

# ElleVet Sciences

# Customer Churn Analytics

ALY 6980 – Capstone

College of Professional Studies,

Roux Institute, Northeastern University

Professor: Dan Koloski ([d.koloski@northeastern.edu](mailto:d.koloski@northeastern.edu))

TEAM D: Peter Brown, Aravind Korutla, Rachael Roberts, Davis Ryan

# D2C Customer Journey Story

## Primary Target:

Pet parents who are proactive about their pet's health and willing to invest in premium, science-backed solutions.

## Critical Moments:

- **Week 2-4:** If no improvement seen or difficulty using the products, high churn risk
  - RECOMMENDATIONS: Check-in touchpoint with FAQ tips & CX support, progress tracking tools
- **Month 3/Subscription renewal:** Cost evaluation / price sensitivity
  - RECOMMENDATIONS: Success story sharing, loyalty reward or gift, Oil pricing
- **Life changes:** Moving, financial stress, pet health changes

## Success Metrics to Track

- Time to first reorder
- Customer lifetime value
- Subscription conversion rate
- Quiz conversion rate
- Net Promoter Score

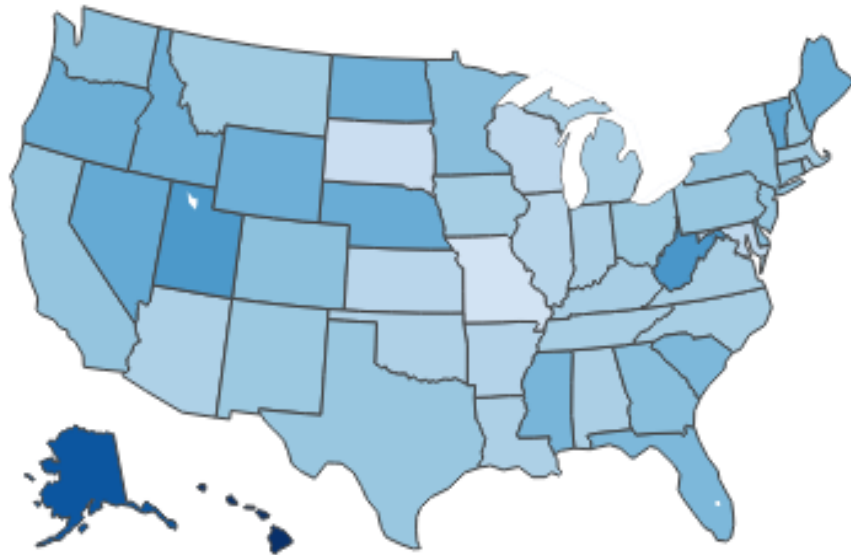
## Churn Prediction Indicators:

- 90-day order average drop
- Repeat support contacts
- dosing frequency changes

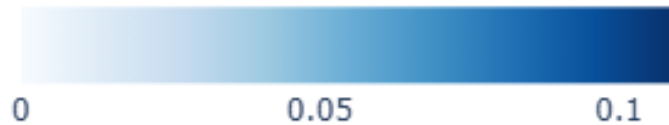
# Service Tickets by State (normalized by total # Customers)

Customer Ticket Rate vs Repeat Ticket Rate by State

Ticket Rate by State



Contact Rate

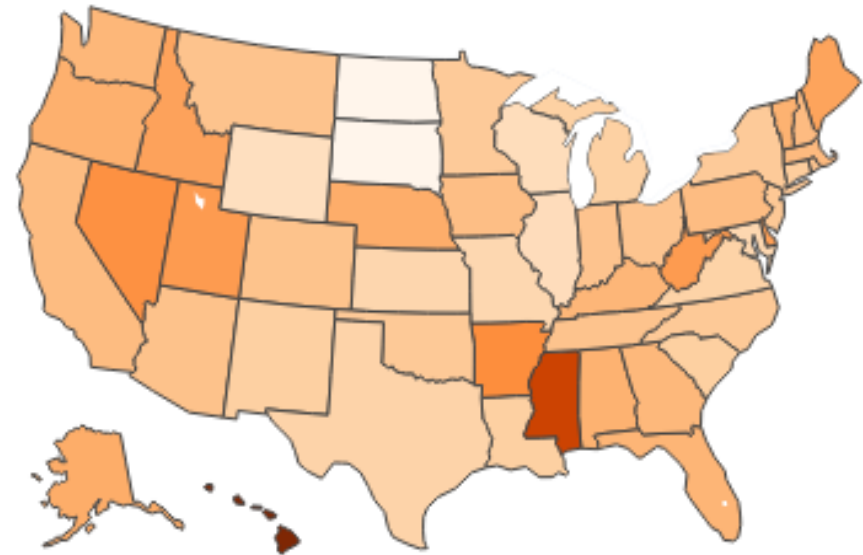


0

0.05

0.1

Repeat Ticket Rate by State



Repeat Rate



0

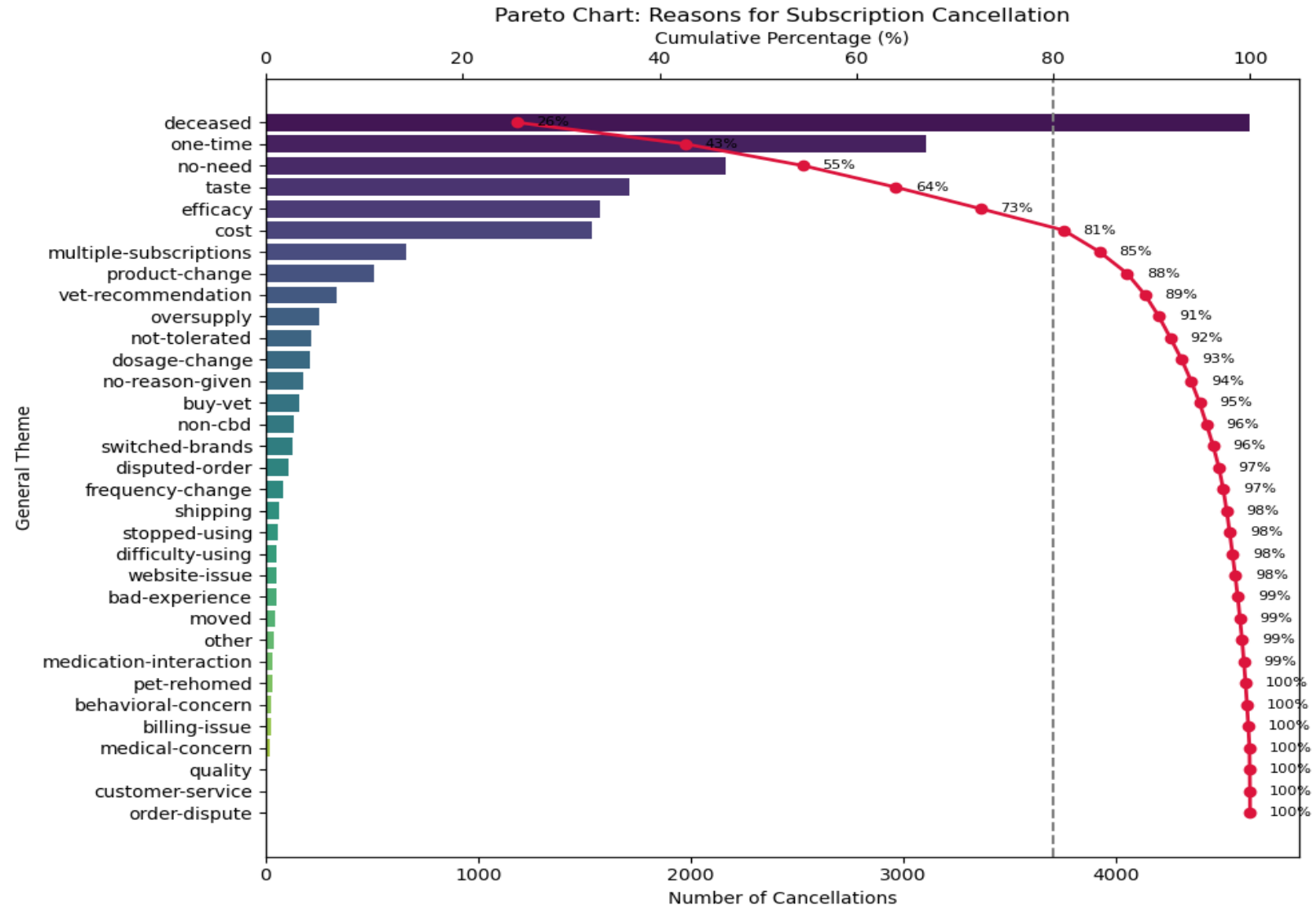
0.02

0.04

# Subscription Cancellation Reasons

## Top Subscription Cancellation Themes (N=18153, 3075 comments)

1. Pet deceased or dying (25.5%)
2. **One-time purchase intended** (17.1%)
3. No longer need product (11.9%)
4. Taste (9.4%)
5. Efficacy (8.7%)
6. Cost (8.3%)
7. **Multiple subscriptions** (3.7%)
8. **Changed to different ElleVet Product** (2.8%)
9. Vet Recommendation (1.9%)
10. Oversupply (1.4%)



# Insights from Cancellation Reasons

## Subscription Cancellation Comments

(N=3075 comments)

1. Duplicate subscriptions by site
2. Difficulty changing subscription product/dosage, shipping frequency
3. Maximum of 20-week reorder cadence
4. Pricing for oil is non-linear – leads to confusion

### Unique Customers

New customers: 62.19% (N=77,713)

Repeat customers: 37.81% (N=47,247)

## Customer Lifetime Value by Role:

	Avg. CLV	Median CLV
<b>Customer</b> (N=28,924)	\$245	\$110
<b>Subscriber</b> (N=44,490)	\$824	\$397
<b>ALL Unique</b> (N=73,489)	<b>\$589</b>	<b>\$216</b>

## Total Customer Lifetime Value:

\$43,316,730.93



# Quiz Performance Analysis

Comprehensive 6-month program evaluation



## What We Analyzed



### Time Period

**6 months comprehensive analysis**

Nov 2024 - Apr 2025



### Quiz Volume

**3,184 responses**

2,751 unique participants



### Customer Generation

**651 customers**

23.7% conversion rate



### Business Impact

**\$681K Year 1 value**

High-value program



## Key Strategic Discoveries



### Exceptional Engagement Engine

99.2% completion rate proves exceptional product-market fit. Quiz completion directly correlates with conversion: 23.7% convert vs 0% for dropouts.



### Dual Acquisition Channel

61.9% NEW customers (411 people) for growth + 38.1% re-engaged EXISTING customers (253 people) for retention.



### Premium Customer Filter

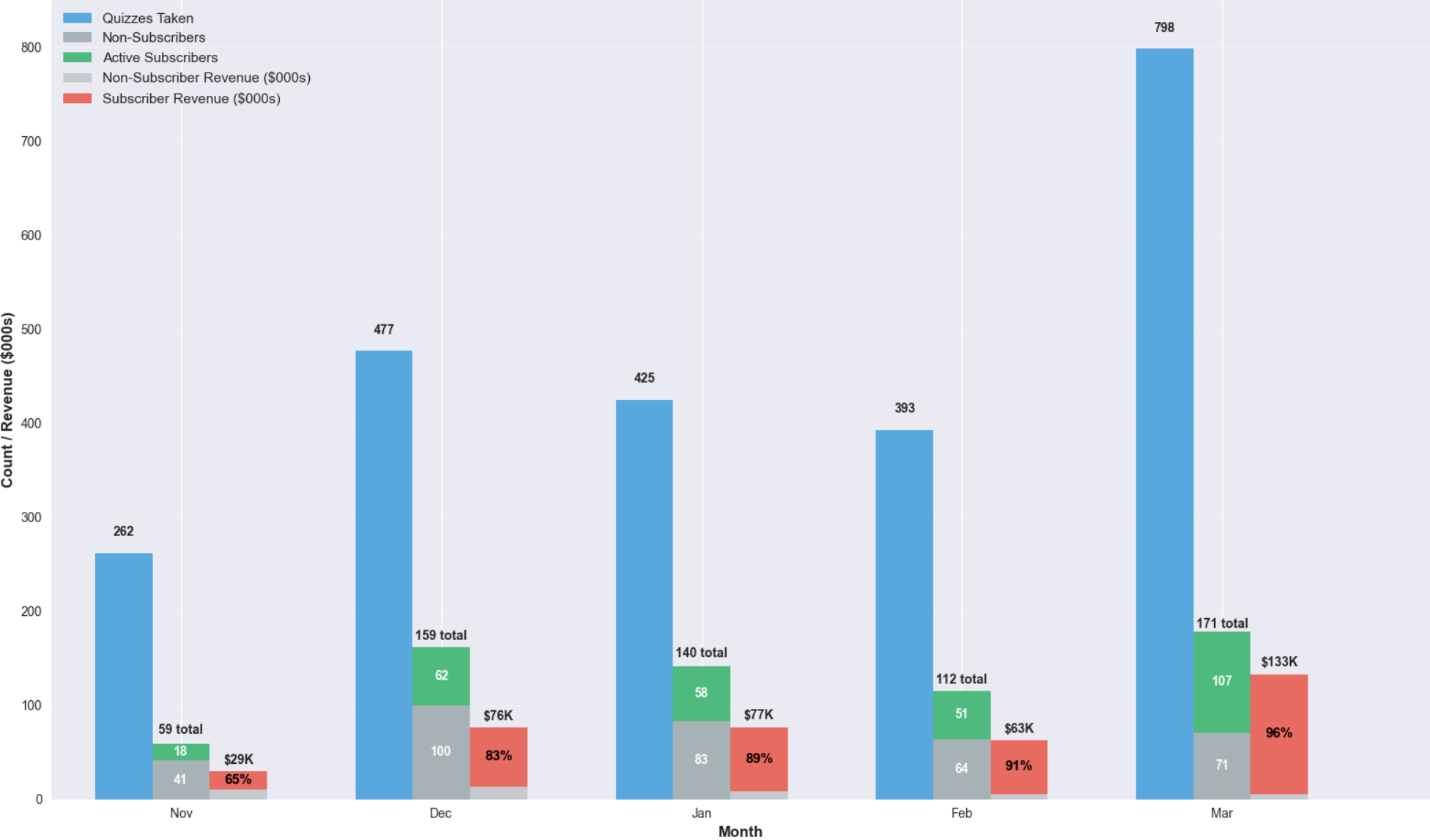
Quiz identifies high-value customers: 45.6% become subscribers (3x higher rate) demonstrating strong customer qualification capability.



### Immediate Purchase Intent

43.8% purchase same day after quiz, demonstrating strong intent generation and conversion acceleration capability.

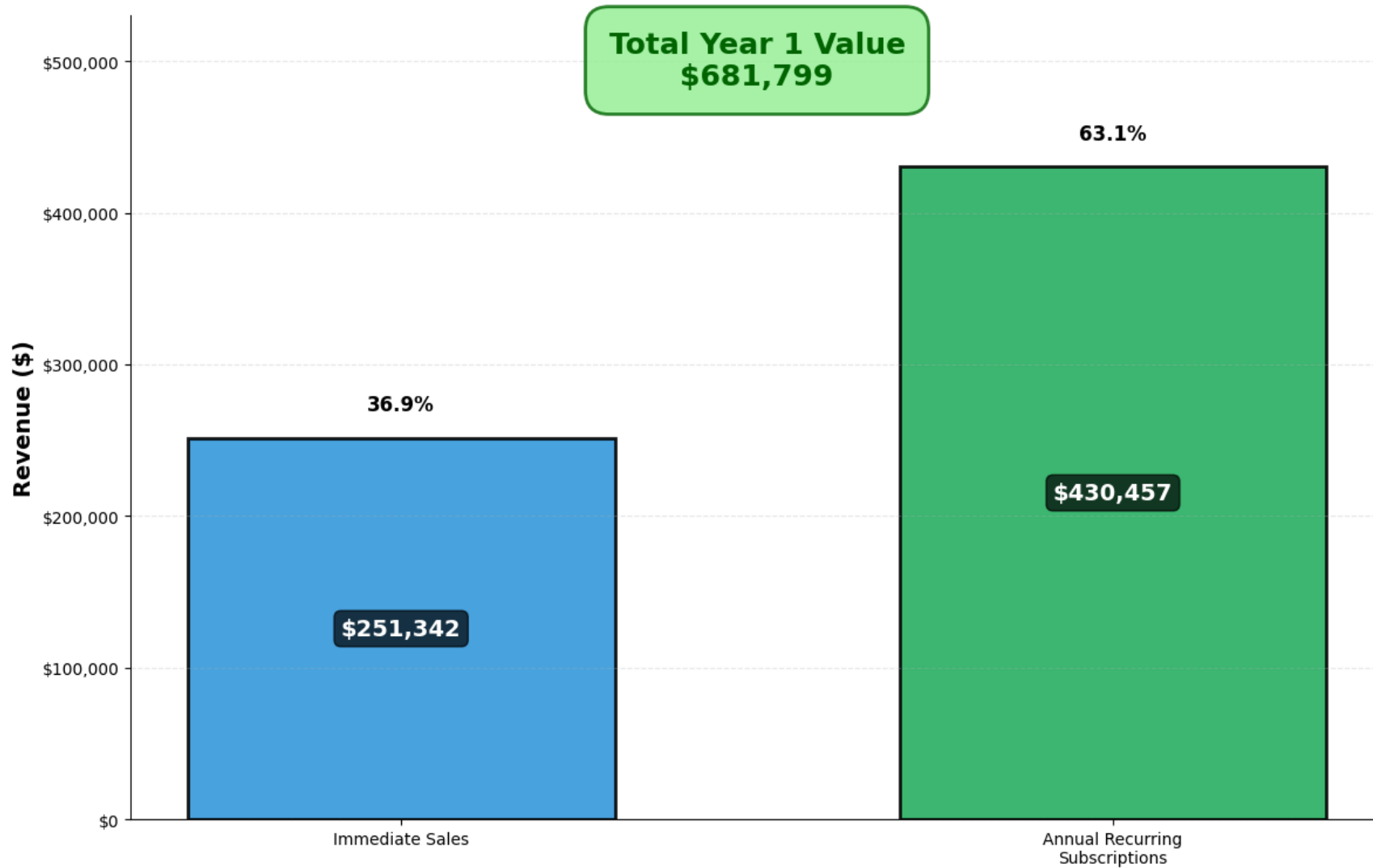
Quiz Performance: Volume, Conversion & Revenue Mix



March Breakthrough:

- Highest volume: **798 quiz-takers**
- Top subscription rate: **62.6%**
- Revenue dominance: **96% from subscribers**
- Total value: **\$133K (champion)**

## Quiz Program Generates \$681,799 in Measurable Year 1 Value



## What's the ROI?

Assuming \$50,000 investment

Total Year 1 Value:	\$681,799
Investment:	\$50,000
Net Return:	\$631,799

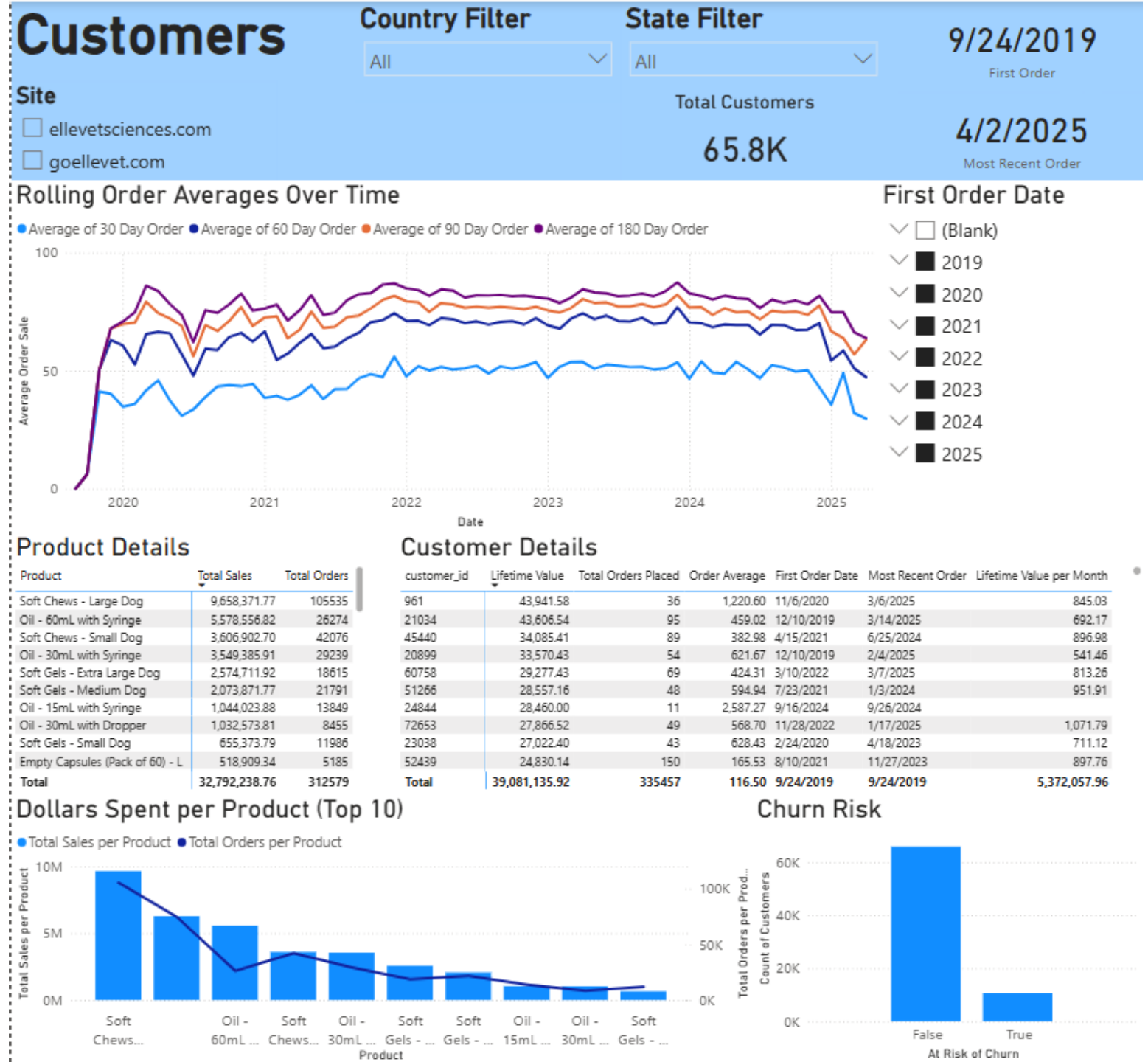
**13.6x**

Return on Investment



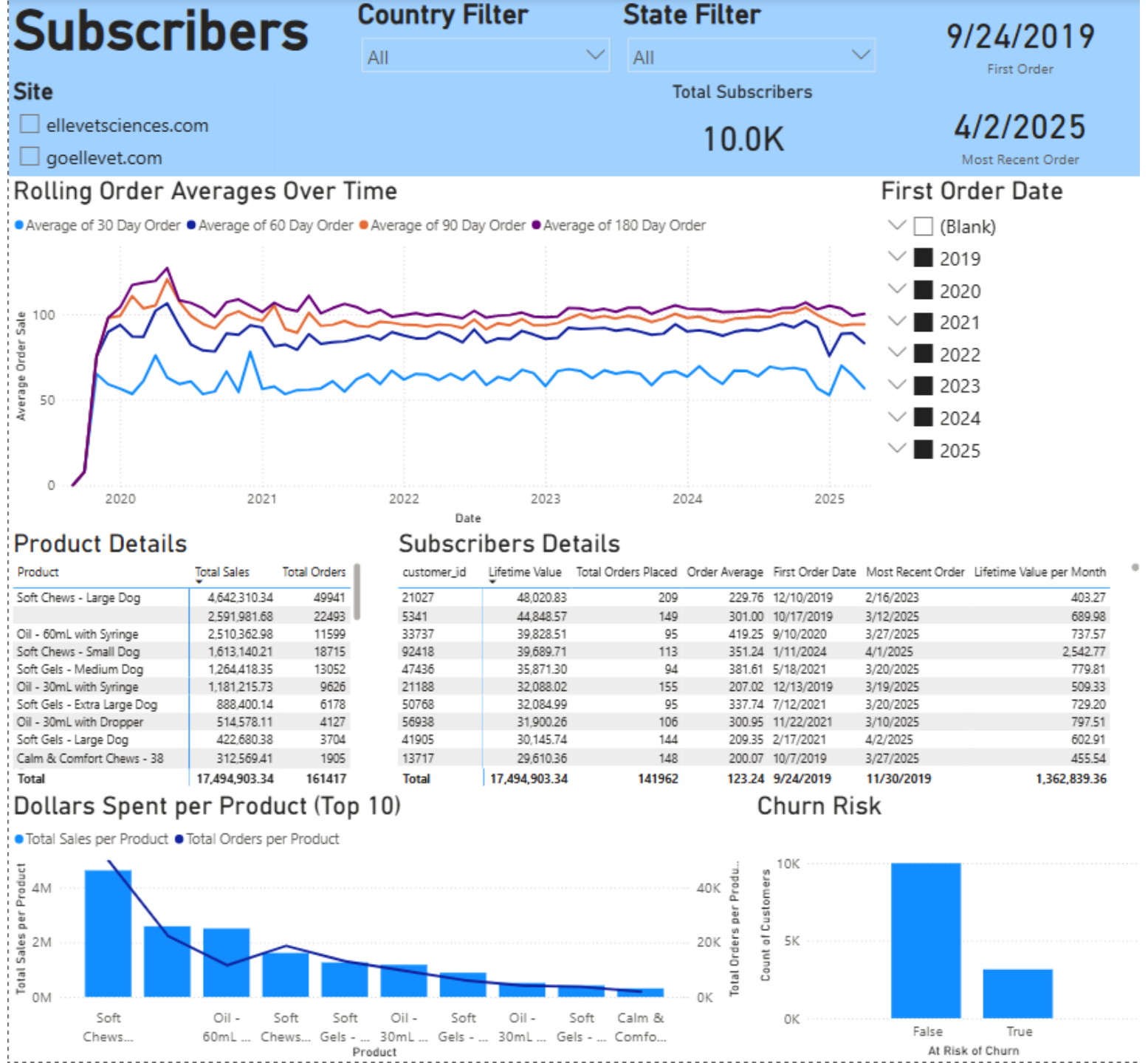
# Customers

- Rolling Order Average over 30, 60, 90 and 180 days
- Most profitable products
- Strongest customers



# Subscribers

- Rolling Order Average over 30, 60, 90 and 180 days
- Most profitable products
- Strongest subscribers



# Predictive Model

## **Machine Learning Models** (Logistic Regression & Random Forest)

ML models with **98%** accuracy using real purchase data from 80K+ customers and identified \$36.8M revenue at risk from 73,111 critical customers who haven't purchased in **90+ days**

**Key findings:** Only 5.7% customers are active, but we found a success model (Active\_Repeat segment with 52.3% retention) that can be replicated across other segments for \$2.1M-\$6.3M recovery potential.

## **Feature Selection:**

- Customers Table: site, primary\_role, duplicate\_email\_flag, address\_match, primary\_account\_flag, clean\_state, shipping\_country
- Orders Table: total\_orders, total\_spent, avg\_order\_value (aggregated from raw order data)
- Engineered Features: days\_since\_last\_order (calculated from order dates), purchase\_frequency (orders per month calculation), is\_repeat\_customer (1 if >1 order, else 0), high\_value\_customer (1 if top 20% spender)

# Next Steps

- Continue to explore and describe available data sources, identifying potential advanced signals or reasons for customer churn.
- Refine our predictive models identifying customers at-risk based on purchase frequency changes and economic indicators, including price sensitivity.
- Create models that predict churn risk based on pet condition, product type, and treatment timeline expectations.
- Provide recommendations for data governance & quality concerns