

## **Task Details:**

- **Customer Satisfaction Analysis**
  - Objective: Analyze customer feedback data to assess satisfaction levels and identify areas for improvement.

### **Task Roadmap:**

- **Data Collection:**
  - Use a customer feedback dataset from surveys or reviews.
  - Review features such as customer ratings, comments, and categories.
- **Data Cleaning:**
  - Handle missing values and duplicates.
  - Normalize text data by removing special characters and stop words.
- **Data Analysis:**
  - Perform sentiment analysis to categorize feedback as positive, negative, or neutral.
  - Analyze satisfaction scores across different categories and demographics.
- **Visualization:**
  - Create visualizations such as pie charts, bar charts, and word clouds to represent customer satisfaction levels and common feedback themes.
- **Reporting:**
  - Generate a detailed report summarizing the findings and provide recommendations for improvement.

**Dashboard Link :**

<https://app.powerbi.com/view?r=eyJrIjoiNDc3NDE1NjEtODFhMy00YzhjLTljNzItMjM1OWI2NDhjOGVmIiwidCI6IjY3ZDJkYjA2LTQ0YmQtNGMzMmIiN2Q5LTZhMjAyZjk4ZmM1YyIsImMiOiI9>

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**Introduction**

- **Purpose of the Analysis**

The purpose of this analysis is to evaluate customer satisfaction levels based on call center data and identify potential areas for improvement. The dataset includes details about calls such as the **agent handling the call, the call topic, resolution status, speed of answer, talk duration, and customer satisfaction ratings**. By examining this data, we aim to uncover patterns affecting satisfaction and suggest improvements to enhance customer experience.

- **Data Overview**

The dataset contains several columns related to **customer feedback, agent performance, and call details**:

- Call Id: Unique identifier for each call.
- Agent: Name of the agent handling the call.
- Date: Date of the call.
- Time: Time when the call occurred.
- Topic: The subject matter of the call (e.g., Contract related, Payment related).
- Answered (Y/N): Indicates whether the call was answered.
- Resolved: Indicates whether the issue was resolved (Y/N).
- Speed of answer in seconds: The time it took to answer the call.
- AvgTalkDuration: The average duration of the conversation.
- Satisfaction rating: Customer's rating for the call (on a scale of 1 to 5).

Overall Performance of Customer Satisfaction Data which is given and developed the dashboard in Power BI:

- Total Calls: 1,612 (0.2% decrease from last month)
- Received Calls: 1,301 (0.2% increase)
- Dropped Calls: 311 (2.2% decrease)
- Issues Resolved: 1,174 (0.1% increase)
- Issues Not Resolved: 438 (3.7% decrease)
- Overall Satisfaction Rating: 3.21 (slight increase)

**Key Insights**

- Gender Impact: Minimal difference in ratings between male (48.39%) and female (51.61%) customers.

**Answering Speed:**

- Slower response times correlate with higher satisfaction (3.27 for slow vs 3.15 for fastest).
- This suggests quality of resolution may be more important than speed.

## **EcodeCamp**

### **Internship Program**

#### **Task #5 :- Customer Satisfaction Analysis**

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#### **Dashboard Link :**

<https://app.powerbi.com/view?r=eyJrIjoiNDc3NDE1NjEtODFhMy00YzhjLTljNzItMjM1OWI2NDhjOGVmlwidCI6IjY3ZDJKYjA2LTQ0YmQtNGMzMmIiN2Q5LTZhMjAyZjk4ZmM1YyIsImMiOiI9>

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#### **Topic Analysis:**

- Highest satisfaction: Admin Support (3.57) and Contract-related issues (3.50)
- Lowest satisfaction: Technical Support (2.54) and Streaming (2.53)
- Focus needed on improving technical and streaming support

#### **Daily Patterns:**

- Highest satisfaction: Monday (3.28) and Thursday (3.26)
- Lowest satisfaction: Saturday (3.04)
- Weekday performance is relatively consistent

#### **Call Duration:**

- Short calls have highest satisfaction (3.33)
- Very long calls also rate well (3.29)
- Medium and long calls have lower satisfaction, suggesting potential inefficiencies

#### **Agent Performance:**

- Top performers: Greg (3.54), Martha (3.39), Becky (3.38)
- Lowest performers: Dan (2.64), Stewart (2.75)
- Significant variation in agent performance indicates room for training and improvement

#### **Recommendations or Areas to Improve**

- Investigate and improve technical support and streaming-related issue resolution processes.
- Analyze Greg, Martha, and Becky's techniques to create best practices for other agents.
- Provide additional support and training for Dan and Stewart to improve their performance.
- Review the approach to medium and long duration calls to identify areas for improvement.
- Consider allocating more experienced staff to weekend shifts, particularly Saturdays.
- Maintain the current balance of call handling speed, focusing on quality resolutions.

#### **Conclusion**

This analysis provides an overview of the call center's performance, key insights from the data, and recommendations for improvement.