

## PROJECT ABSTRACT

### Project Sponsor

Costco Wholesale is a global membership-based retail organization committed to delivering high-quality products and services at the lowest possible prices. We extend our sincere thanks and appreciation to **Prakash Bhandi** and **Xuan Zhang**, sponsor liaison at Costco Wholesale, for their support and guidance throughout the project.

### Problem Statement

Costco is increasingly mentioned across a wide range of public online platforms, including product reviews, forums, and social media. However, these customer voices are fragmented, unstructured, and not systematically analyzed. This lack of centralized sentiment tracking presents challenges for Costco's efforts in understanding customer needs, identifying service pain points, and maintaining brand excellence.

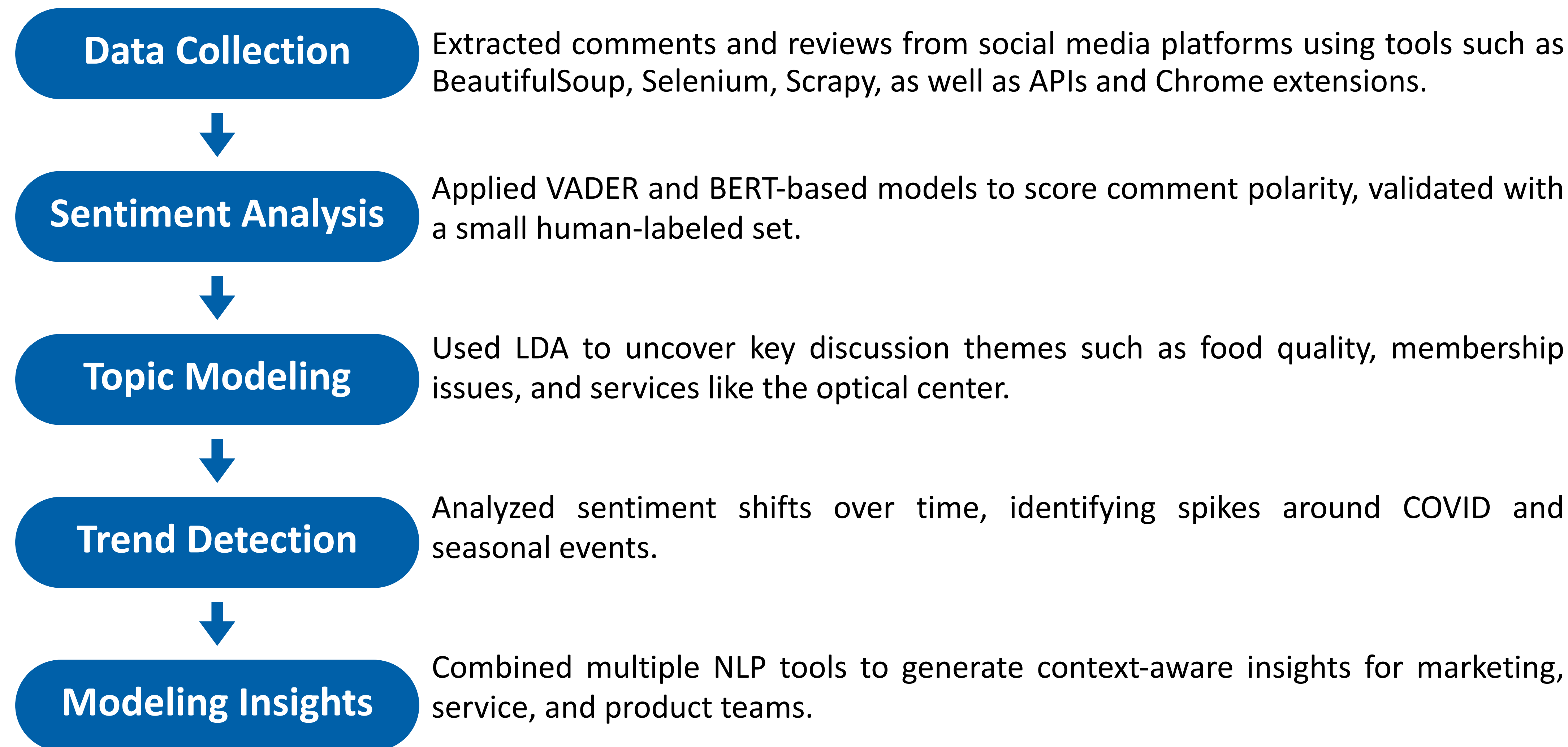
### Project Solution

This project bridges the gap in customer sentiment insights. It consolidates unstructured feedback from multiple platforms into a single, analyzable dataset. Using natural language processing, sentiment analysis, and visual dashboards, we provide Costco with actionable insights into public perception. The goal is to empower decision-makers with real-time feedback loops that inform product strategy, service improvements, and customer engagement.

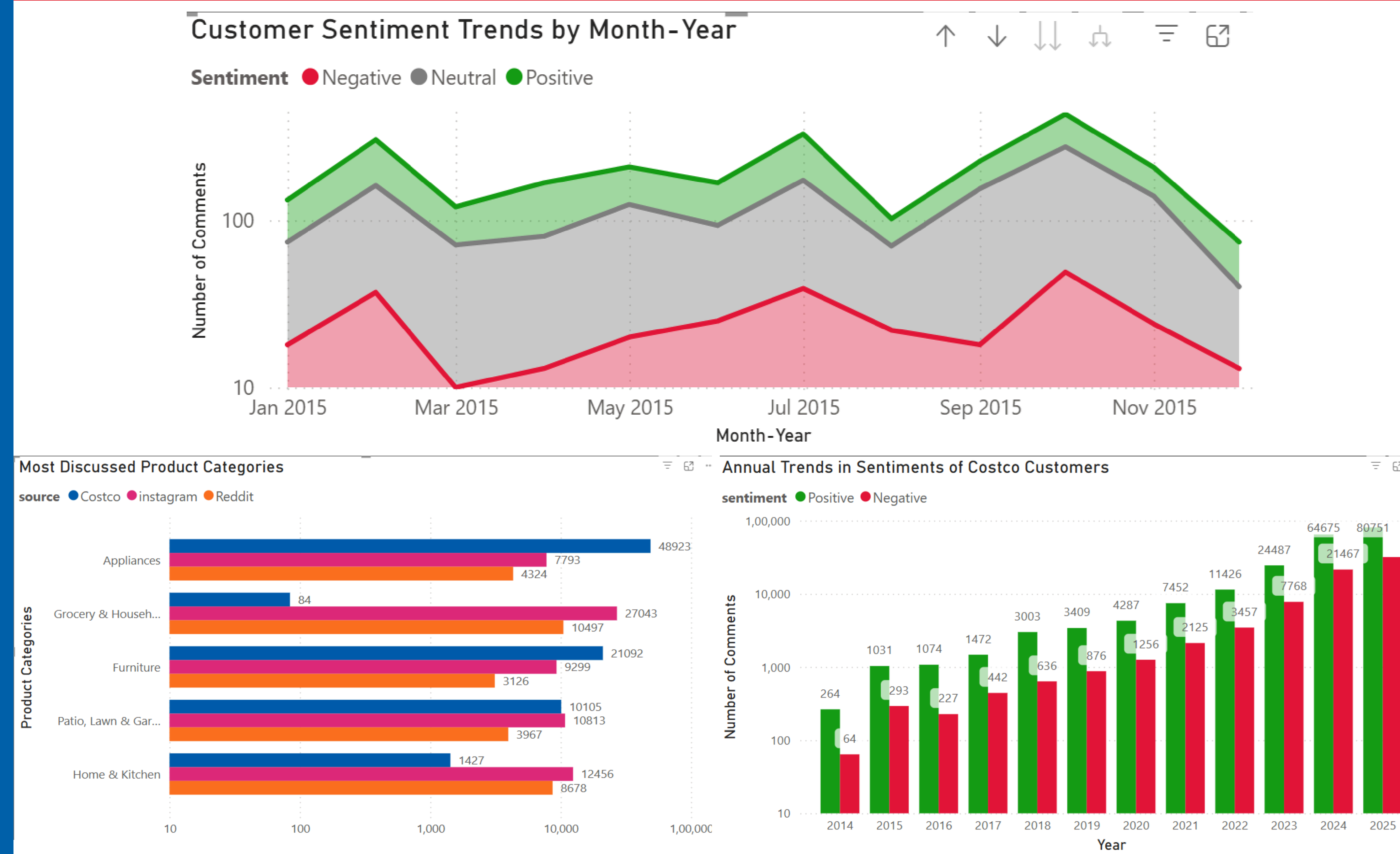
## PROJECT OBJECTIVES

- ✈ **Collect customer comments** from multiple public platforms: Reddit, Costco.com, Sitejabber, Twitter, and Instagram
- ✈ **Extract** sentiment, topics, and product mentions using NLP
- ✈ **Create dashboards** to visualize trends and themes over time
- ✈ **Enable Costco teams** to monitor, explore, and act on evolving customer feedback

## METHODOLOGY



## INSIGHTS



## KEY FINDINGS

### Top 5 Product Categories

- Household Essentials
  - Appliances
  - TVs
  - Furniture
  - Health & Personal Care
- Costco Wholesale, Coscto, Instagram, Reddit

### Top Products

Rotisserie chicken, optical services, Kirkland batteries were praised frequently

### Platform Strengths

Reddit posts contained the most detailed feedback; Sitejabber skewed negative

### Pain Points

Delivery delays, return process frustration, membership renewal confusion

### Sentiment Trends

Positive sentiment dominant overall; ~15% of comments were neutral, ~25% negative

### Seasonal Patterns

Holiday season spikes in comments about delivery and product availability

## PROJECT IMPACT

- Enables scalable public sentiment monitoring for Costco
- Supports real-time customer experience feedback
- Identifies key drivers of brand reputation and concerns
- Lays groundwork for alerting, chatbot training, and marketing strategy