

PWC CALL CENTER ANALYSIS REPORT

From January 21st 2021 to March 21st 2021
Max Nguyen



INTRODUCTION

This report presents a comprehensive analysis of the PwC Call Center's operational performance for the period from January 1st to March 31st, 2021. Drawing on both interactive Power BI dashboards and detailed SQL-based data exploration, the analysis aims to provide actionable insights into call center activity, agent performance, customer satisfaction, and operational efficiency. The data encompasses 5,000 call records, including metrics on call handling, resolution rates, response times, and satisfaction ratings across multiple service topics and agents.



OBJECTIVES

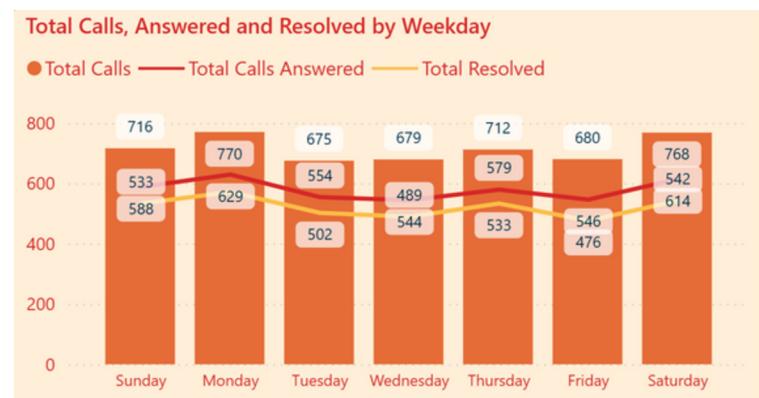
- Evaluate Call Center Workload and Efficiency:** Quantify total call volumes, answer rates, and resolution rates to assess how effectively the call center is managing customer inquiries.
- Analyze Agent Performance:** Compare agent workloads, answer and resolution rates, average talk durations, and customer satisfaction scores to identify top performers and areas for improvement.
- Assess Customer Experience:** Examine customer satisfaction trends, including the impact of wait times and call durations on satisfaction ratings, and identify drivers of positive or negative customer experiences.
- Identify Operational Patterns:** Uncover daily, weekly, and hourly call volume trends, as well as topic-wise distribution, to inform resource allocation and staffing strategies.
- Benchmark Service Level Metrics:** Track key metrics such as average speed of answer and average talk duration against industry standards and internal targets.
- Support Data-Driven Decision Making:** Provide clear, evidence-based recommendations for improving call center operations, agent training, and customer service strategies.



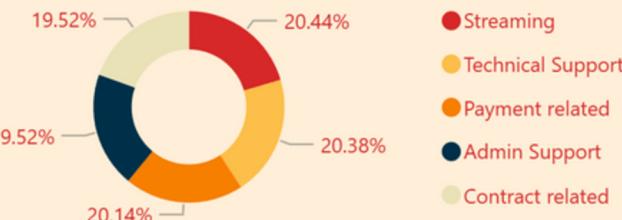
CALL VOLUME & DISTRIBUTION

Temporal Patterns

- Weekly Distribution:** Highest call volumes occurred on Monday (770 calls) and Saturday (768 calls), with Tuesday through Friday showing more moderate volumes (675-712 calls).
- Daily Average:** 56 calls per day with fluctuations ranging from 48 to 84 calls.
- Hourly Trends:** Peak call times were observed at 11:00 (590 calls) and 13:00 (594 calls), indicating potential staffing pressure points.



Total Call Topic



Topic Distribution

- Call volume was remarkably evenly distributed across all service categories:
 - Streaming: 1,022 calls (20.4%)
 - Technical Support: 1,019 calls (20.4%).
 - Payment Related: 1,007 calls (20.1%).
 - Admin Support: 976 calls (19.5%).
 - Contract Related: 976 calls (19.5%).

OPERATIONAL EFFICIENCY

Response Metrics

- Average Speed of Answer: 67.5 seconds overall.
- Call Duration: Average talk time of 3 minutes 45 seconds.
- Answer Rate: 81.1% of calls were answered, leaving 18.9% unanswered.

Total Calls Answered



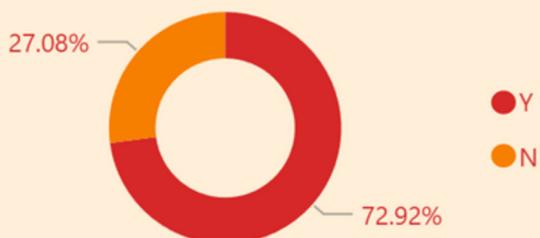
67.52

Average Speed of Answer

3 Min 45 s

Average Talk Duration

Total Calls Resolved



Topic Wise Resolved Calls

Topic	Total Calls	% Resolved	% Unresolved
Admin Support	976	90.94%	9.06%
Contract related	976	89.86%	10.14%
Payment related	1007	89.12%	10.88%
Streaming	1022	88.43%	11.57%
Technical Support	1019	91.43%	8.57%

Resolution Performance

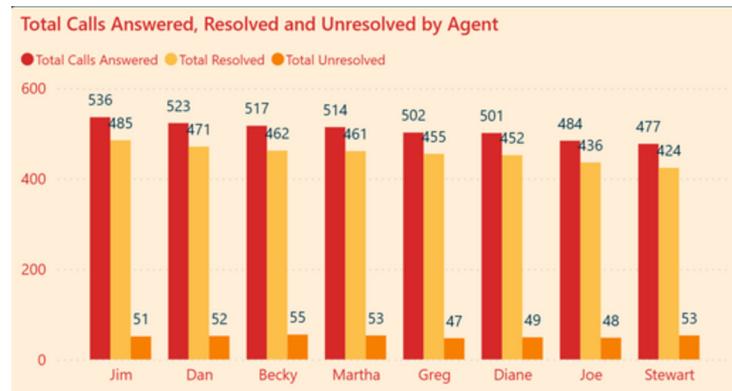
- Overall Resolution Rate: 72.9% of all calls were resolved (90.0% of answered calls).
- Topic-Based Resolution:**
 - Technical Support had the highest resolution rate at 91.4%.
 - Streaming had the lowest resolution rate at 88.4%.
 - Other topics maintained resolution rates between 89-91%.



AGENT PERFORMANCE ANALYSIS

Workload Distribution

- Call Allocation: Relatively even distribution among agents (582-666 calls per agent).
- Highest Volume: Jim handled the most calls (666), while Stewart handled the fewest (582).



Average Satisfaction Rating by Agent



Quality Metrics

- Satisfaction Ratings: Martha achieved highest satisfaction (3.47), while Joe received lowest (3.33).
- Consistency: All agents maintained similar resolution rates around 90%, indicating good standardized processes.

Agent	Total Calls	% Answered	% Unanswered	% Resolved	Average Talk Duration
Becky	631	81.93%	18.07%	89.36%	3 Min 40 s
Dan	633	82.62%	17.38%	90.06%	3 Min 51 s
Diane	633	79.15%	20.85%	90.22%	3 Min 39 s
Greg	624	80.45%	19.55%	90.64%	3 Min 47 s
Jim	666	80.48%	19.52%	90.49%	3 Min 48 s
Joe	593	81.62%	18.38%	90.08%	3 Min 44 s
Martha	638	80.56%	19.44%	89.69%	3 Min 44 s
Stewart	582	81.96%	18.04%	88.89%	3 Min 46 s

Efficiency Metrics

- Answer Rate Range: 79.2% (Diane) to 82.6% (Dan).
- Resolution Rate Range: 88.9% (Stewart) to 90.6% (Greg).
- Speed of Answer: Becky was fastest (65.3 seconds) while Joe was slowest (71.0 seconds).
- Talk Duration: Relatively consistent across agents (3.65-3.85 minutes).

Speed of Answer (seconds) by Agent





CUSTOMER EXPERIENCE ANALYSIS

Satisfaction Trends

- Overall Rating: 3.40 on a 5-point scale.
- Monthly Trend: Slight decline observed from January (3.45) to March (3.37).
- Response Time Impact: No significant correlation between wait time and satisfaction, as all wait time ranges showed the same average satisfaction (3.0).
- Call Duration Impact: No evident relationship between call length and satisfaction rating.



Average Satisfaction Rating



Resolution Impact

- Most calls fall within the 3-4 satisfaction rating range.
- 72.9% overall resolution rate suggests potential for improvement.

MONTHLY PERFORMANCE TRENDS

Call Volume

- January: 1,772 calls (35.4% of quarterly volume).
- February: 1,616 calls (32.3%).
- March: 1,612 calls (32.2%).

Average Satisfaction Rating and Resolved Calls by Month



Total Calls, Answered and Resolved by Month



Key Metrics Stability

- Consistent average speed of answer (67 seconds) across all three months.
- Resolution rates remained stable (89.5-90.2%).
- Customer satisfaction showed minor decline (3.45 → 3.37).



RECOMMENDATIONS

I. Optimize Staffing and Resource Allocation

Call Volume Management:

- Redistribute agent schedules to increase coverage during peak hours (11:00 and 13:00) where data shows 590 and 594 calls respectively.
- Implement a flexible staffing model for high-volume days (Monday and Saturday) which together account for 31% of weekly call volume.
- Consider implementing a callback system during periods of high call volume to reduce the 18.92% unanswered call rate.

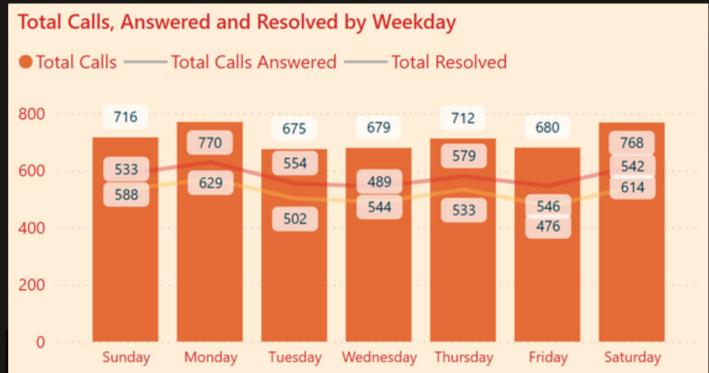
Response Time Improvement:

- Set a target to reduce the average speed of answer from 67.5 seconds to under 45 seconds, as industry benchmarks suggest this would improve first-call resolution.
- Develop streamlined processes for common inquiries to reduce the 30.5% of calls exceeding 90-second wait times.



67.52
Average Speed of Answer

Hour_of_Day	Call_Count
9	547
10	529
11	590
12	547
13	594
14	499
15	531
16	566



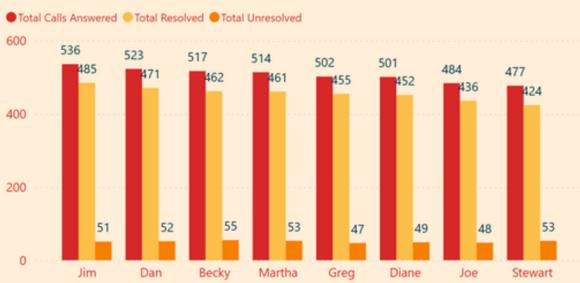
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Agent's Performance

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Total Calls Answered, Resolved and Unresolved by Agent



II. Enhance Agent Training and Performance

Skill Development:

- Create specialized training modules for streaming-related queries, which show the lowest resolution rate (88.43%)
- Establish knowledge-sharing sessions where high-performing agents (Greg and Jim with 90.64% and 90.49% resolution rates) can share best practices

Quality Improvement:

- Implement targeted coaching for agents with lower satisfaction scores, particularly Joe (3.33) and Becky (3.37)
- Develop agent-specific training based on individual performance patterns in the data, focusing on both technical skills and customer interaction

Workload Balancing:

- Review call allocation to ensure more equitable distribution between agents (current range: 582-666 calls per agent)
- Calibrate performance expectations based on call complexity by topic, as resolution rates vary by 3% between topics



RECOMMENDATIONS

III. Improve Customer Experience

Satisfaction Enhancement:

- Investigate the declining satisfaction trend (3.45 → 3.37) from January to March to identify root causes.
- Create targeted interventions to move customers from the predominant 3-4 satisfaction range to the 4-5 range.
- Implement post-call surveys to gather more qualitative feedback on specific areas of dissatisfaction.

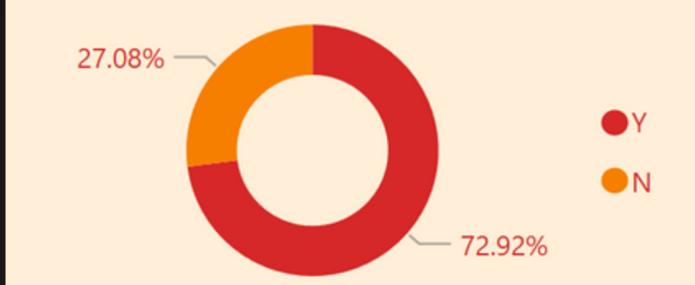
Service Level Agreements:

- Establish clear SLAs for different call types, with specific targets for:
- Maximum wait times (currently 30.5% of calls wait over 90 seconds).
- Resolution percentages (target above 95% for all topic categories).
- First-call resolution rate (target improvement of current 90% rate).

Average Satisfaction Rating and Resolved Calls by Month



Total Calls Resolved



IV. Process and System Optimization

Call Handling Procedures:

- Review protocols for all topics to standardize best practices, particularly focusing on Technical Support which shows the highest resolution rate.
- Implement decision trees and knowledge base systems for common issues to reduce average call duration (currently 3:45).

Technology Enhancements:

- Deploy AI-powered call routing to direct customers to agents with highest resolution rates for specific topics.
- Implement predictive analytics to forecast call volumes based on historical patterns and schedule staff accordingly.
- Develop self-service options for routine inquiries (particularly for Admin Support and Contract-related issues) to reduce overall call volume.

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Average Talk Duration