

Market Segmentation Analysis

Using Medicine Survey Data



The Team



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- Better understand the pharmaceutical industry based on the data set
- Leverage the survey dataset to form need-based market segments
- Create questions to better understand each segments not included in the original survey
- Recommend the best Query product for each segment

Our Approach

1. Understanding the data
2. Model building and analysis
3. Profile of Segments
4. Product category allocation

Step 1

- Data Cleaning and Preprocessing
- Using PCA to group respondents into populations on Likert questions
- Using Factor Analysis to create segments
- Performing Kmodes to better understand each segment and features

Step 2

- Building profiles based on segmentation
- Analyzing the profile segments

Step 3

- Building a user profile based on the segments
- Listing variables and key components from the data set

Step 4

- Identifying the right product category for each segment
- Variable weighting scheme

The segments we identified...



Can't Stop Won't Stop

Sample Size

68

Percentage of Whole

20%



Safety First

Sample Size

63

Percentage of Whole

18%



Fast & Furious

Sample Size

50

Percentage of Whole

14%



Anxious

Sample Size

44

Percentage of Whole

13%



Longevity

Sample Size

36

Percentage of Whole

10%



Hypocondriacs

Sample Size

26

Percentage of Whole

7%



Prepared

Sample Size

20

Percentage of Whole

6%



Warriors

Sample Size

16

Percentage of Whole

5%



Price Insensitive

Sample Size

14

Percentage of Whole

4%



Homeopathic Helpers

Sample Size

10

Percentage of Whole

3%



Segment Profiles

Based on our analysis, we built profiles for each segments and identified products to meet their needs.

CAN'T STOP WON'T STOP

Age

23 - 33 years

Interests

- Competative Sports
- Electronic Music



Lifestyle

- Committed to work
- Active social life
- Constantly busy

Needs

- Dependencies on various medicines
- Need medicine that safely interacts with alcohol
- Sensitive stomach

Question

I often worry about medicine interfering with my work.

1. Strongly Agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree

Attitude

- Stress Management
- prioritize medicine effectiveness over cost
- Will rarely take a sick day

Behaviour

- Takes medical advice from family / friends
- Cautious with medicine



Product Recommendation

Query-R for Cough + Sinus Pressure + Allergies

SAFETY FIRST

Age

35 - 45 years

Interests

- Jogging
- Reading

Lifestyle

- Low stress
- Part-time worker
- Family first

Needs

- Sensitive to strong ingredients
- Can't compromise safety for effectiveness

Attitude

- Concerned about drug interactions with routine medication and alcohol

Behaviour

- Cautious
- Take medical advice from family and friends
- Carry medicine everywhere



Question

I trust that over the counter drugs are safe for me and my family.

1. Strongly Agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree



Product Recommendation

Query - The Original Cold Fighter

FAST & FURIOUS

Age

18 - 25 years

Interests

- Mountain Climbing
- Video Games

Lifestyle

- Labor intensive work
- High stress

Needs

- Immediate relief
- One dose that lasts the entire shift
- Strong but easy on digestion

Attitude

- Interested in alternative medicine for immediate relief
- Concerned about drug interactions
- Price sensitive

Behaviour

- Always trying the latest medicine
- Takes medical advice from family and friends



Question

I don't care what's in the medicine as long as I can continue to work effectively.

1. Strongly Agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree



Product Recommendation

Query Liquid Gels for Immediate Relief

ANXIOUS

Age

25 - 30 years

Interests

- Yoga
- Swimming



Lifestyle

- Workaholic
- Constantly under stress
- Stagnated relationships

Needs

- Dependent on strong and fast acting medicine

Attitude

- Interested in alternative medicine
- Concerned about drug interactions

Behaviour

- Constantly searching for new medicine
- Always has medicine on them

Question

It makes me feel comfortable knowing that I always have my medicines handy.

1. Strongly Agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree



Product Recommendation

Query-R Chewables for Relief Anywhere

LONGEVITY

Age

50 - 60 years

Interests

- Cycling
- Travelling



Lifestyle

- Employed Full-time
- Senior in field of work
- Active

Needs

- All day relief
- Sensitive stomachs
- Immediate relief

Question

I care about the long-term effects of the medicines I take.

1. Strongly Agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree

Attitude

- Concerned about drug interactions

Behaviour

- Always looking for the best medicine
- Asks social circle for drug recommendations



Product Recommendation

Query-R 24-Hour Tablets

HYPOCONDRIACS

Age

30 - 40 years

Interests

- Skiing
- Reading



Lifestyle

- Cautious but active
- Employed but relatively low stress job
- Always makes the "safe" decision

Needs

- Highly sensitive to strong medicine

Attitude

- Prefer alternative medicine
- concerned about western drug interactions

Behaviour

- Always trying new forms of medicine
- Discuss remedies with social circle

Question

I feel I'm always sick.

1. Strongly Agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree



Product Recommendation

Query-Express - Cough Relief for Anywhere

PREPARED

Age

28 - 35 years

Interests

- Power Walking
- Community Volunteering



Lifestyle

- Full-time parent
- Over-thinker
- Cautious

Needs

- Doesn't take medicine often but when they do it needs to be strong

Question

I have a problem keeping track of my medicine.

1. Strongly Agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree

Attitude

- Concerned about drug safety and interactions with alcohol

Behaviour

- Always carries medicine with them
- looking for the latest forms of relief



Product Recommendation

Query To-Go -The Same Great Relief in Single-Dose Packages

WARRIORS

Age

18 - 27 years

Interests

- Marathon Running
- Design



Lifestyle

- Stressful work
- Regularly drinks alcohol

Needs

- Strong medicine that won't upset stomach

Attitude

- Want medicine that doesn't interfere with lifestyle
- Price insensitive

Behaviour

- Wages war on symptoms
- Always looking for the latest and strongest medicine

Question

I preemptively take medicine ahead of a cold.

1. Strongly Agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree

Product



Recommendation

Query-X The Extra Strength Cold Fighter to Show Symptoms Who's Boss

PRICE INSENSITIVE

Age

55 - 65 years

Interests

- Camping
- Piano



Lifestyle

- Stress-free life
- Doesn't work

Needs

- Looking for strong and long-lasting relief
- Can handle the effects of strong medicine

Attitude

- Willing to pay for effective brand medicine regardless of price

Behaviour

- Takes medicine at first sign
- Always looking for the best drug
- Wages war on symptoms

Question

I care what's in my medicine.

1. Strongly Agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree



Product Recommendation

Query-LUX The Premium Cough Suppressant With All Natural Ingredients

HOMEOPATHIC HELPERS

Age

23 - 30 years

Interests

- Baking
- Languages



Lifestyle

- Engaged in full-time work but values downtime

Needs

- Sensitive to the majority of medicines
- Struggles to find relief from symptoms

Attitude

- Drug sensitivity leads to a preference for alternative medicine
- Strong concerns about drug interactions

Behaviour

- Always asking friends about new remedies
- Loyal to effective medicines

Question

Plant based medicine is equally effective.

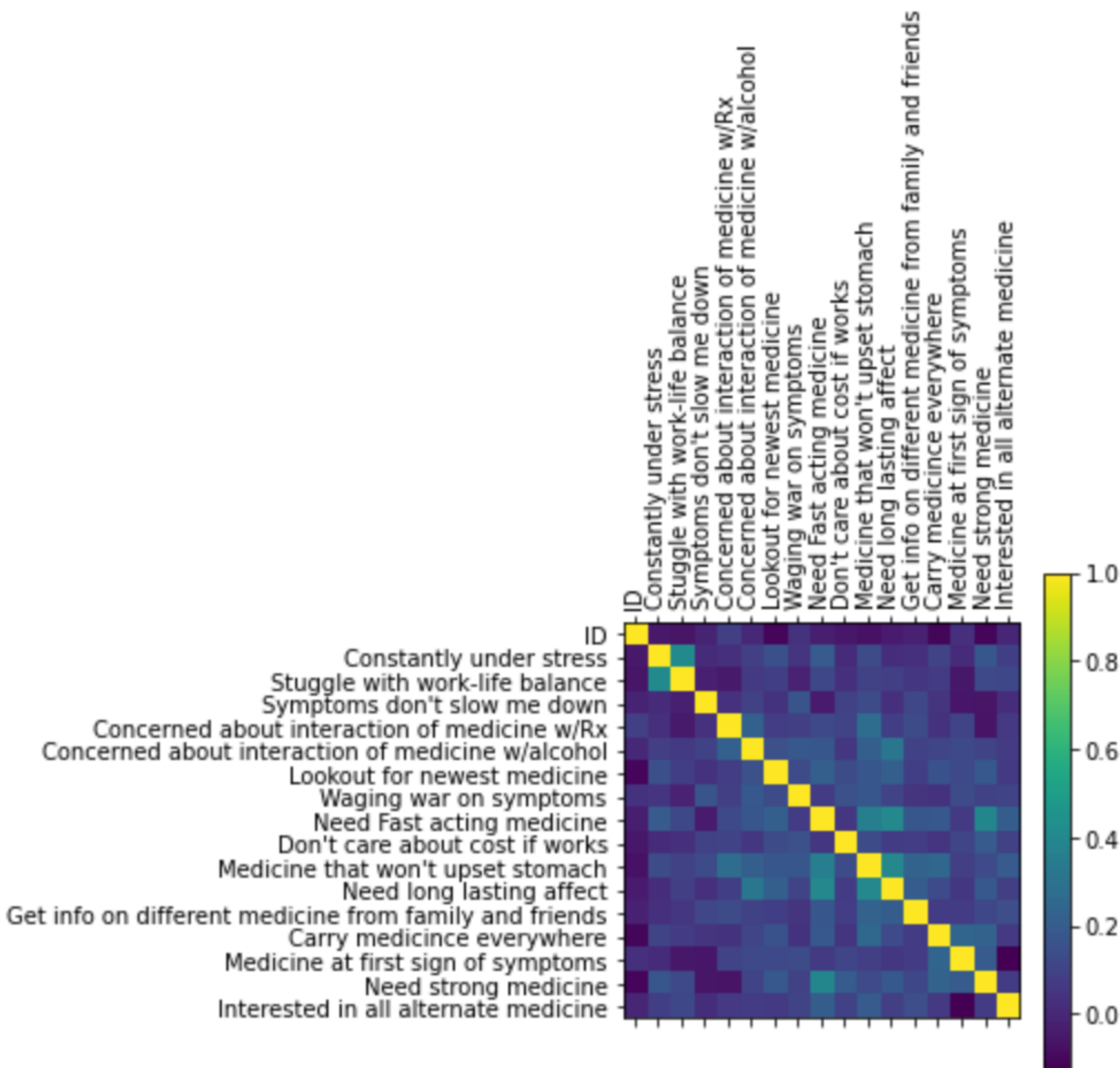
1. Strongly Agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree



Product Recommendation

Query-O The Natural Approach to Cough Relief

Variable Weighting Scheme



Our team decided not to pursue a weighting scheme for the questions as we wanted each feature to have equal weights in order to properly segment the population.

We test for factor independence and exclude factors that do not strongly contribute to the segments.

We feel that this is important for this assignment given that we have a general objective. If we were given a more specific goal in which we would need to conduct more targeted segmentation around features that were determined to be of great importance then we would include weighting.

Thank you

