

Customer Support Ticket Analysis Report

Executive Summary

This report comprehensively analyses customer support tickets from January 2020 to December 2021, covering 8,469 total tickets. The study reveals critical insights into ticket distribution, resolution performance, product-specific issues, and customer sentiment patterns that can inform strategic improvements to customer support operations.

Dataset Overview

- **Analysis Period:** January 1, 2020 - December 30, 2021
- **Total Tickets Analysed:** 8,469
- **Data Sources:** Customer support ticketing system with complete ticket descriptions and metadata

Key Findings

1. Ticket Type Distribution and Trends

The analysis reveals three dominant ticket categories that account for the majority of customer support requests:

Top 3 Ticket Types:

- **Refund Requests:** Leading category, indicating potential issues with product satisfaction or order fulfilment
- **Technical Issues:** The Second most common, suggesting product complexity or user experience challenges
- **Cancellation Requests:** Third highest, potentially related to customer dissatisfaction or changing requirements

Additional significant categories include Product Inquiries and Billing Inquiries, which, together with the top 3, represent the core areas requiring support attention.

2. Resolution Performance Analysis

The current resolution metrics indicate significant operational challenges:

- **Average Resolution Time:** 0.0 hours (likely indicating data quality issues or instant auto-closures)
- **Ticket Closure Rate:** 32.7% of tickets successfully closed
- **Current Status Distribution:**
 - Pending Customer Response: 34.0%
 - Open: 33.3%
 - Closed: 32.7%

The low closure rate and high percentage of pending/open tickets suggest bottlenecks in the resolution process and potential customer communication gaps.

3. Product-Specific Support Challenges

Most Problematic Products:

1. **Canon EOS**: 240 tickets (highest volume)
2. **GoPro Hero**: Second-highest ticket volume
3. **Nest Thermostat**: Consistent support demands
4. **Amazon Echo**: Notable support requirements
5. **Philips Hue Lights**: Regular technical issues

The top 5 products account for 13.4% of all support tickets, indicating these products may have design, usability, or quality issues requiring targeted intervention.

4. Customer Communication Patterns

Most Frequent Keywords in Ticket Descriptions:

- **"Issue"**: Overwhelmingly dominant term, appearing most frequently
- **"Assist"**: High frequency, indicating customer requests for help
- **"Product"**: Significant occurrence, showing product-focused concerns
- **"Problem"**: Notable frequency, reinforcing issue-based communications
- **"Data"**: Regular appearance, suggesting data-related concerns

5. Customer Sentiment Analysis

The sentiment analysis reveals concerning patterns in customer communications:

- **Negative Sentiment**: 17.6% of tickets contain negative sentiment
- **Neutral Sentiment**: 34.5% of tickets show neutral tone
- **Positive Sentiment**: 47.9% maintain positive communication tone

The significant negative sentiment percentage indicates substantial customer frustration that requires immediate attention.

6. Common Complaint Themes

Word cloud analysis reveals recurring themes in customer complaints:

- **"Please assist"**: Dominant phrase indicating help-seeking behaviour
- **"Issue"**: Repeatedly mentioned across multiple contexts
- **"Problem"**: Frequently cited alongside technical difficulties
- **"Software"**: Regular mentions suggesting software-related challenges
- **"Update"**: Common term indicating version or feature concerns

Strategic Recommendations

Immediate Actions (0-3 months)

- 1. Refund Process Optimisation**
 - Implement streamlined refund request handling procedures
 - Create automated refund approval workflows for qualifying cases
 - Establish a clear refund policy and communication to reduce ticket volume
- 2. Canon EOS Specialised Support**
 - Develop a dedicated support team for Canon EOS products
 - Create comprehensive troubleshooting guides specific to Canon EOS issues
 - Partner with Canon for enhanced technical support resources
- 3. Resolution Time Improvement**
 - Investigate and resolve data quality issues affecting resolution time tracking
 - Implement service level agreements (SLAs) for different ticket types
 - Establish escalation procedures for tickets exceeding target resolution times

Medium-term Initiatives (3-6 months)

- 4. Automated Response System**
 - Deploy an AI-powered initial response system for tickets containing the keyword "issue"
 - Create template responses for common technical problems
 - Implement a chatbot for basic troubleshooting steps
- 5. Sentiment-Based Prioritization**
 - Develop a sentiment analysis-based ticket routing system
 - Prioritise negative sentiment tickets for immediate attention
 - Create specialised handling procedures for high-emotion customer interactions
- 6. Product Quality Feedback Loop**
 - Establish regular reporting to product teams on the top problematic products
 - Create feedback mechanisms to inform product development priorities
 - Implement proactive communication for known product issues

Long-term Strategic Improvements (6-12 months)

- 7. Preventive Support Strategy**
 - Develop a comprehensive self-service knowledge base
 - Create video tutorials for common technical issues
 - Implement proactive customer education programs
- 8. Performance Monitoring Framework**
 - Establish a KPI dashboard for real-time support performance tracking
 - Implement customer satisfaction surveys for closed tickets
 - Create monthly performance review cycles with actionable insights

Conclusion

The analysis reveals significant opportunities for improvement in customer support operations. The high volume of refund requests, technical issues, and cancellation requests indicates underlying product or service quality concerns that require immediate attention. The low ticket closure rate and high negative sentiment percentage suggest that current support processes are inadequate for customer needs.

The organisation can expect improved customer satisfaction, reduced ticket volumes, and more efficient resolution processes by implementing the recommended immediate and medium-term initiatives. Focusing on Canon EOS support, automated response systems, and sentiment-based prioritisation will address the most pressing current challenges while building a foundation for long-term support excellence.

Regular monitoring and continuous improvement based on ongoing data analysis will be essential for maintaining and enhancing customer support effectiveness over time.