

EXPLORATORY DATA ANALYSIS

Sample Survey Data from June 2019

Adrian Lindsey

Respondents were somewhat evenly distributed across Regions



and were mostly Retail customers



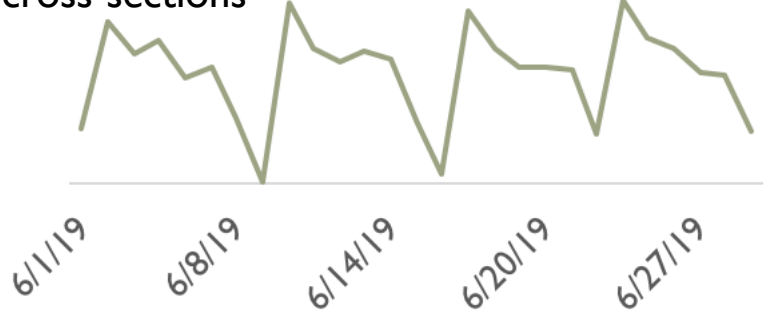
and a large majority of customer issues were resolved on the first call (RFC)



A majority of respondents in both channels had positive feedback – this is likely influenced, in part, by selection bias



The survey sample data captures June 2019 with clear weekend patterns but with no other apparent weekly trends throughout cross-sections



OVERVIEW

KEY INSIGHTS



A customer will be ~33% more likely to Recommend SharkNinja (IV) even if they Rate the Product low IF they rate CES highly enough (Q8).



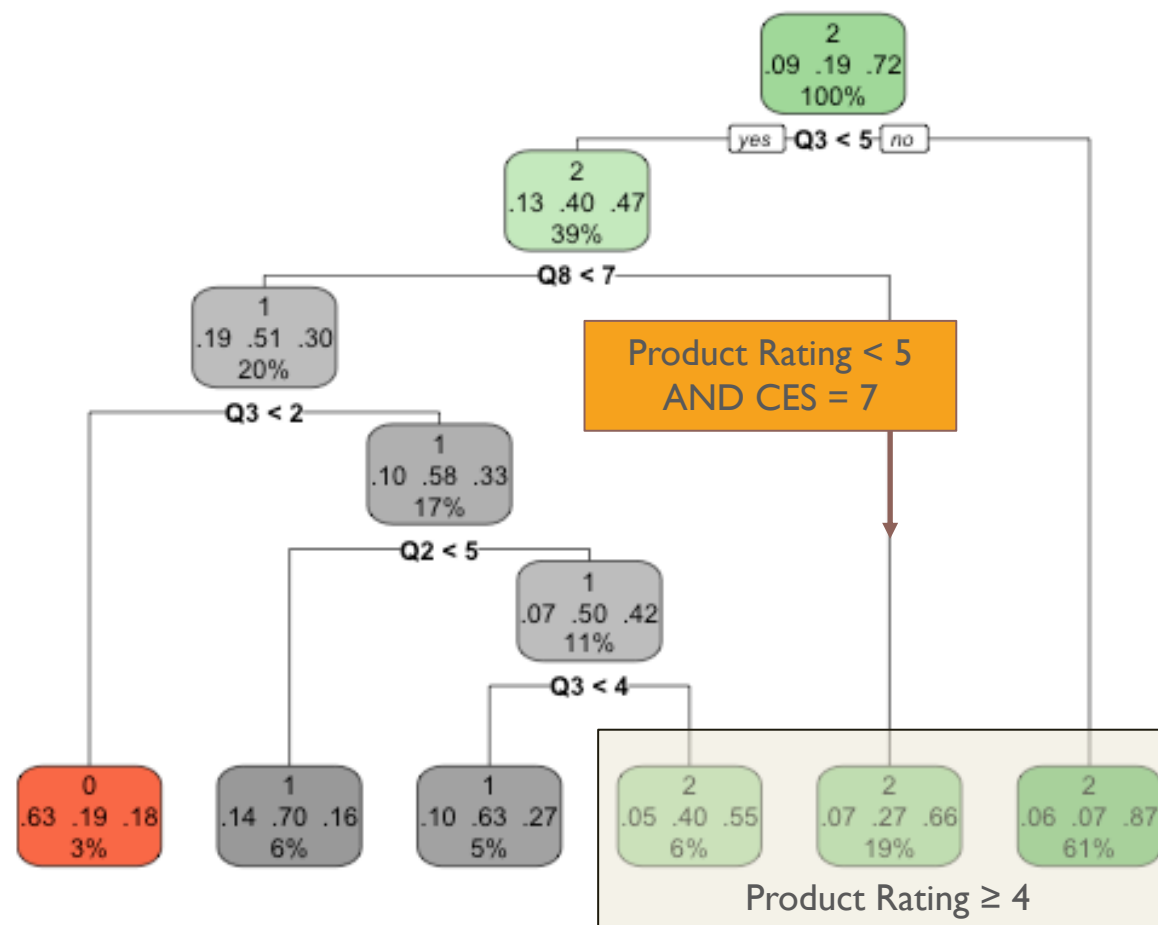
Product Rating (Q3) is more impactful than Service Rating (Q2) to the extent that a "generally positive" Product Rating will result in a Propensity to Recommend.

Assumptions

Excluded respondents who don't own a product and respondents who didn't answer every survey question.

Tree was build using rpart library in R with 99% confidence.

- 0- Won't Recommend (NPS: 0 – 4)
- 1- Might Recommend (NPS: 4 – 8)
- 2- Will Recommend (NPS: 9 – 10)



POTENTIAL NEXT STEPS

FUTURE PURCHASES RELY MORE ON PRODUCT RATINGS THAN SERVICE RATINGS

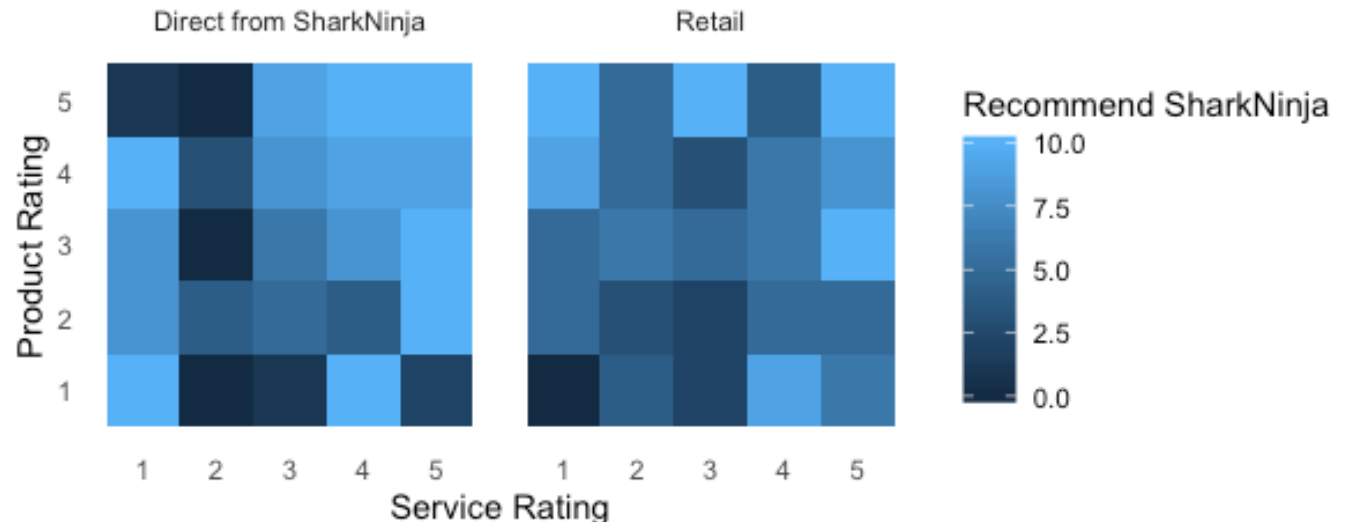
This could be explored further with more months of data using z-tests to check significance of findings and regression to identify strength of correlation.

There doesn't appear to be a similar phenomena when measuring these ratings against Likelihood to Recommend SharkNinja.

What is the Customer Propensity to Make Future Purchase?



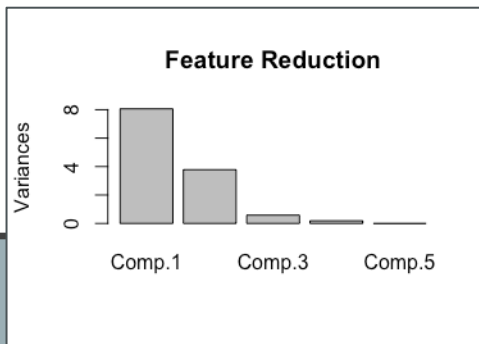
What is the Customer Propensity to Recommend SharkNinja?



LATENT VARIABLES
WERE NOT MORE
STRONGLY RELATED
THAN OBSERVABLE
VARIABLES

A next approach might be to transform some of these continuous variables and target variables in order to find hidden layers of correlation.

Also, PCA identified 2 component factors that could be investigated further.

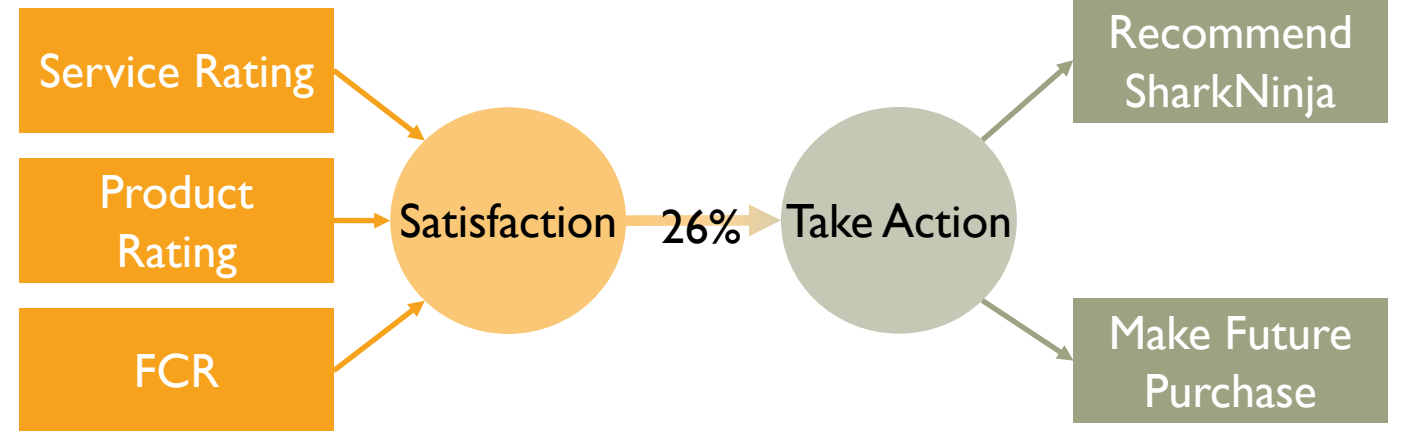


SEM

Observable Variables

Latent Variables

Observable Variables



Correlations

