

## Problem Statement :

In this project Create a dashboard in Power BI for the call center manager that reflects all relevant Key Performance Indicators (KPIs) and metrics in the dataset.

Possible KPIs include (but not limited to):

- Overall customer satisfaction
- Overall calls answered/abandoned
- Agent's performance quadrant -> average handle time (talk duration) vs calls answered

## Datasource :

Dataset used for this task was presented by Pwc and call centre trends dataset:

Dataset: Call Centre Trends

## Data Preparation:

Completed the Data transformation in Power Query and the dataset loaded into Microsoft Power BI Desktop for modeling.

Call Centre Trends dataset is give table named:

- Call Center trends dataset which has 10 columns and 5000 rows of observation

Data Cleaning for the dataset was done in the power query editor as follows:

- Removed Unnecessary columns
- Removed Unnecessary rows
- Each of the columns in the table were validated to have the correct data type
- Changed data from "Y" to "Yes" and "N" to "NO" for many columns in the raw data
- Added a new column named Month from the date table

## Data Analysis (DAX):

Measures used in all visualization are:

Average of statisfaction = `AVERAGE(Sheet1[Satisfaction rating])`

Avg Speed Of Calls Answered = `AVERAGE(Sheet1[Speed of answer in seconds])`

Calls Answered = `CALCULATE(COUNT(Sheet1[Answered (Y/N)]),FILTER(Sheet1,Sheet1[Answered (Y/N)]="Answered"))`

Calls Not Answered = `CALCULATE(COUNT(Sheet1[Answered (Y/N)]),FILTER(Sheet1,Sheet1[Answered (Y/N)]="Not Answered"))`

Count statisfaction rating = `COUNT('Sheet1'[Satisfaction rating])`

Not Resolved Calls = `CALCULATE(COUNT(Sheet1[Resolved]),FILTER(Sheet1,Sheet1[Resolved]="Not Resolved"))`

Overall Customer Satisfaction = `DIVIDE([Possitive Satisfaction Rating],COUNT(Sheet1[Satisfaction rating]))`

Possitive Satisfaction Rating = `CALCULATE(COUNT(Sheet1[Satisfaction rating]),FILTER(Sheet1,Sheet1[Satisfaction rating] in {4,5}))`

Resolved Calls = `CALCULATE(COUNT(Sheet1[Resolved]),FILTER(Sheet1,Sheet1[Resolved]="Resolved"))`

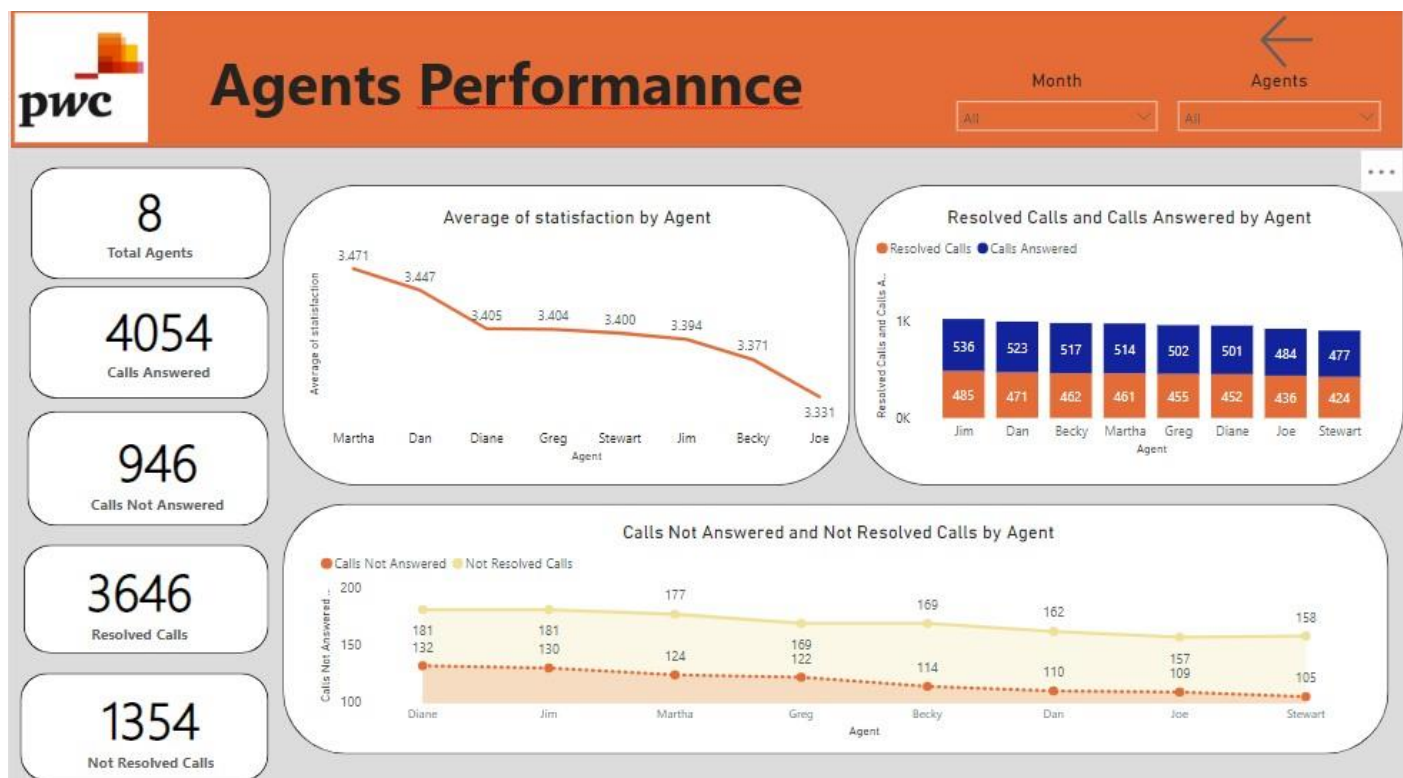
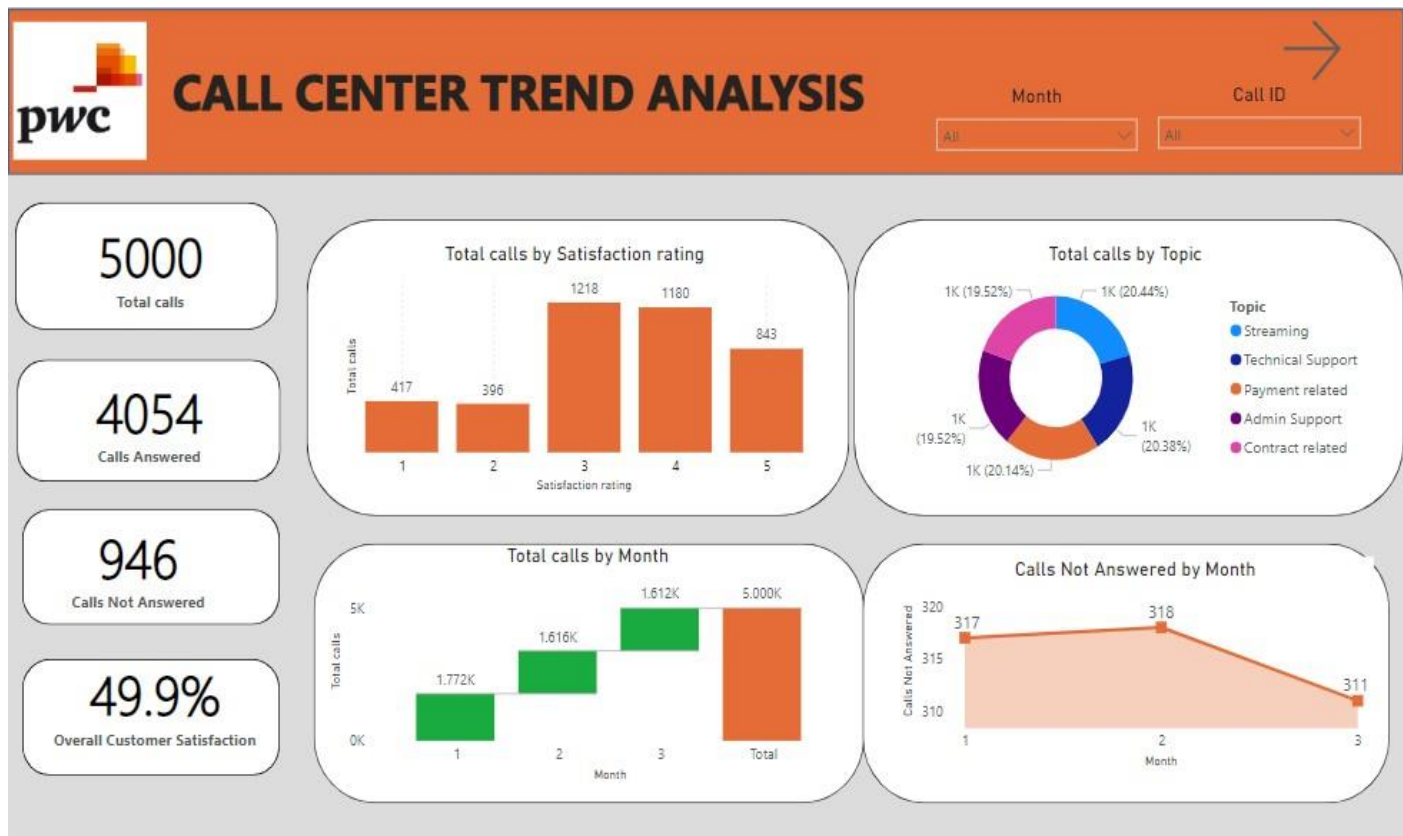
Total Agents = `DISTINCTCOUNT(Sheet1[Agent])`

Total calls = `COUNT(Sheet1[Answered (Y/N)])`

## Data Visualization (Dashboard) :

Data visualization for the data analysis (DAX) was done in Microsoft Power BI Desktop:

Shows visualizations from Call Center Trends & Agent Performance



## Insights :

As shown by Data Visualization, It can be deduced that:

- Most of the satisfaction ratings from each call are 3 and 4.
- Highest number of calls not answered were in 2<sup>nd</sup> Month.
- Month 1<sup>st</sup> has highest number of total calls ie 1772
- Agent Diane has the highest number of calls not answered and not resolved.
- The average satisfaction by agent Joe is the lowest
- Martha has the highest average satisfaction