



TARGET

vs



Target & Walmart: Stores at Risk of Closure by Review Analysis?

Content to be Covered

- Problem Statement
- Problem Solving Methodology
- The Business Impact
- Exploratory Data Analysis (EDA)
- ML Models
- Sentimental Analysis
- BERT Analysis
- Results & Business Insights

The Challenge of Retail Store Closures

Retail Industry at a Glance

- U.S. retail market size: \$5.5 trillion
- Walmart: 4,616 stores, \$400B+ annual revenue
- Target: 1,956 stores, \$100B+ annual revenue
- Ongoing challenge: Store closures due to underperformance & shifting market trends

Current Approach

- Decisions based on lagging indicators (revenue decline, lease expirations, low foot traffic)
- Results: Last-minute closures → Brand damage, layoffs, & financial losses



Store Closure: Going Concern?

The Challenge of Retail Store Closures

Problem Statement

How can Walmart and Target address the ongoing challenge of **identifying going concern** issues early, instead of relying on lagging financial indicators that lead to reactive store closures, potential brand damage, and economic losses?

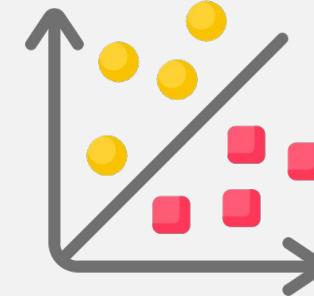
Helping Walmart & Target with Stores at Risk, but How?



W. P. Carey

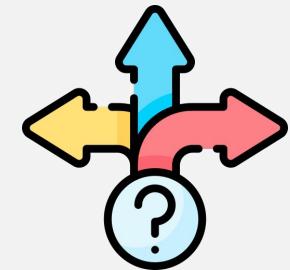
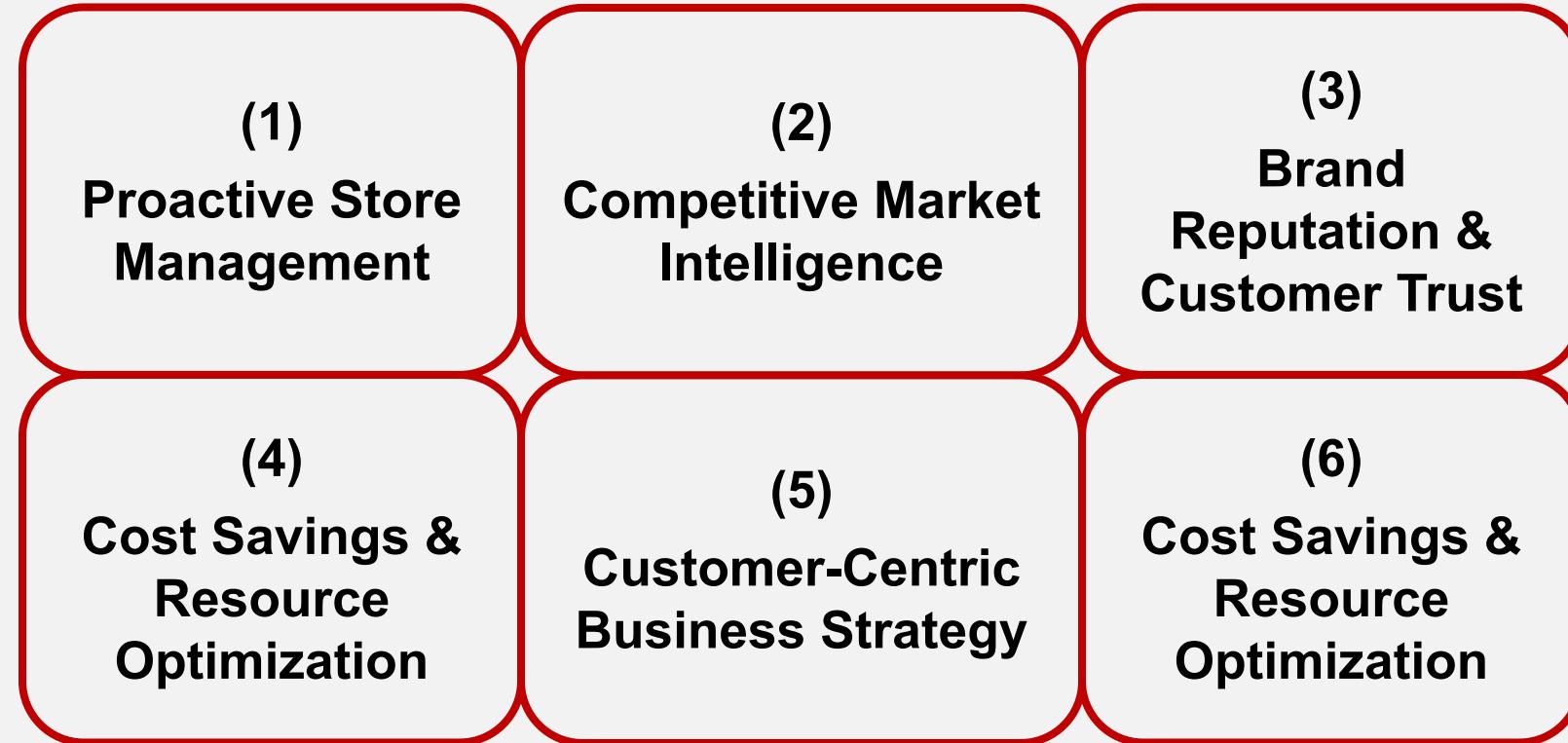
Methodology We Applied to Solve the Underlying Problem

- Is_Open is our target variable. 1 means store is still functional, 0 means store is closed
- Independent variables are: (stars_x, stars_y, useful, compound)
- ML Models (Pick one best model after hypertuning)
- NLP
- Incorporating Limitations
- Recommendations



It is a Binary Classification prediction problem.

Why This Matters: The Business Impact



Data-Driven Decisions to Sustainable Retail Stores

Walmart: Data Set Explanation

- We have used Yelp Dataset which contained various Business information with respective reviews and user information.
- We have used 1.5 million rows and there are 275 stores from where we got data across the country
- Florida has highest number of stores with count of 65
- From the initial analysis we were able to get the following information:
 - Average review length was around 114
 - Number of Unique words in the data for walmart was 10305
 - Number of Unique users were 1449



A large-scale, nationwide view of Walmart store reviews and customer feedback.

Target: Data Set Explanation

- We have used Yelp Dataset which contained various Business information with respective reviews and user information.
- We have used 1.5 million rows and there are 275 stores from where we got data across the country
- Pennsylvania and Florida has highest number of stores with count of 29
- From the initial analysis we were able to get following information:
 - Average review length was around 102
 - Number of Unique words in the data for walmart was 8700
 - Number of Unique users were 1259



Comprehensive insights into Target store performance through customer reviews nationwide.

Analyzing Walmart Reviews: Key Language Insights

1. Walmart - Top 20 Nouns:

```
[('store', 1371),  
 ('customer', 742),  
 ('time', 714),  
 ('item', 623),  
 ('service', 599),  
 ('employee', 576),  
 ('line', 559),  
 ('people', 509),  
 ('location', 366),  
 ('manager', 350),  
 ('place', 323),  
 ('one', 317),  
 ('minute', 316),  
 ('price', 310),  
 ('grocery', 291),  
 ('thing', 281),  
 ('lot', 280),  
 ('cashier', 277),  
 ('day', 273),  
 ('order', 248)]
```

2. Walmart - Top 20 Adjectives:

```
[('other', 395),  
 ('good', 369),  
 ('bad', 358),  
 ('more', 238),  
 ('open', 213),  
 ('nice', 211),  
 ('few', 194),  
 ('rude', 178),  
 ('clean', 175),  
 ('long', 168),  
 ('same', 165),  
 ('great', 161),  
 ('many', 148),  
 ('most', 136),  
 ('new', 132),  
 ('friendly', 131),  
 ('well', 131),  
 ('sure', 126),  
 ('last', 123),  
 ('only', 114)]
```

3. Walmart - Top 20 Verbs:

```
[('go', 1286),  
 ('get', 1114),  
 ('say', 686),  
 ('need', 577),  
 ('find', 493),  
 ('come', 456),  
 ('tell', 456),  
 ('ask', 407),  
 ('wait', 400),  
 ('know', 391),  
 ('make', 389),  
 ('look', 374),  
 ('take', 357),  
 ('shop', 323),  
 ('ve', 320),  
 ('m', 317),  
 ('give', 316),  
 ('want', 315),  
 ('see', 313),  
 ('check', 309)]
```

- Average_stars: 2.26
- Average_compound: 0.16
- Unique Words: 10,305
- Avg Review Length: 113.67
- Total Tokens: 74,263
- Unique Users: 1,449



This analysis presents Walmart's top nouns, adjectives, verbs, and key review metrics, revealing common language patterns in customer feedback.

Analyzing Target Reviews: Key Language Insights

1. Target - Top 20 Nouns:

```
[('store', 1202),  
 ('item', 578),  
 ('time', 524),  
 ('target', 524),  
 ('customer', 431),  
 ('location', 421),  
 ('service', 395),  
 ('employee', 331),  
 ('thing', 301),  
 ('price', 254),  
 ('staff', 250),  
 ('lot', 242),  
 ('place', 235),  
 ('line', 228),  
 ('grocery', 224),  
 ('one', 223),  
 ('people', 219),  
 ('section', 201),  
 ('way', 190),  
 ('shopping', 184)]
```

2. Target - Top 20 Adjectives:

```
[('good', 387),  
 ('other', 384),  
 ('great', 288),  
 ('clean', 288),  
 ('nice', 235),  
 ('friendly', 205),  
 ('more', 197),  
 ('bad', 168),  
 ('new', 162),  
 ('helpful', 152),  
 ('few', 144),  
 ('well', 134),  
 ('big', 134),  
 ('little', 132),  
 ('many', 113),  
 ('same', 111),  
 ('most', 106),  
 ('easy', 95),  
 ('only', 95),  
 ('sure', 95)]
```

3. Target - Top 20 Verbs:

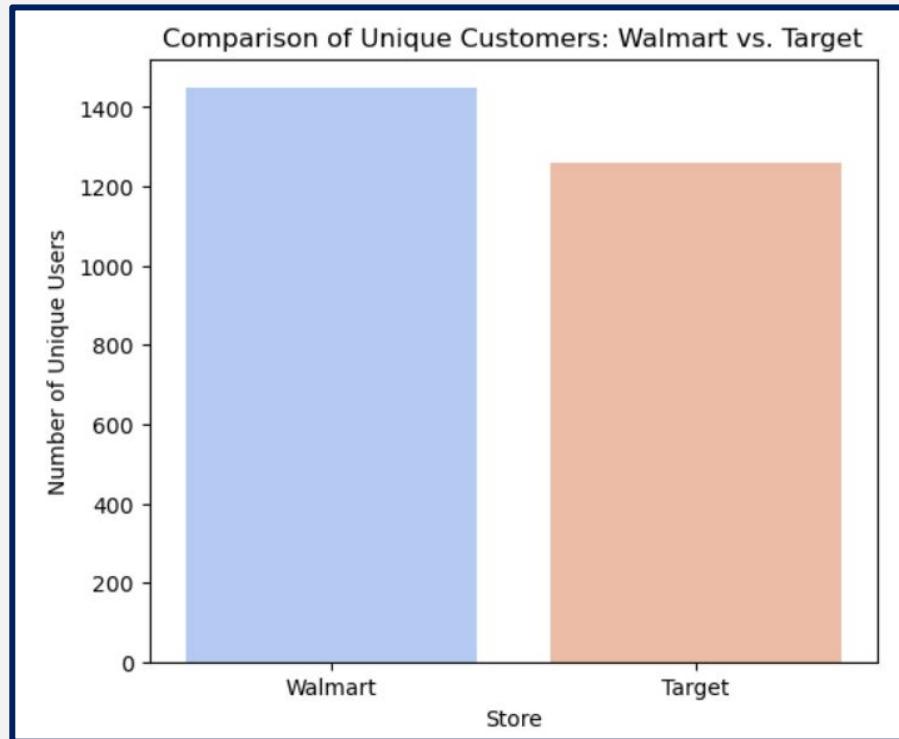
```
[('go', 825),  
 ('get', 743),  
 ('find', 501),  
 ('need', 453),  
 ('say', 370),  
 ('look', 353),  
 ('come', 343),  
 ('m', 334),  
 ('make', 333),  
 ('ve', 323),  
 ('love', 290),  
 ('shop', 278),  
 ('ask', 235),  
 ('know', 235),  
 ('see', 227),  
 ('help', 224),  
 ('take', 219),  
 ('walk', 212),  
 ('give', 209),  
 ('use', 205)]
```

- Average_stars: 3.22
- Average_compound: 0.47
- Unique Words: 8,700
- Avg Review Length: 102.02
- Total Tokens: 56,633
- Unique Users: 1,259



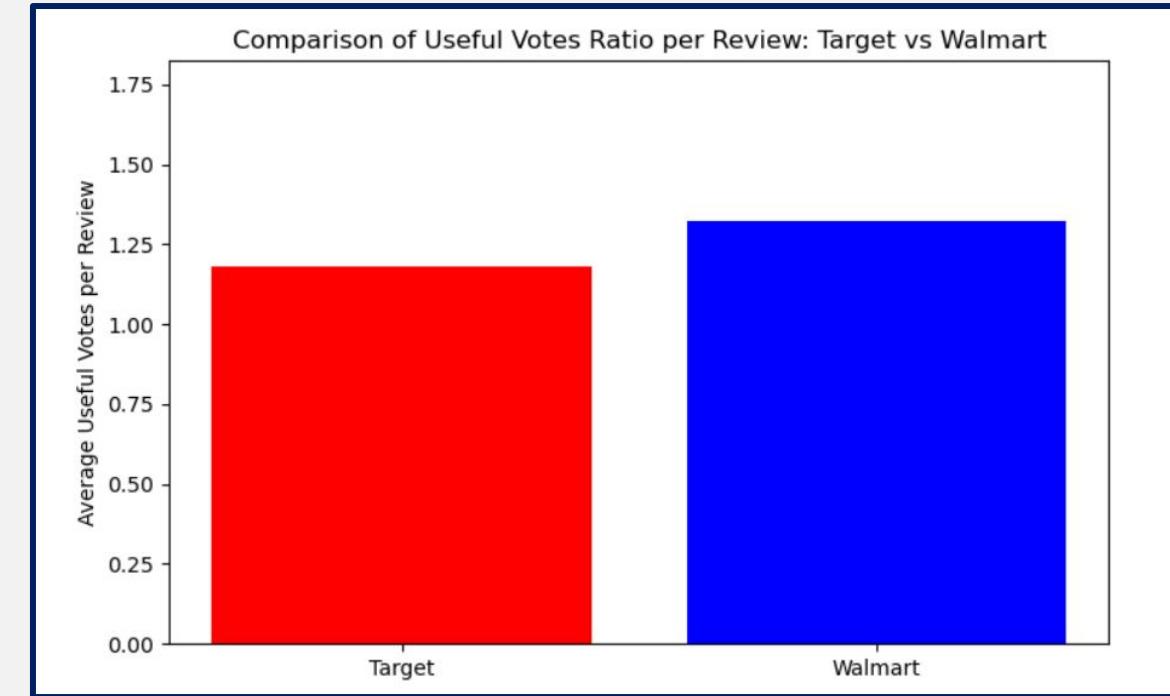
This analysis presents Target's top nouns, adjectives, verbs, and key review metrics, revealing common language patterns in customer feedback.

Comparison: Unique Customers & Useful Votes



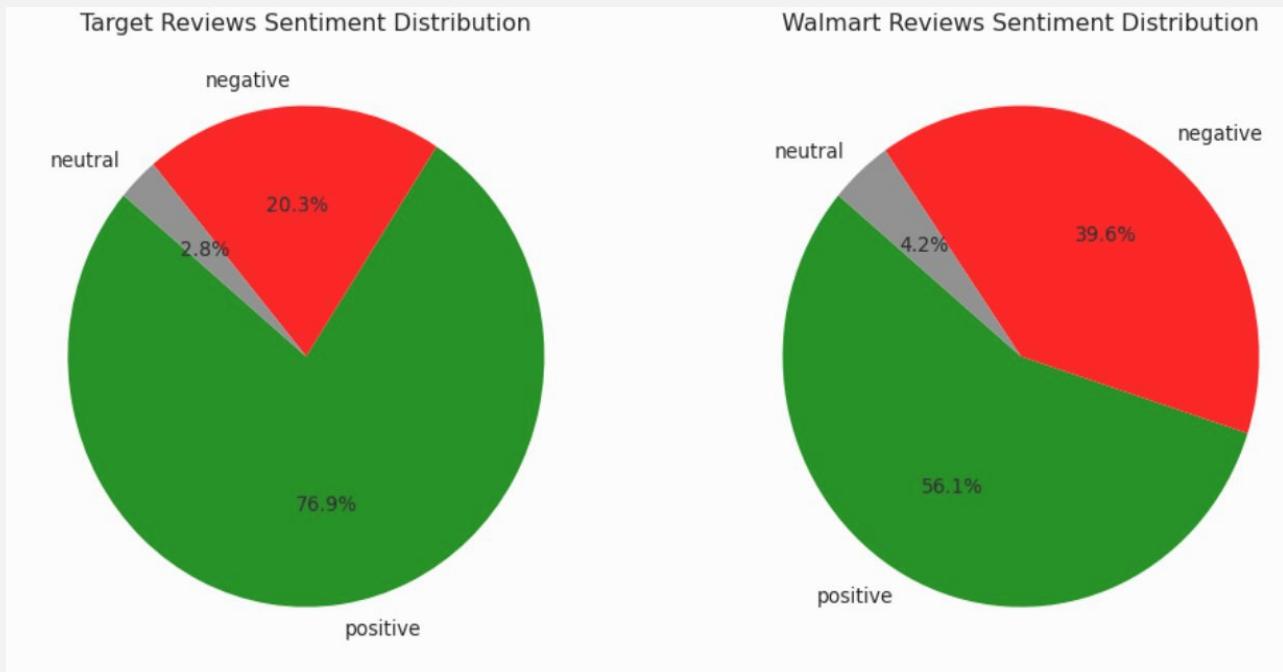
- Unique Users for Walmart: 1449
- Unique Users for Target: 1259

Walmart engages more unique users, while maintaining slightly higher review usefulness.



Walmart has marginally better avg useful votes per review

Analyzing Sentiment Distribution: Target vs Walmart

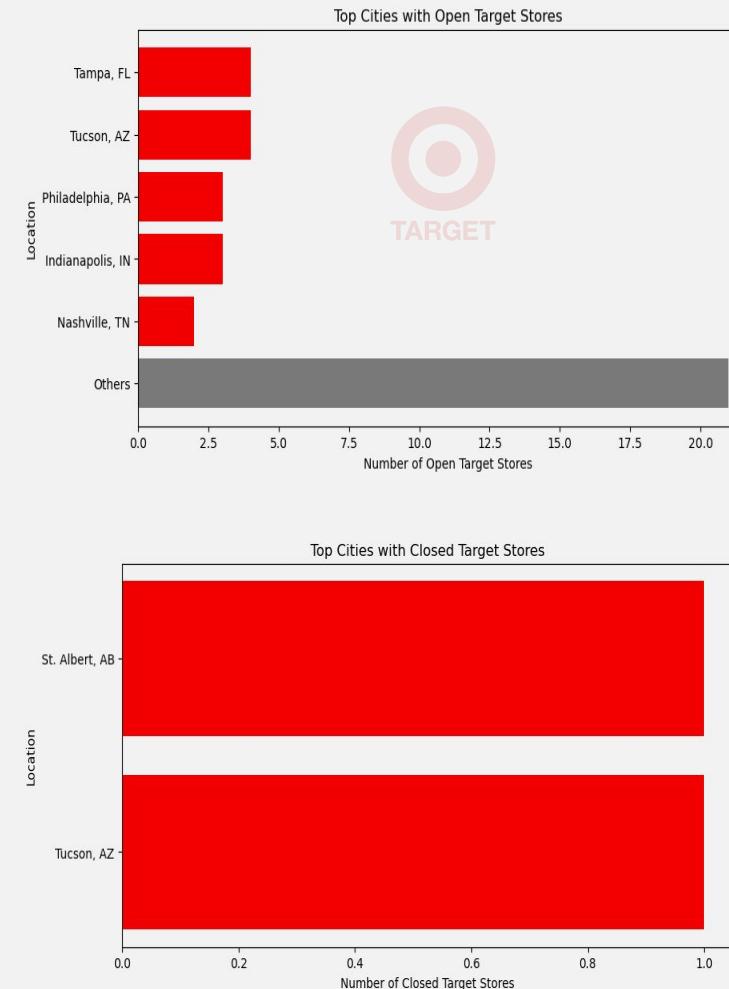
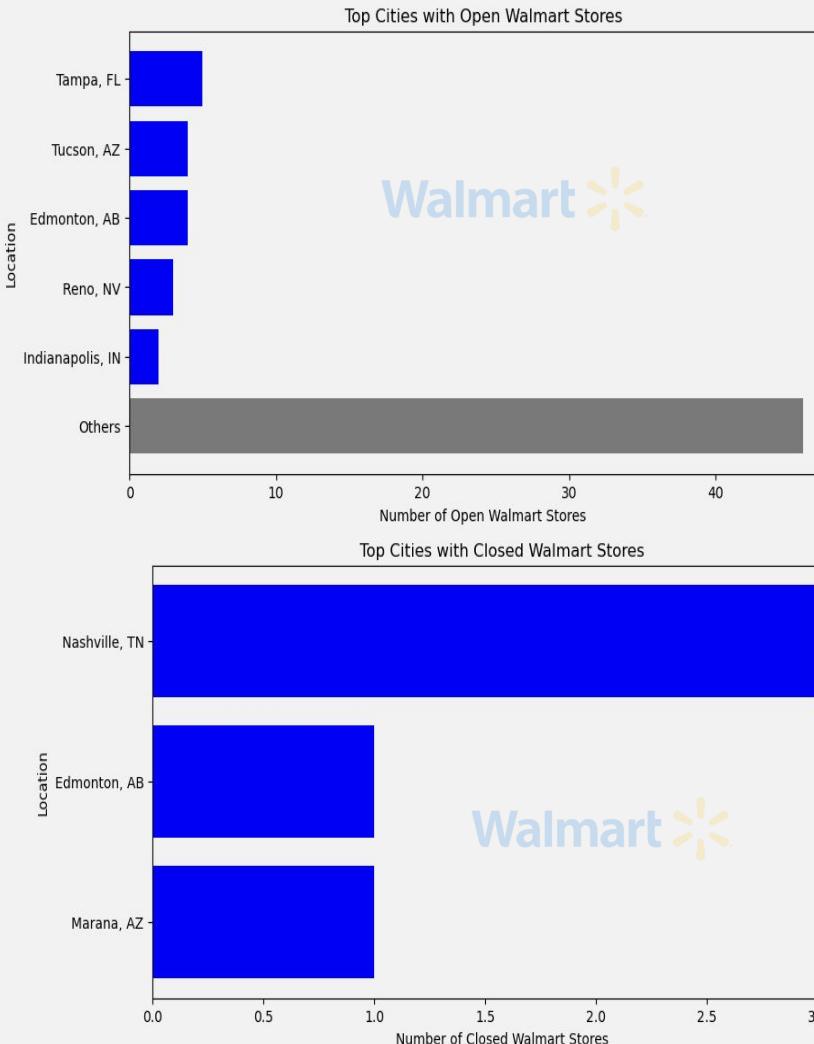


	Market Review Totals	
Sentiment	Target	Walmart
Positive	1048	900
Negative	277	635
Neutral	38	68
Total	1363	1603

- Target's reviews are predominantly positive, while Walmart shows a higher share of negative feedback, highlighting a contrast in customer experiences.
- Walmart has a greater volume of total reviews, but a larger portion is negative compared to Target, indicating potential areas of concern.

Target enjoys stronger positive sentiment, while Walmart faces significantly higher negative feedback.

Number of Open Stores: Target vs Walmart

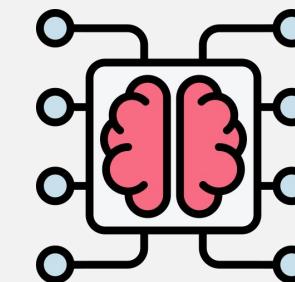


		
Open	64	37
Closed	5	2
Total Stores	69	39
Closure Percentage	7.81%	5.41%

Walmart shows a higher store closure rate than Target, signaling greater operational challenges.

Walmart: ML Models Before HyperTurning

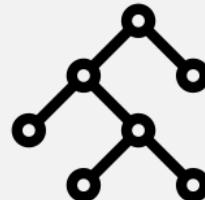
Logistic Regression	LogisticRegression Performance: Accuracy: 0.6355 Precision: 0.9710 Recall: 0.6442 F1-score: 0.7746	NB	GaussianNB Performance: Accuracy: 0.9377 Precision: 0.9406 Recall: 0.9967 F1-score: 0.9678
Random Forest	RandomForestClassifier Performance: Accuracy: 0.9470 Precision: 0.9743 Recall: 0.9712 F1-score: 0.9727	Bernoulli NB	BernoulliNB Performance: Accuracy: 0.9408 Precision: 0.9408 Recall: 1.0000 F1-score: 0.9695
SVM	SVC Performance: Accuracy: 0.7632 Precision: 0.9758 Recall: 0.7756 F1-score: 0.8643		



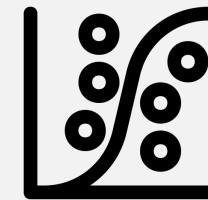
Random Forest achieved the highest accuracy (94.7%), outperforming other models. Hyperparameter tuning may further enhance its performance.

Walmart: ML Models After HyperTurning

RandomForestClassifier Performance:
Accuracy: 0.9408
Precision: 0.9408
Recall: 1.0000
F1-score: 0.9695



LogisticRegression Performance:
Accuracy: 0.5576
Precision: 0.9348
Recall: 0.5695
F1-score: 0.7078



After hyperparameter tuning, Random Forest maintained a high accuracy (94.08%), while Logistic Regression dropped to 55.7%, confirming Random Forest as the superior model.



Target: ML Models Before HyperTurning

Logistic Regression	LogisticRegression Performance: Accuracy: 0.6117 Precision: 0.9759 Recall: 0.6136 F1-score: 0.7535	NB	GaussianNB Performance: Accuracy: 0.9670 Precision: 0.9670 Recall: 1.0000 F1-score: 0.9832
Random Forest	RandomForestClassifier Performance: Accuracy: 0.9377 Precision: 0.9696 Recall: 0.9659 F1-score: 0.9677	SVC	SVC Performance: Accuracy: 0.5531 Precision: 0.9797 Recall: 0.5492 F1-score: 0.7039
Bernoulli NB	BernoulliNB Performance: Accuracy: 0.9670 Precision: 0.9670 Recall: 1.0000 F1-score: 0.9832		



Before hyperparameter tuning, Random Forest (93.77%) and Naïve Bayes models (96.7%) showed the highest accuracy, while Logistic Regression (61.1%) and SVC (55.3%) underperformed.

Target: ML Models After HyperTurning

RandomForestClassifier Performance:

Accuracy: 0.9670

Precision: 0.9670

Recall: 1.0000

F1-score: 0.9832

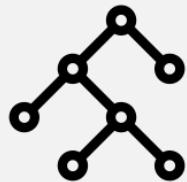
LogisticRegression Performance:

Accuracy: 0.6117

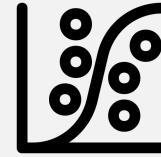
Precision: 0.9817

Recall: 0.6098

F1-score: 0.7523



After hyperparameter tuning, Random Forest achieved the highest accuracy (96.7%), while Logistic Regression remained significantly lower at 61.1%, reinforcing Random Forest as the superior model.



Why Random Forest is the Best Model for Walmart & Target?

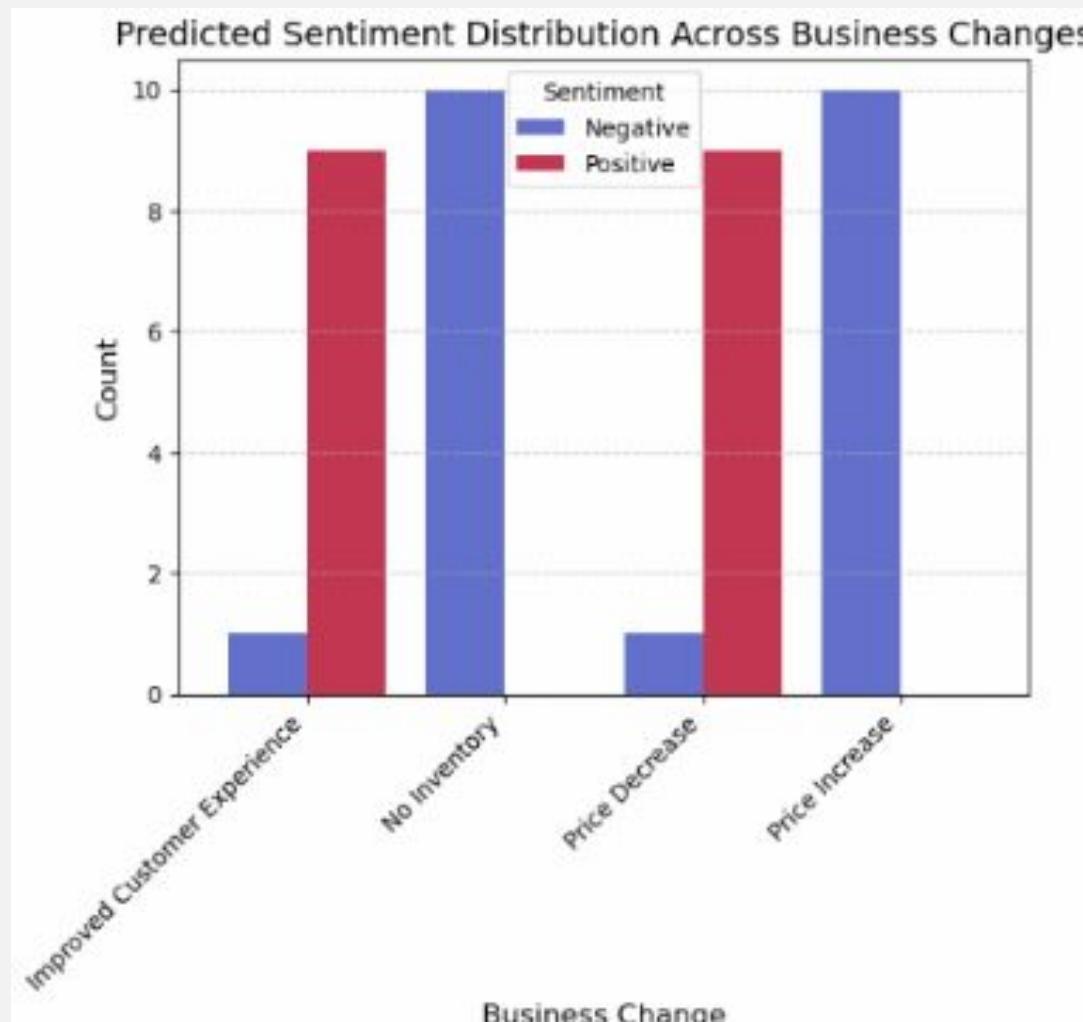
- Highest Accuracy after Hypertuning
- Handles Noisy and Imbalanced Data Well
- Captures Complex Patterns in Text-Derived Data



Random Forest outperformed other models, making it the ideal choice for predicting store closures from complex review data.



Walmart - Sentimental Analysis



If the business apply the changes to improve their current scenarios as per the sentiment analysis

1. Improved Customer Experience

- The chart shows a somewhat **mixed** sentiment, with both negative and positive counts. This might indicate that while many customers appreciate service enhancements, others may have had lingering issues or expectations not met.

2. No Inventory

- Predominantly **Negative** sentiment, though there's still a notable positive portion. Customers are generally frustrated by stock-outs, but some feedback may remain positive due to other factors (e.g., helpful staff, alternative products).

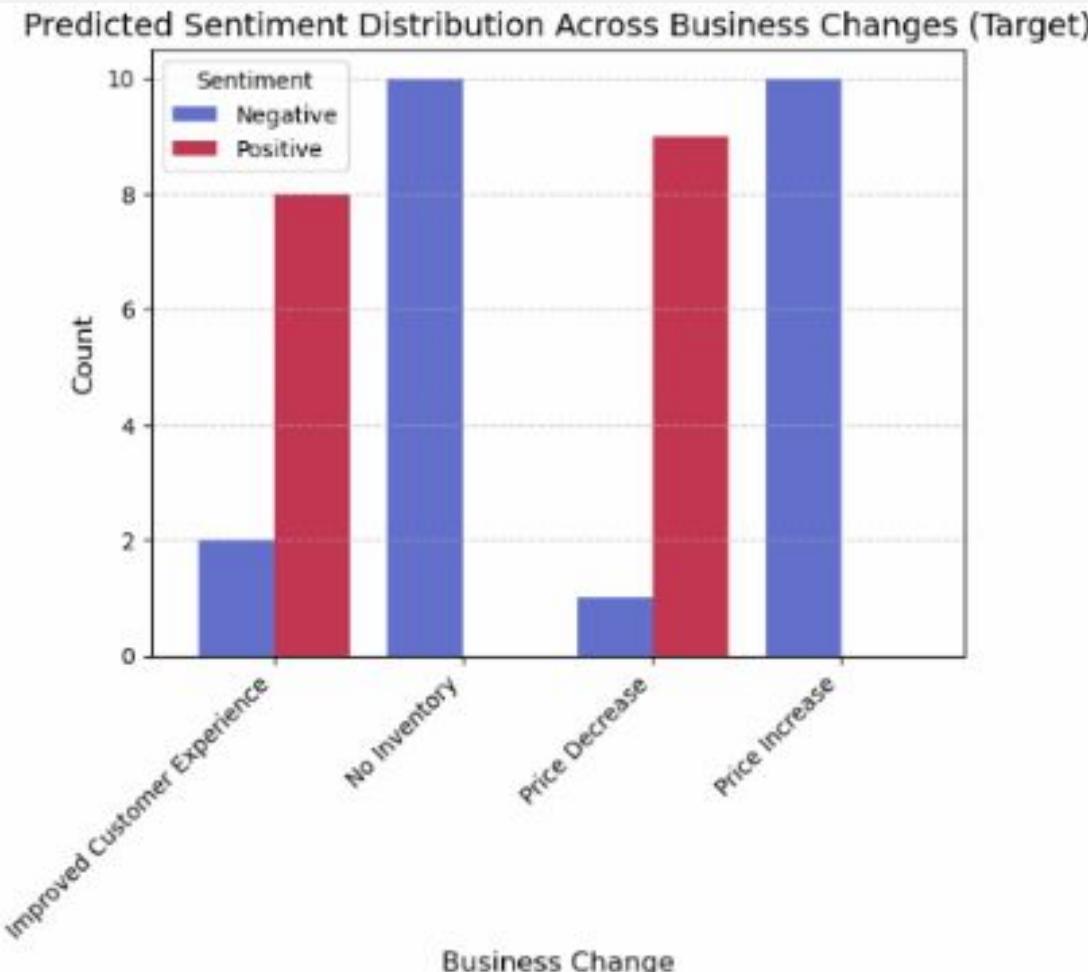
3. Price Decrease

- Strongly **Positive** sentiment, with virtually no negative feedback. Lower prices are a clear win for most customers, reinforcing that cost reductions typically boost satisfaction.

4. Price Increase

- Primarily **Negative** sentiment, with a smaller positive component. While higher prices tend to upset customers, some may perceive added value or better quality, hence the few positive reviews.

Target - Sentimental Analysis



If the business apply the changes to improve their current scenarios as per the sentiment analysis

1. Improved Customer Experience

- The chart shows a predominantly **Positive** response. This suggests that initiatives enhancing customer interactions or service quality are very well-received.

2. No Inventory

- The chart indicates a mostly **Negative** response. Customers are generally dissatisfied when items are unavailable, highlighting the need for strong inventory management.

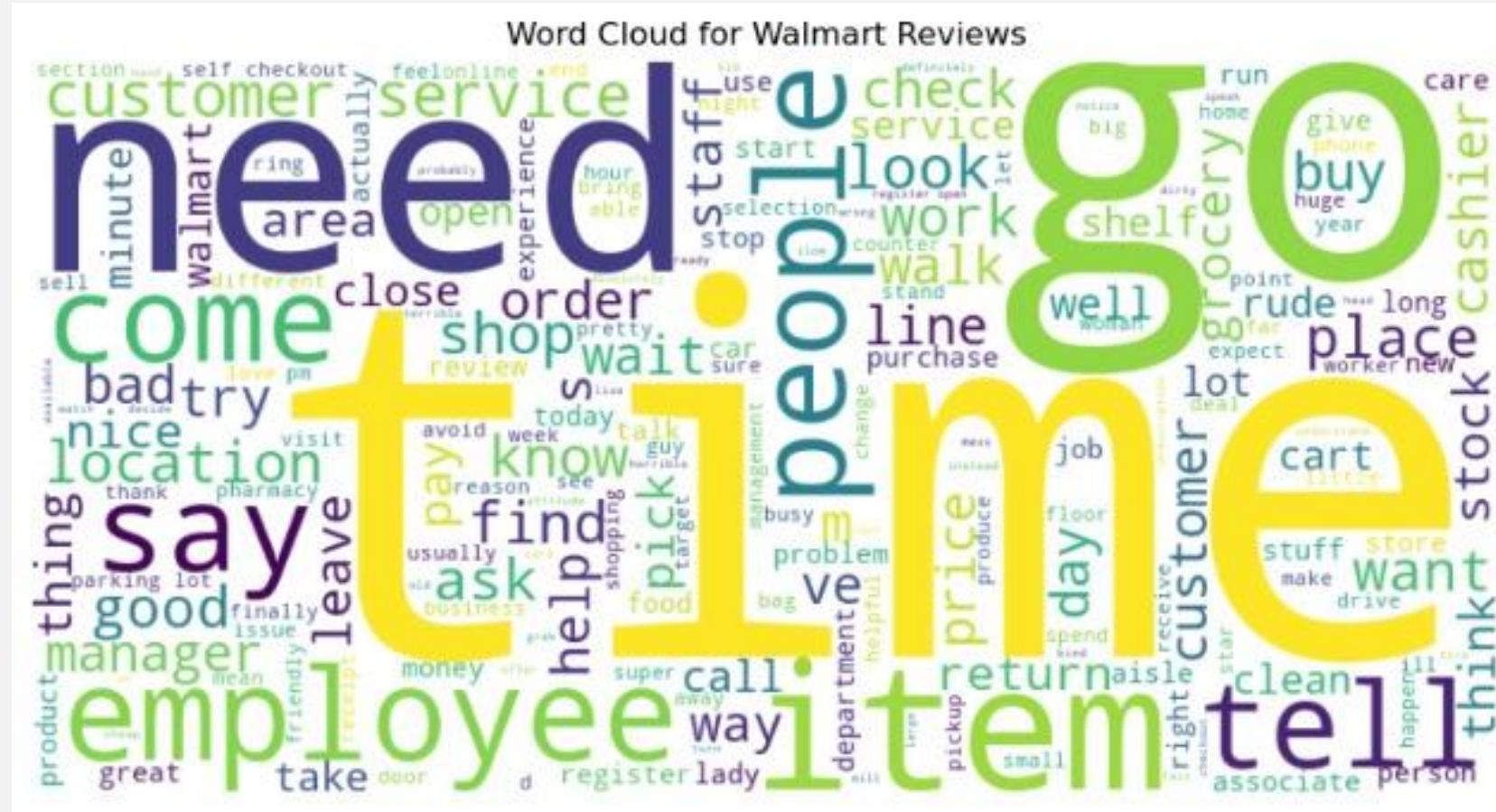
3. Price Decrease

- Lowering prices generates largely **Positive** feedback, though some negative reactions may occur if other factors (like quality) aren't maintained.

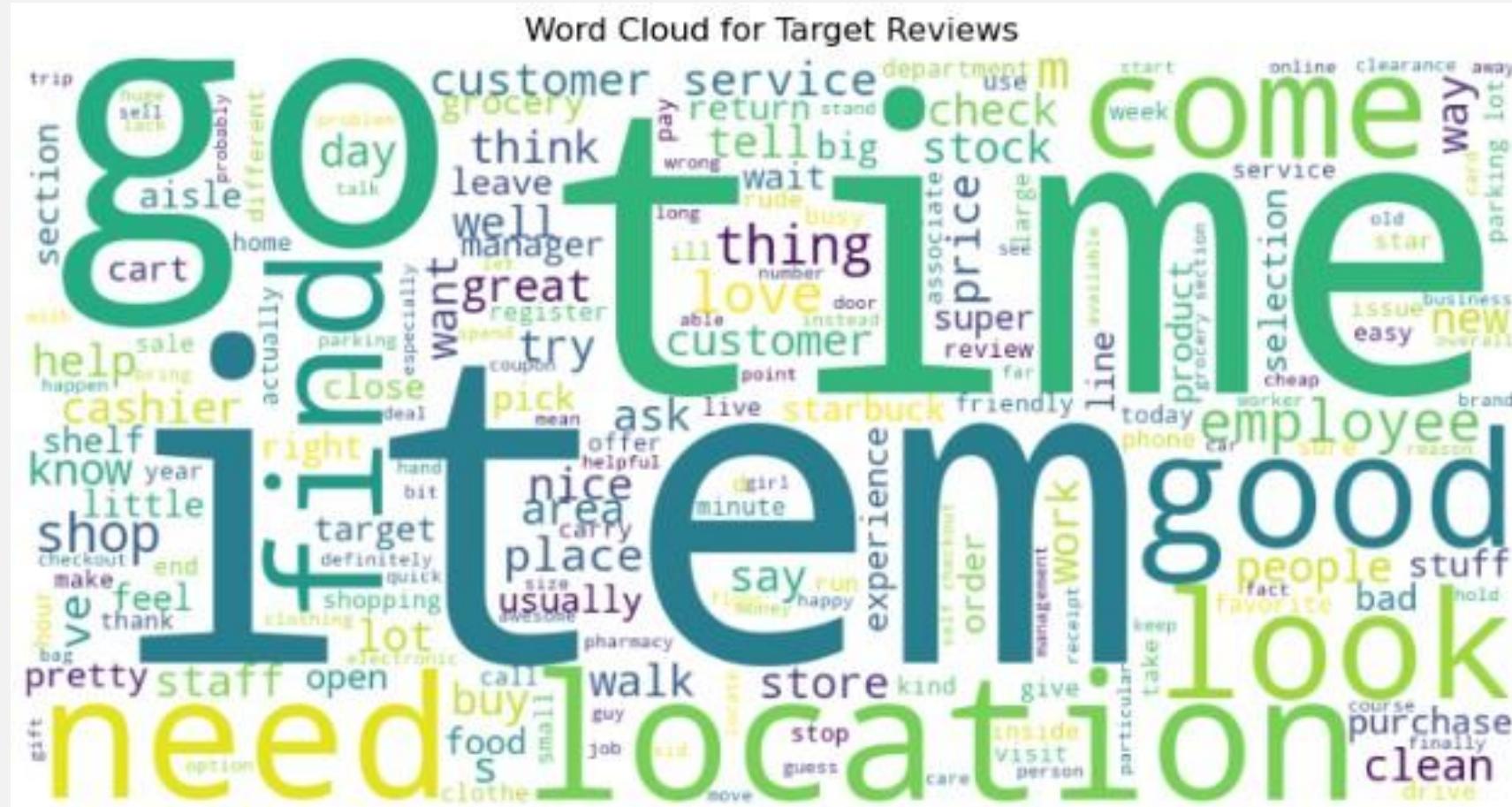
4. Price Increase

- Raising prices triggers a primarily **Negative** response, reinforcing that higher costs often require added value or justification to maintain customer satisfaction.

Walmart - Word Cloud



Target - Word Cloud



Walmart: BERT Analysis (1/6)

Topic Word Scores

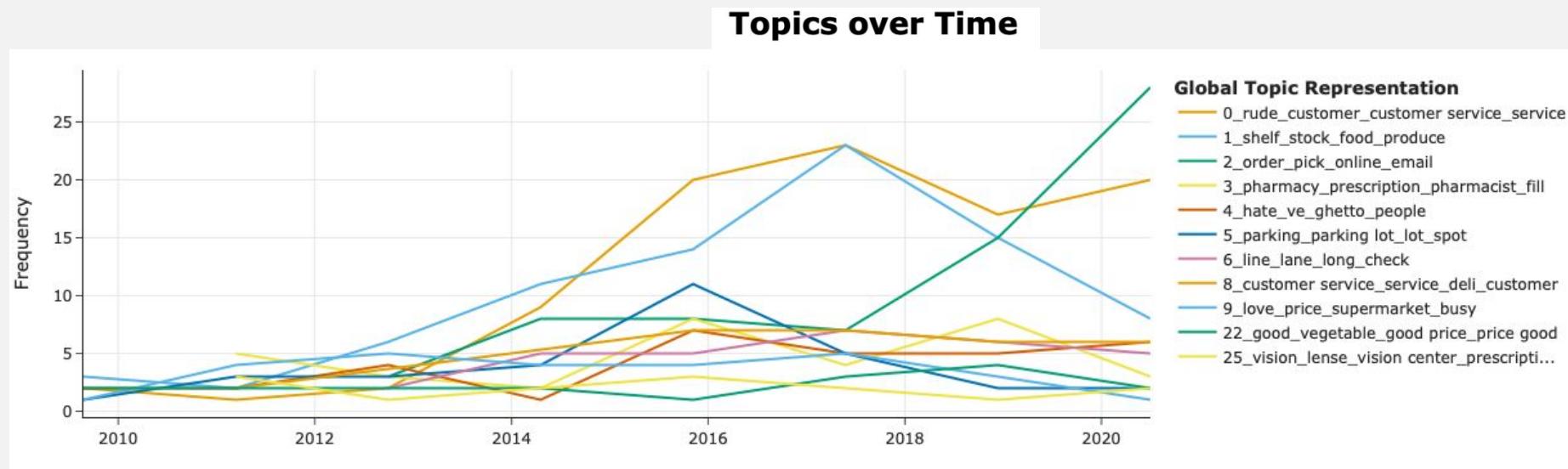


We identified 10 major recurring themes from Walmart customer reviews:

- Service Issues:** rude staff, poor customer service (Topic 0, Topic 8)
- Stock Shortages:** empty shelves, unavailable products (Topic 1)
- Online Order Problems:** pickup delays, refund issues (Topic 2)
- Pharmacy Complaints:** long waits, prescription errors (Topic 3)
- Store Environment:** dirty, unpleasant atmosphere (Topic 4)
- Parking Challenges:** crowded, insufficient space (Topic 5)
- Checkout Delays:** long lines, slow self-checkout (Topic 6)
- Cleanliness & Organization:** messy, unorganized stores (Topic 7)
- Deli Counter Issues:** slow service, incorrect orders (Topic 8)
- Positive Mentions:** minimal, focused on “love” and “price” (Topic 9)

Recurring themes indicate operational challenges that serve as early warning signs for store performance risks.

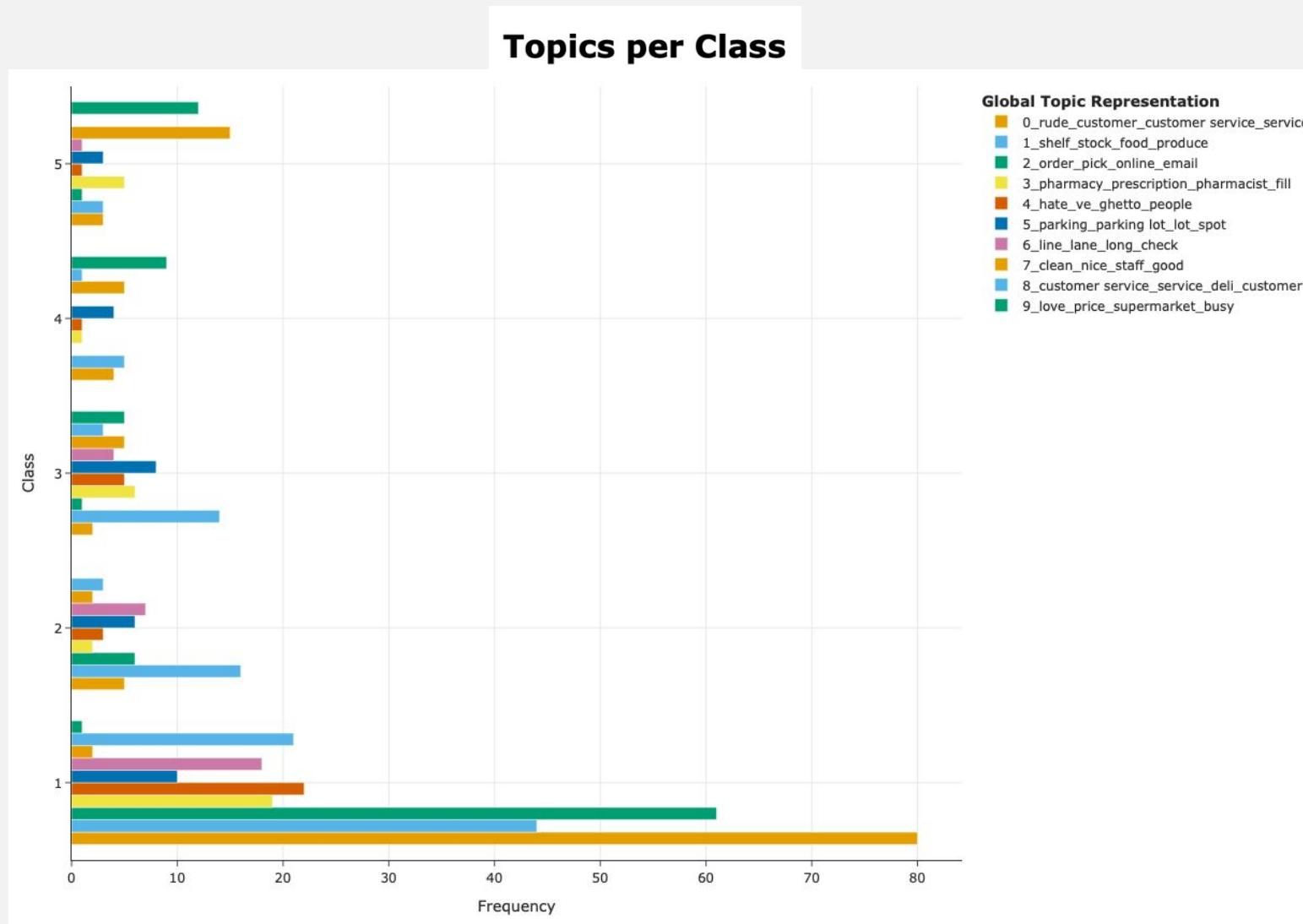
Walmart: BERT Analysis (2/6)



How Customer Complaints Have Shifted Over Time

- Rude Customer Service (Topic 0)** – Sharp increase after 2014, peaking near 2018, highlighting persistent dissatisfaction with staff and service quality.
- Stock & Inventory Issues (Topic 1)** – Gradual, consistent growth until 2017, signaling ongoing challenges in product availability.
- Online Order & Pickup Problems (Topic 2)** – Noticeable surge post-2016, correlating with the rise of e-commerce services like pickup and delivery.
- Pharmacy Complaints (Topic 3)** – Steady presence, indicating recurring prescription service issues across years.
- Other Topics** – Remain relatively stable with lower frequency, such as **Parking (Topic 5)** and **Checkout Delays (Topic 6)**.

Walmart: BERT Analysis (3/6)

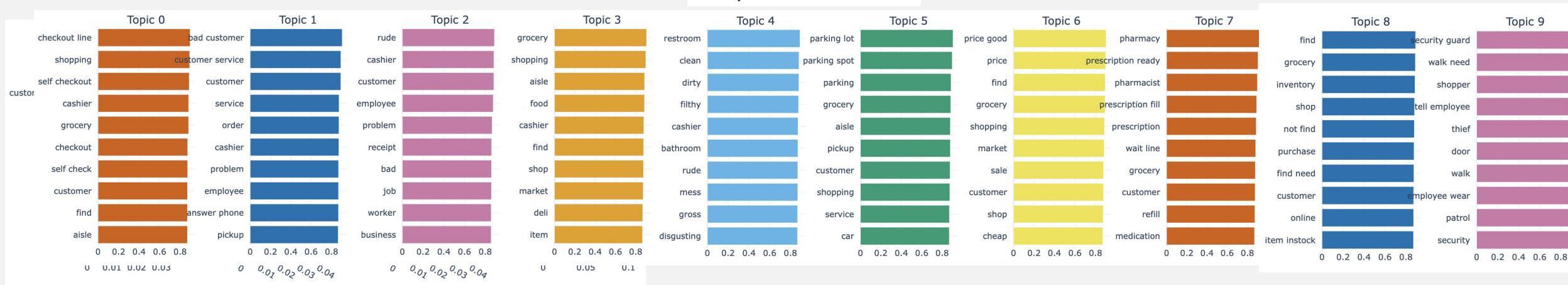


Distribution of Topics Across Review Classes

- **1-star ratings dominates the dataset**, with the highest frequency of reviews mentioning:
 - **Rude Customer Service (Topic 0)**
 - **Online Order Issues (Topic 2)**
 - **Positive Mentions (Topic 9)** (though less frequent than negative topics).
- **Higher Star Ratings (4 & 5)** show a more **balanced mix** of topics but with **lower frequencies**, indicating fewer but potentially more severe complaints.
- **Stock Issues (Topic 1)** and **Parking Problems (Topic 5)** appear consistently across classes, reinforcing them as **widespread, ongoing problems**.

Walmart: BERT Analysis with Zero Shot (4/6)

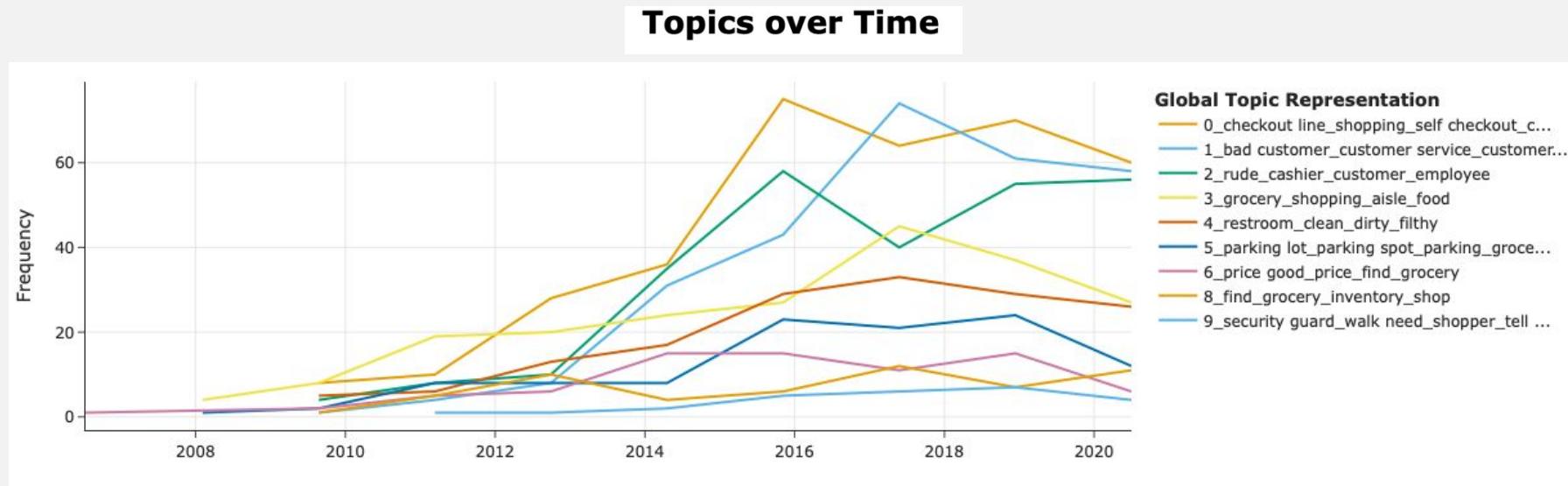
Topic Word Scores



- Checkout Delays:** High frustration from slow lines and self-checkout issues.
- Customer Service Failures:** Repeated reports of rude and unhelpful staff.
- Cleanliness Problems:** Dirty restrooms and store areas impacting customer satisfaction.
- Stock & Inventory Issues:** Missing items and out-of-stock products.
- Pharmacy Wait Times:** Delays in prescription services.
- Security Concerns:** Complaints about safety and theft prevention.

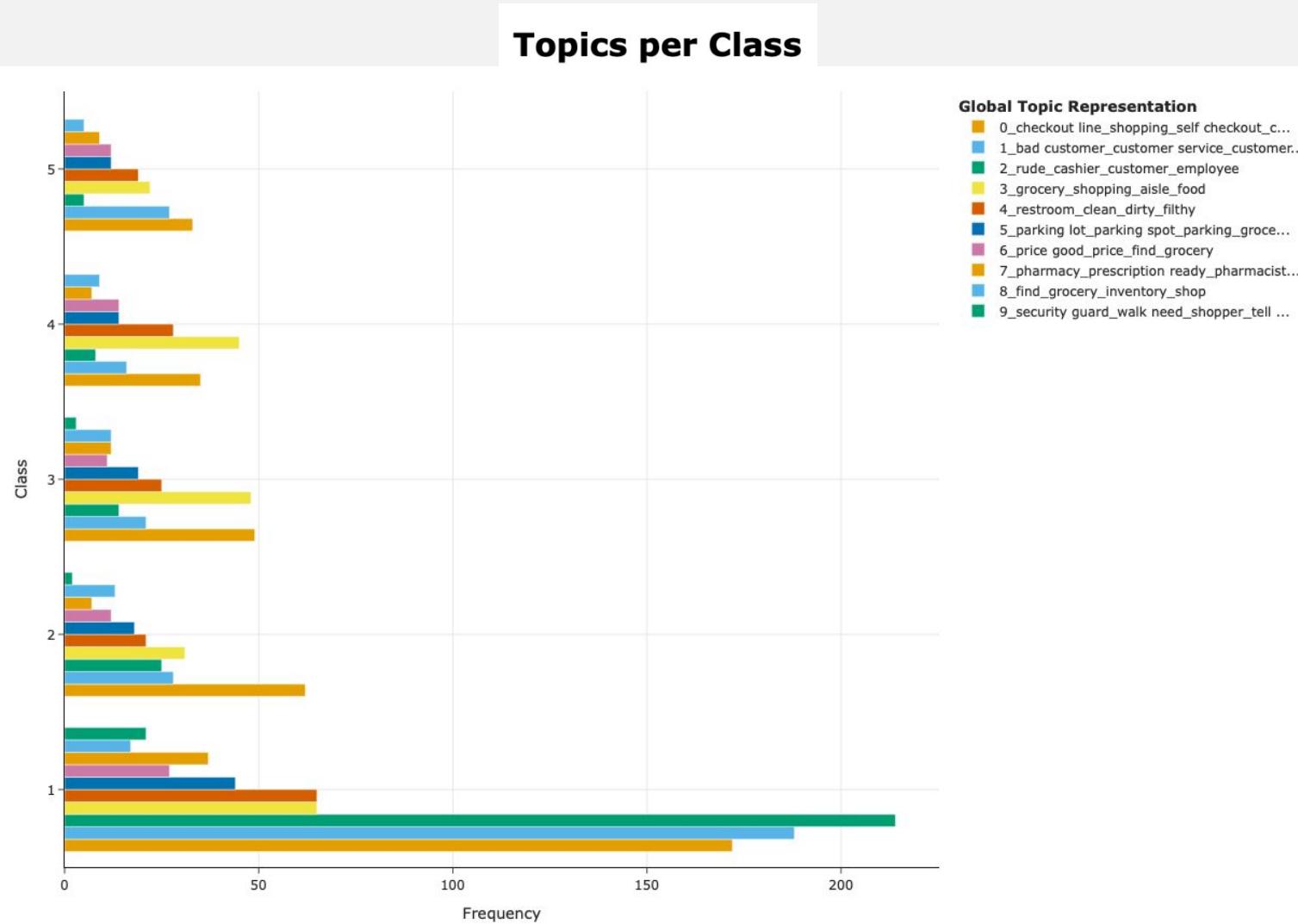
Zero-Shot Topic Modeling validates consistent retail challenges, confirming that customer feedback aligns with predefined risk areas for proactive intervention.

Walmart: BERT Analysis with Zero Shot (5/6)



- Persistent Operational Issues – Checkout, staffing, and stock challenges have remained consistent over time.
- Rising Concerns – Security and inventory management have become growing focal points.
- Predictable Risk Areas – Recurring customer pain points indicate early warning signs for store decline.

Walmart: BERT Analysis with Zero Shot (6/6)



- 1-Star Ratings (most frequent) is dominated by:
 - ◆ **Inventory Issues (Topic 8)** – reflecting widespread complaints about stock and availability.
 - ◆ **Checkout Delays (Topic 0)** – confirming persistent frustration with long lines and self-checkout.
 - ◆ **Customer Service (Topic 1)** – highlighting consistent dissatisfaction with staff behavior.
- Higher Stars (3, 4, 5) show:
 - ◆ Gradual distribution of topics like **Cleanliness (Topic 4)** and **Security Concerns (Topic 9)**.
 - ◆ Fewer total reviews but cover more **specific or severe complaints**.
- **Security (Topic 9)** and **Pharmacy Issues (Topic 7)** are present across classes but at lower frequencies, indicating **localized issues** rather than system-wide problems.

The majority of recurring complaints are centered on everyday operational issues (stock, checkout, service).

Higher severity classes capture more critical or niche issues, which may indicate at-risk locations.

Target: BERT Analysis (1/6)



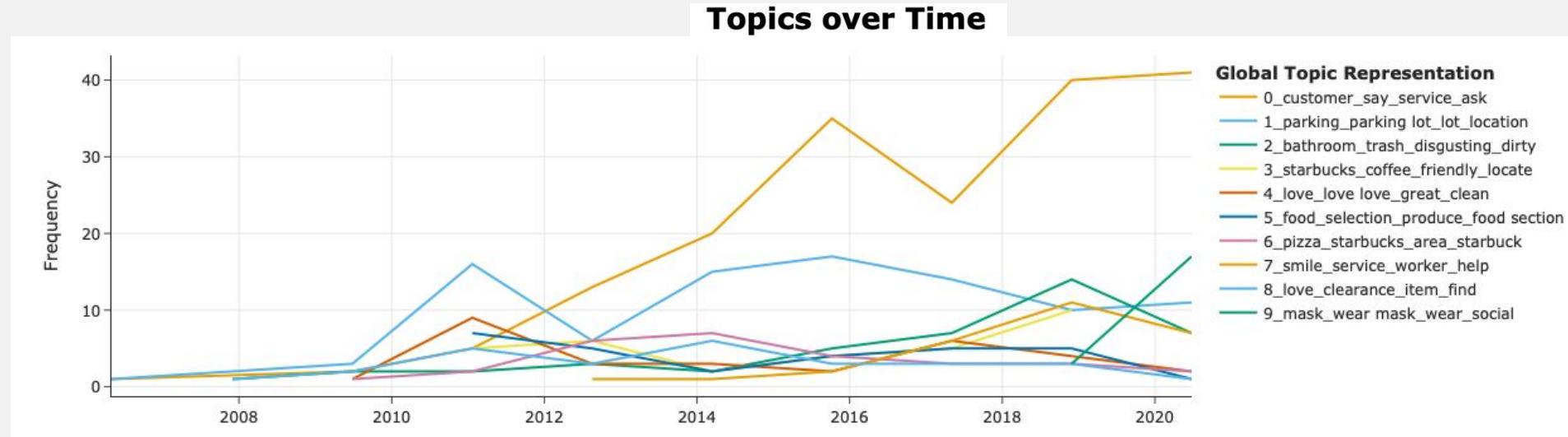
We identified 10 major recurring themes from Target customer reviews:

- Service Issues:** communication gaps, lack of helpful staff, inconsistent support (Topic 0, Topic 7)
- Parking Challenges:** limited parking availability, inconvenient locations (Topic 1)
- Cleanliness & Restrooms:** dirty bathrooms, unclean floors, disappointing hygiene (Topic 2)
- Starbucks Experience:** mixed reviews on in-store coffee, food quality, and service (Topic 3, Topic 6)
- Home Decor & Store Layout:** positive mentions of clean sections, home decor variety (Topic 4)
- Food Quality & Selection:** fresh produce, food variety, and competitive pricing (Topic 5)
- Clearance & Product Availability:** good deals on clearance items, finding specific products (Topic 8)
- COVID-19 Protocols:** mask policies, social distancing enforcement (Topic 9)
- Positive Shopping Experience:** mentions of friendliness, enjoyable store ambiance (spread across Topics 3, 4, 7)

Target's key pain points include service quality, parking, cleanliness, and product experience, with Starbucks and pandemic safety as unique themes.



Target: BERT Analysis (2/6)

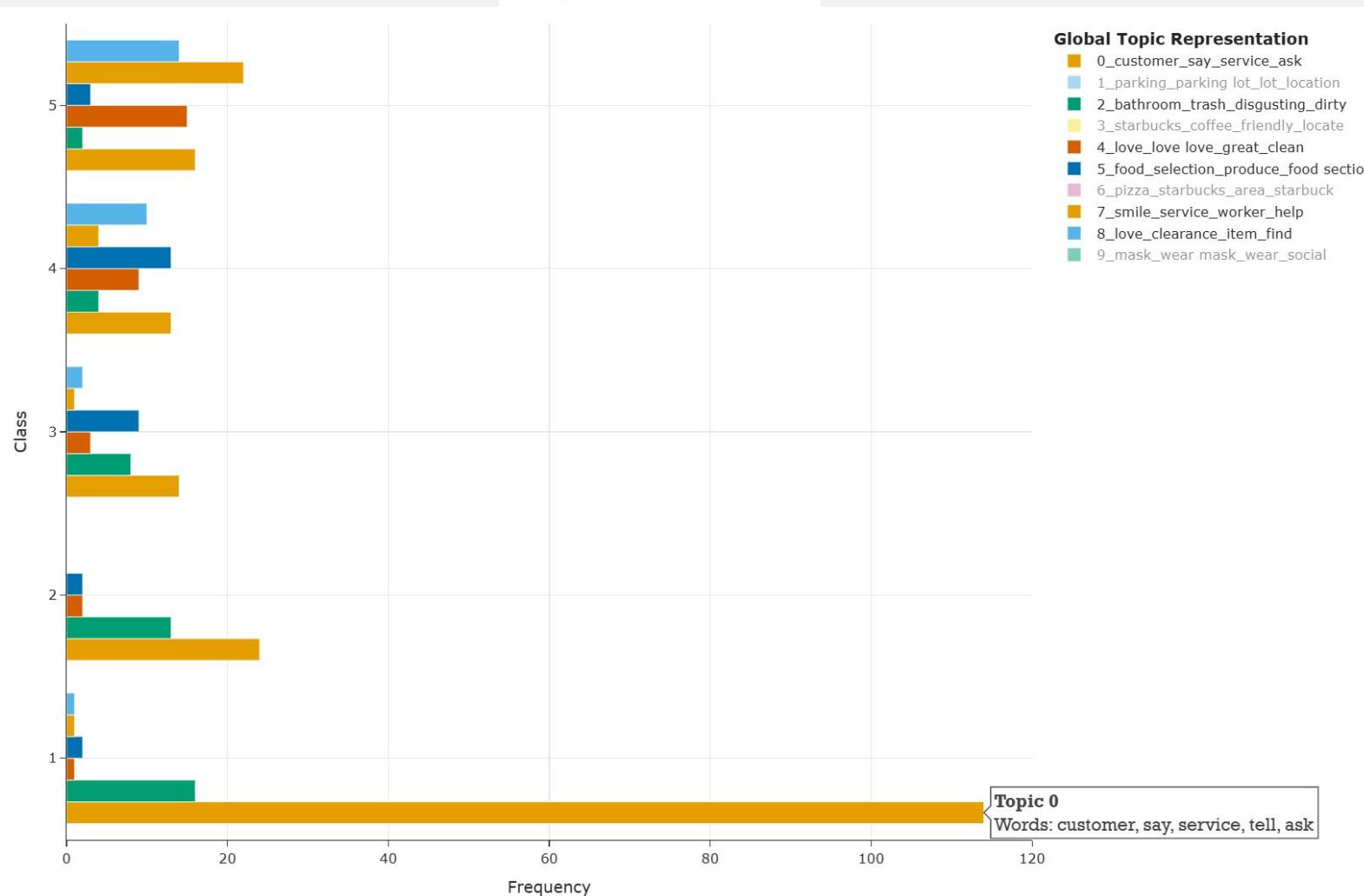


How Customer Complaints Have Shifted Over Time:

- Persistent Service & Cleanliness Issues** – Customer service complaints have steadily grown, while restroom and store cleanliness concerns show periodic spikes.
- Parking & Food Selection** – Parking peaked as a major issue around 2011 before stabilizing, while food selection and freshness have remained a consistent topic.
- Shifting Sentiments on Starbucks & COVID-19** – In-store Starbucks experiences have fluctuated over time, while mask policies gained traction post-2020 due to pandemic-related concerns.

Target: BERT Analysis (3/6)

Topics per Class



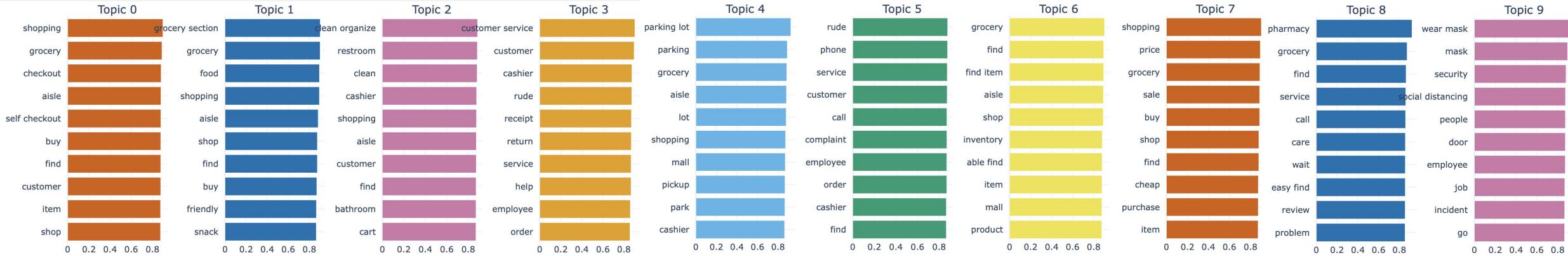
Distribution of Topics Across Review Classes

- **Class 1 dominates the dataset**, with the highest frequency of reviews mentioning:
 - Customer Service Issues (Topic 0)**
 - Clearance & Product Availability (Topic 8)**
 - COVID-19 Mask Policies (Topic 9)**
- Higher Classes (4 & 5) show a more **balanced mix of topics** but with **lower frequencies**, indicating fewer but likely more **experience-based or positive feedback**, such as:
 - Starbucks Experience (Topic 3)**
 - Home Decor Love (Topic 4)**
 - Friendly Staff (Topic 7)**
- **Parking Issues (Topic 1)** and **Cleanliness Problems (Topic 2)** appear consistently across classes, reinforcing them as **ongoing, widespread concerns** impacting overall satisfaction.



Target: BERT Analysis with Zero Shot (4/6)

Topic Word Scores



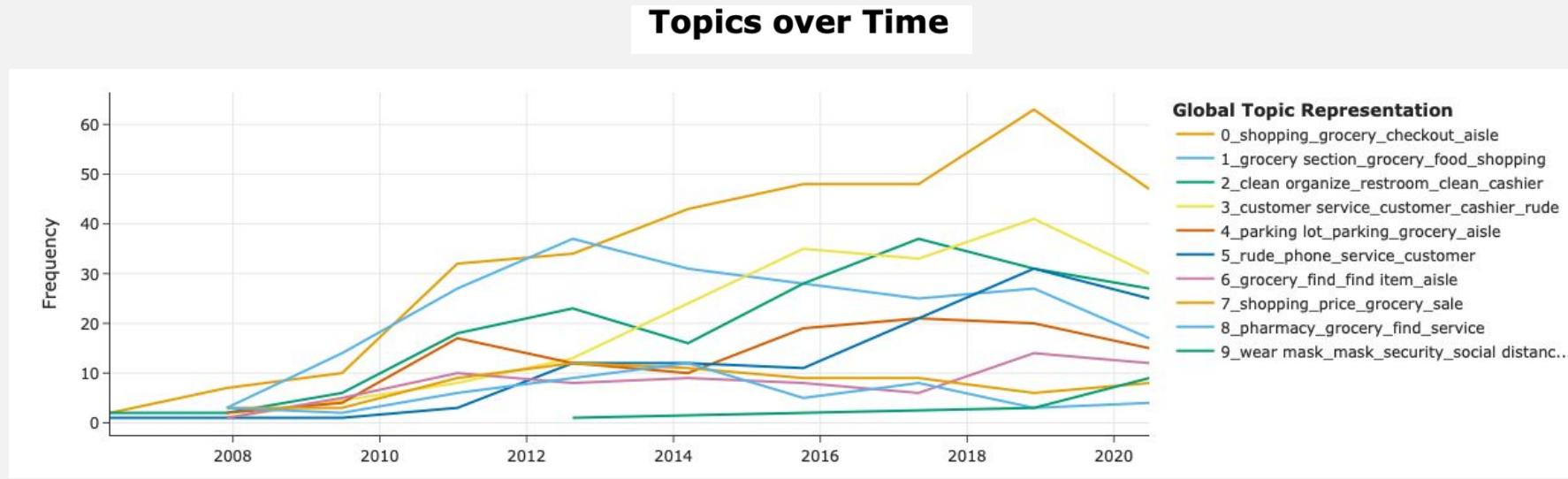
- Checkout Delays:**
Frustration around long lines, slow self-checkout processes, and crowded aisles.
- Stock & Inventory Issues:**
Challenges in finding grocery items, missing products, and limited availability.
- Cleanliness Problems:**
Dirty restrooms, unorganized areas, and poor store maintenance affecting the shopping experience.
- Customer Service Failures:**
Reports of rude employees, unhelpful cashiers, and poor handling of returns and complaints.
- Parking Difficulties:**
Limited parking spaces and inconvenient parking lot layouts, especially during busy times.
- Pharmacy Wait Times:**
Delays in service, difficulty finding medications, and issues with pharmacy staff.
- Security Concerns:**
Feedback around mask enforcement, social distancing, safety incidents, and staff response during COVID-19.
- Price & Affordability:**
Comments around sales, pricing, and value for money.

Zero-Shot modeling confirms that:

- Retail Pain Points Are Consistent** – Customer frustrations align with common industry issues.
- Predictable & Recurring Issues** – Service, inventory, cleanliness, and safety concerns persist over time.
- Need for Proactive Action** – Early interventions can enhance operations, staff performance, and customer satisfaction.



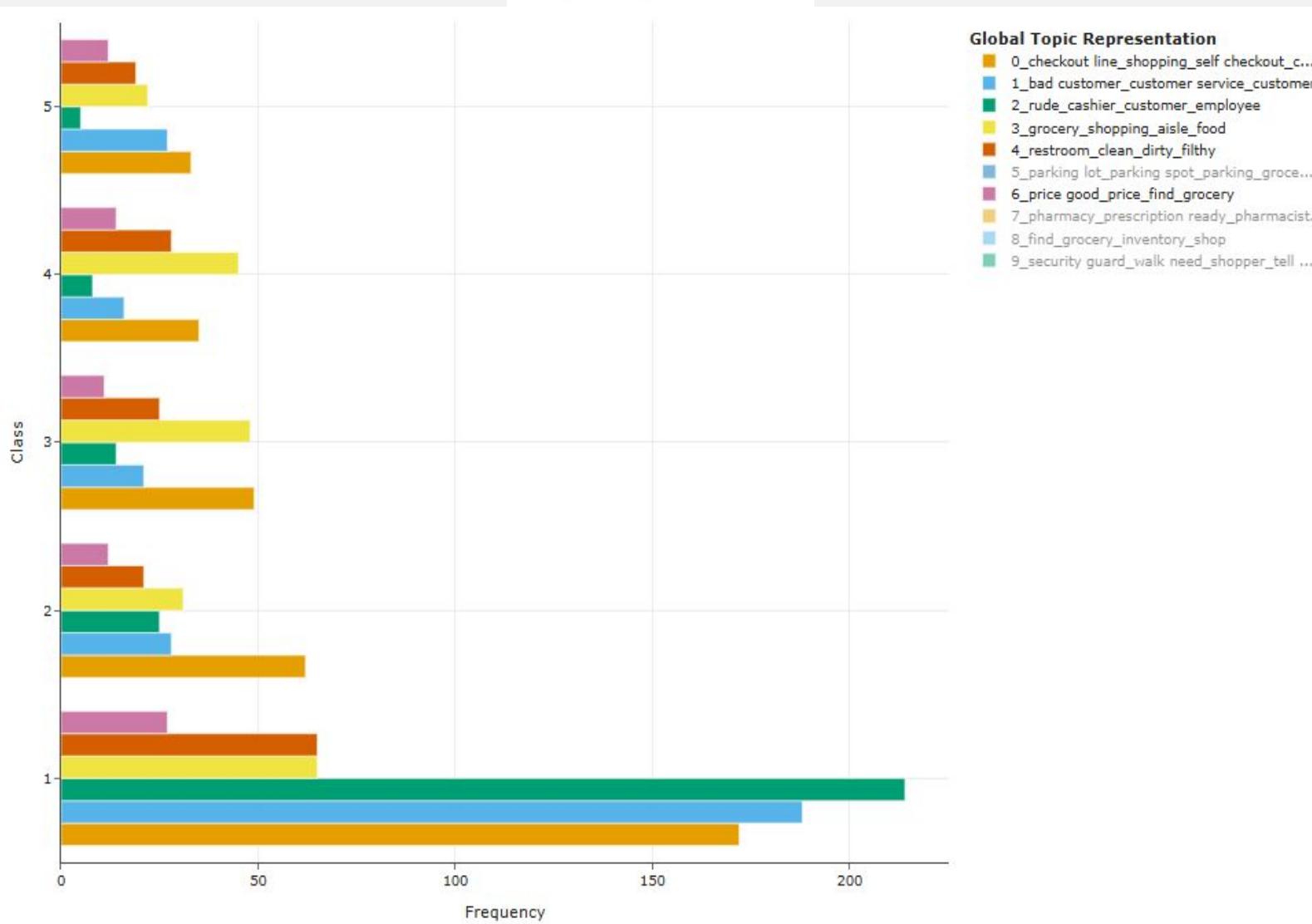
Target: BERT Analysis with Zero Shot (5/6)



- Checkout experience, stock shortages, and cleanliness have grown as persistent issues over the years.
- Customer service and parking remain steady, long-term areas of concern.
- COVID-19 safety measures created a clear spike in recent feedback.

Target: BERT Analysis (6/6)

Topics per Class



Distribution of Topics Across Review Classes (Stars)

- **1-Star Ratings** dominates the dataset, with the highest frequency of reviews mentioning:
 - Rude Cashier/Other Employees (Topic 2)**
 - Bad Customer Service (Topic 1)**
 - Long Checkout Line (Topic 9)**
- Higher Stars (4 & 5) show a more **balanced mix of topics** but with **lower frequencies**, indicating fewer but likely more experience-based or positive feedback, such as:
 - Moderate-Good Grocery Prices (Topic 6)**
 - Experiencing Neat Aisle (Topic 3)**



Key Findings from Customer Reviews

- Service Quality Issues
- Stock & Inventory Problems
- Online Order & Pickup Challenges
- Store Cleanliness & Environment
- Security & Safety Complaints

Business Impact & Store Viability Risks

- Declining Customer Satisfaction
- Operational Inefficiencies
- Reputation Damage
- Early Warning Signals for Closures

NLP reveals critical operational pain points at Walmart, signaling risks to customer satisfaction and store survival.



Key Findings from Customer Reviews

- Service Quality Issues
- Parking Challenges
- Store Cleanliness & Restrooms
- Starbucks & In-Store Experience
- COVID-19 Safety & Mask Policies

Business Impact & Store Viability Risks

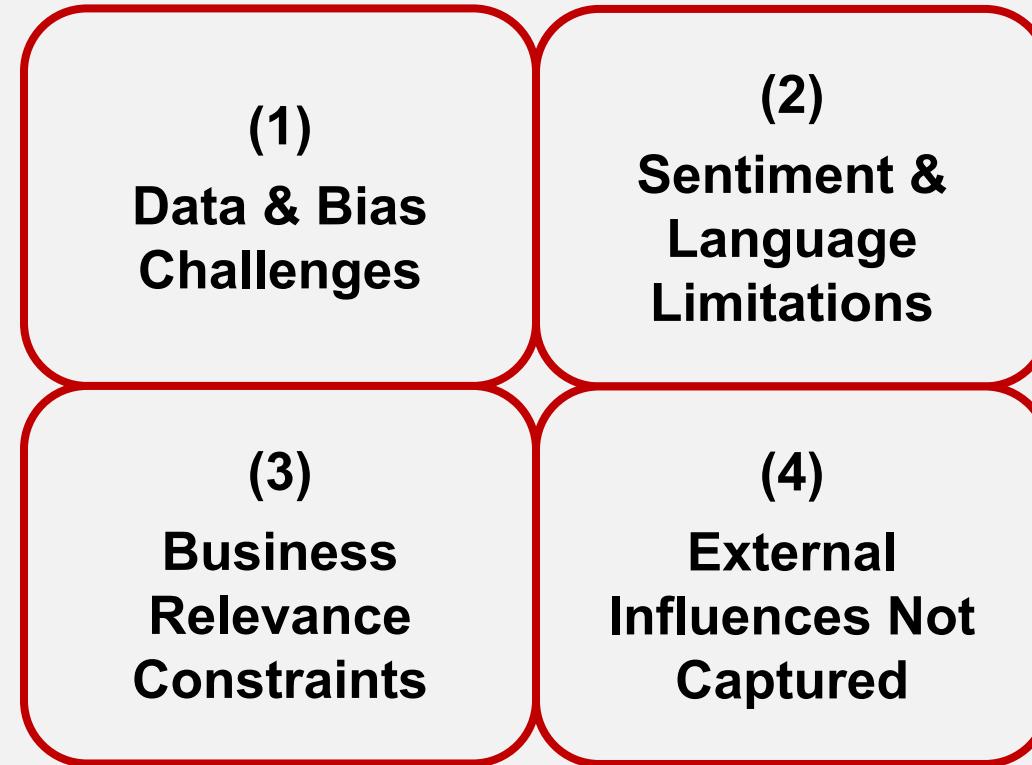
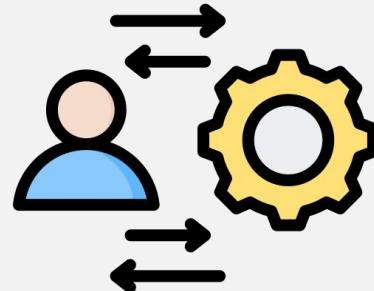
- Customer Experience & Brand Perception
- Operational Challenges in High-Traffic Locations
- Store Maintenance & Hygiene Standards
- Impact of In-Store Amenities on Foot Traffic
- Pandemic-Driven Policy Sentiment

NLP highlights Target's operational challenges, focusing on service quality, amenities, and pandemic-driven customer expectations.



W. P. Carey

Limitations of NLP Approach



NLP insights are powerful but limited by data biases, language nuances, and external business factors.

Recommendations for Walmart & Target



(1)
Improve Service Quality & Staff Training

(2)
Optimize Inventory & Supply Chain Management

(3)
Enhance Store Cleanliness & Maintenance

(4)
Address Parking & In-Store Experience

(5)
Strengthen Security & Loss Prevention Measures

(6)
Leverage NLP for Continuous Monitoring & Intervention

Strategic improvements in service, operations, and safety can drive better customer experiences and store performance.





Short-Term (0-2 Years)

- **Improve Service & Cleanliness** – Train staff, enforce hygiene standards, and track customer complaints.
- **Optimize Inventory & Order Fulfillment** – Use data to prevent stock shortages and streamline pickup.
- **Deploy Sentiment-Based Monitoring** – Flag at-risk stores using NLP insights for early intervention.

Long-Term (+2 Years)

- **Automate Store Risk Assessment** – Implement AI-driven models for continuous monitoring.
- **Integrate NLP with Operations** – Align sentiment insights with financial and operational data.
- **Refine Models with New Data** – Continuously update predictions as customer trends evolve.

A phased strategy combining short-term improvements and long-term AI-driven monitoring ensures sustained store performance.

Financial Impact Analysis & Assumptions



Metric	Value (\$)	Formula / Assumption
Total Potential Revenue Loss Avoided	\$750,000,000	(Avg. revenue per store \$50M) × (Revenue loss 15%) × (At-risk stores 100)
Total Store Closure Costs Avoided	\$500,000,000	(Closure cost per store \$5M) × (At-risk stores 100)
Total Potential Savings	\$1,250,000,000	(Total Revenue Loss Avoided) + (Total Store Closure Costs Avoided)
Short-Term Implementation Cost (0-2 Years)	\$50,000,000	(Cost per store \$500K) × (At-risk stores 100)
Long-Term Implementation Cost (+2 Years)	\$30,000,000	(Cost per store \$300K) × (At-risk stores 100)
Total Implementation Cost	\$80,000,000	(Short-Term Cost) + (Long-Term Cost)
Net Present Value (NPV)	\$886,574,074	(Total Potential Savings) discounted at 8% over 2 and 5 years - (Total Implementation Cost)
Return on Investment (ROI) (%)	1462.50%	((Total Potential Savings - Total Implementation Cost) / Total Implementation Cost) × 100

This hypothetical model illustrates the thought process behind estimating potential savings and intervention costs for at-risk stores.



Thank you, have fun in Spring Break!!!