

Customer Sentiment & Business Insights Report

1. **Data Summary:**

- Customer reviews were scraped from Trustpilot for Boat and Noise.
- The dataset included:
 - Review Text, Rating, Date, Location, Brand Label**
- Cleaning steps included removal of duplicates, missing values, and neutral (3-star) reviews.
- Ratings were mapped into:
 - Positive Sentiment:** 4–5 stars
 - Negative Sentiment:** 1–2 stars
- Final dataset showed a heavy skew toward negative feedback, indicating strong dissatisfaction across the customer base.

2. **Sentiment Findings:**

- Overall sentiment distribution is **highly negative**, with negative reviews forming the majority.
- Brand-wise:
 - Boat** accounts for most negative reviews due to higher volume.
 - Noise**, though smaller in volume, also shows more negative than positive sentiment
- Sentiment imbalance highlights systemic experience issues rather than isolated cases.

3. **Customer Behavior Insights:**

- Customers with negative experiences tend to write longer, more detailed reviews, indicating frustration and emotional involvement.
- Positive reviewers are fewer and typically provide shorter, transactional feedback.
- This shows that unhappy customers are more motivated to voice concerns publicly, driving negative perception faster than positive advocacy.

4. **Key Negative Issues:**

- Top complaint terms include product, service, customer, warranty, replacement, working, and company.
- **Core pain points:** Product failures or defects, Poor durability, Warranty and replacement challenges, Delayed or unresolved claims
- Noise sees early product failure complaints (“day,” “watch”), indicating possible batch or quality issues

5. **Service & Refund Insights:**

- A large portion of negative reviews reference:
 - Support delays**
 - Slow refunds**
 - Replacement backlogs**
 - Poor communication**
- Customers express not just disappointment, but abandonment after purchase.

- The service breakdown amplifies dissatisfaction beyond the original product issue.

6. Trend Findings:

- Negative sentiment remains persistent month-over-month, with no visible recovery periods.
- Positive sentiment is sporadic and significantly lower in frequency.
- The trend indicates:
 - Long-term unresolved issues
 - Lack of operational intervention
 - Continued erosion of brand trust

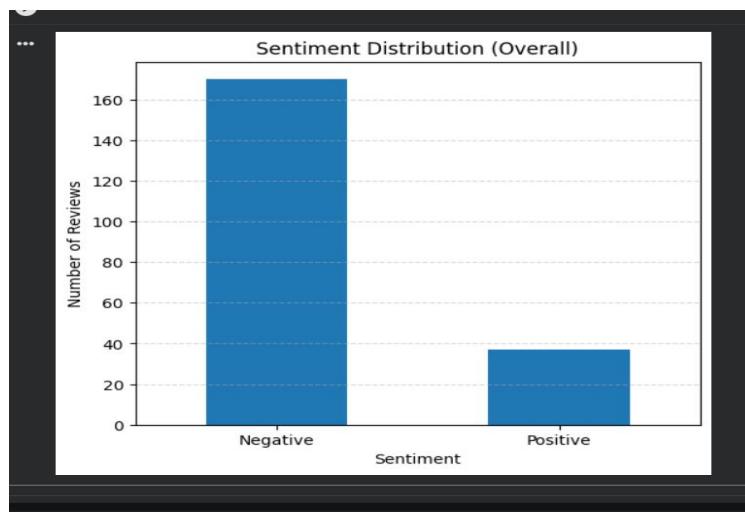
7. Machine Learning Outcome:

- A TF-IDF + Logistic Regression model was deployed to classify sentiment automatically.
- Data was split 80:20 for training and testing.
- Metrics computed included:
 - Accuracy : **0.9048**
 - Precision : **1.0000**
 - Recall : **0.5000**
 - F1-score : **0.6667**
- Model performance was strong enough to support automated monitoring and escalation.
- The model and vectorizer were saved for deployment, enabling real-time sentiment classification.

8. Classification report:

	Precision	Recall	F1 score	support
Negative	0.89	1.00	0.94	34
Possible	1.00	0.50	0.67	8
Accuracy			0.90	42
Macro avg	0.91	0.75	0.81	42
Weighted avg	0.95	0.90	0.89	42

9. Business Insights (Chart-Driven):



Insight:

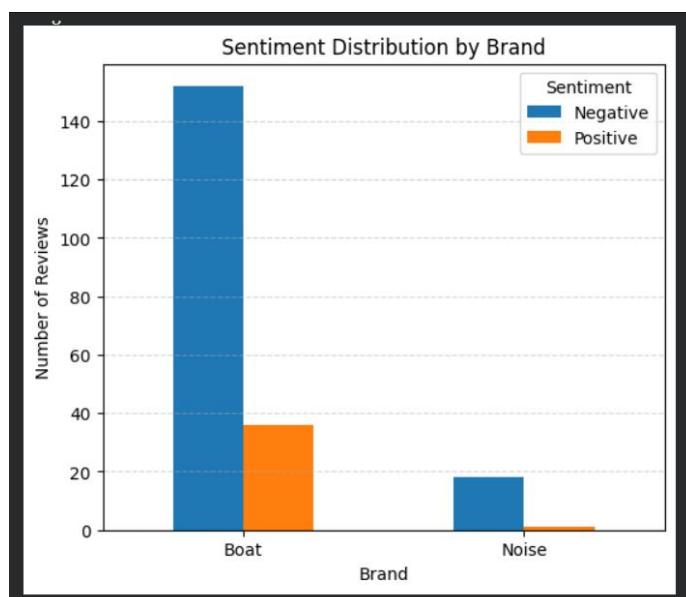
Negative reviews significantly outweigh positive reviews—**roughly 80–85% of all feedback is negative**.

Business Impact:

- Brand perception is currently under stress.
- High dissatisfaction increases churn and damages trust.
- Marketing spend is at risk of underperforming due to weak sentiment.

Strategic Signal:

This is not a product awareness issue—this is a product experience and service issue.



Insight:

Boat contributes the bulk of negative reviews, while Noise has fewer total reviews but still skews negative.

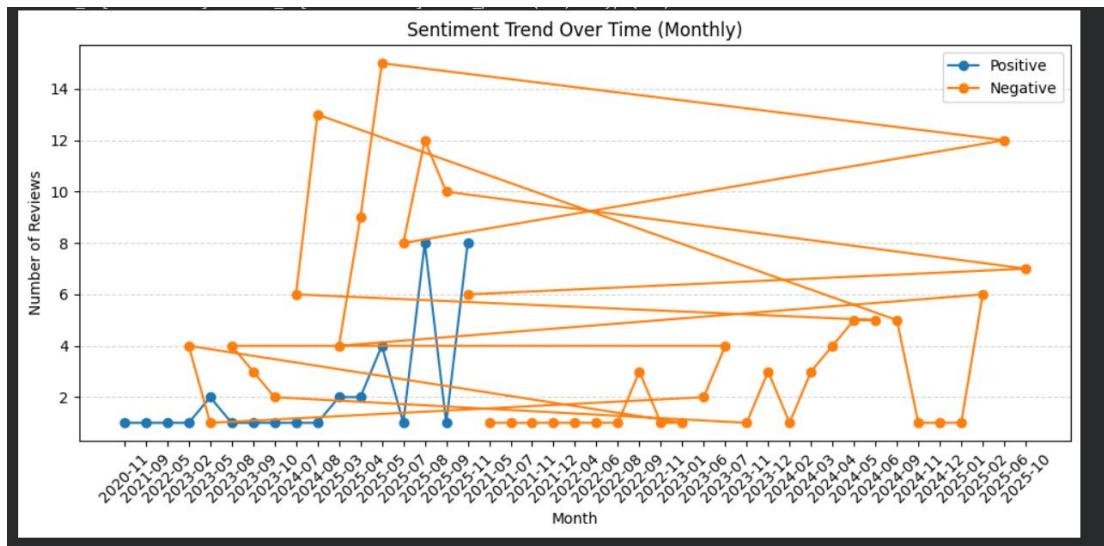
Business Impact:

Boat's scale means negative sentiment is amplifying across a larger customer base.

Noise's lower positive volume suggests low delight and weak advocacy.

Strategic Signal:

Boat needs urgent service and quality intervention; Noise needs brand-building and CX improvement to lift trust.



Insight:

The monthly trend shows sustained negative feedback across multiple months, with no visible recovery spikes.

Business Impact:

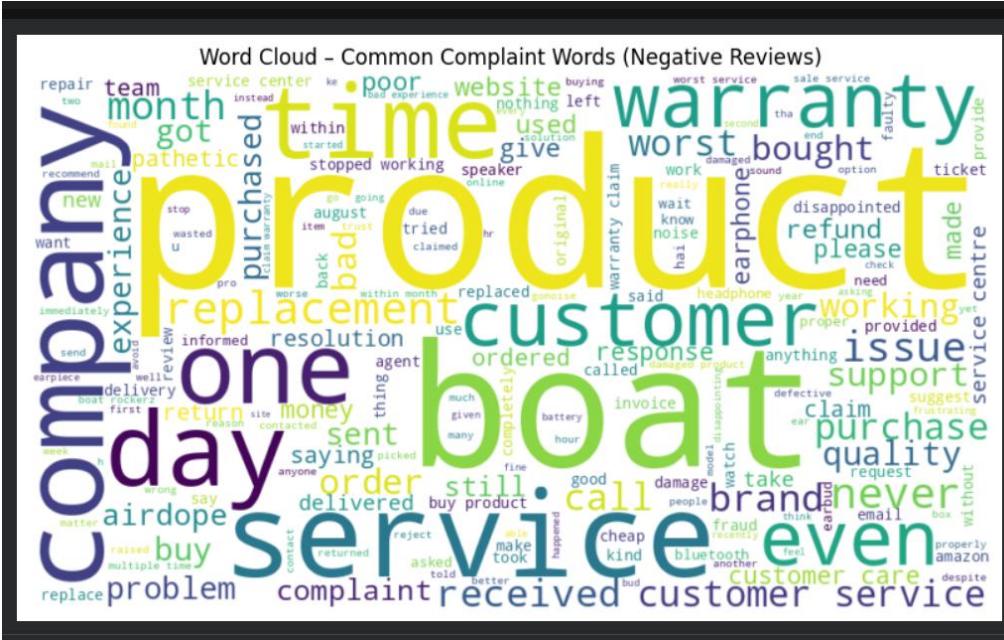
Problems are systemic, not seasonal.

Issues are going unresolved and compounding.

No evidence of successful corrective action in recent months.

Strategic Signal:

Leadership needs to treat this as a long-term operational failure rather than temporary noise.



Insight (1):

Service-related terms (“service,” “customer,” “support,” “refund,” “warranty”) appear prominently in negative feedback.

Business Impact:

Customers aren't just unhappy—they feel abandoned post-purchase.

Weak after-sales experience is accelerating negative word-of-mouth.

Lack of resolution is worse than the original product issue.

Strategic Signal:

Fixing customer service responsiveness could reduce negative sentiment dramatically—even without changing the product.

Insight (2) :

Words like “day,” “month,” “time,” “return,” “replacement” suggest long wait cycles.

Business Impact:

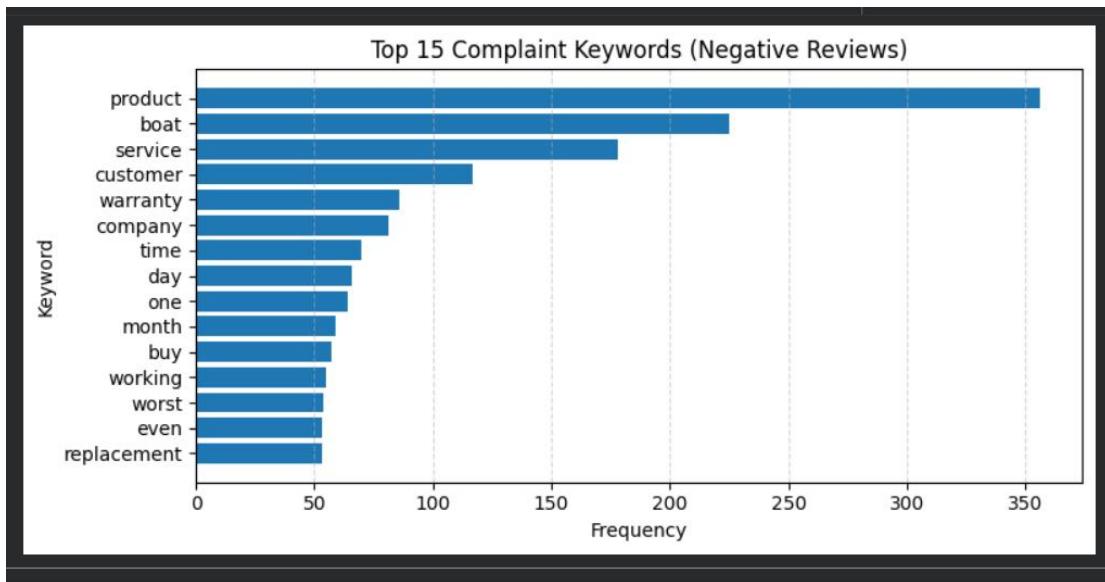
Delayed resolutions directly damage loyalty.

Customers perceive the brand as untrustworthy.

Resolution time is likely the biggest driver of negative reviews.

Strategic Signal:

Introducing faster, transparent SLAs could materially shift sentiment.



Insight:

Top negative keywords highlight “**product**,” “**working**,” “**warranty**,” “**replacement**,” “**company**.”

Business Meaning:

Products are failing prematurely.

Warranty and replacement processes are broken or slow.

Defects are driving most complaints—not just service attitude.

Strategic Signal:

Quality assurance and failure rate reduction will have the highest ROI in sentiment improvement.

...	Boat	Noise	
Rank 1	product	product	
Rank 2	boat	noise	
Rank 3	service	day	
Rank 4	customer	watch	
Rank 5	warranty	service	

Brand-Level Complaint Patterns Differ

Boat

Top concerns: product → service → customer → warranty

Insight: Product failure + weak support loop

Noise

Top concerns: product → “day” → watch → service

Insight: Products failing quickly after purchase (“day”)—possible batch defects

Strategic Signal:

Boat needs service overhauls; Noise needs product reliability fixes.

10. What This Means for the Business

Root Cause

Customers are not upset because products are cheap—
they’re upset because products fail AND the company fails to respond.

Brand Risk

If this trend continues:

- Organic trust will collapse
- CAC will increase
- Repeat purchases will drop
- Returns/refunds costs will rise

Opportunity:

A strong recovery play exists:

- Service improvements can rapidly flip sentiment
- A warranty-first CX model can turn detractors into promoters

11. High-Priority Action Plan:

Immediate (0–30 Days)

- ✓ Deploy Fast-Track Replacement Policy
- ✓ Set clear resolution SLAs (3–5 days max)
- ✓ Launch proactive communication during delays

Short Term (30–90 Days)

- ✓ Service team expansion or automation
- ✓ Warranty claim workflow digitization
- ✓ Product failure diagnostic and batch testing

Long Term (90+ Days)

- ✓ Product redesign based on failure modes
- ✓ Loyalty win-back program for past detractors
- ✓ Real-time sentiment monitoring dashboard

12. Key Metrics to Track

- Monthly % Negative Reviews
- Average Resolution Time
- First Response Time
- Warranty Claim Success Rate
- Product Failure Rate (within 30 days)
- CSAT / NPS Post-Resolution
- Repeat Purchase Rate
- Model Accuracy & Drift

13. Final Conclusion:

- The business is not losing customers due to pricing or competition—
it is losing customers due to unreliable products and broken service experiences.
- The fastest path to recovery is:
 - Reduce product failures
 - Resolve issues faster
 - Communicate transparently

- Fixing product quality and post-purchase service will deliver the highest impact on customer trust, retention, and long-term brand growth.