WCAI Analytics Accelerator Challenge Madison Reed

Prof. Eric Bradlow
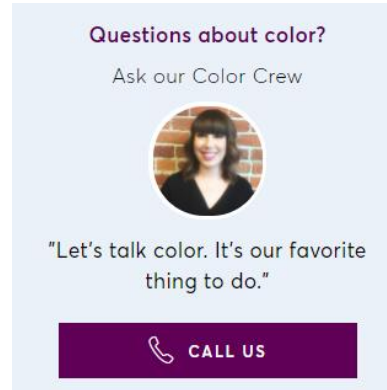
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Business Model

1 **Overview**

- What: Hair color and hair care products (ASP around $25)
- How: color quiz, color consultants, color recognition chat bot
- Where: Online and offline
- Competitive advantage
  (1) Color
  (2) Ingredients

2 **Subscription model**

- 26% of total customer base
- No subscription fee & easy opt-in and opt-out
- 20% product discount
- Subscription for every 2 ~ 8 week
- Subscribers have 10x future revenue potential than one-time-buyers

Approach

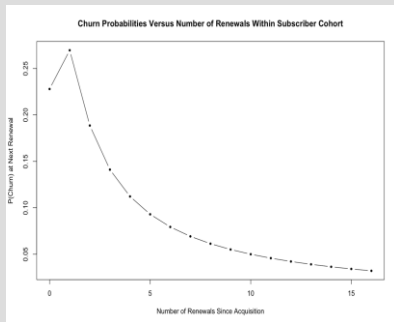|	Customer Interpretation	Modeling (Customer Lifetime Value)	Regression Analysis
What?	• What are the unique characteristics of my customer segments? • How valuable are they?	• How much would customer spend in the future? (CLV) • When would customer churn? (Churn probability)	• Who should we target in each customer segment?
How?	• Segment customer into 2 groups (Subscribers and one-time-buyers) and calculate their size and value	• Subscribers: Beta Discrete-Weibull (BdW) Model • One-time-buyers: Buy-Till-You-Die (BTYD-BGBB) Model	• Regression analysis of CLV with customer demographics • Regression analysis on customer conversion

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Analysis

	Subscribers	One-time-buyers
CLV Analysis	• A survival process • At each opportunity to renew subscription, the customer has a probability of churning • Result: Customer Lifetime Value for each active customer	• A Buy-Till-You-Die process • The customer purchases randomly until she drops out and ceases to purchase • Result: Customer Lifetime Value for each customer in cohort
RF Matrix	• Segmented on order frequency • Segmented on number of renewals • Result: 9 segments, each with E[CLV]	• Segmented on historical frequency • Segmented on last order recency • Result: 25 segments, each with E[RLV]
Demographics	• Quiz.Responses.Color.Frequency • Event.Facts.Color.Where • Quiz.Responses.Gray.Quantity	• Mr.User.Email.Source • Quiz.Responses.Hair.Thickness • Survey.Results.Heard.From.Where

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Suggestion

THREE PRONGED MARKETING APPROACH

	1	**2**	**3**
Action	**Maximize CLV by retaining subscribers longer**	**Acquire new customers similar to your high value customers**	**Convert one-time-buyers to subscribers**
Target	• Those who are at the onset of 2nd renewal • Those with higher order frequency (=shorter # of weeks between 2 renewals)	• Those who do hair at hair salon • Those who color their hair frequency • Those with highest gray level content	• Those who are promoters • Those who are 45~64 years old • Those who have red hair

Thank you