

PWC job simulation

PhoneNow Call center trend analysis

G. Arselane – Jan 2024

Step by step procedure :

- Download the Dataset.
- Open the csv File.
- Check the dataset for blank values, format types etc.
- Doing a data cleaning procedure checklist.
- The data does not require cleaning.
- Uploading the dataset into PowerBi for visualization and metrics calculations.
- Brainstorming about the design that the dashboard should be built on.
- Formatting the avgtalkduration into time format. As well as time of the received call column.
- Starting by putting the main KPI and calculating main metrics to build visuals.
- total calls = `DISTINCTCOUNT(Sheet1[Call Id])`

- Percentage Answered =

```
DIVIDE(  
COUNTROWS(FILTER('Sheet1', 'Sheet1'[Answered (Y/N)] = "Answered")),  
COUNTROWS('Sheet1'),  
0  
)
```

- DurationInSeconds = `HOUR(Sheet1[AvgTalkDuration]) * 3600 + MINUTE(Sheet1[AvgTalkDuration]) * 60 + SECOND(Sheet1[AvgTalkDuration])`
- CountYes = `COUNTROWS(FILTER(Sheet1, Sheet1[Resolved] = "Yes"))`
- CountNo = `COUNTROWS(FILTER(Sheet1, Sheet1[Resolved] = "No"))`
- CountAnswered = `COUNTROWS(FILTER(Sheet1, Sheet1[Answered (Y/N)] = "Answered"))`
- CountAbandoned = `COUNTROWS(FILTER(Sheet1, Sheet1[Answered (Y/N)] = "Abandoned"))`
- Avgcall = `AVERAGEX(Sheet1, Sheet1[DurationInSeconds] / 60)`

- average response time = `average(Sheet1[Speed of answer in seconds])`
- average client satisfaction = `average(Sheet1[Satisfaction rating])`
- Creation of visuals :
 - Cards for KPI.
 - Pie charts for proportions of calls resolved and answered/ abandoned.
 - Bar chart to represent the main topics by calls.
 - Gauge chart for client satisfaction, we assume that we target the 4 avg client satisfaction out of 5.
 - A line chart representing the number of calls from the first January to 31 march 2021.
 - Column charts for a numeric visualization of the answered / abandoned and resolved / unresolved calls.
 - Matrix to dissect the data by agent and have an overall insight on performance for each agent.
 - A line chart for a better representation of the Avg response time by agent.
- Creation of an interactive slicer panel for a better navigation on the dashboard
 - Slicer per Agent
 - Slicer per Date
 - Slicer per Topic
- Scatter plot :
 - We assume the following:
 - Avg response time threshold is set to 67 seconds.
 - Avg call duration threshold is set to 225 seconds.
 - Both threshold are considered regarding of the avg call duration and response time.
 - The bottom left : The agents in this quadrant are efficient in handling calls quickly and responding promptly. Highly productive and responsive group.
 - The bottom right : These agents spend a significant amount of time on each call, but they respond promptly. There may be an opportunity to improve efficiency in call duration.
 - The upper left : While these agents handle calls efficiently in terms of duration, there is a delay in responding to calls. Strategies can be implemented to reduce response times without sacrificing call duration or client satisfaction by degrading the quality of the service.
 - The upper right : This quadrant may indicate agents who need improvement in both areas. They are spending a long time on calls, and the response time is also high, which could impact customer satisfaction.

- KPIs and insights :

- 5000 total calls from the 01/01/2021 to 31/03/2021.
- 3.4 client satisfaction
- 3.75 min average call duration
- 67.52 seconds average response time.
- 4054 calls answered = 81.08 %
- 946 calls abandoned = 18.92 %
- 72.92% of calls resolved.
- 27.08% of calls unresolved.
- January : 1455 calls answered and 317 abandoned.
- February : 1298 calls answered and 318 abandoned.
- March : 1301 calls answered and 311 abandoned.

- Calls per topic :

- 1022 regarding Streaming
 - 1019 regarding Technical Support
 - 1007 Payment related
 - 976 regarding Admin Support
 - 976 Contract related.

- Average response time by agent:

- Jim : 66.34 seconds
 - Dan : 67.28 seconds.
 - Becky : 65.33 seconds
 - Martha : 69.49 seconds
 - Greg : 68.44 seconds
 - Diane : 66.27 seconds
 - Joe : 70.99 seconds
 - Stewart : 66.18 seconds

- Preparation of the video presentation and PowerPoint presentation to publish the report.