



Power BI Call Center Dashboard – Solution Approach

1. Data Cleaning & Preparation

Before dashboard creation, I cleaned and prepared the dataset using the following steps:

- **Converted Date/Time Columns:** Ensured Date was in date format and time durations (like Average Talk Duration) were converted to seconds for calculations and graphing.
- **Converted Y/N Fields:**
 - Answered and Resolved columns were converted:
 - "Y" → 1, "N" → 0 to allow aggregation and measure creation.
- **Renamed Columns** for clarity and consistency.
- **Created Cleaned Table:** Named it Table1_Cleaned and used it for all analysis.



2. Measures Created

- `Answer_Rate = DIVIDE(SUM(Table_1[Answered]), COUNTROWS(Table_1))`
- `Answered_Calls = CALCULATE(COUNTROWS(Table_1),Table_1[Answered]= 1)`
- `Answered_Rate% = DIVIDE(CALCULATE(COUNTROWS(Table_1),Table_1[Answered]= 1),COUNTROWS(Table_1))`
- `AverageTalkDurationSecs =AVERAGEX('Table_1',HOUR('Table_1'[AvgTalkDuration]) * 3600 + MINUTE('Table_1'[AvgTalkDuration]) * 60 + SECOND('Table_1'[AvgTalkDuration]))`
- `Avg_speed_of_Ans = AVERAGE(Table_1[Speed of Answer])`
- `Resolution_Rate = DIVIDE([Resolved_Calls], [Answered_Calls], 0)`
- `Resolution_Rate% = DIVIDE(CALCULATE(COUNTROWS(Table_1), Table_1[Resolved] = 1), COUNTROWS(Table_1))`
- `Resolved_Calls = CALCULATE(COUNTROWS('Table_1'), 'Table_1'[Answered] = 1, Table_1[Resolved] = 1)`
- `Total_Calls = COUNT(Table_1[Call_ID])`

3. Dashboard Design & Insights

Q1. Were calls consistently answered in a timely manner?

- **Chart Used:** Line Chart
- **X-Axis:** Date
- **Y-Axis:** Avg_Speed_of_Answer
- **Title:** "Trend of Average Speed of Answer Over Time"
- **Insight:**
 - Spikes indicate bottlenecks or staffing issues.
 - Steady/declining trend = effective call handling.

Q2. Did agents successfully resolve customer issues?

- **Chart Used:**
 - Bar Chart → Resolution Rate by Agent
 - Line Chart → Resolution Rate Over Time
- **Insight:**

- Identifies high and low performing agents.
- Tracks consistency and improvement in resolutions.

Q3. How did speed of answer & average talk duration impact satisfaction?

- **Chart Used:** Scatter Plot
- **X:** Speed of Answer
- **Y:** Talk Duration (in seconds)
- **Color/Size:** Satisfaction Rating
- **Title:** "Impact of Talk Duration & Speed on Satisfaction"
- **Insight:**
 - Mid-range durations + moderate speed = high satisfaction.
 - Outliers suggest rushed or prolonged calls hurting experience.

Q4. Were there hidden trends in the data?

- **Chart Used:** Area Chart
- **X-Axis:** Date
- **Legend:** Department
- **Y-Axis:** Average Talk Duration (sec)
- **Title:** "Department-wise Talk Duration Trends"
- **Insight:**
 - Specific departments (e.g., Washing Machines) may need more support or training.
 - Helps allocate resources effectively.

Filters Used

-  **Slicers** for:

- Agent
- Department

These make the dashboard fully explorable by management.

Summary of Outcomes

- Provided key insights into agent performance, resolution trends, and customer satisfaction influencers.
- Transformed raw call log data into a **professional, interactive dashboard**.
- Enabled OptiConnect management to make **data-driven decisions** for process improvements.