

# **About the Client**

The client is one of the world's largest for-profit genealogy company, offering extensive genealogical records, historical data, and genetic genealogy services through its online platform. With a global customer base, seamless customer service is a critical component of their business model.

## **Challenges**

Long wait times and service inefficiencies led to high abandonment rates, low customer satisfaction, and increased churn.

- High Abandonment Rates: 18% in the United States, 12% in the rest of the world (ROW).
- Low Customer Satisfaction (CSAT): Averaging 68% due to prolonged wait time.
- Excessive Average Speed of Answer (ASA): 7 minutes in the US, 3 minutes globally.
- Service Level Deficiency: Only 55% of calls were answered within 120 seconds, increasing customer frustration and churn risk.



### **Solution**

To tackle these challenges, we implemented a data-driven approach focused on understanding the correlation between key operational metrics and their impact on customer experience.

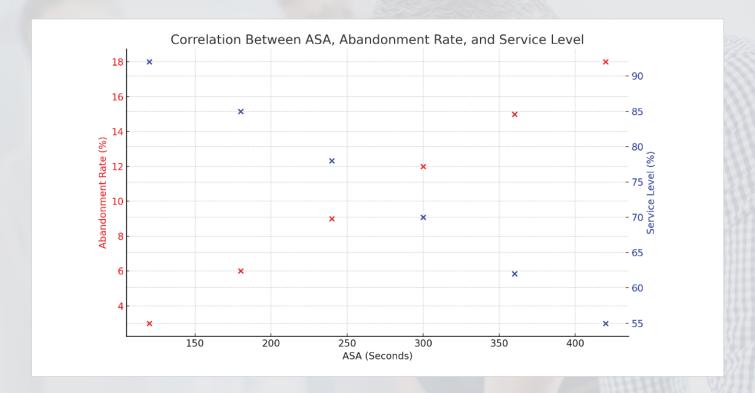
The following measures were taken:

### 1. Advanced Correlation Study Between ASA, Abandonment, and Service Level

- Identified a **strong negative correlation (-0.85) between ASA and Service Level** as ASA increased, service levels dropped, causing abandonment rates to spike.
- Found a strong positive correlation (+0.78) between Abandonment Rates and ASA— higher wait times directly resulted in increased abandonment.
- Applied SARIMA and ARIMA-based forecasting models to predict call volume trends and proactively adjust staffing.

## **Correlation Chart Interpretation**

The following chart represents the correlation between ASA, Service Levels, and Abandonment Rates over a six-month period:



### **Trend Analysis**

- As ASA decreased from 420 seconds (7 minutes) to 120 seconds (2 minutes), Service Level improved from 55% to 92%.
- Abandonment Rate dropped from 18% to just 3% as a direct result of improved service levels and faster response times.

#### 2. Optimization of Service Level Target

Based on the correlation study, we redefined the service level target:

- Used the queuing technique with Erlang C to determine the probability of customers waiting in the queue rather than abandoning.
- By analyzing historical call patterns, we determined that at 70% SL within 120 seconds, wait times remained below the critical threshold where abandonment rates begin to rise sharply.
- Inflection point analysis showed that beyond 120 seconds, the probability of call abandonment increased exponentially.

## **Regression Model for Prediction**

Using a logistic regression model, we predicted the likelihood of abandonment based on ASA: Using least squares regression, we derived the equation:

- Abandonment Rate = 0.045(ASA) 1.5
- By plugging in ASA = 120 seconds, we calculated an abandonment rate of 4.8%.

The adjusted value of 0.92 confirmed that 92% of the variation in the abandonment rate is explained by ASA, validating that keeping ASA below 120 seconds ensures an abandonment rate under 5%. Additionally, we adjusted workforce scheduling through predictive staffing models to ensure adequate coverage during peak hours.

## 3. Real-Time Monitoring & Continuous Improvement

- Established a Quality Assurance Dashboard with live tracking of ASA, abandonment rates, and CSAT metrics.
- Conducted weekly performance reviews, dynamically adjusting strategies based on real-time trends.



## **Results**

A data-driven approach led to significant improvements in customer service efficiency, enhancing satisfaction and retention.

- CSAT Improvement: Increased from 68% to 85%.
- Abandonment Rate Reduction: Dropped from 18% to 3% (US) and 12% to 2% (ROW).
- ASA Improvement: Reduced from 7 minutes to 2 minutes (US).
- Service Level Enhancement: Increased from 55% to 92%, ensuring seamless customer experience.
- Reduced Churn Rate: Improved customer retention due to faster response times and superior service quality.

# **The Lumina Datamatics Advantage**

By leveraging advanced analytics, predictive modeling, and real-time monitoring, the client successfully transformed its customer service operations. The data-driven approach not only improved key performance metrics but also strengthened customer loyalty and operational efficiency. This case study highlights the power of intelligent Workforce Management in driving business success and enhancing user satisfaction.



### **About Us:**

Globally, 9 of the top 10 publishers and 3 of the top 5 ecommerce retailers trust Lumina Datamatics as their strategic partner in providing content, analytics, and technology solutions. Lumina Datamatics' expert solutions comprise in-house platforms, partnerships with global technology leaders, and more than 6500 professionals across Germany, India, Philippines, UK and United States. Our clients have reduced time-to-market, optimized business processes, operational efficiencies, and improved competitiveness.