- I think it is important to purchase products that are made locally.
- I carefully consider the health benefits of what I eat.

3

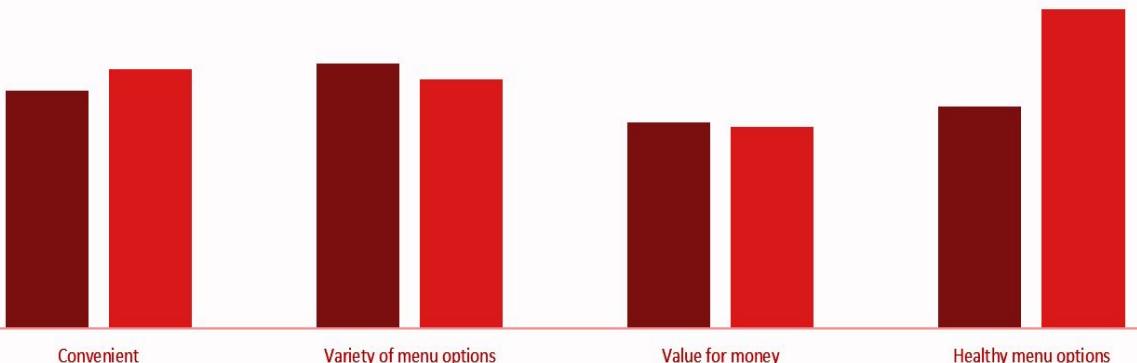
How do people choose which fast-food restaurant to visit? What is important—location, price, assortment, or cuisine?



3

How do people choose which fast-food restaurant to visit?

■ Customers ■ Non Customers

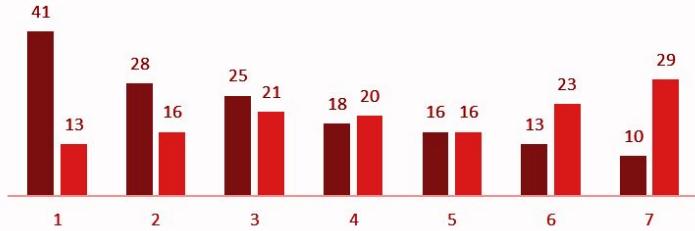




4. What do the survey data tell us about differences between customers and noncustomers?

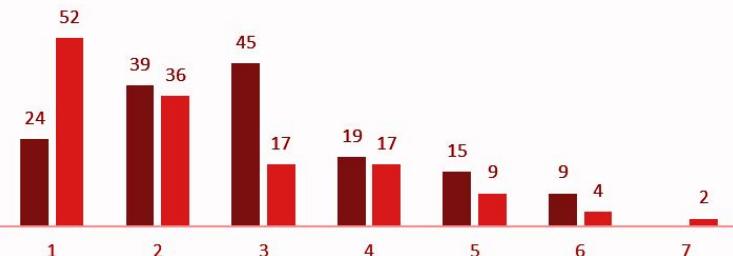
Count of How many times in the last week did you do the following? - Make and eat lunch at home

■ Customers ■ Non Customers



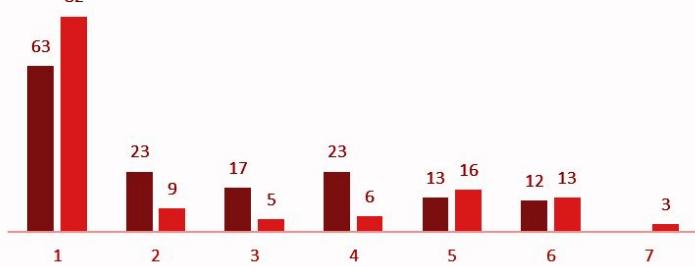
Count of How many times in the last week did you do the following? - Buy lunch at a restaurant / food court / food truck

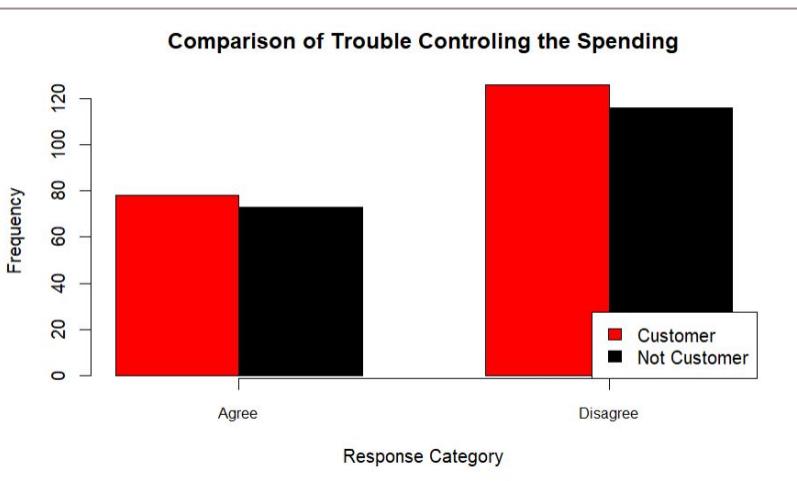
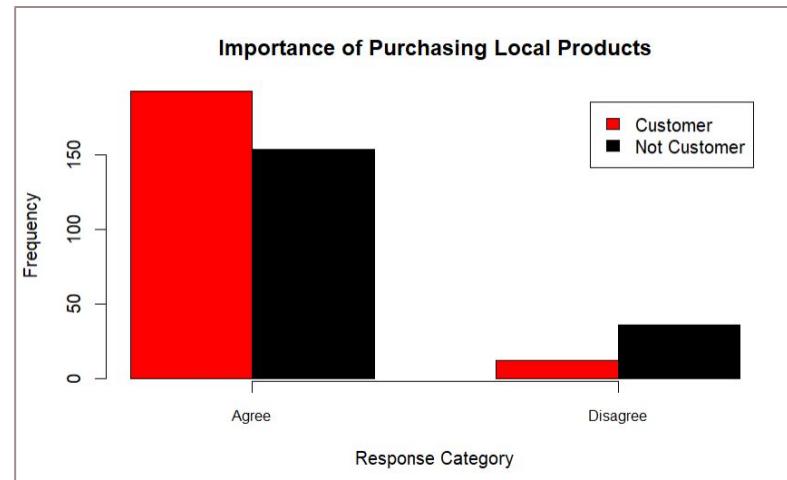
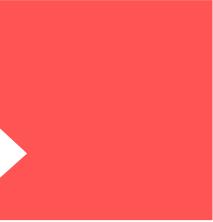
■ Customers ■ Non Customers

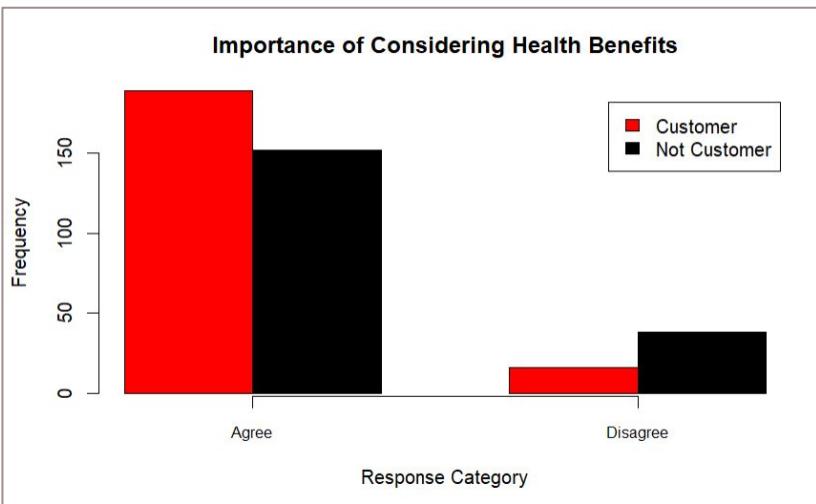
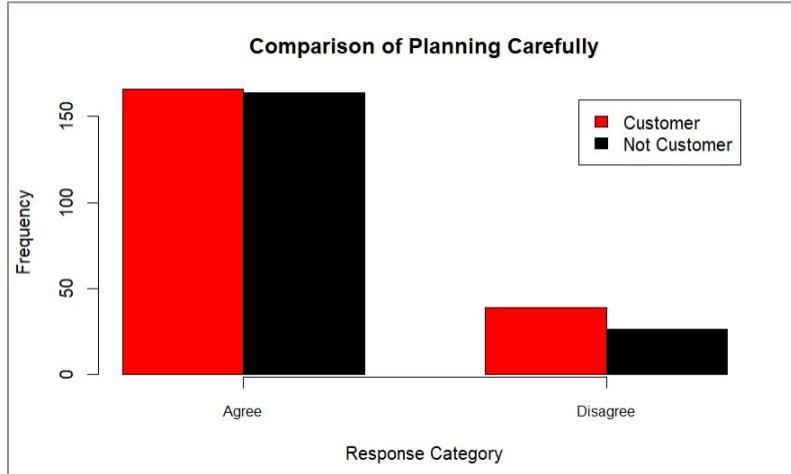
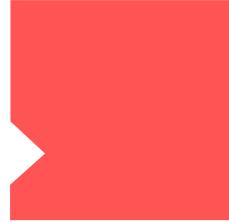


Count of How many times in the last week did you do the following? - Bring lunch to work

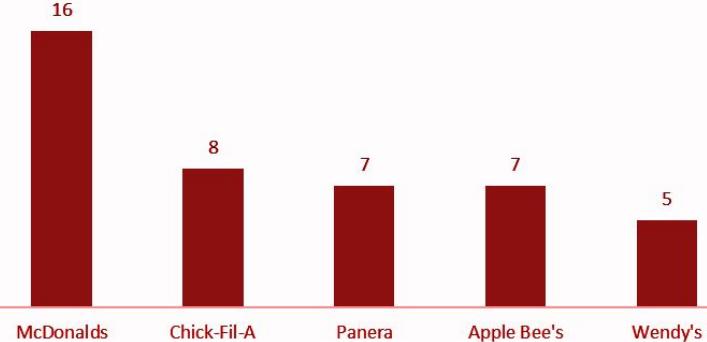
■ Customers ■ Non Customers



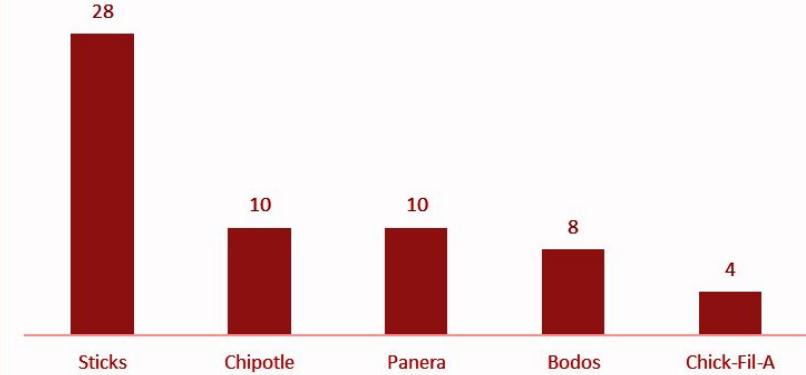




Top five restaurants you have visited in the last six months -Not Customer



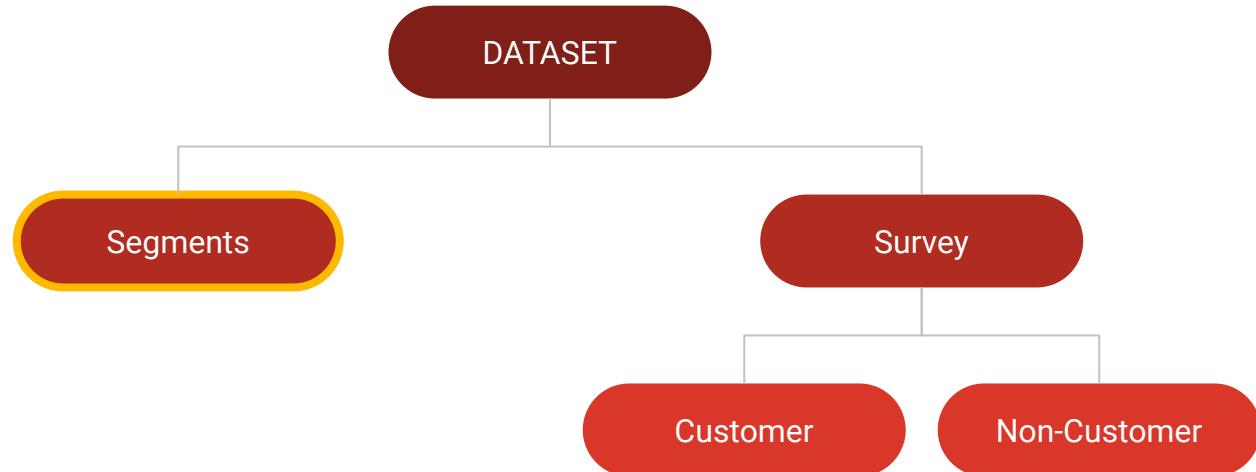
Top five restaurants you have visited in the last six months - Customer



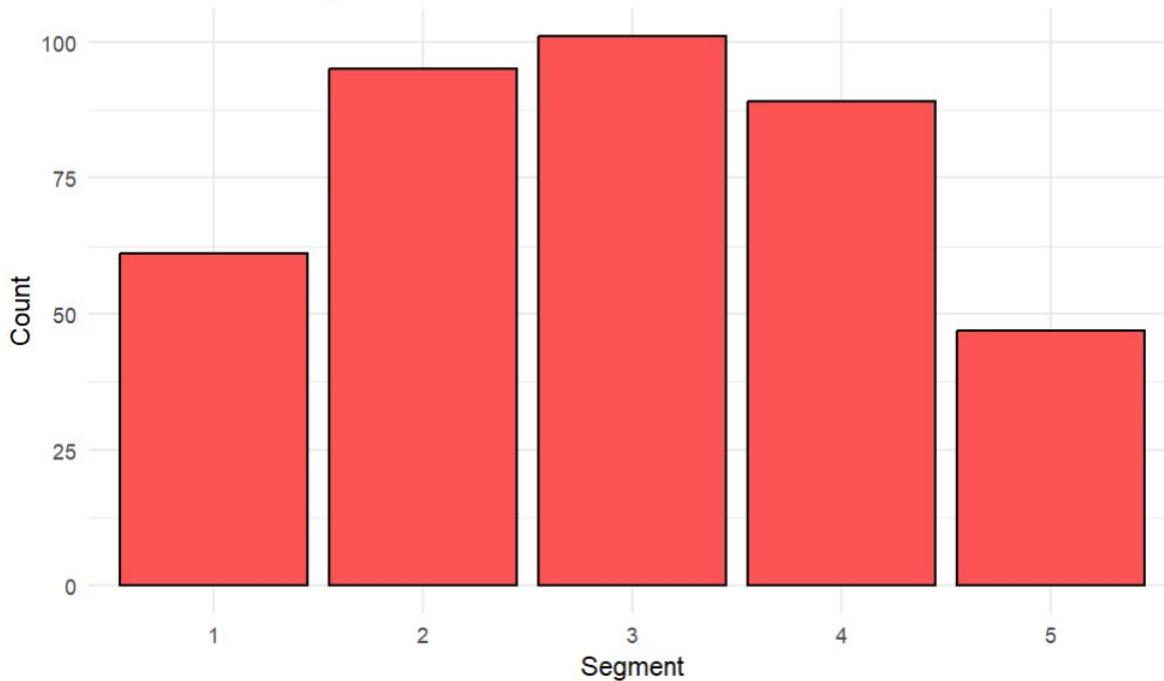
5. How many customer segments can you estimate from the survey data? What are the profiles of the customer segments?

6. Which customer segments should Sticks target?

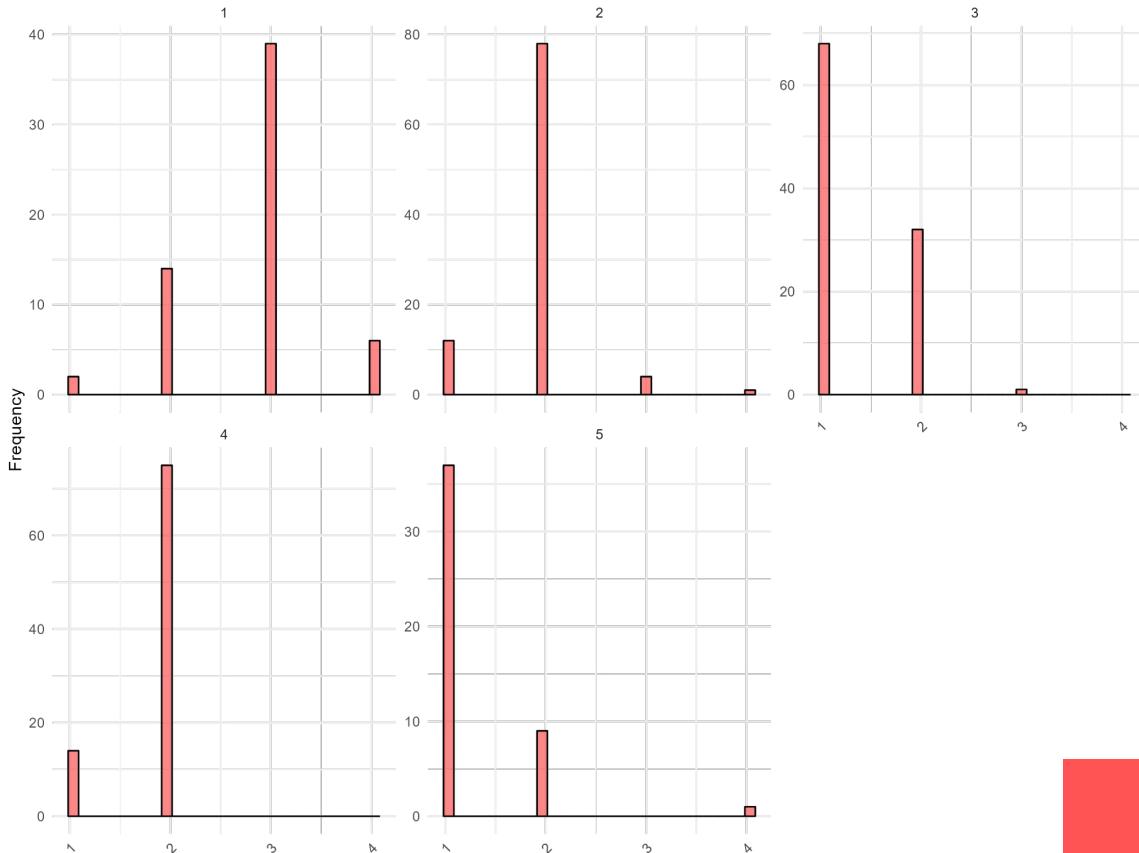
Datasets



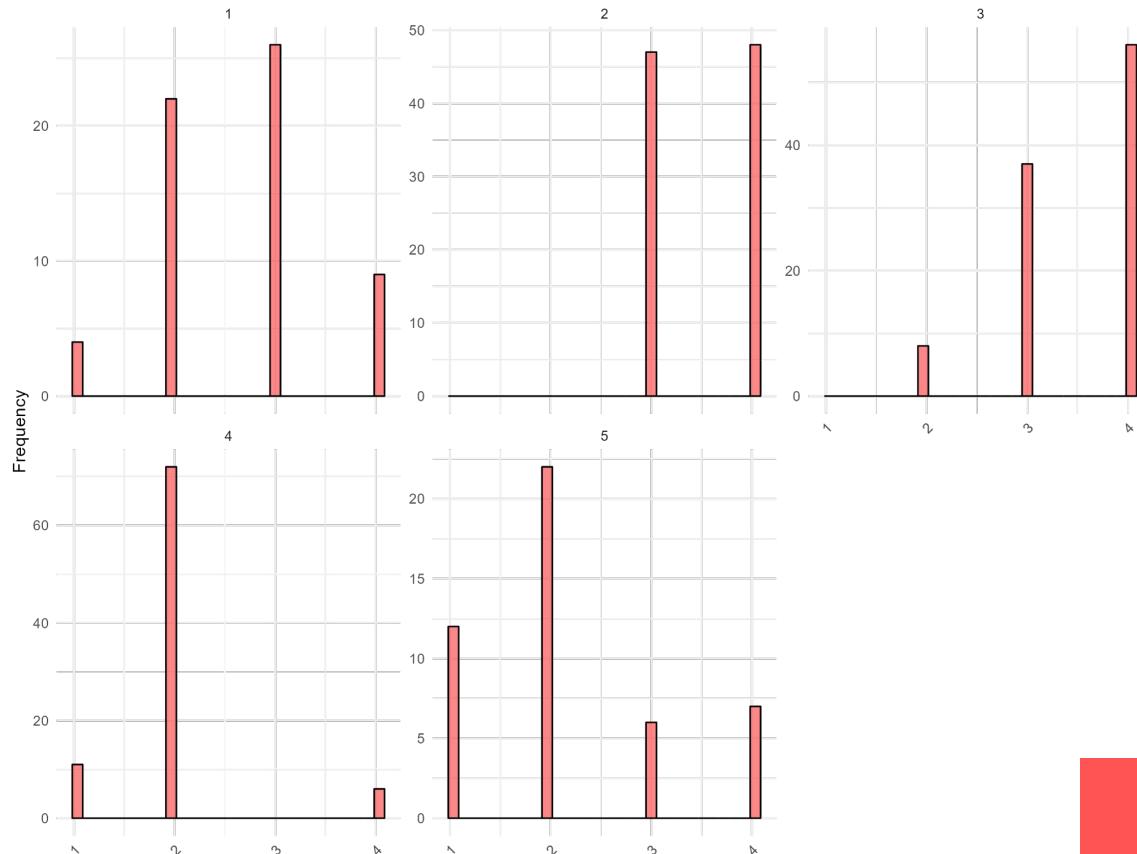
Distribution of Segments



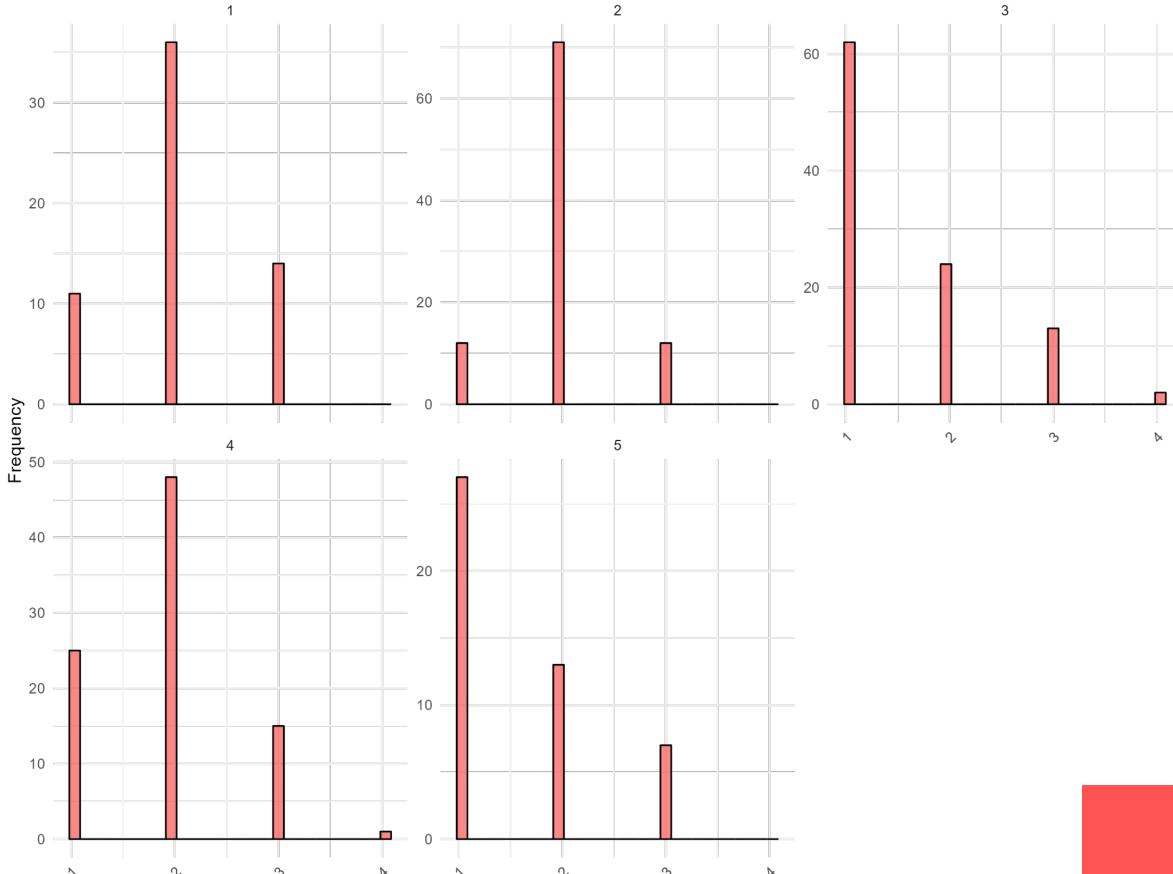
I consider health benefits by Segment



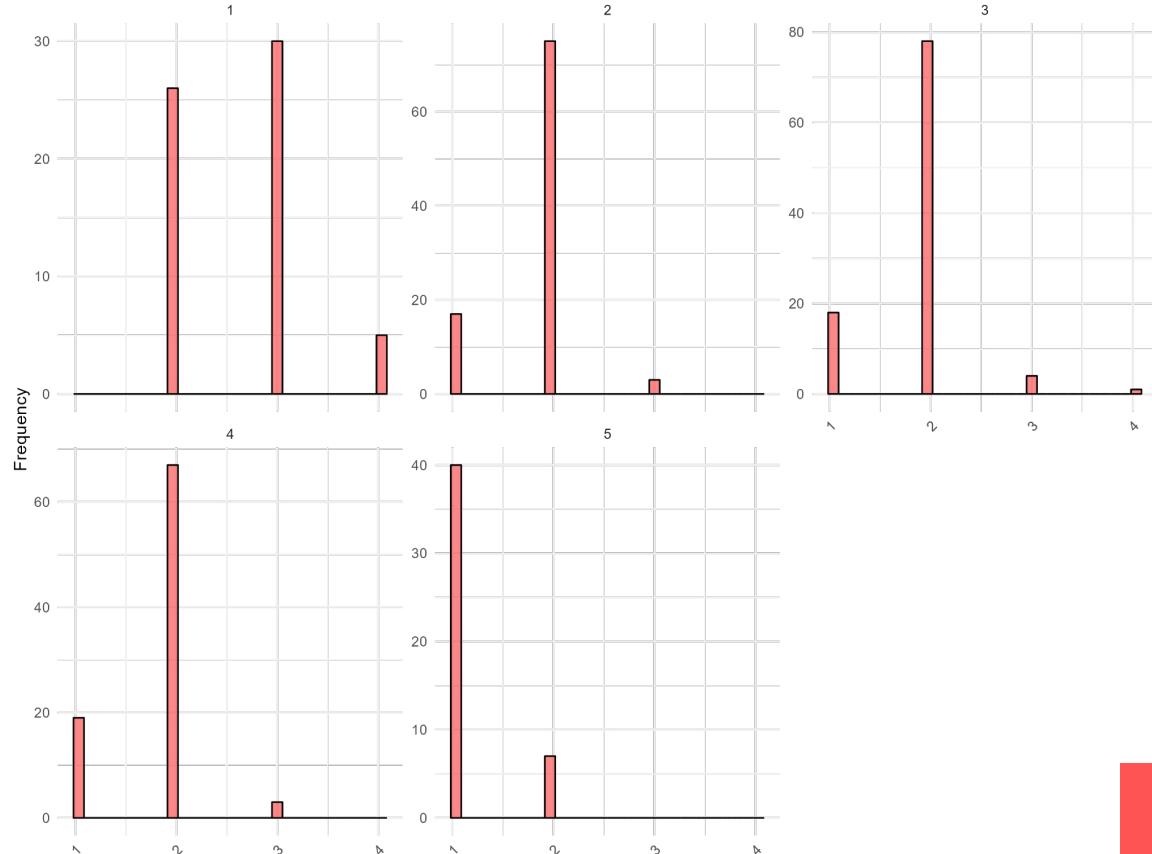
Trouble controlling spendings by Segment



Plan things very carefully by Segment



Products made locally by Segment



Segments



Highly health-conscious, values local products, and exhibits meticulous planning habits. Attracted to fresh and healthy food offerings.



Values planning and some degree of local product sourcing but less focused on the health aspects. Balance quality and convenience.



Less concerned with health and local products, possibly more driven by price and convenience.



Considerate of health, planning, and local products, but to a lesser degree than Segment 1. They might weigh various factors, including health and convenience.

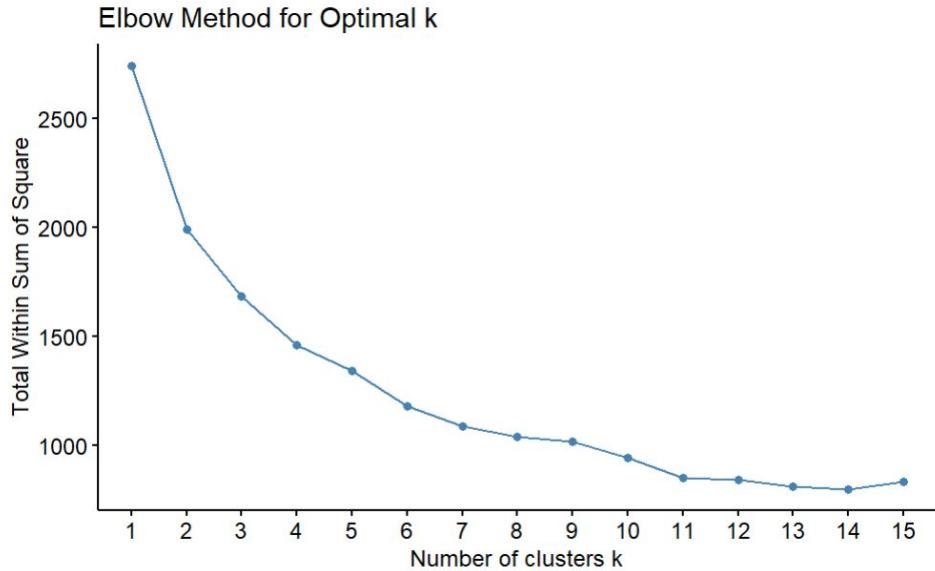


Least health-conscious and concerned with local sourcing, potentially the most price-sensitive. Promotions and the taste experience are likely key motivators

Elbow Method

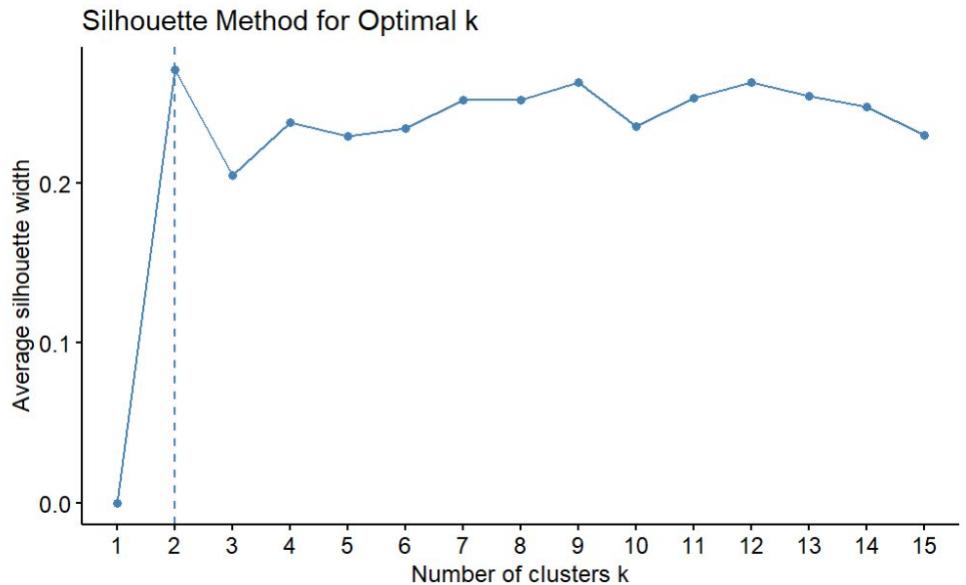
The optimal number of clusters k can be identified where the within-cluster sum of squares (WSS) begins to decrease at a slower rate.

Optimal number of clusters, $k = 3$ or $k = 4$

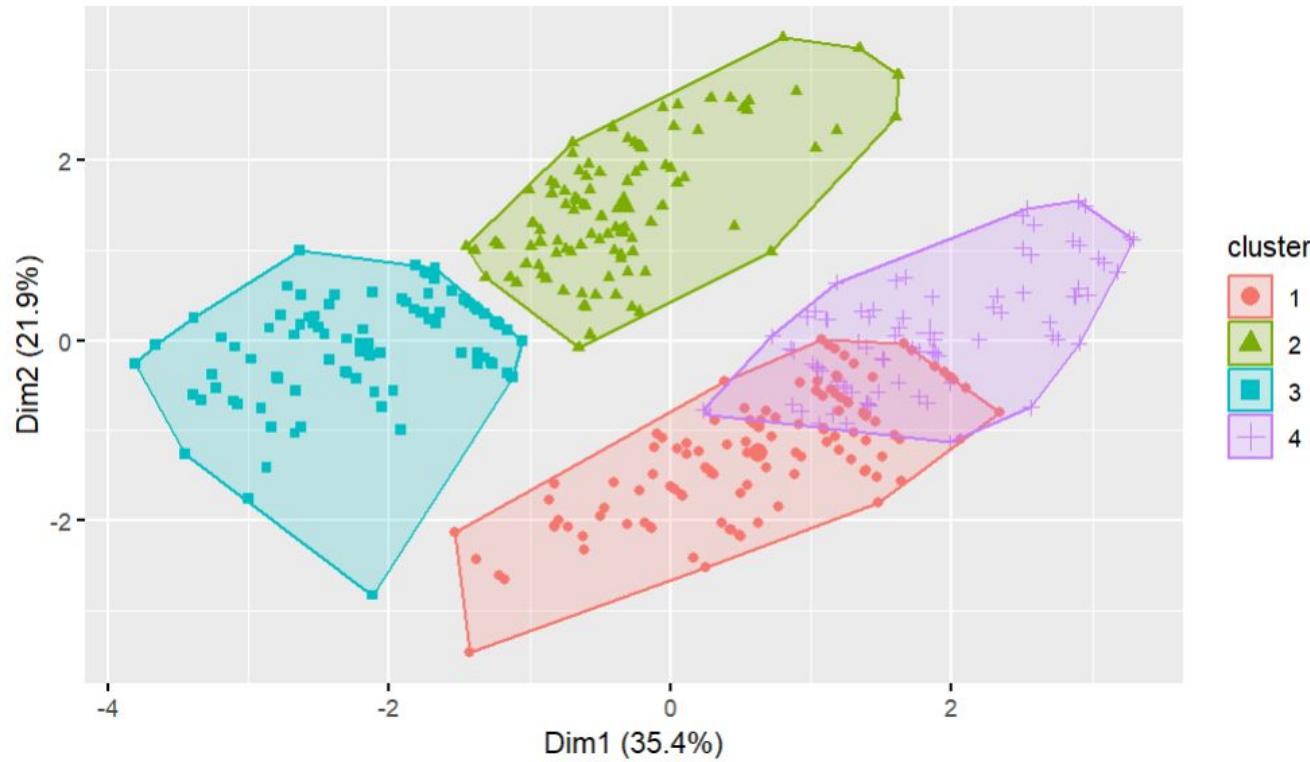


Silhouette Method

Optimal number of clusters, $k = 2$

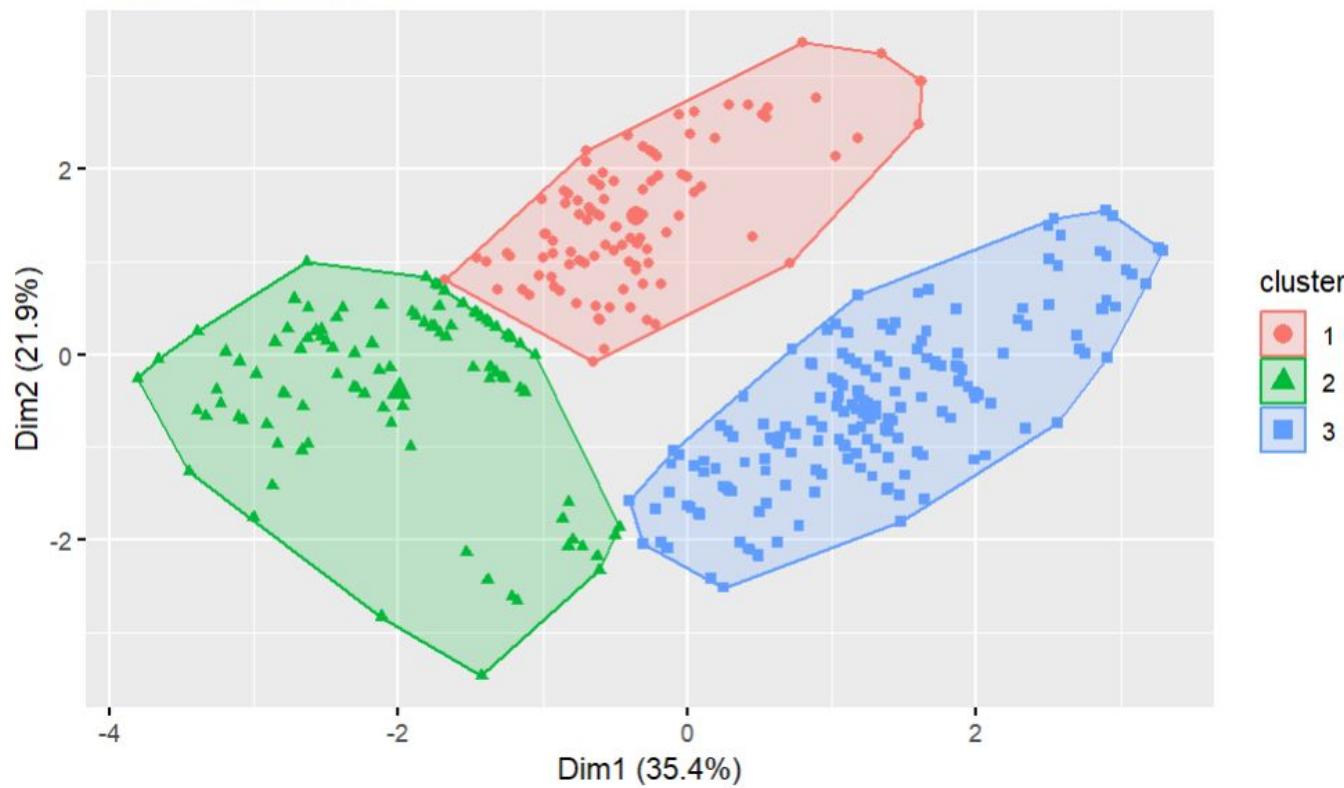


Cluster Visualization



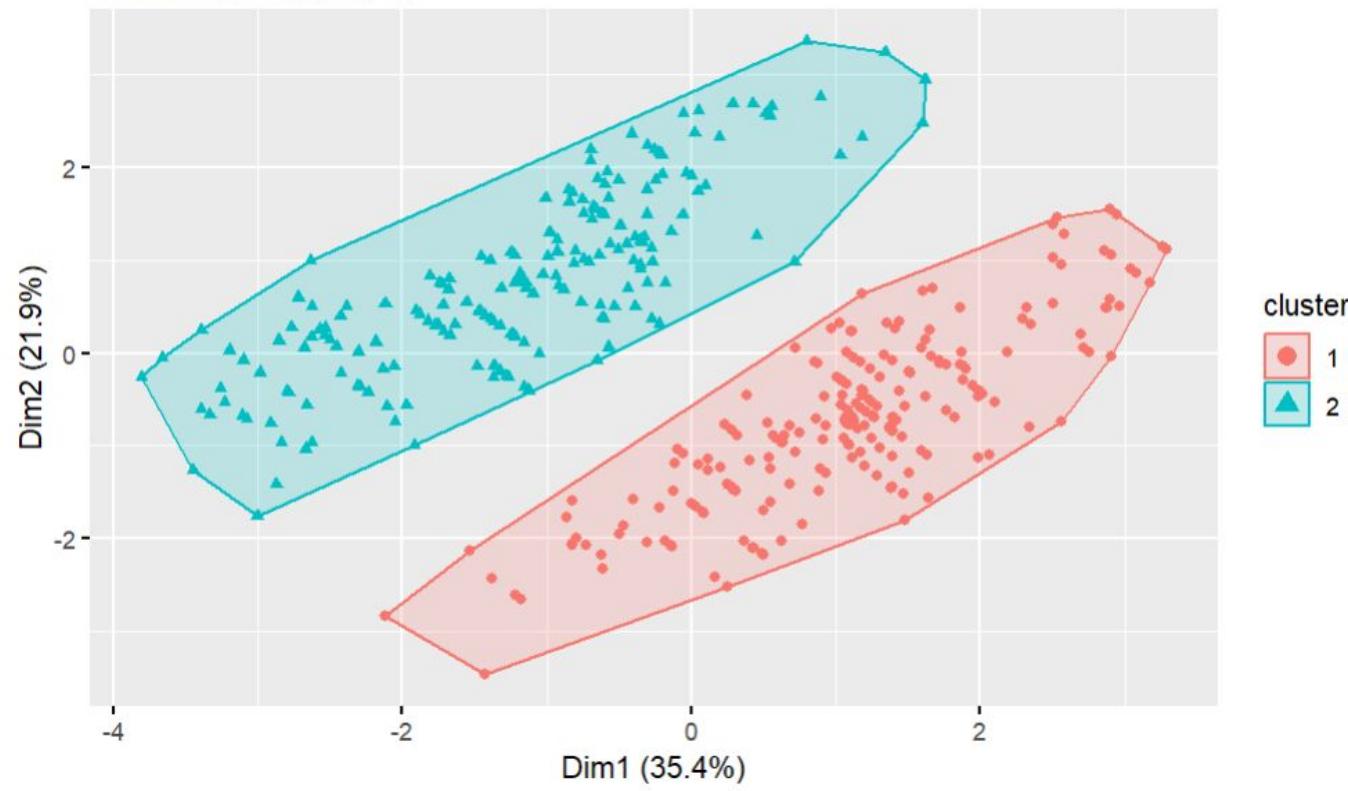
K = 4

Cluster Visualization



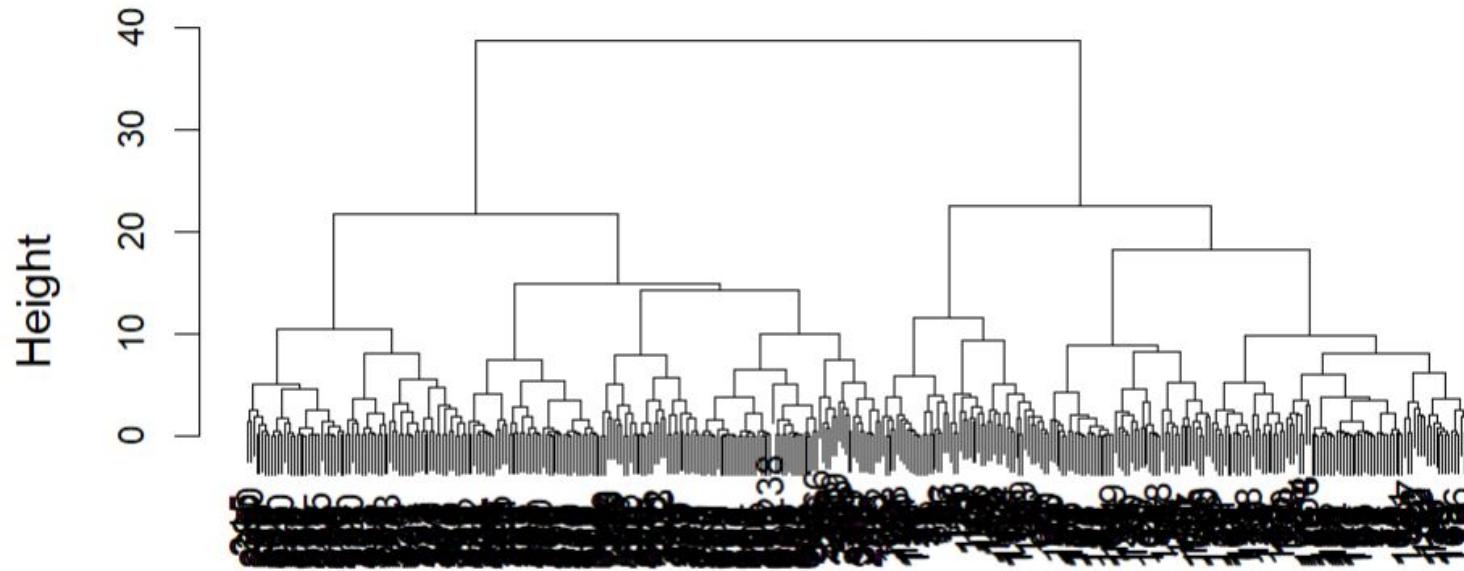
K = 3

Cluster Visualization



K = 2

Hierarchical Clustering Dendrogram



Customer Segment Clustering

Cluster 1

Has the highest scores for planning things carefully and for the importance of local products.

Is highly health-conscious based on their eating habits.

Shows moderate concern for controlling spending.

Cluster 2

Exhibits a decent level of planning and consideration of the health benefits.

Values local products, but slightly less so than Cluster 1.

Has a lower occurrence of trouble controlling spending, indicating a potential openness to spending a bit more on quality.

Cluster 3

This is the largest segment and seems to be less concerned with health and local sourcing.

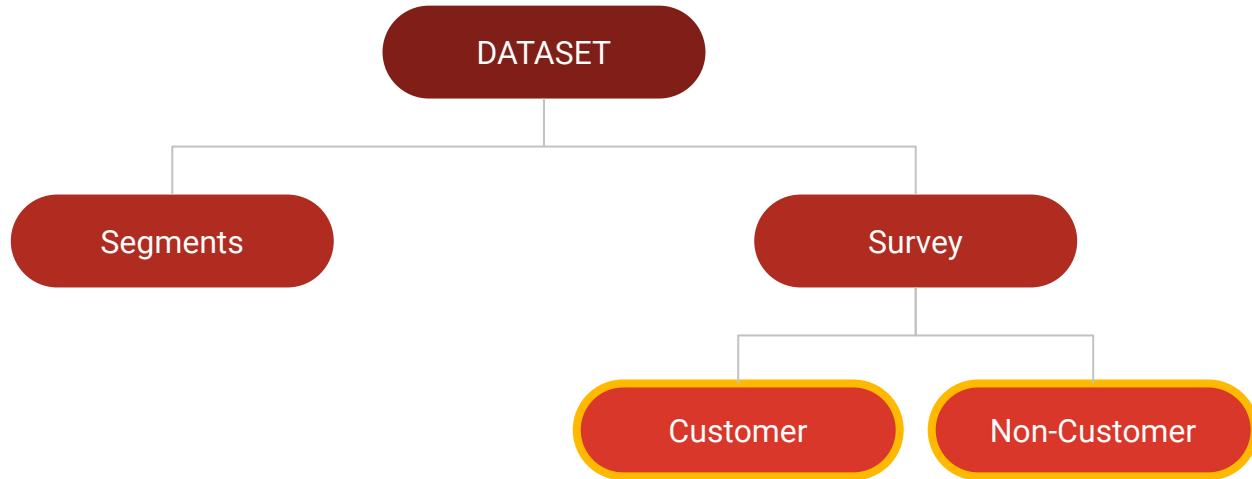
They exhibit some level of careful planning and have a high frequency of trouble controlling spending.

Targeting

Cluster 1: If Sticks Kebob Shop's goal is to capitalize on high-value customers willing to pay a premium for health-oriented and locally sourced food.

Cluster 3: If the goal is to maximize foot traffic and appeal to a broad customer base with a focus on volume sales.

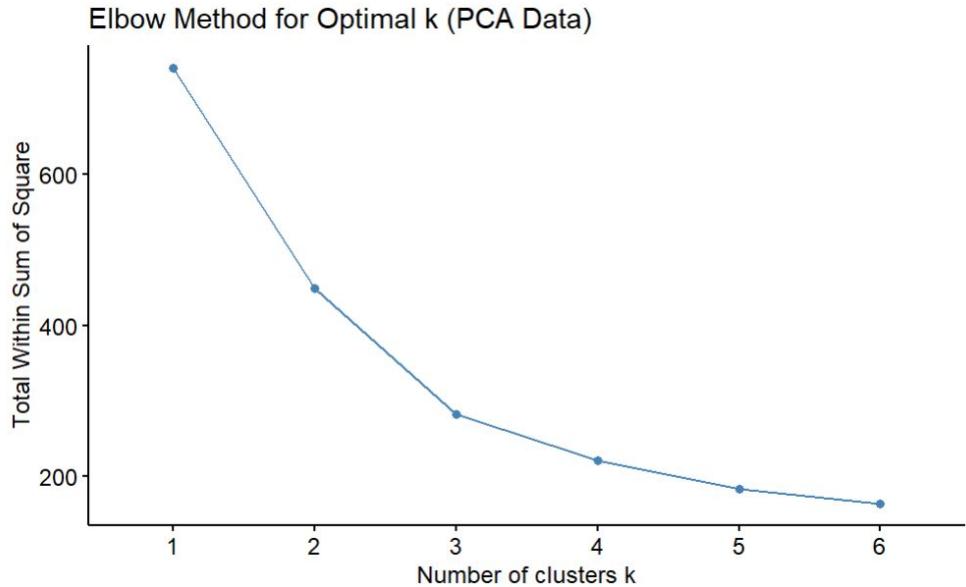
Datasets



Elbow Method

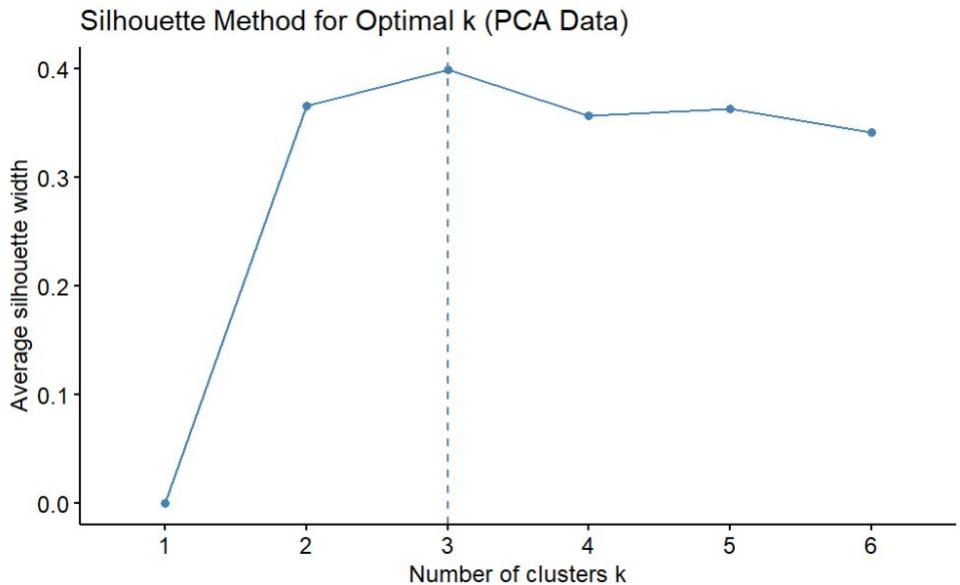
The optimal number of clusters k can be identified where the within-cluster sum of squares (WSS) begins to decrease at a slower rate.

Optimal number of clusters, $k = 3$ or $k = 4$

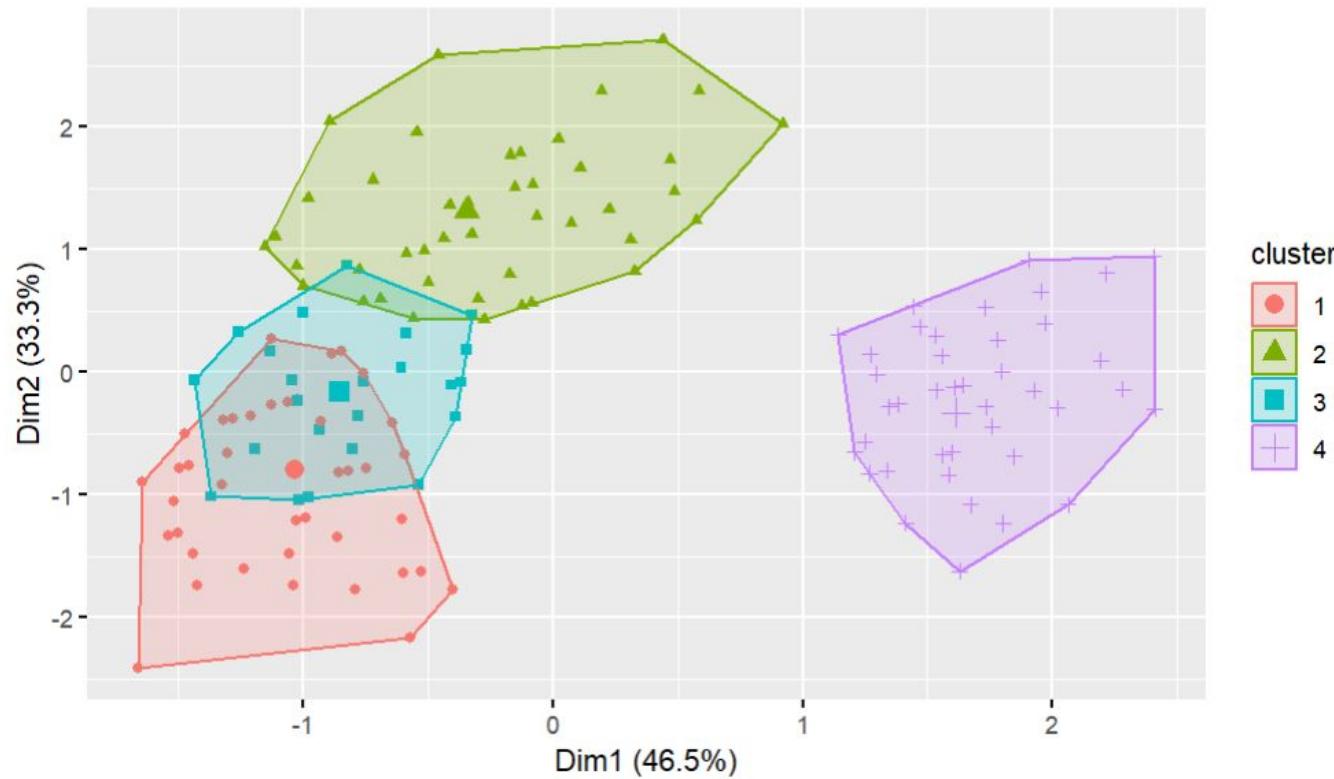


Silhouette Method

Optimal number of clusters, $k = 3$



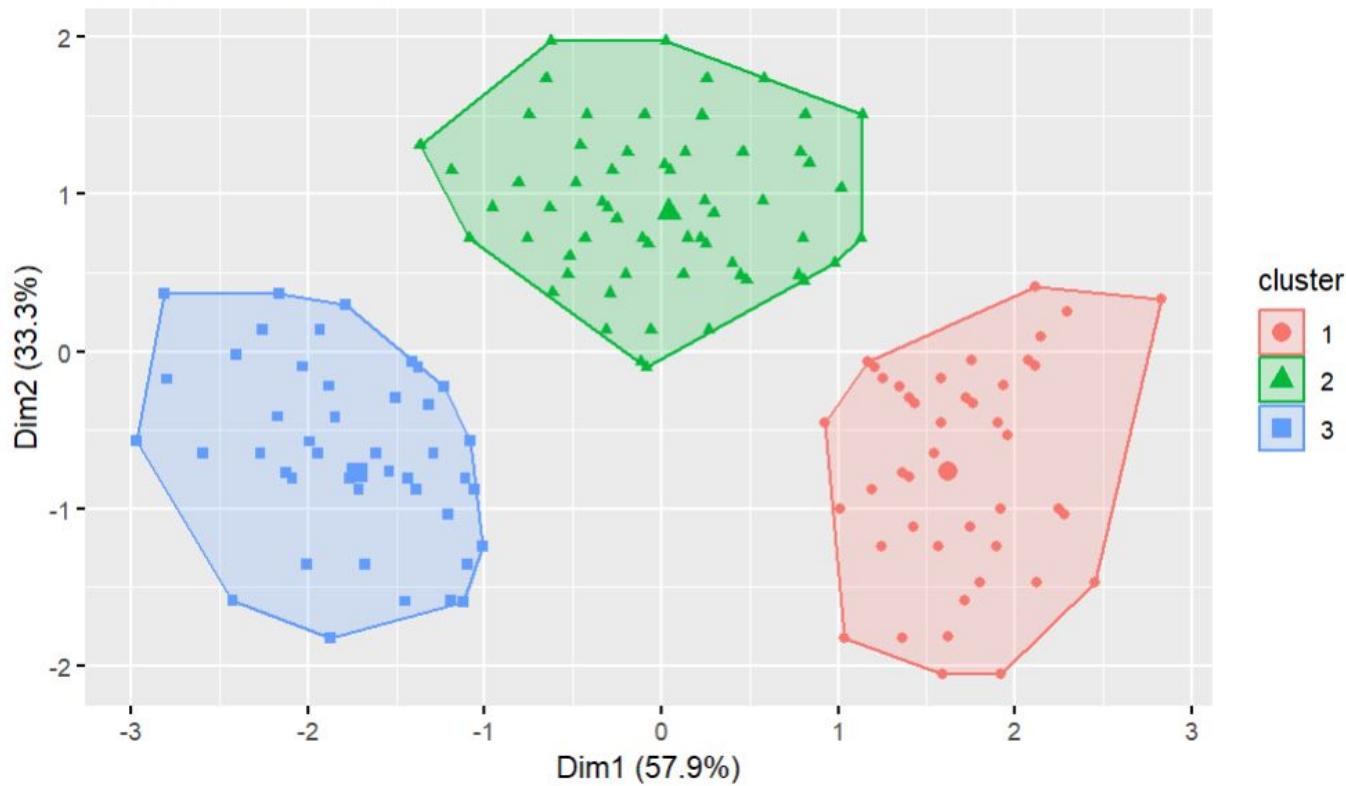
Cluster Visualization with PCA



k=4

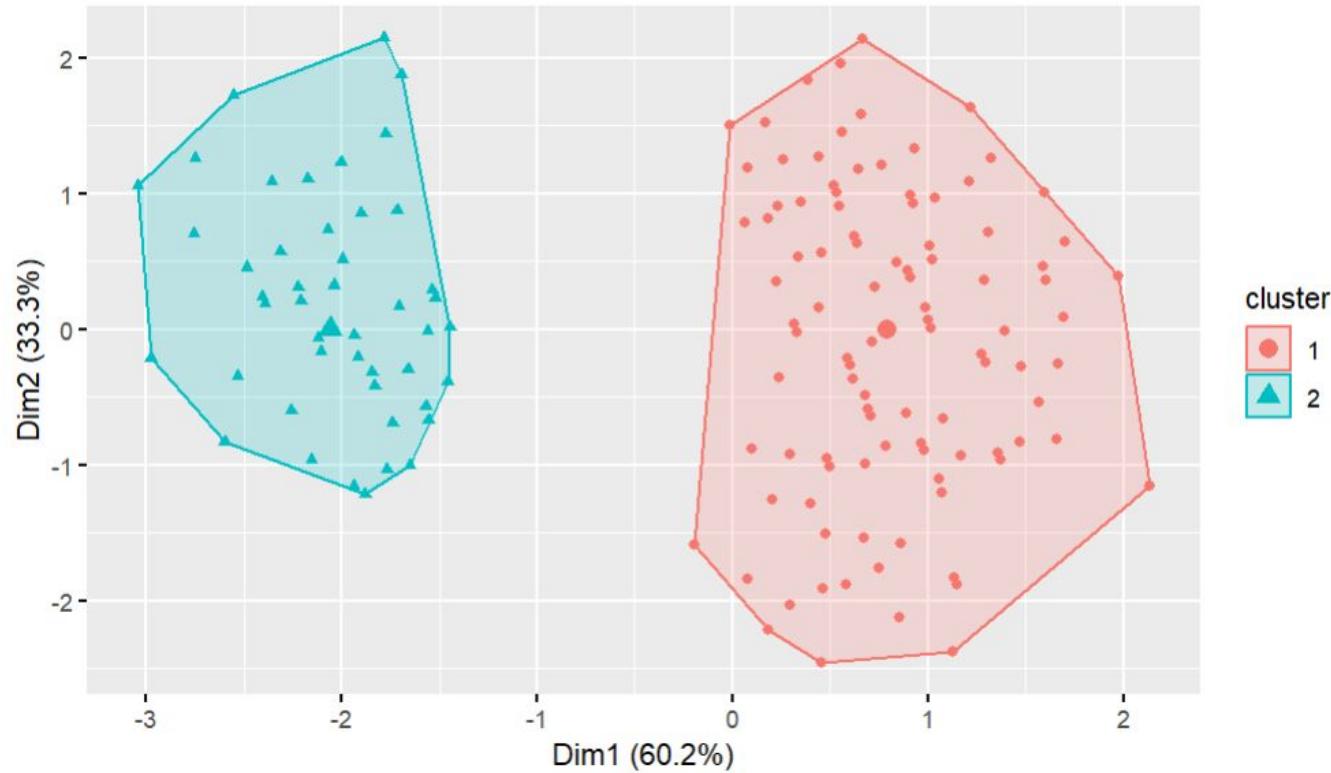
50

Cluster Visualization with PCA



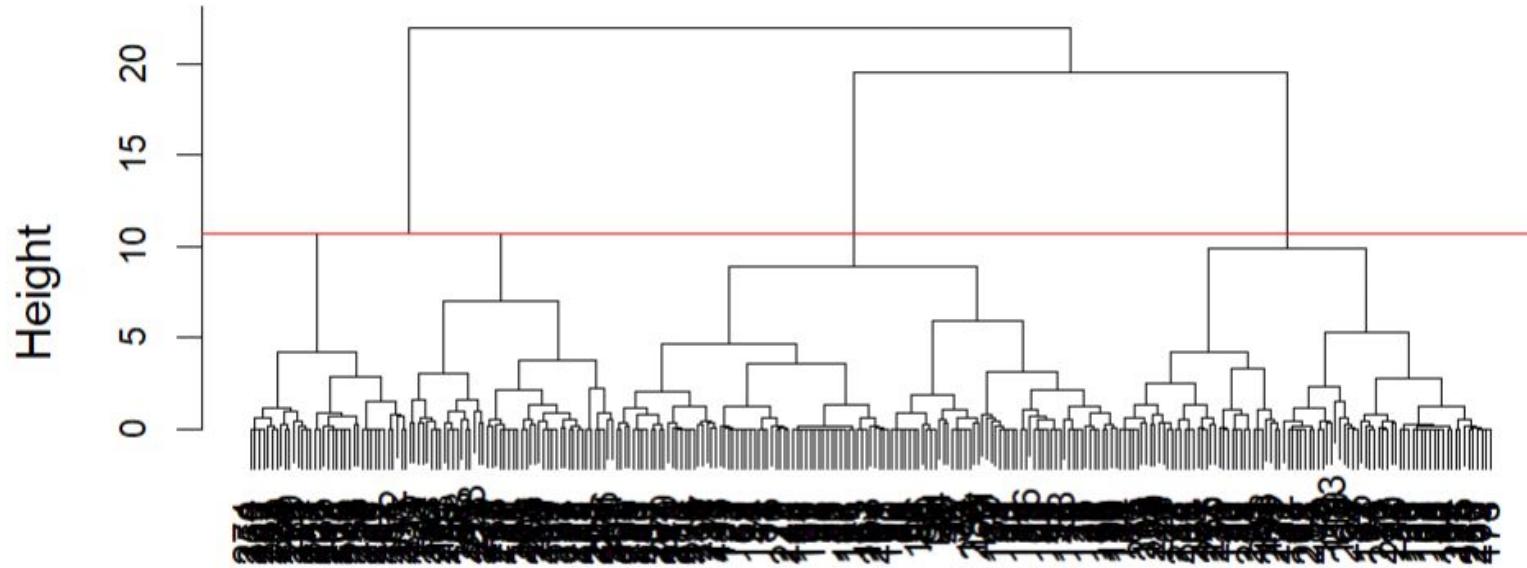
k=3

Cluster Visualization with PCA



k=2

Hierarchical Clustering Dendrogram



k=3

Combined Data Clustering

Cluster 1

Less likely to have visited Sticks Kebob Shop before

Younger and have a lower household income

Single-person households or smaller households

They use coupons less frequently

Cluster 2

Below-average likelihood of having visited the restaurant

Older and have a higher household income

May have larger households or traditional families

They use coupons moderately

Cluster 3

More likely to have visited Sticks Kebob Shop before

Middle age, and their household income is around average or above

Smaller household sizes and use coupons more frequently

Target Cluster 3

- This segment is already familiar with Sticks Kebob Shop and visits more frequently.
- They are responsive to coupons, suggesting promotions might be effective.
- Focusing marketing efforts on this group could increase their loyalty and frequency of visits.

7. Provide a recommendation for the location of the next Sticks restaurant based on the segmentation analysis and the demographic profiles of the locations in Figure 2



Location Criteria based on Health-Conscious Consumers

Given that Segment 1 is highly health-conscious, values local products, and is more inclined towards careful planning, we can infer a few things that might help us choose a location:

A community with a higher proportion of families and professionals who are likely to be in their 30s and have children (as the case study mentioned "soccer moms").

An area where people are likely to have smartphones and lead busy lives, possibly a suburban or urban setting with a higher density of working professionals.

A location where there might be a trend towards health-conscious living and possibly higher income levels, as these individuals may prioritize the health benefits of their food and the locality of their purchases.



Strategic Location Options for Sticks Kebob Shop

Here's a general recommendation based on segments :

Urban Business Districts: Place a Sticks Kebob Shop in an area with a high density of office buildings and professionals. Segment 1, being planners and health-conscious, may seek healthy lunch options that are convenient during their workday.

Suburban Family Communities: Choose locations in suburbs known for active lifestyles, with parks, schools, and family-oriented activities, Segment 3. Such areas may align well with the "soccer mom" demographic mentioned in the case study.

Affluent Neighborhoods: Higher-income areas might have residents who place a premium on health and local sourcing, aligning with the preferences of Segment 1.



Strategic Location Options for Sticks Kebob Shop

Fitness Centers and Gyms: Given the health focus of Segment 1, placing Sticks Kebob Shops near gyms or fitness centers could capitalize on the post-workout crowd looking for healthy meal options.

Healthcare Corridors: Areas with clusters of healthcare facilities, such as hospitals and wellness centers, often have health-conscious individuals who might be drawn to Sticks Kebob Shop healthy offerings.

Shopping Centers and Malls: Busy shopping areas can attract a mix of individuals, including those from Segment 1 and 3 who might appreciate a quick, healthy meal during their shopping trips.

Transportation Hubs: Airports, train stations, and bus terminals are frequented by a diverse population, including business commuters who might be looking for quick and healthy dining options on the go.



Sticks locations from the case study

Figure 2. Sticks locations as of 2014.

Store Name	Address
Preston Avenue, Charlottesville	917 Preston Avenue Charlottesville, VA, 22903
Pantops, Charlottesville	1820 Abbey Road Charlottesville, VA, 22911
Willow Lawn, Richmond	1700 Willow Lawn Dr. Willow Lawn Plaza Richmond, VA, 23221
Courthouse Commons, Williamsburg	5223 Monticello Avenue Williamsburg, VA, 23188

Maps



Optimal Virginia Locations

Virginia Beach, VA

- Town Center of Virginia Beach: A central business district with a variety of dining and shopping venues.
- Hilltop: A shopping district with various health and wellness-focused businesses.

Alexandria, VA

- Old Town Alexandria: A historic district with high foot traffic, appealing to both tourists and locals.
- Del Ray: Known as "Wellness District" for its health-focused businesses, this neighborhood could be a strategic choice.

Arlington, VA

- Clarendon: A vibrant neighborhood with a mix of business professionals and families, plus a strong night-time economy.
- Ballston Quarter: A recently renovated urban mall with a young, health-conscious demographic.



Along the I-64 Corridor

Richmond, VA

Short Pump: This is a thriving suburban area just off I-64, with a mix of shopping centers, businesses, and family-friendly neighborhoods.

Williamsburg, VA

High traffic tourist area with potential for a restaurant catering to health-conscious visitors and residents.

Charlottesville, VA

A city with a blend of university town vibrancy and historical appeal, situated directly on I-64.

Lexington, KY

Hamburg Pavilion: A large retail and residential area that could offer a good mix of families and professionals.



Along the I-64 Corridor

Louisville, KY

The East Market District (NuLu): Known for its trendy shops and food scene, appealing to both locals and visitors along the I-64.

St. Louis, MO

Central West End: A cosmopolitan neighborhood known for its vibrant culture and health-focused residents.

Newport News, VA

Oyster Point: A business district with a blend of offices, shopping, and dining options that might attract a professional crowd.

Frankfort, KY

As the state capital, this city has government employees and professionals who might appreciate quick, healthy meal options.



Along the I-64 Corridor

Evansville, IN

A regional hub for commerce, healthcare, and education with a potential customer base for a fast-casual dining concept.

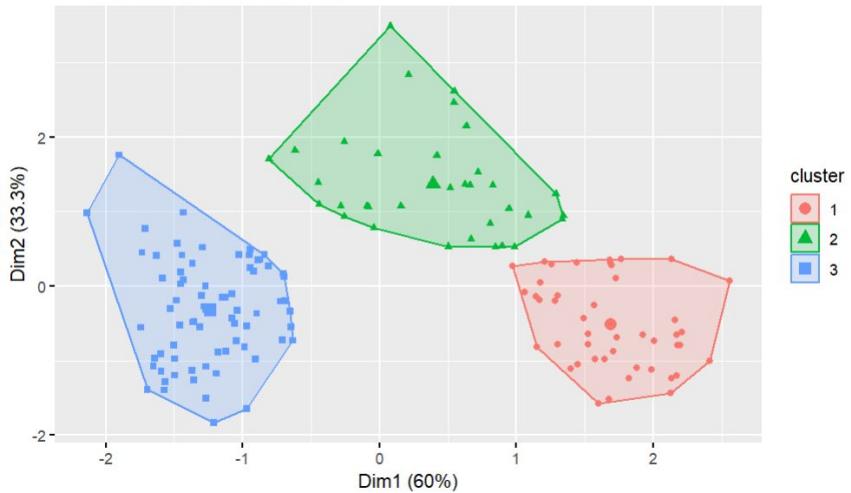
Jefferson City, MO

With its status as the state capital, the city has a steady flow of government workers and visitors who may be looking for healthier eating options.



Appendix

Cluster Visualization with PCA



Customer Data

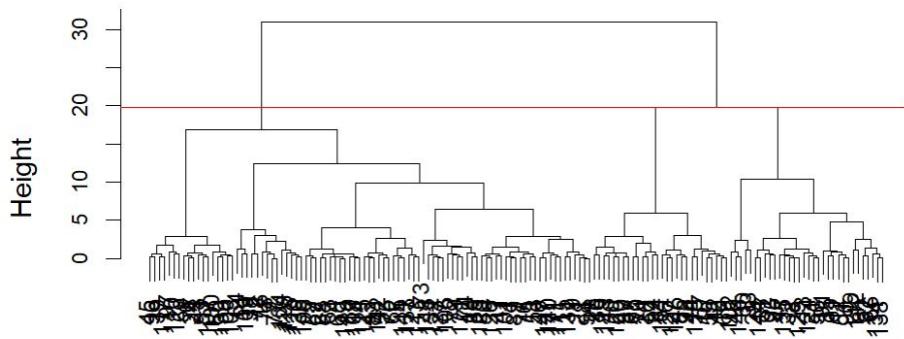
Cluster Visualization with PCA



Non Customer Data

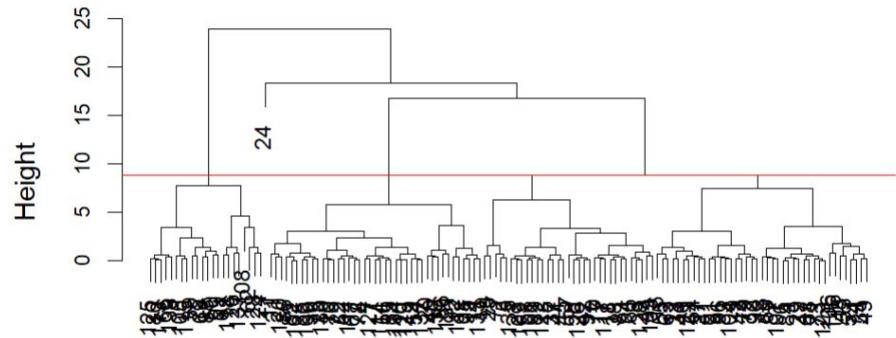
Appendix

Hierarchical Clustering Dendrogram



Customer Data

Hierarchical Clustering Dendrogram



Non Customer Data

Thank You!

