

BIKES & CYCLING ACCESSORIES ORGANISATION'S TRANSACTIONS DATA-BASED COHORT ANALYSIS

SURI HE

TABLE OF CONTENTS



INTRODUCTION

Sprocket Central Pty Ltd., a medium size bikes & cycling accessories organization, needs help with its customer and transaction data to maximize its marketing strategy.

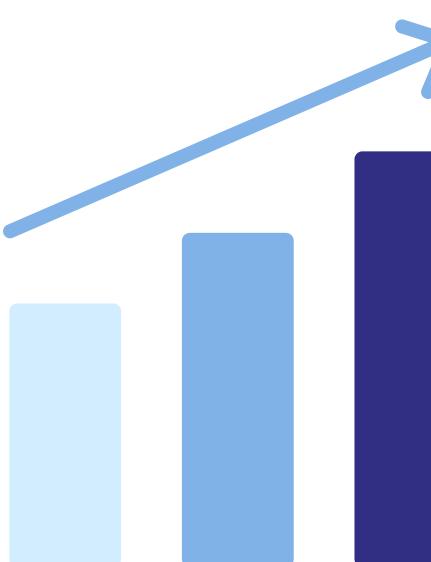


COHORT ANALYSIS OVERVIEW

WHAT



GOAL



A cohort is a collection of users who have something in common. A traditional cohort, for example, divides people by the week or month in which they were first acquired. When referring to non-time-dependent groupings, the term segment is often used instead of cohort.

The majority of organizations use Cohort Analysis to track and improve the Retention Rate and reduce the Churn Rate of the users of their services or products.

DATA PREPARATION

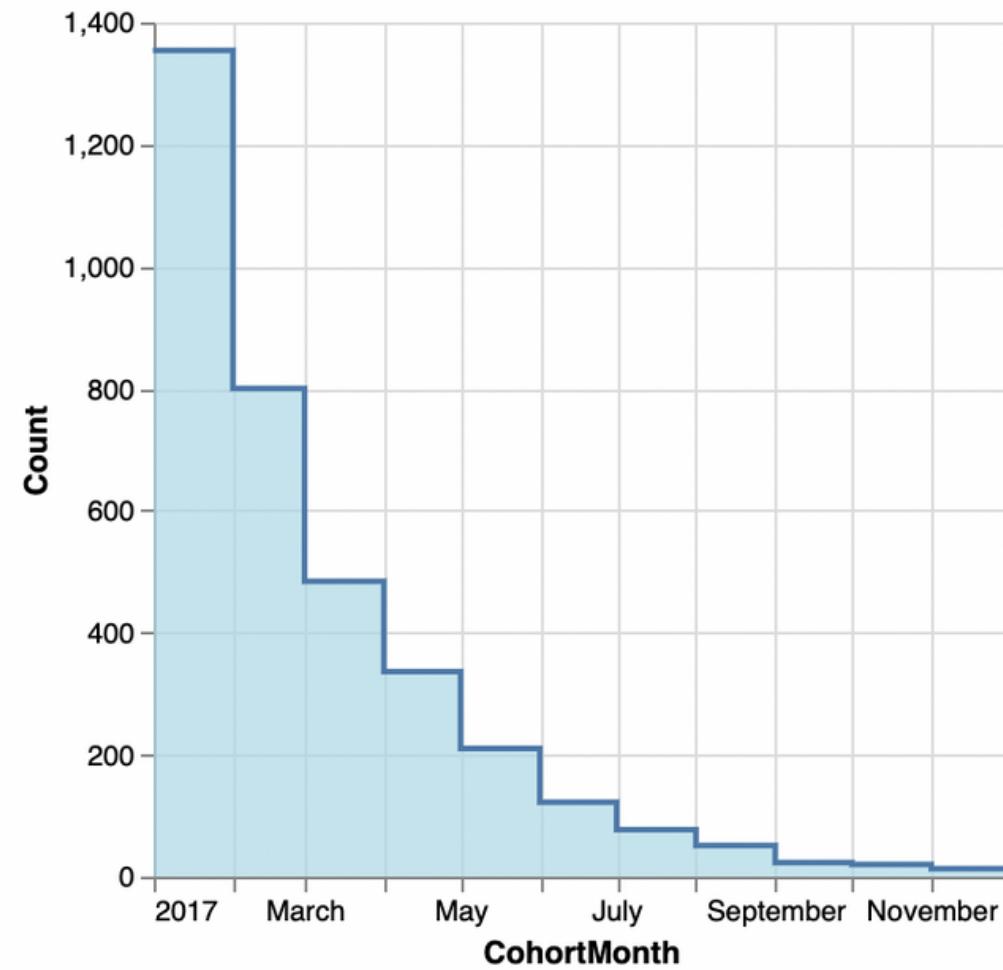
Sprocket Central Pty Ltd provided us 3 datasets:

- ◆ Customer Demographic
- ◆ Customer Addresses
- ◆ Transactions data

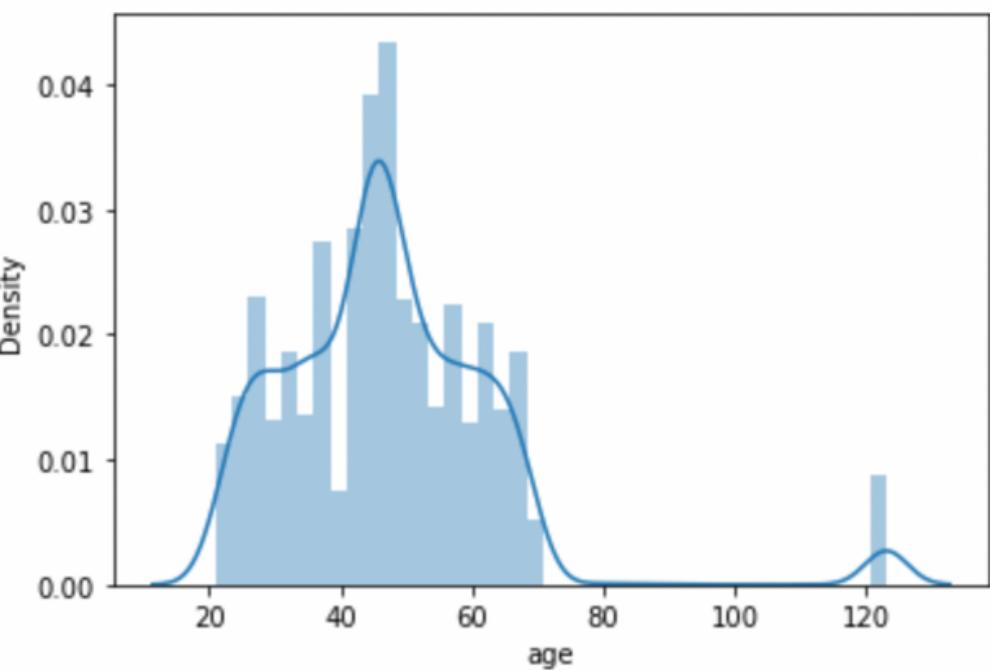
Data prep:

- ◆ Data Cleaning: Cleaned for better quality
- ◆ Data Transformation: Merged datasets
- ◆ Data Exploration: Revealed insights

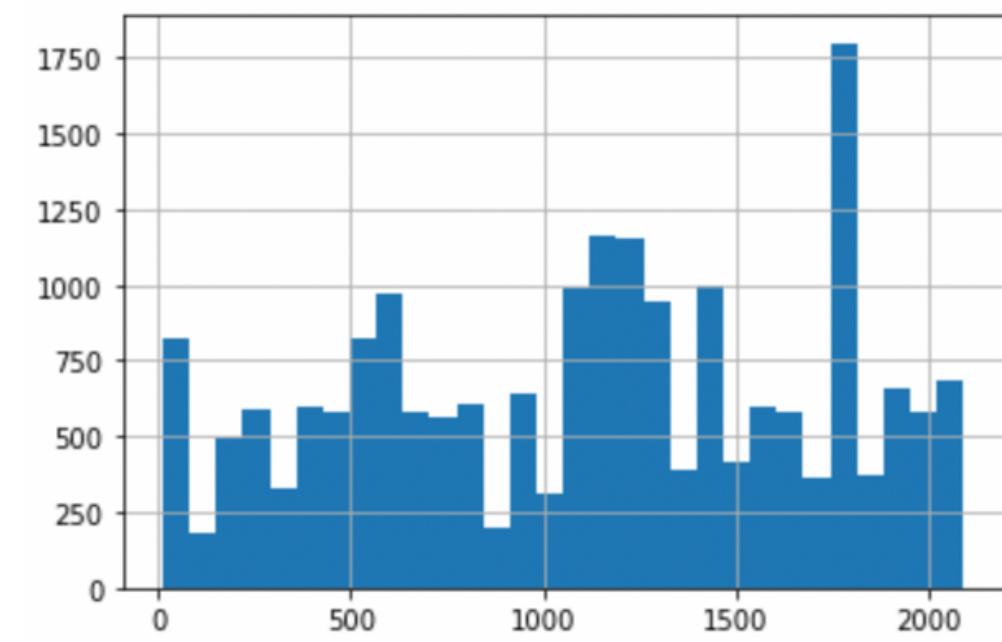
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New Customers by Month

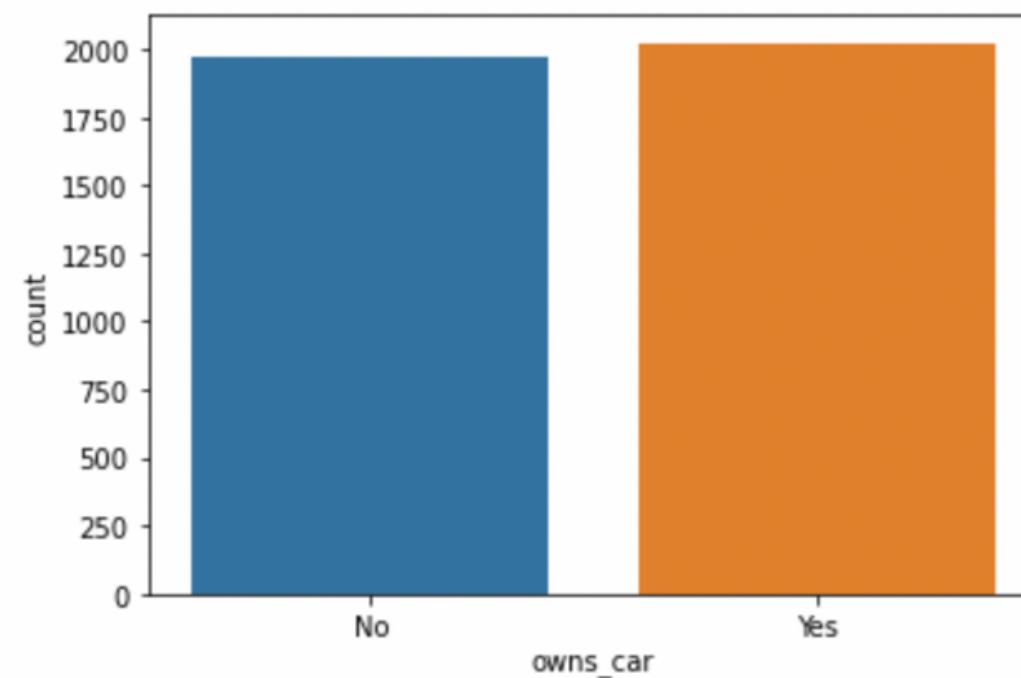


Age Distribution

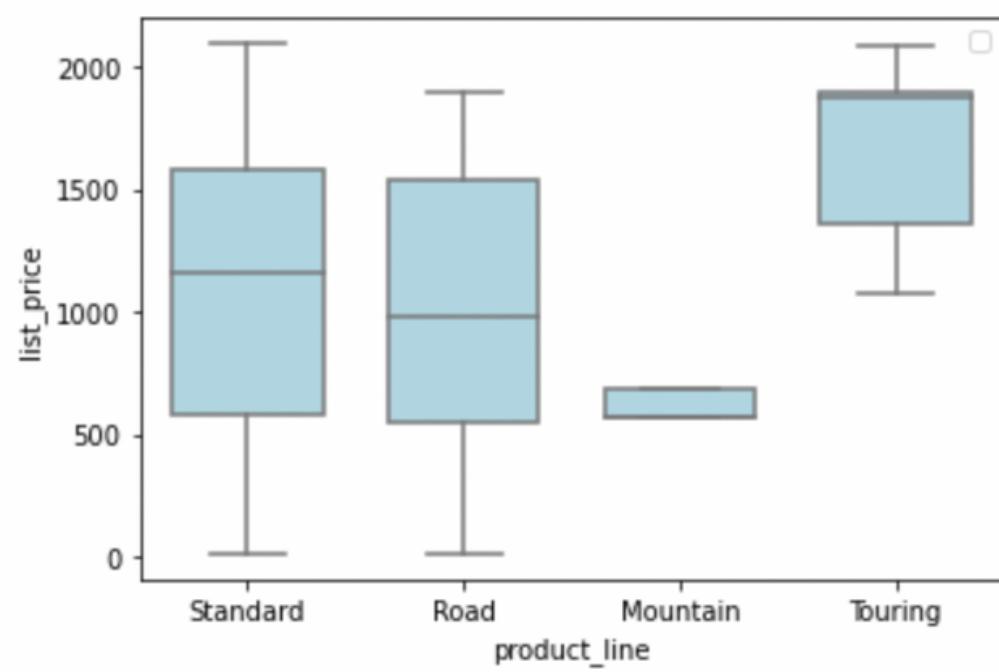


List Price Distribution

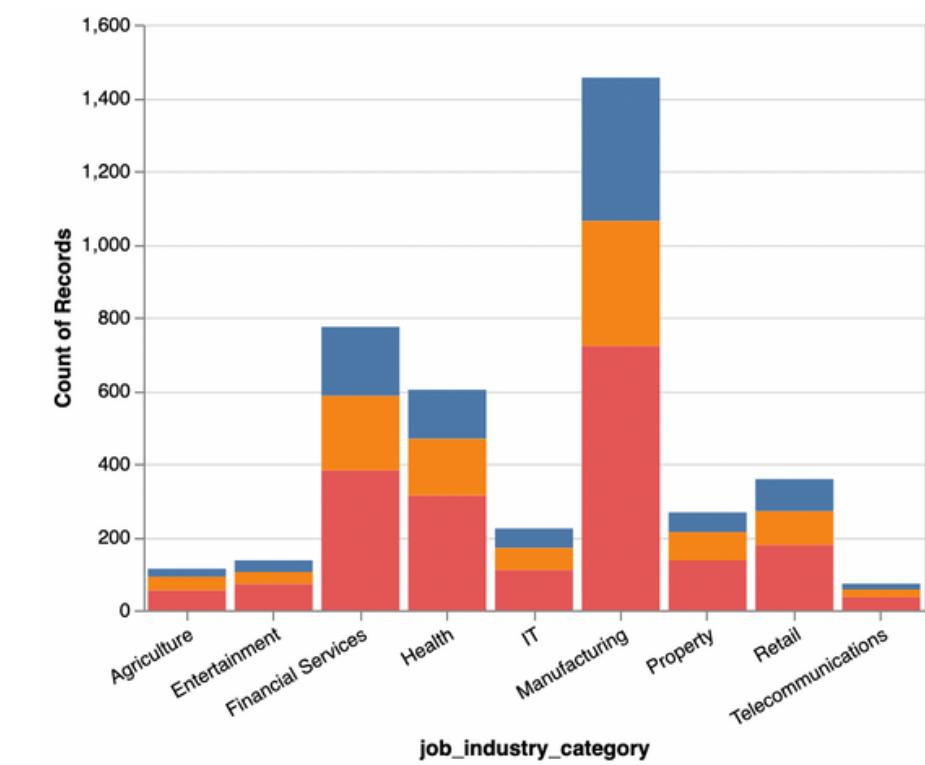
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Owes Car or Not

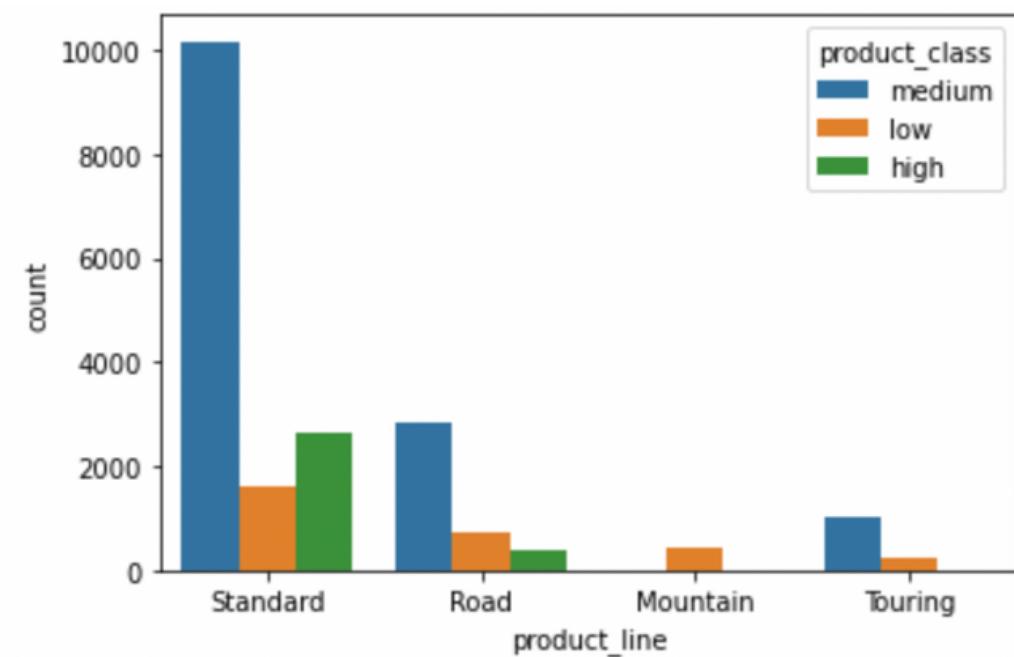


Product Line and Price

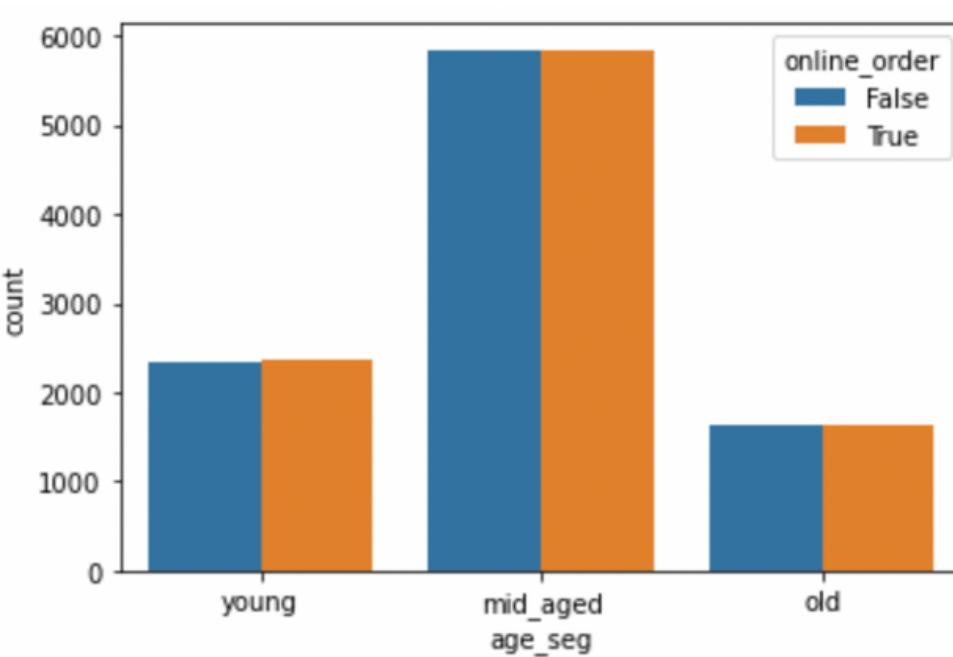


Wealth Segment & Job

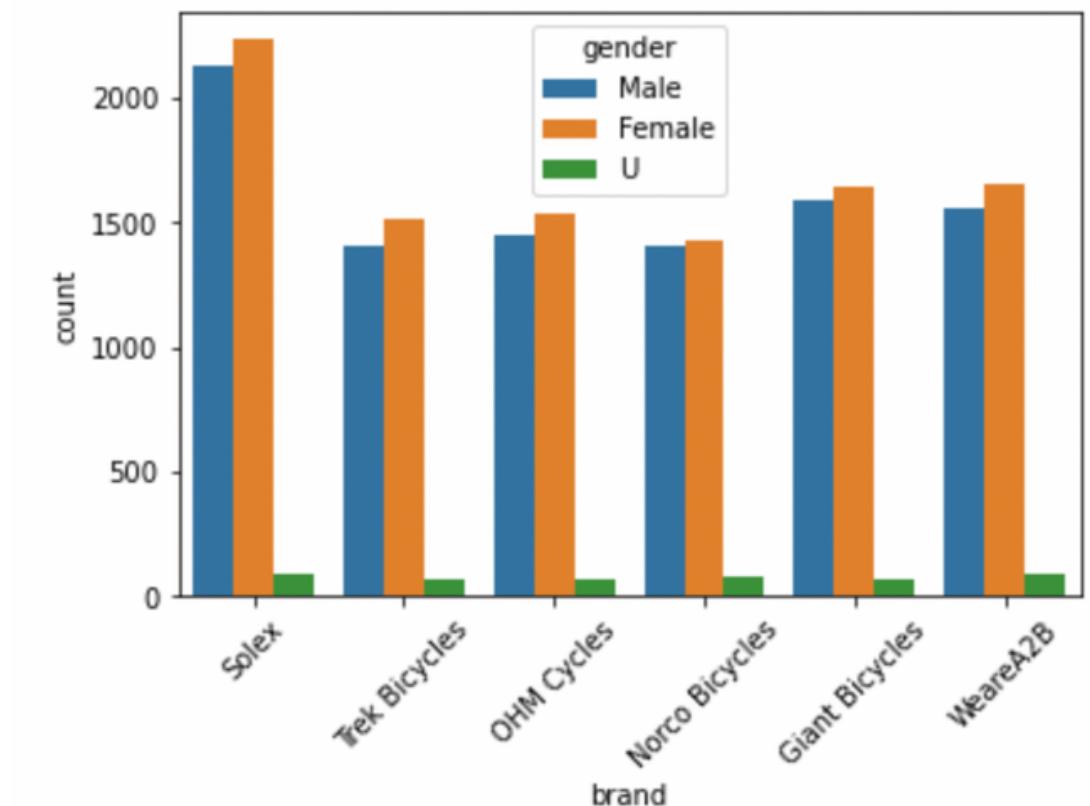
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Product Line x Product Class



Age x Online Order



Brand x Gender

COHORT SEGMENTATION



- Time Cohorts(Month).
- Behavior cohorts
- Size cohorts



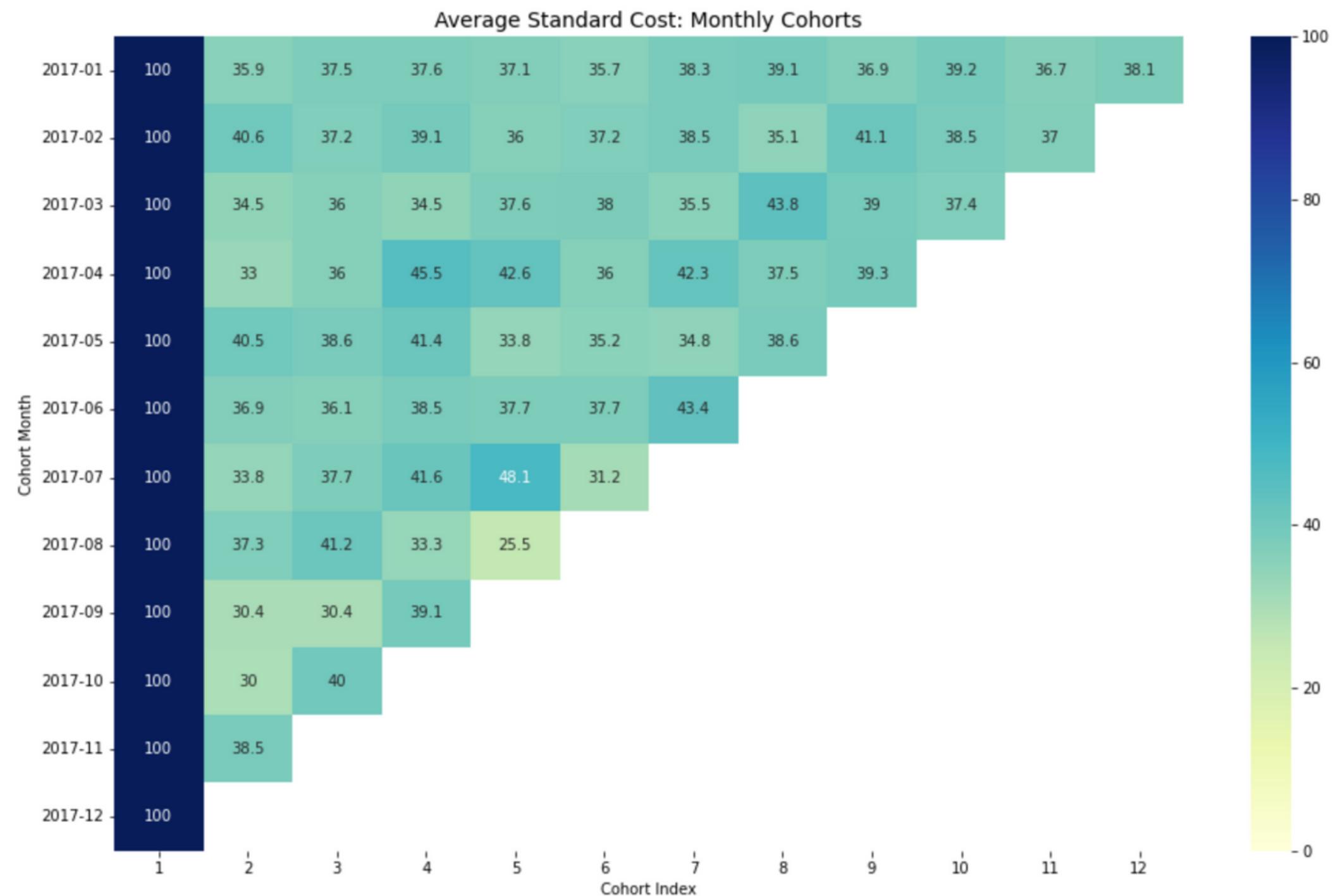
COHORT ANALYSIS METRICS

Customer Retention Rate

$$\text{CRR} = ((E-N)/S) \times 100$$

- E: Number of customers at the end of the time period.
- N: Number of customers acquired during that period.
- S: Number of customers at the beginning (or start) of the period.

RESULTS AND INTERPRETATION



- Here, We have 12 cohorts for each month and 12 cohort indexes. The darker the blue shades higher the values. Thus, if we see in the 2017-07 cohort Month in the 5th Cohort Index, we see the dark blue shade with 48% which means that 48% of cohorts that signed in July 2017 were active 5 months later.
- Overall, the retention rate for Sprocket Central is relatively steady at each Cohort Index and Cohort Month with an average of around 35% and a few lower and higher exceptions.

ROOT CAUSE ANALYSIS

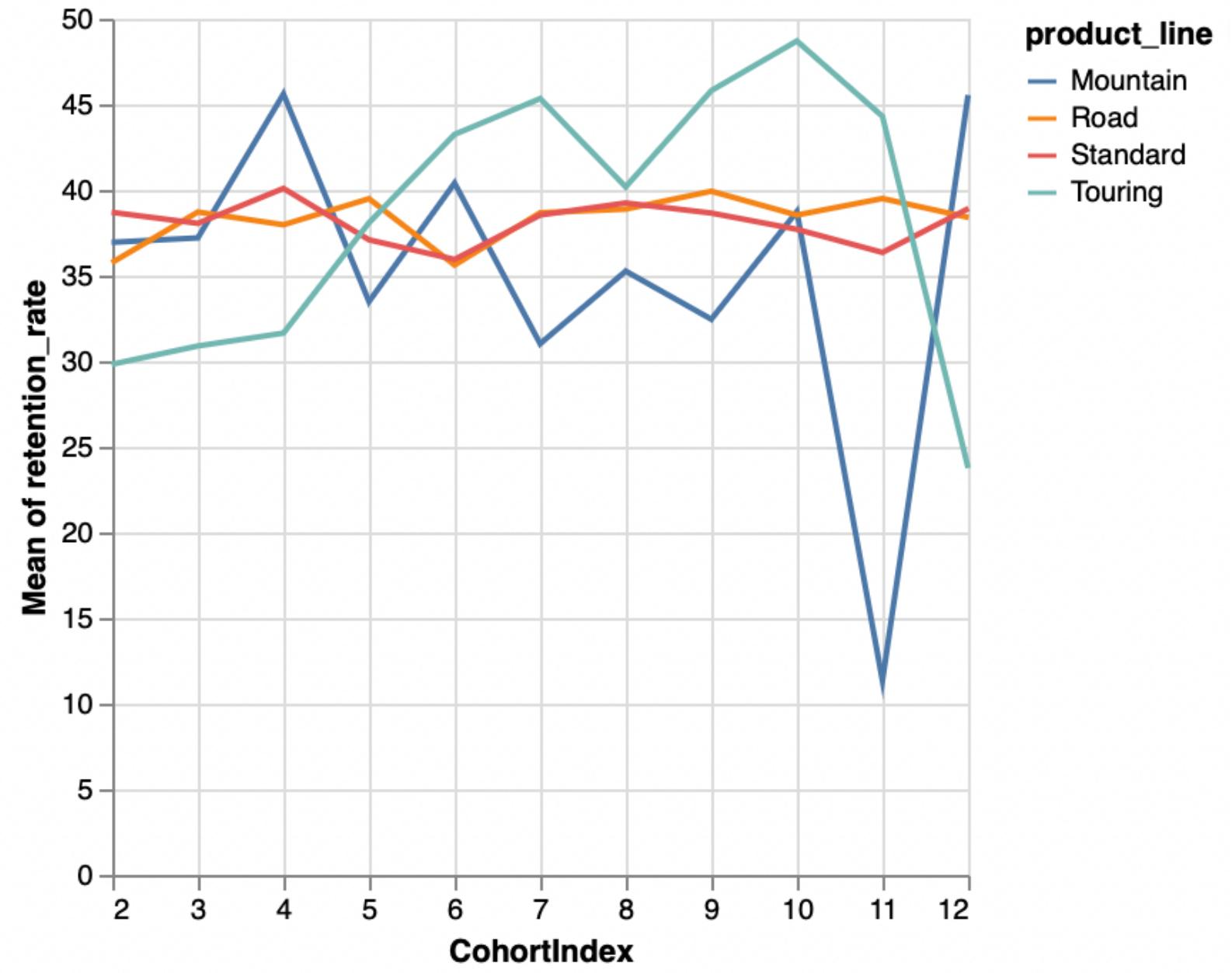


Product line
Product size
Product class

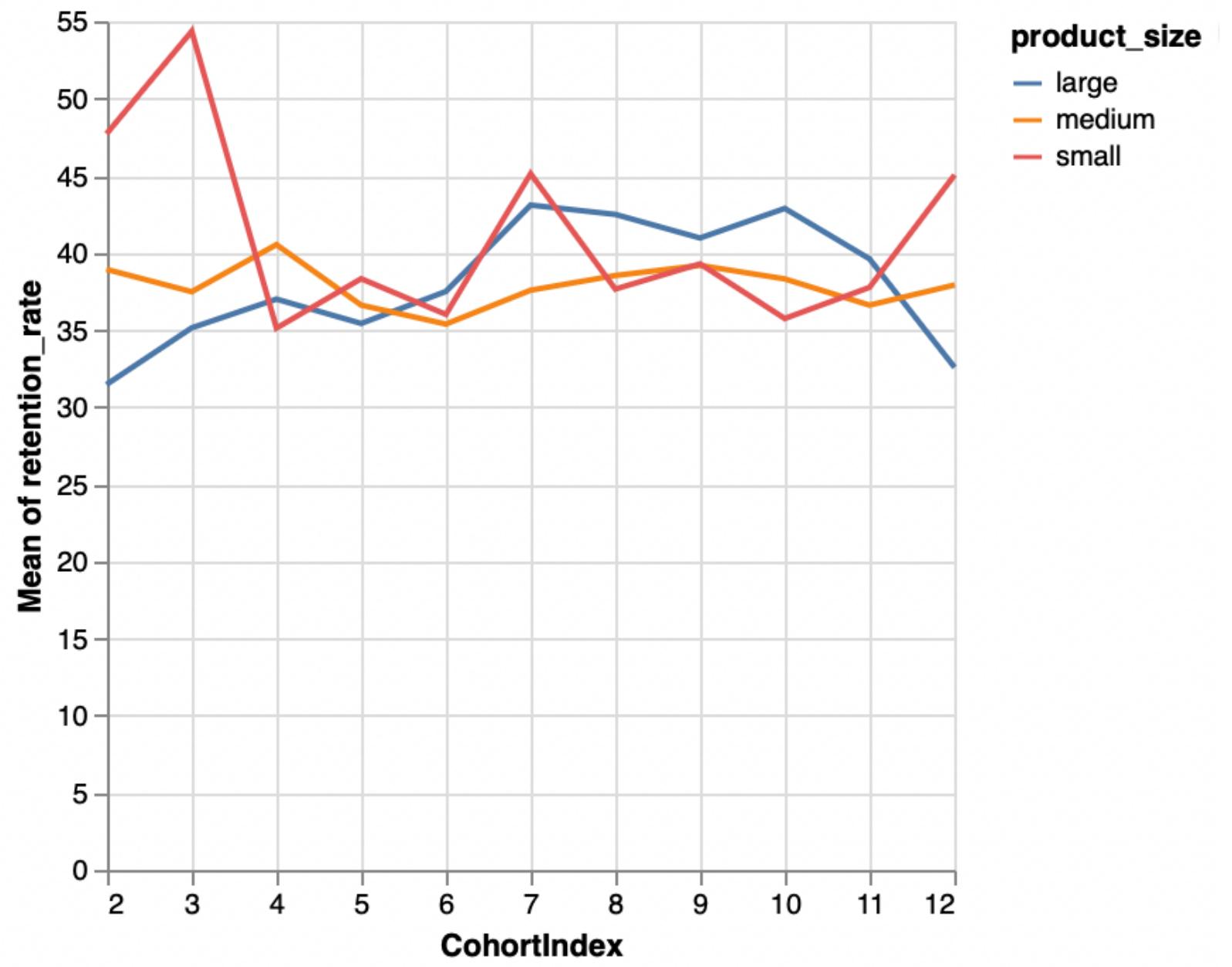


Gender
Job
Age
Owns Car or Not
Wealth Segment
Online or Offline Order

ROOT CAUSE ANALYSIS

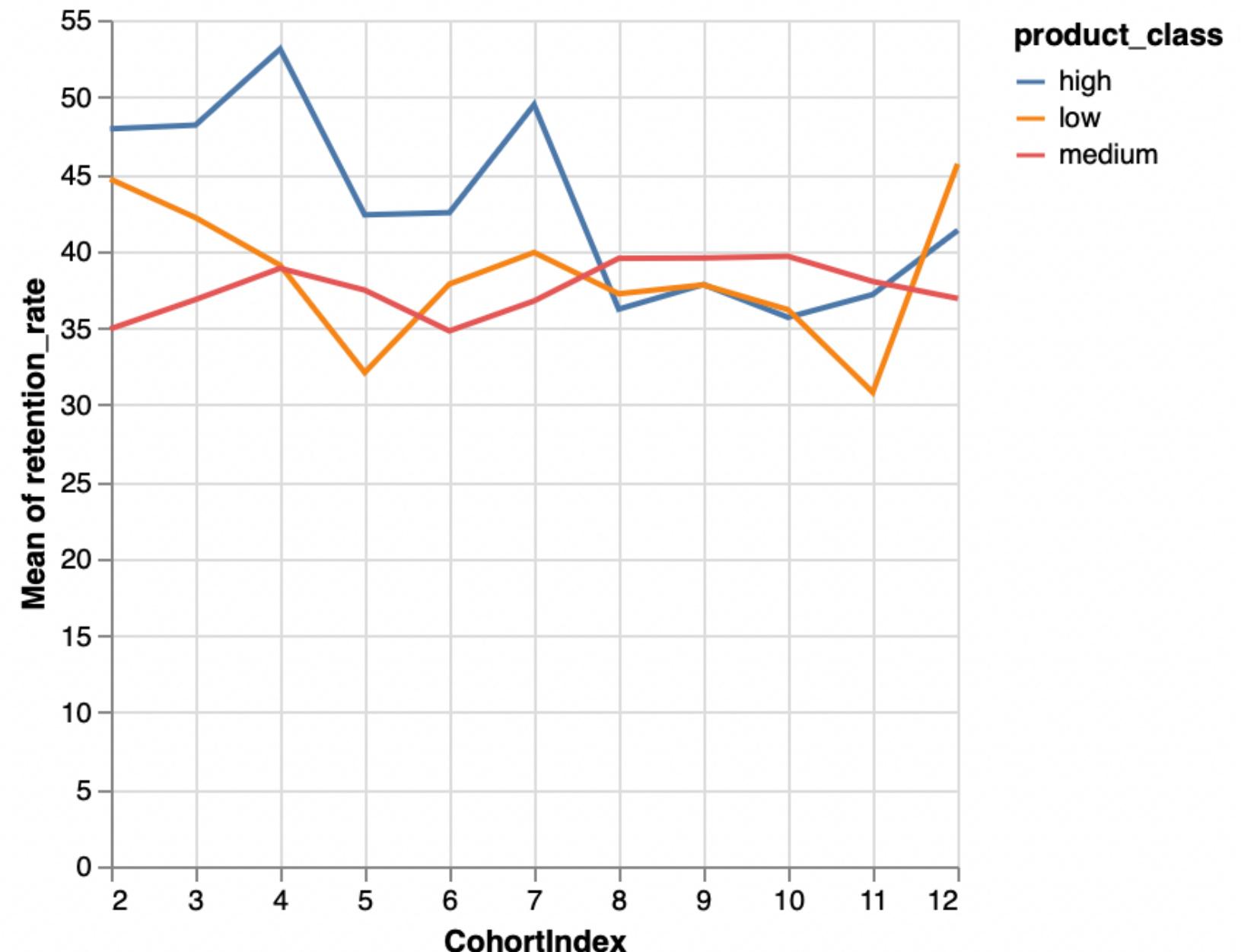


Product line



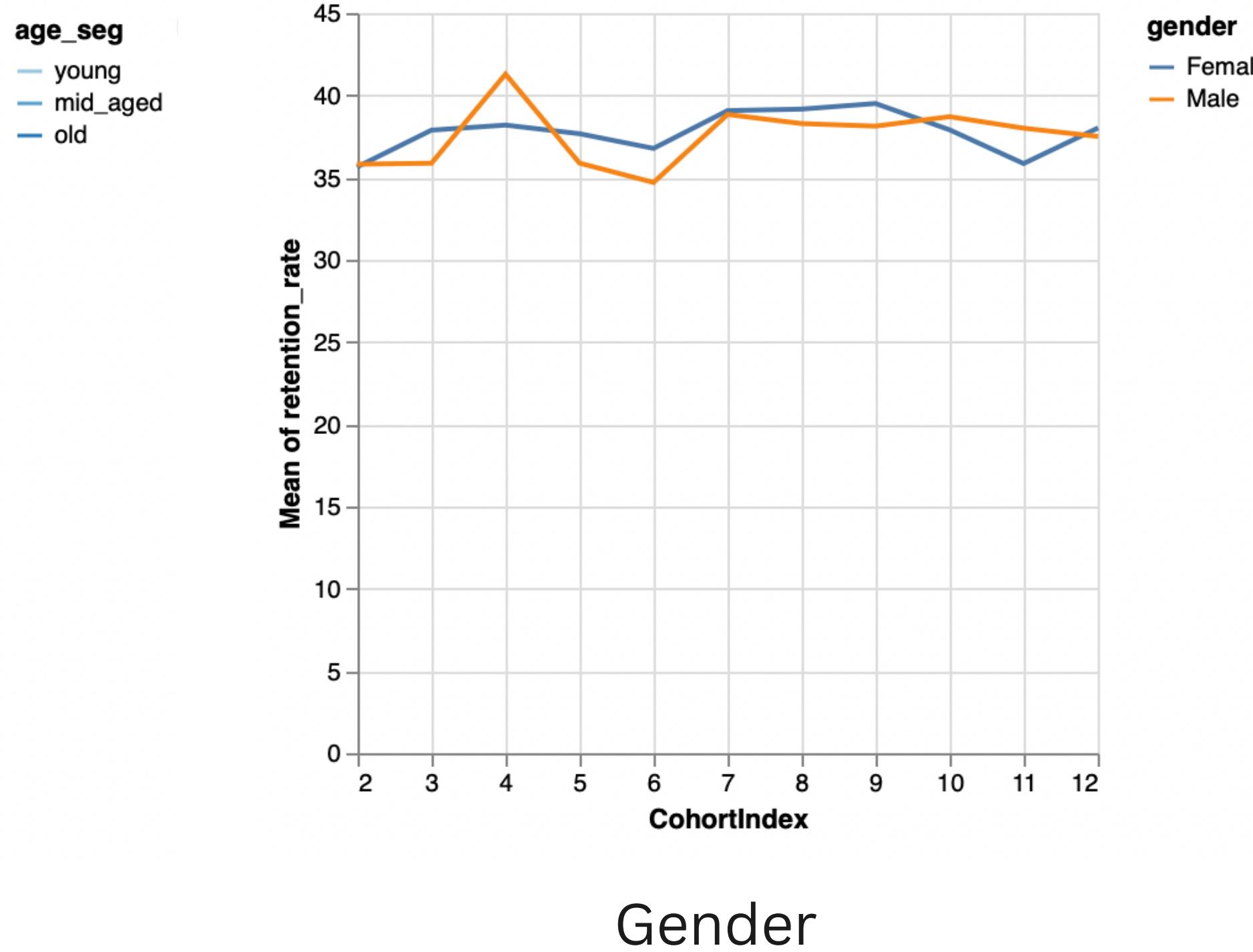
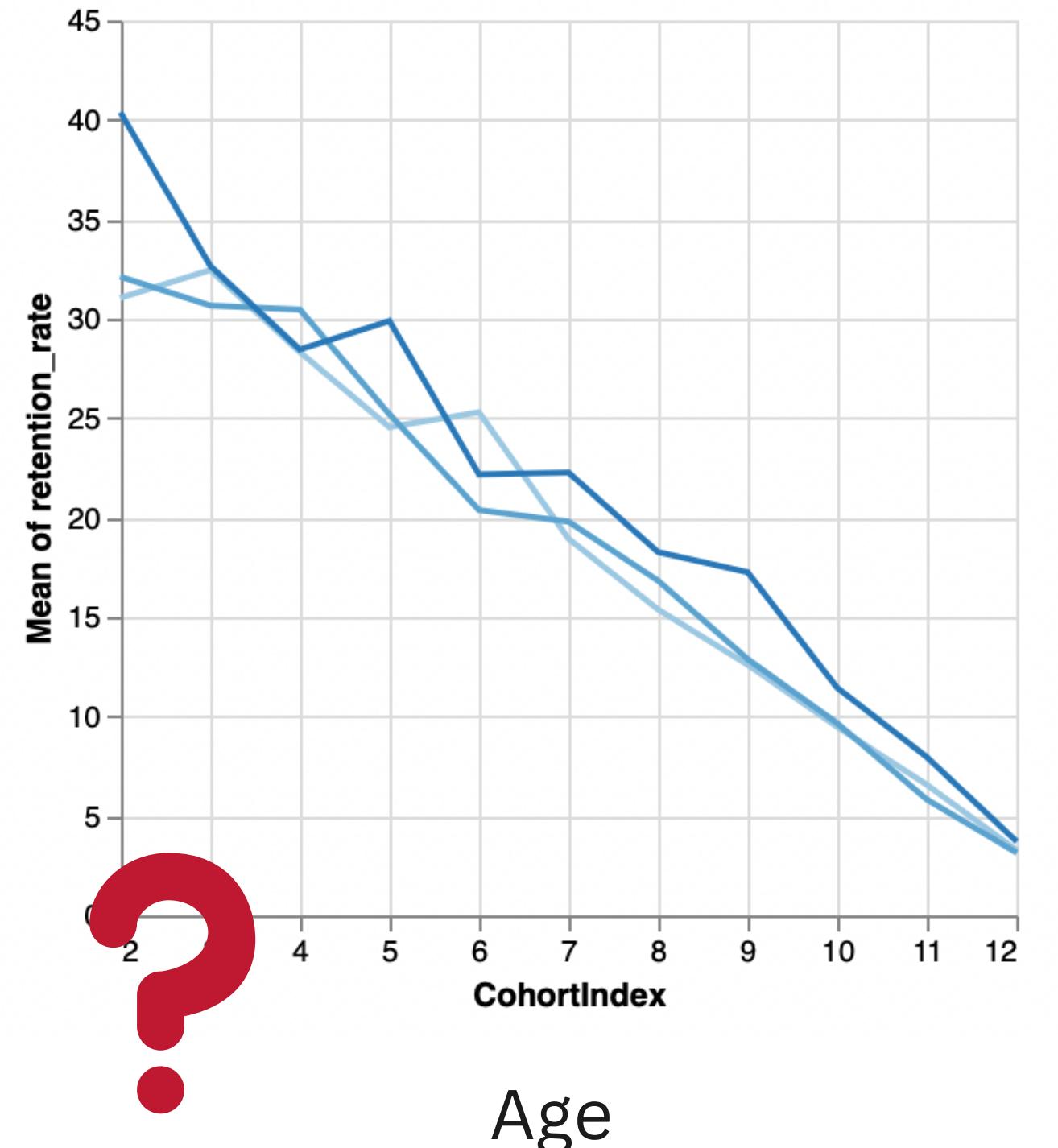
Product size

ROOT CAUSE ANALYSIS

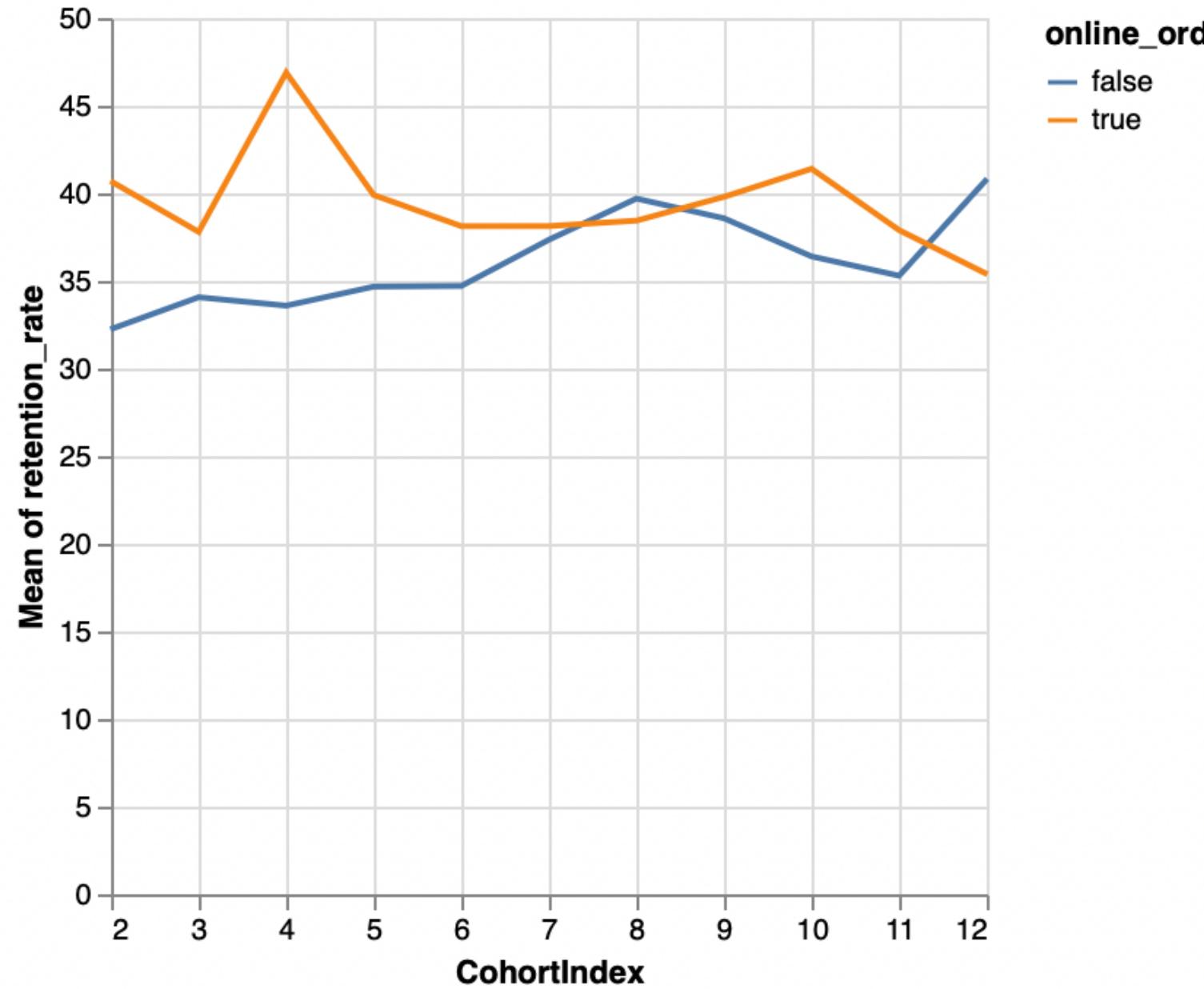


Product class

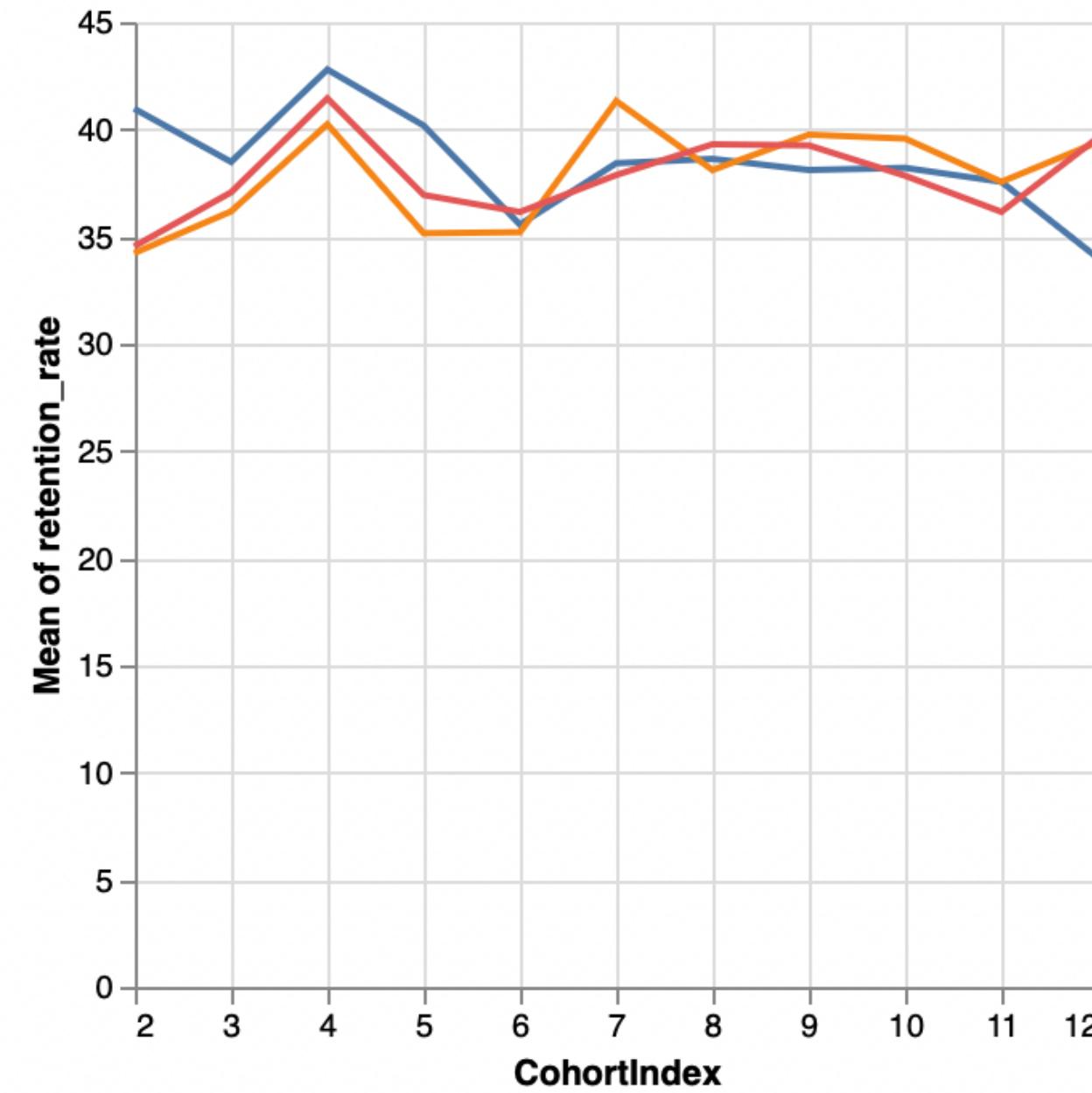
ROOT CAUSE ANALYSIS



ROOT CAUSE ANALYSIS

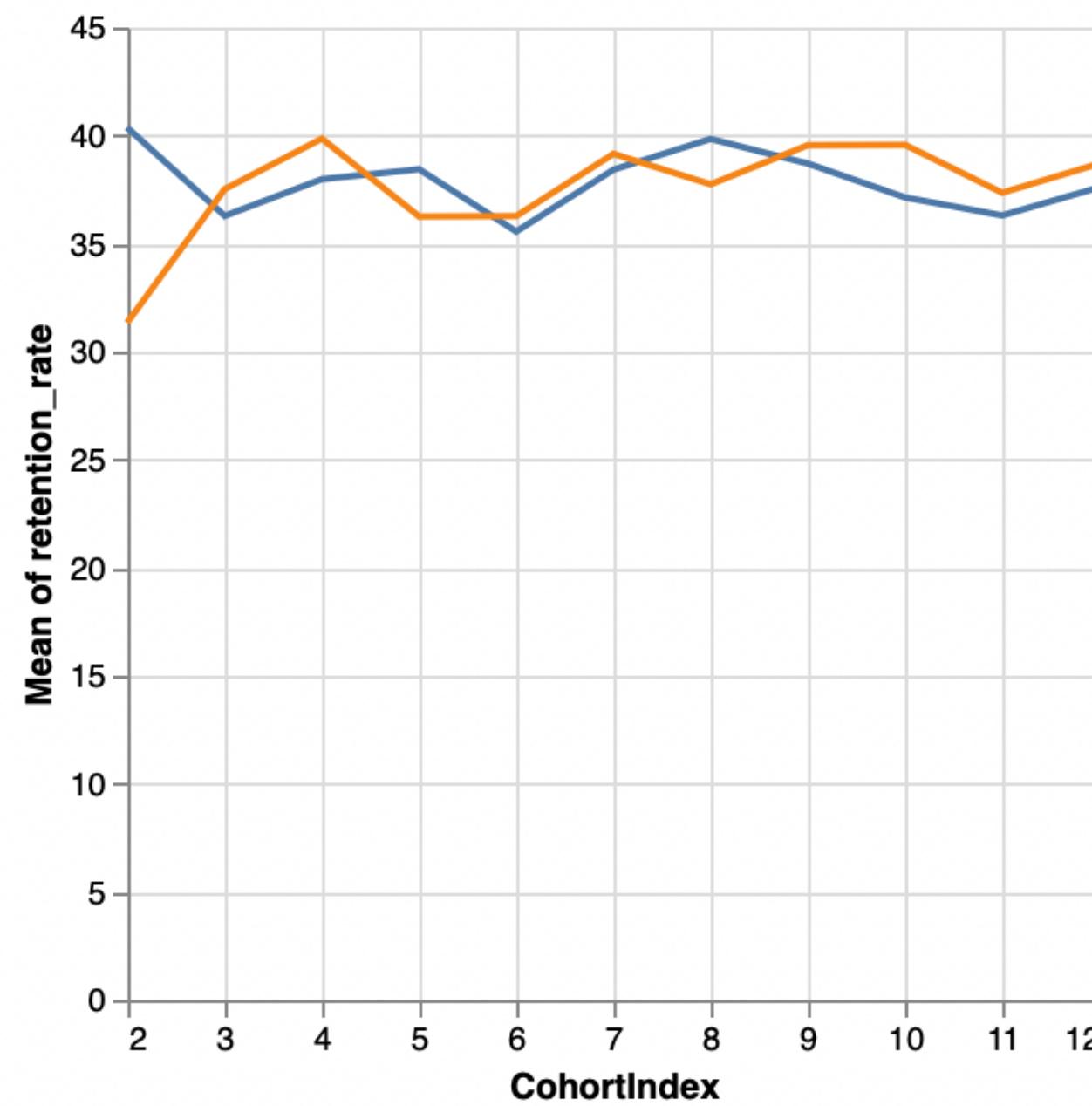


Online or Offline Order

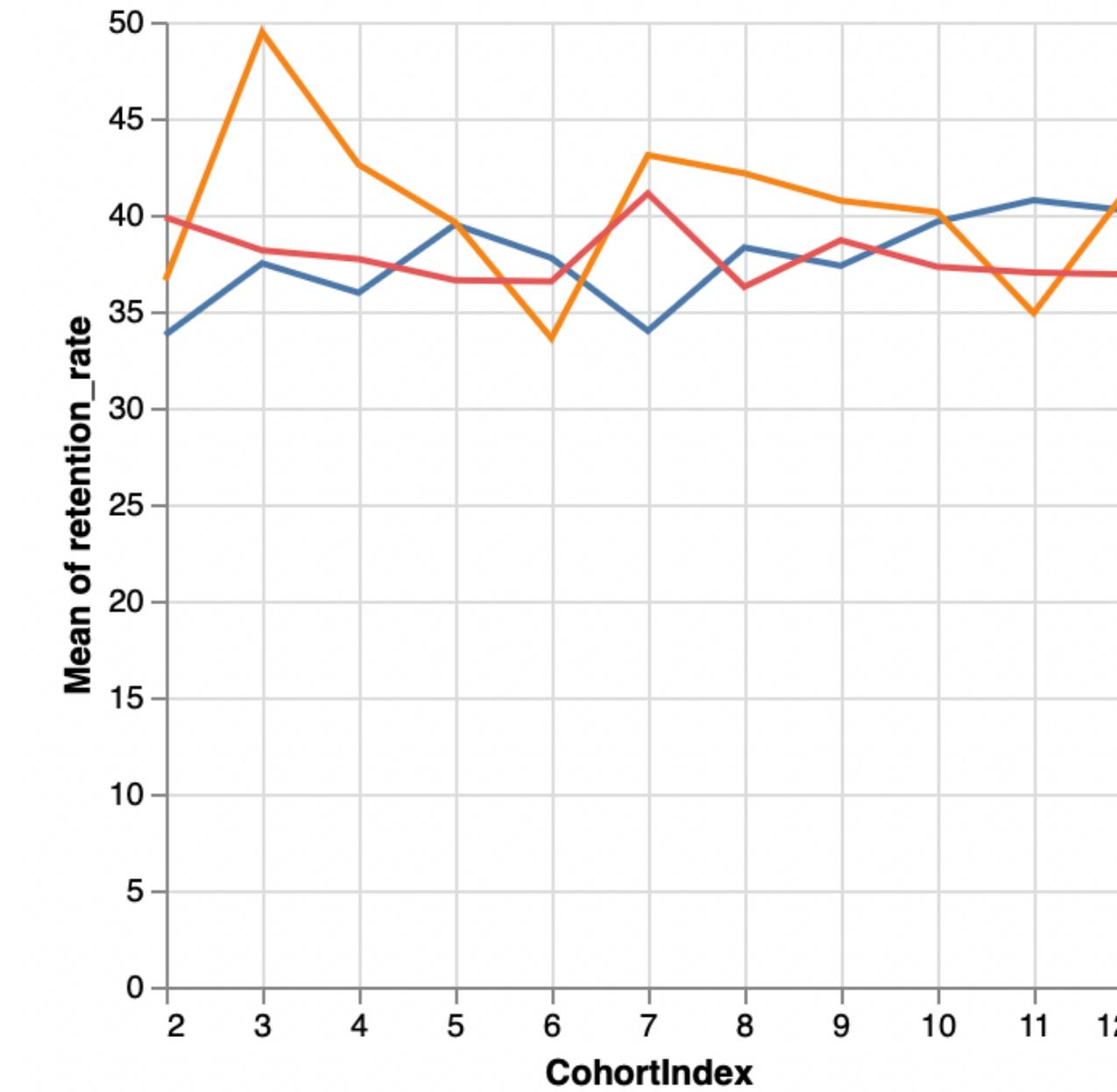


Wealth Segment

ROOT CAUSE ANALYSIS

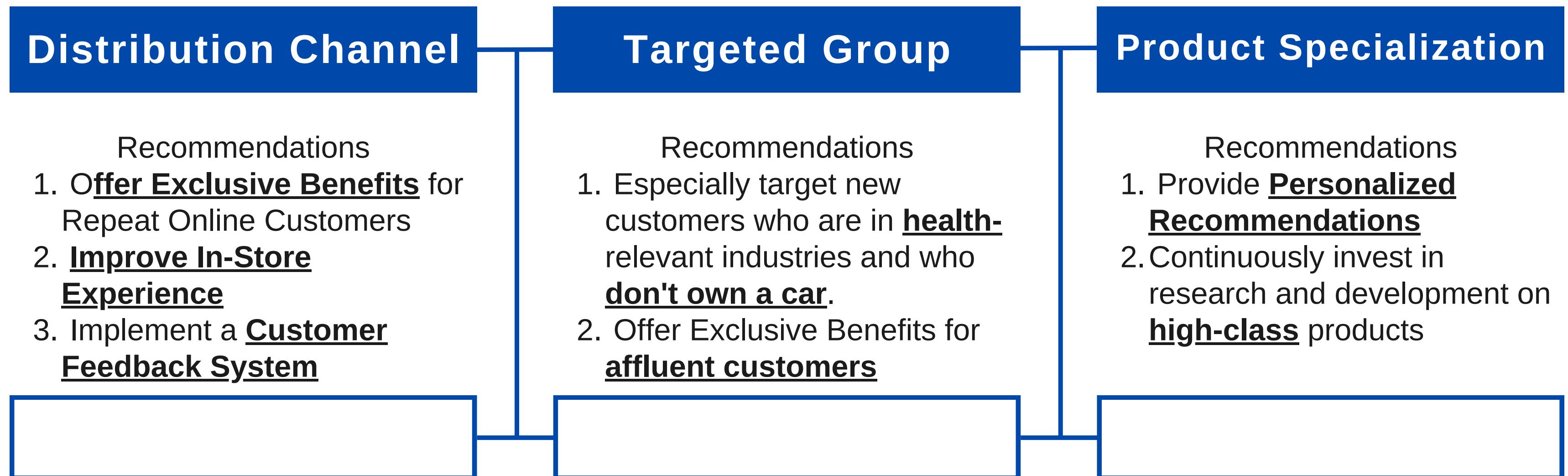


Owns Car or Not



Job

RECOMMENDATIONS



THANK YOU

