

Segments and Sentiments

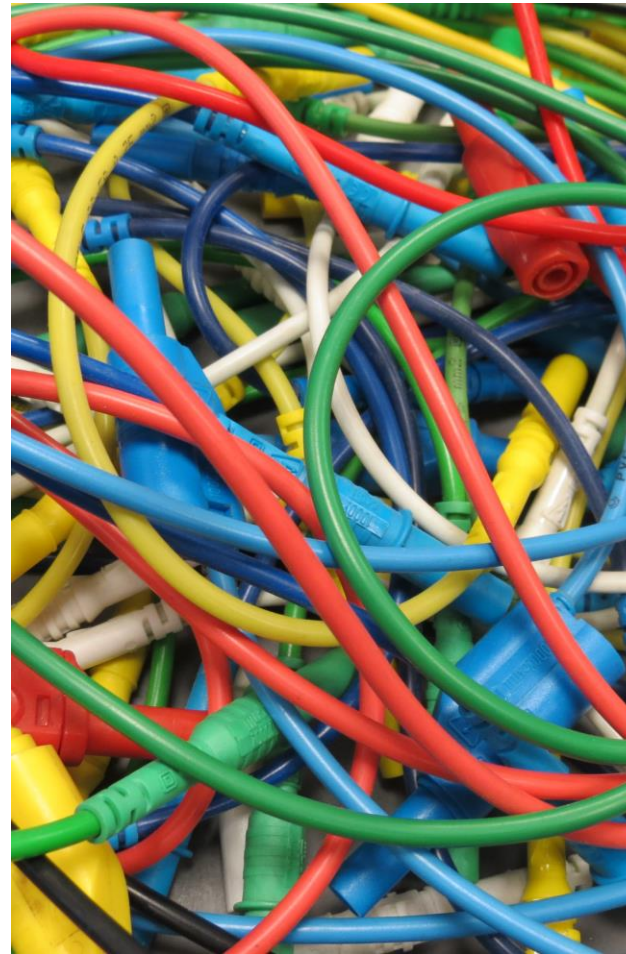
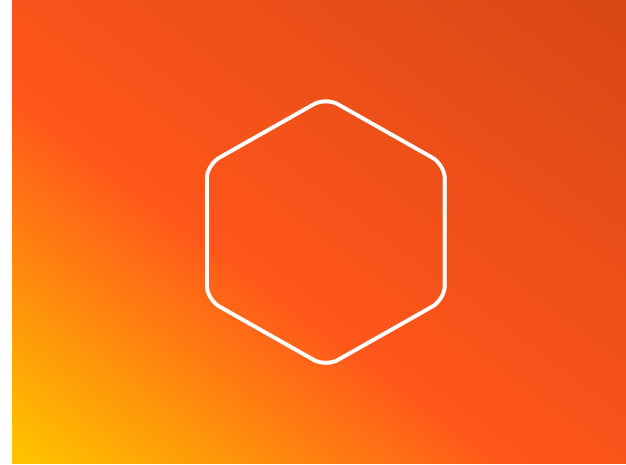
Combining Cross-functional Collaboration and Analytics for Data-driven Solutions



September 17, 2019

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Connections: Technology and Relationships



Program, Data Analytics, and Communication Collaboration Recommendations

1

Review

Explore existing data for trends and new insights

2

Connect

Seek out customer feedback

3

Innovate

Invest in software to recognize new opportunities

4

Collaborate

Meet with cross-functional teams regularly

5

Plan

Apply data to inform strategy

6

Engage

Share the story with customers

7

Evaluate

Measure progress and share with internal teams

8

Revisit

Consider needed changes for future initiatives



Data Analytics

Current and Potential Program Customers



Determine what “types” of customers participate in a program.

Find similar types of customers in service territory for new opportunity.

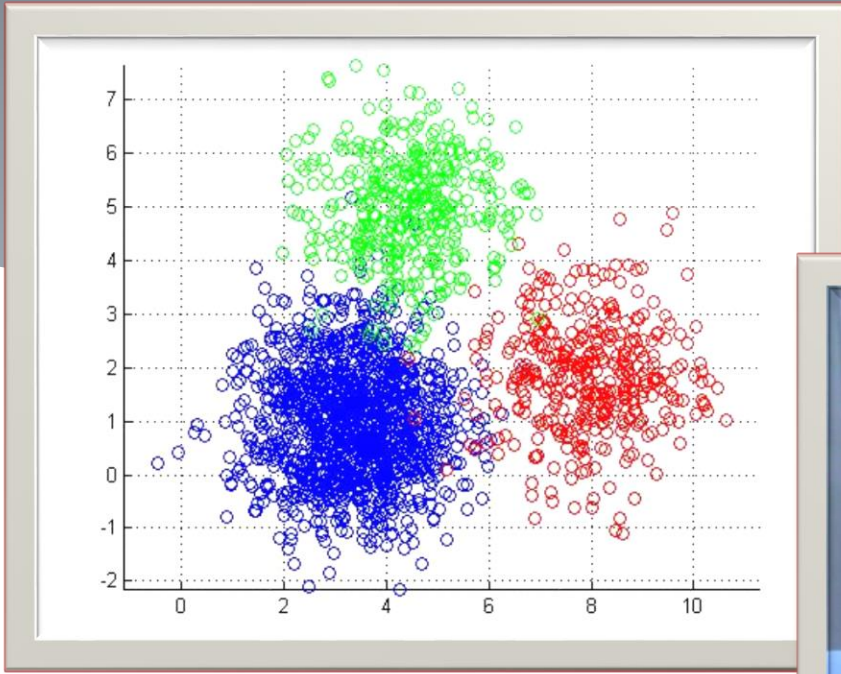
Apply geodemographic and psychographic analysis via ESRI ArcGIS Business Analyst

ESRI Tapestry Segmentation Overview

[ESRI zip code look up](#)

Segments

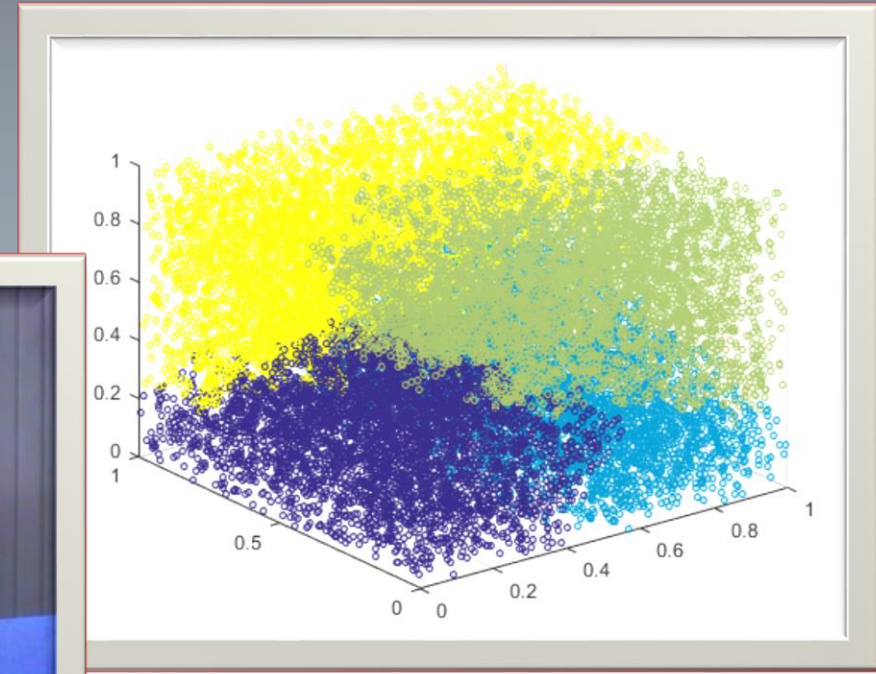
How ESRI Business Analyst Software Works in Segmenting Customers



K-means clustering



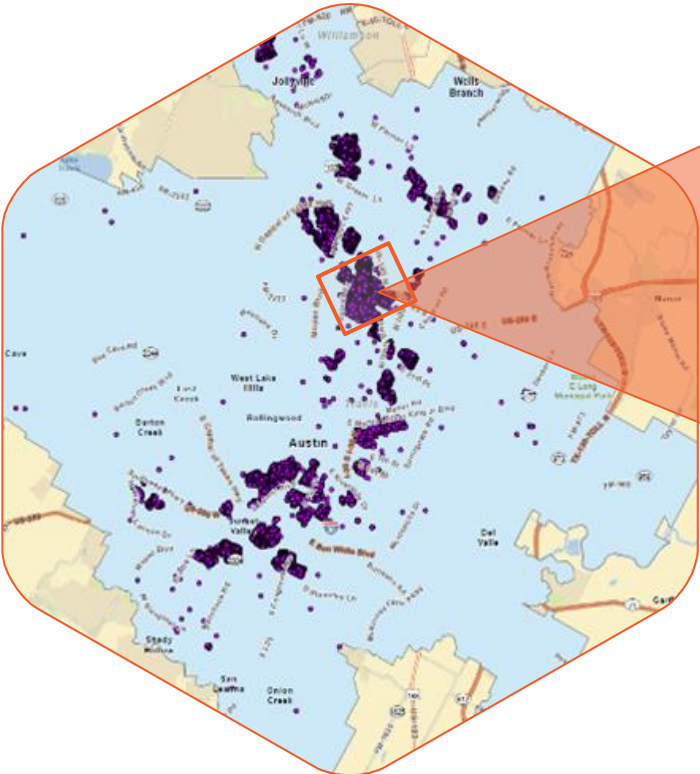
Basic concept of cluster analysis



Ward's hierarchical minimum variance

Home Performance with ENERGY STAR® Customer Opportunity from Analysis

Map of Top Segment for Program



Current Customers and
Potential New Customers



Home Performance with ENERGY STAR®

FY17 Initiative Highlights at a Glance

7

years since last increase

After years of external influences and internal changes, program evolution resulted in growth

25%

increase in FY2017

Participation up despite increase in competing program participation

4

new media outlets

Reallocated marketing budget. Less emphasis on direct mail, more alignment to customer psychographics.

18

targeted neighborhoods

Focused promotion area and resulting largest increase

3

internal departments

Entire initiative managed and implemented in-house!

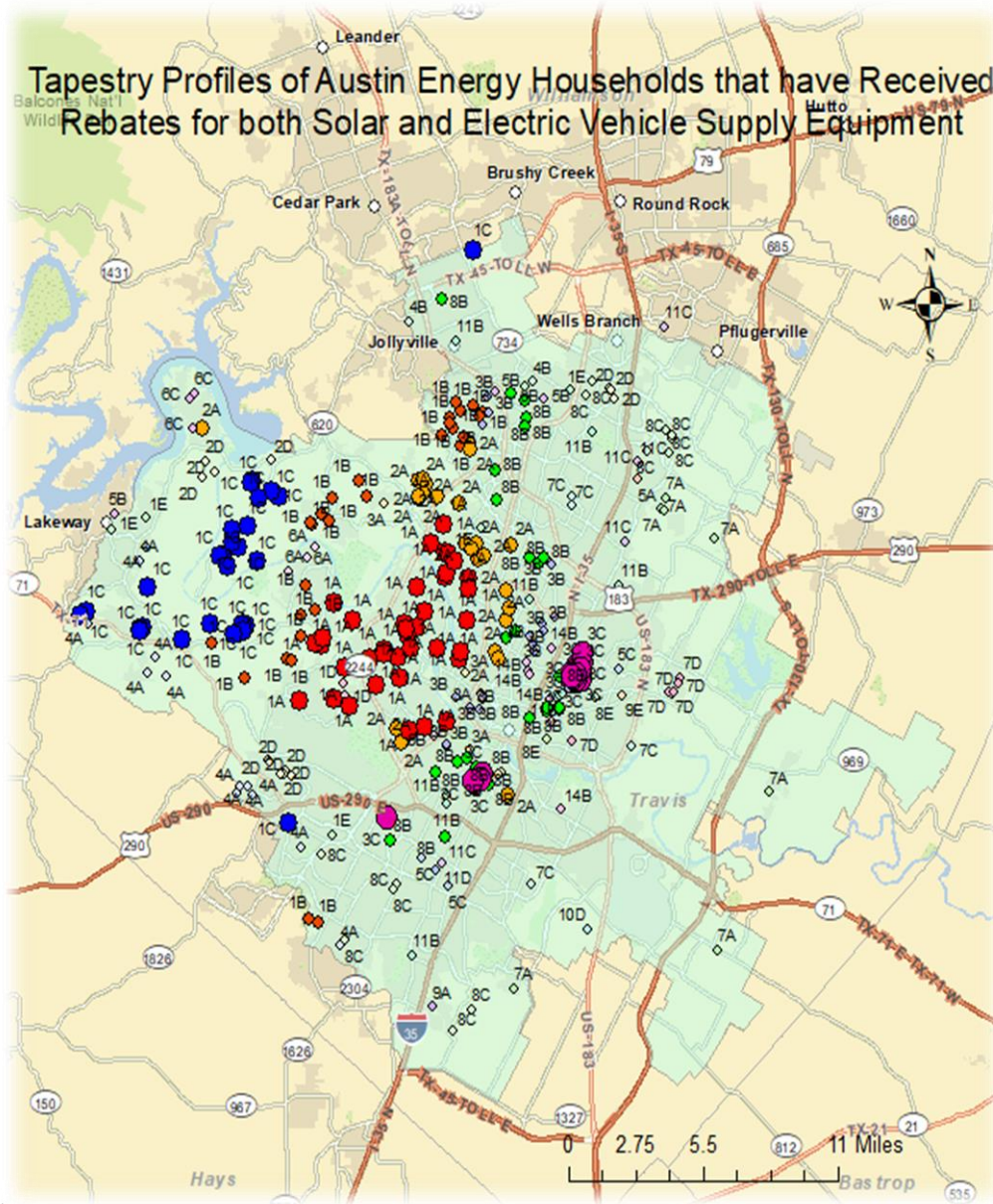
32

valued contractors

List narrowed to contractors who promote the program and follow the guidelines



Tapestry Profiles of Austin Energy Households that have Received Rebates for both Solar and Electric Vehicle Supply Equipment



Tapestry Profiles of Solar/Electric Vehicle Supply Equipment Rebate Customers

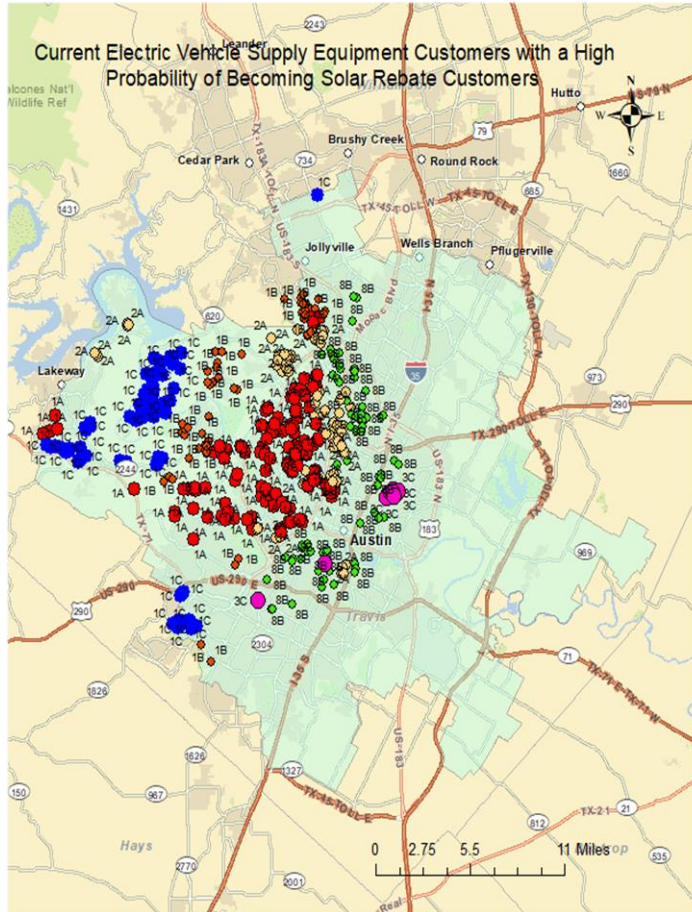
Pinpoint XY coordinates and Tapestry profiles of program customers and following, locate potentially new untapped customers with the same Tapestry profiles.

Tapestry Profiles in Descending Predominance for Solar/EV Combo Customers

- 3C
- 1A
- 1C
- 2A
- 1B
- 8B
- ◇ 3B
- ◇ 2D
- ◇ 8C
- ◇ 4A
- ◇ 11B
- ◇ 7A
- ◇ 14B
- ◇ 7D
- ◇ 1E
- ◇ 3A
- ◇ 11C
- ◇ 7C
- ◇ 5C
- ◇ 6A
- ◇ 6C
- ◇ 5B
- ◇ 4B

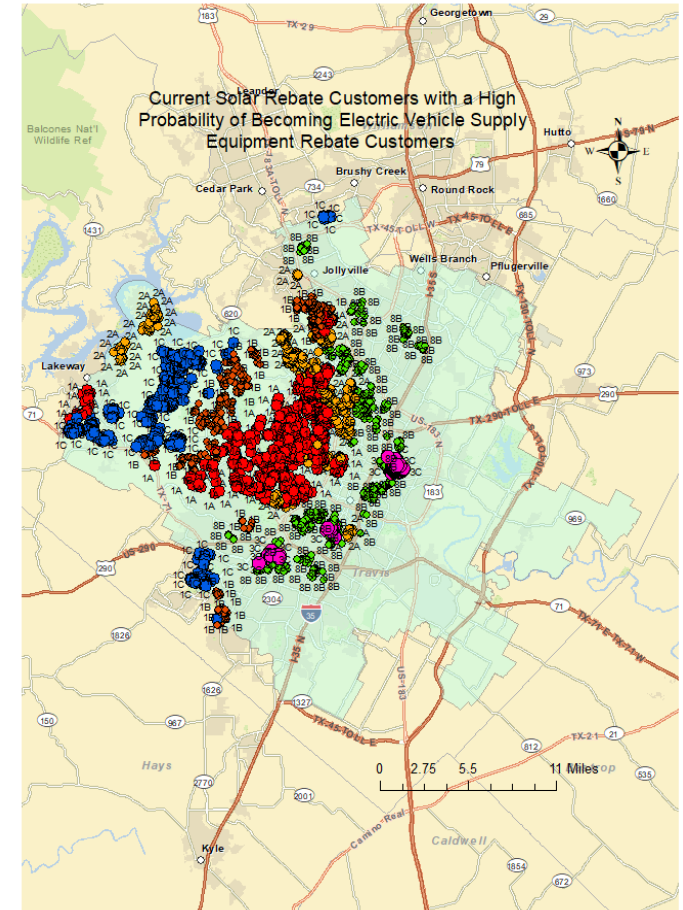


Targeted Cross Promotion of Programs based on Combination Rebate Group's Predominant Tapestry Segments



Predominant Profiles for Cross Promotion of EV Home Charger and Solar Customers

- 3C
- 1A
- 1C
- 2A
- 1B
- 8B



Sentiments



Basics of Sentiment Analysis

- Sentiment is a person's attitude about a thing
 - Polarized from positive to negative
 - May include emotion
- Key phrases or topic groups provide critical context
- Analysis can be conducted on multiple textual levels (i.e., word, sentence, paragraph)



R Tidyverse Method



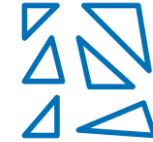
Data

Various formats
importable



Cleaning

Lowercase, strip
punctuation and special
characters, remove short
and stop words



Tokenization

Split by word



Key Words

Identify most frequently
used words for the entire
dataset or category



Sentiment

Select lexicon



Analytics and Visualization

Use R or export for
analysis in other tools



Online Customer Care Portal Example

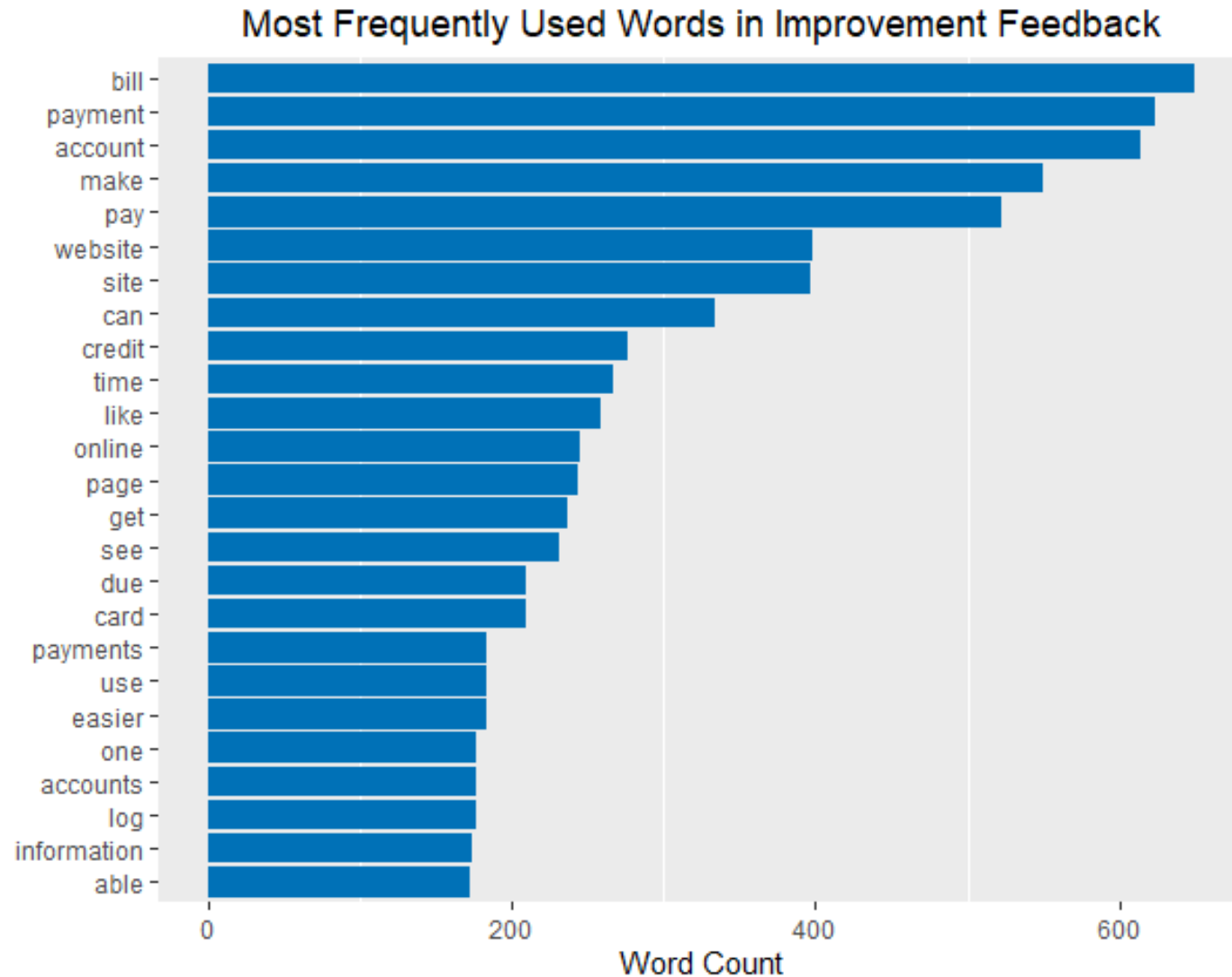
How do you think we can improve your experience?

- “would like to be able see password to verify i typed it correctly. would like faster speed on site.”
- “I would like the donate page eliminated. Costs are way to high to be paying others bills”
- “Have more options to the different services you guys provide. Like the different sizes for trash cans.”
- “this site is trash”
- “Very quick response. Very clear info.”



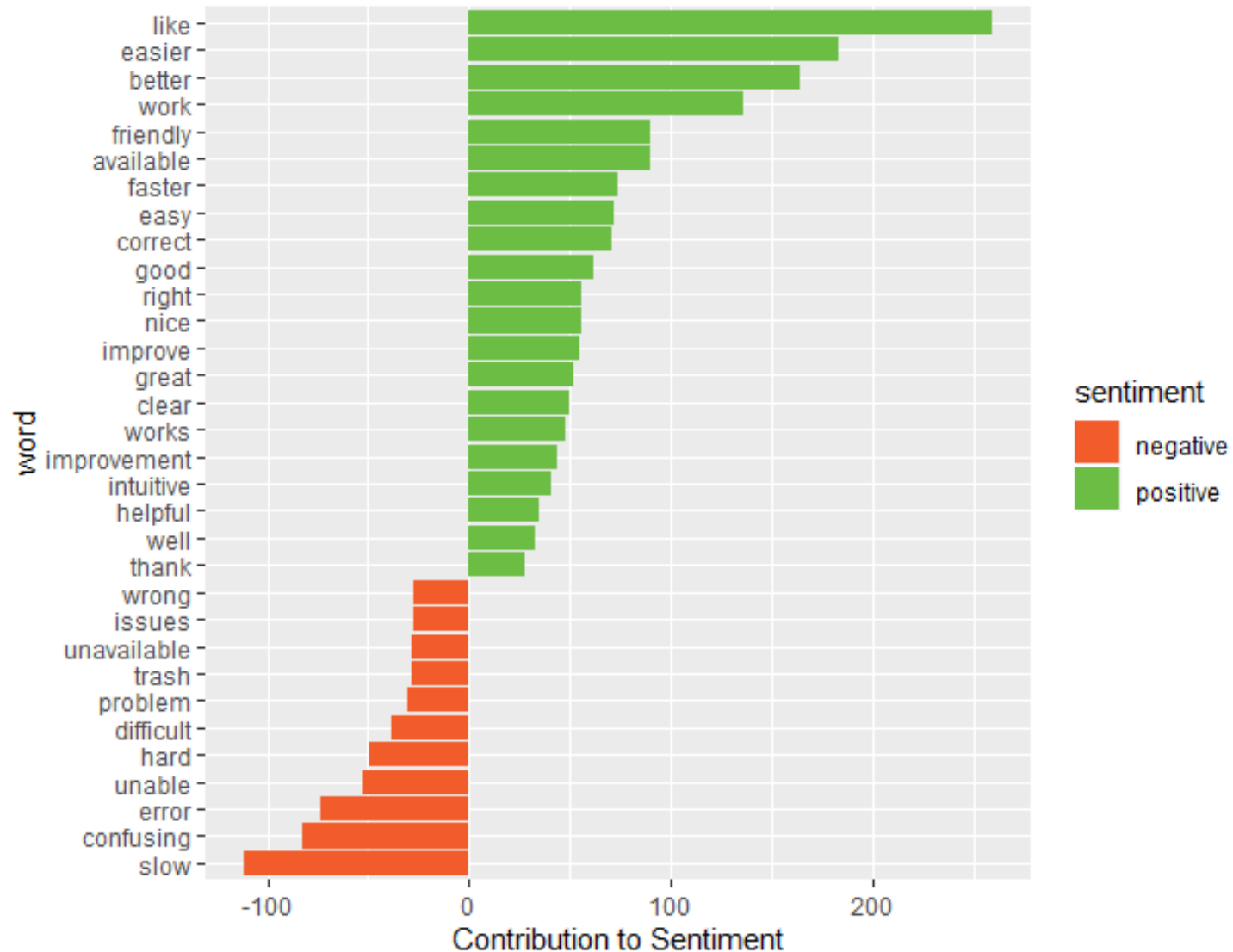
Online Customer Care Portal Example

How do you think we can improve your experience?



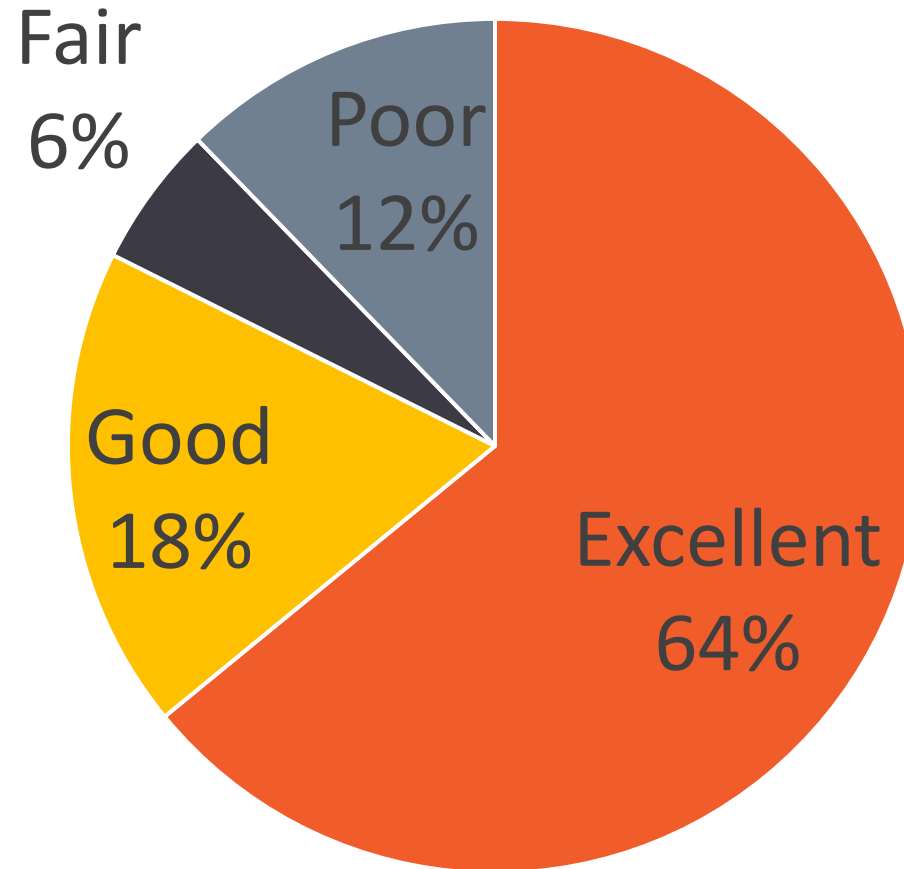
Online Customer Care Portal Example

How do you think we can improve your experience?



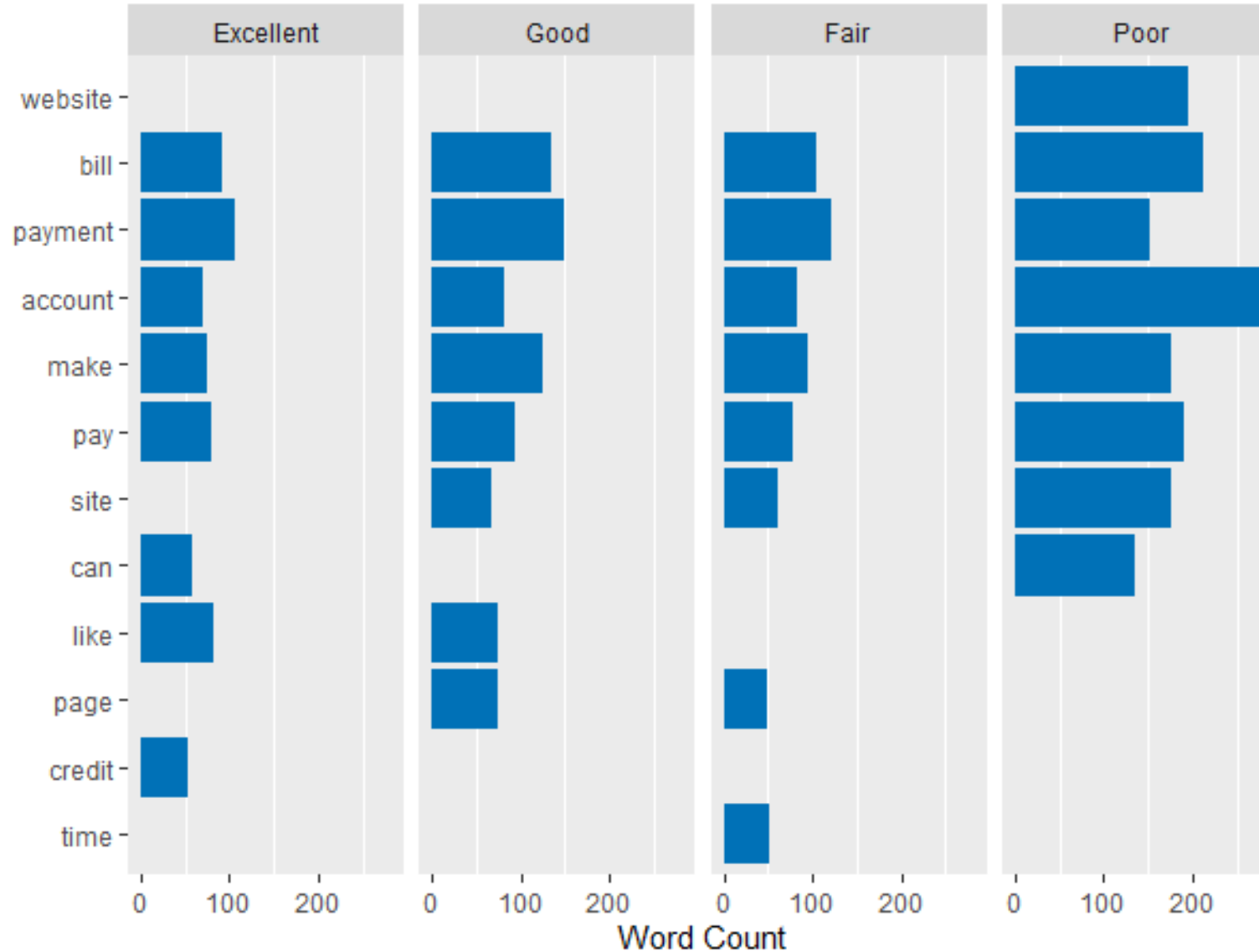
Online Customer Care Portal Example

How would you rate the quality of your experience?



Online Customer Care Portal Example

Improvement Feedback by Experience Quality



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