Customer Experience Analysis

DESCRIPTION

This project involves analyzing a dataset of inbound calls of an insurance company that spans 23 days and includes various details such as the agent's name and ID, the queue time (how long a customer had to wait before connecting with an agent), the time of the call, the duration of the call, and the call status (whether it was abandoned, answered, or transferred).

The objective is to calculate the average call time duration for each time bucket, show the total volume of calls over time, and propose a manpower plan to reduce the abandon rate to 10%.

APPROACH

1) Understanding the data

2)Data Cleaning

3)Data analysis

4)Data Visualisation

TECH STACK USED

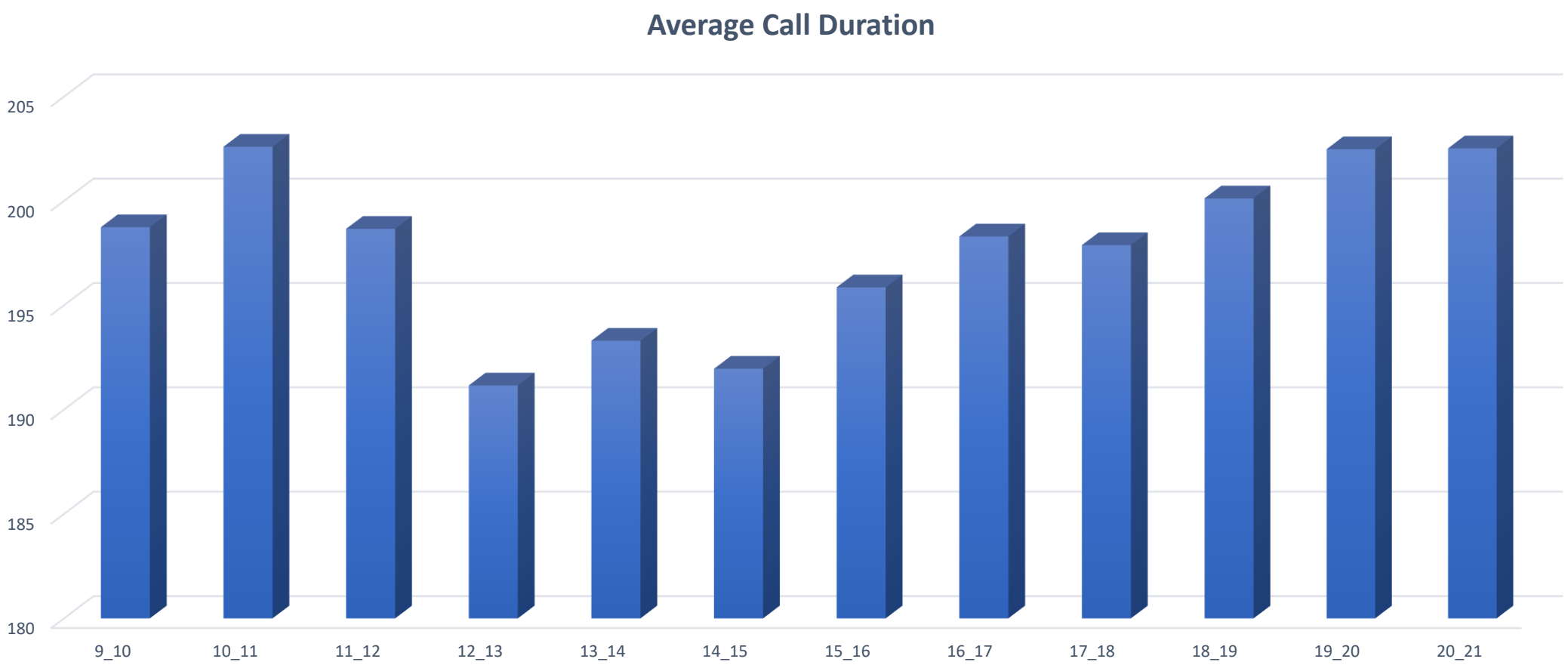
MICROSOFT EXCEL 365

Excel offers powerful data manipulation tools such as sorting, filtering, and pivot tables, which enable users to quickly summarize and explore large datasets. Its extensive library of built-in functions and formulas allows for complex calculations and statistical analysis.

MICROSOFT POWERPOINT

Microsoft PowerPoint serves as a comprehensive tech stack for creating professional presentations due to its user-friendly interface, extensive design capabilities, seamless integration with other tools, collaborative features, and support for accessibility and audience interaction.

AVERAGE CALL DURATION



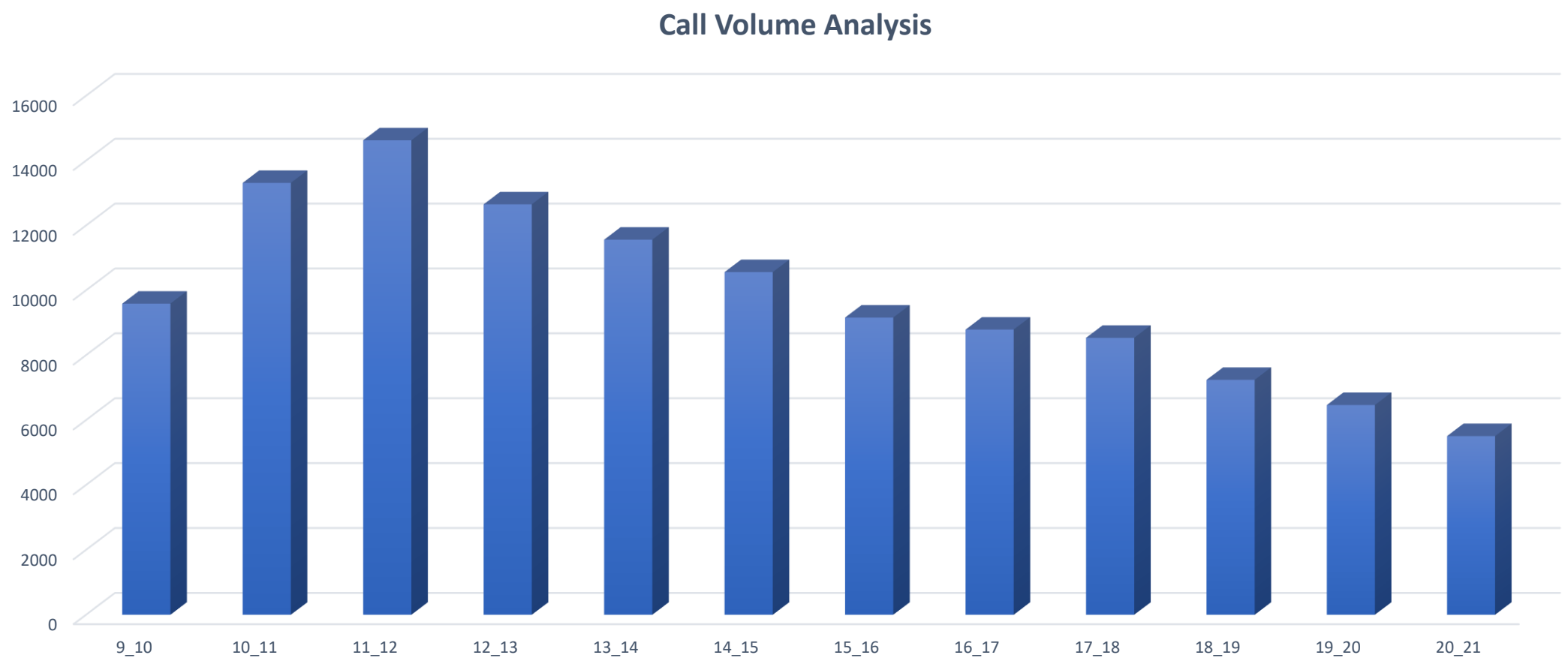
INSIGHTS

The longest average call durations for all inbound calls received by agents are between 10am to 11 am followed by 8pm to 9pm and 7 to 8pm.

The shortest average call durations are recorded in the noon time between 12pm and 3pm.

On an average each call answered by an agent lasts for 199 seconds that is 3.3 minutes

CALL VOLUME ANALYSIS



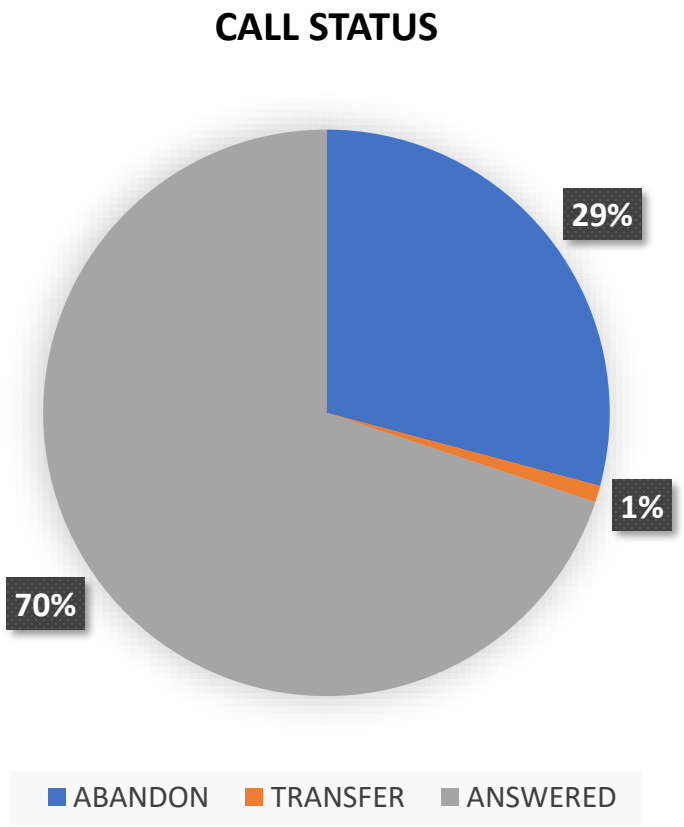
INSIGHTS

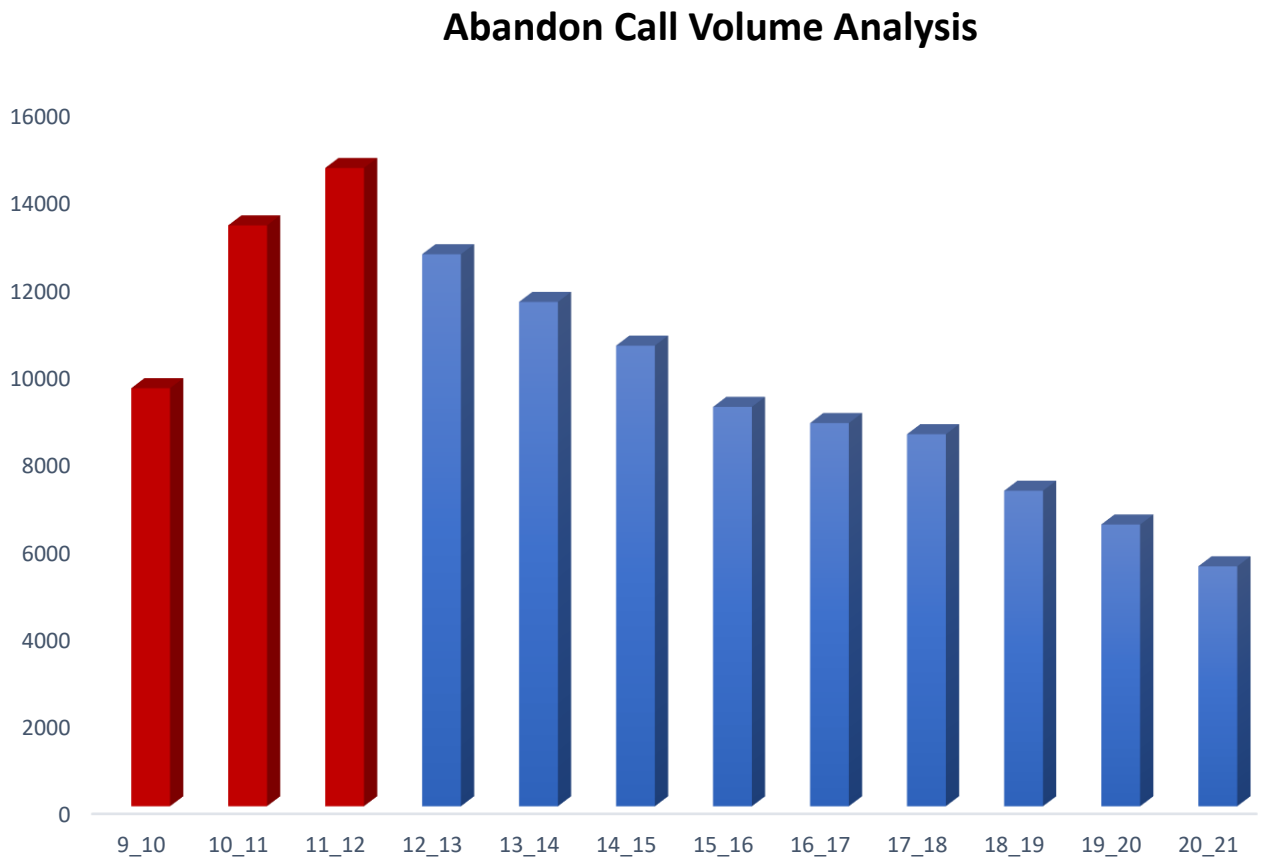
Customers tend to call most frequently between 11 am and 12 pm with a total of 14,626 calls. This time period receives the highest number of calls compared to other hours throughout the day

The hours between 8 and 9 p.m. experience 5,505, the lowest number of customer calls. During this time, the call volume is comparatively lower than other hours.

Overall, The call volume is concentrated in the early hours of the day and as the day progresses fewer calls are received.

CALL STATUS DISTRIBUTION

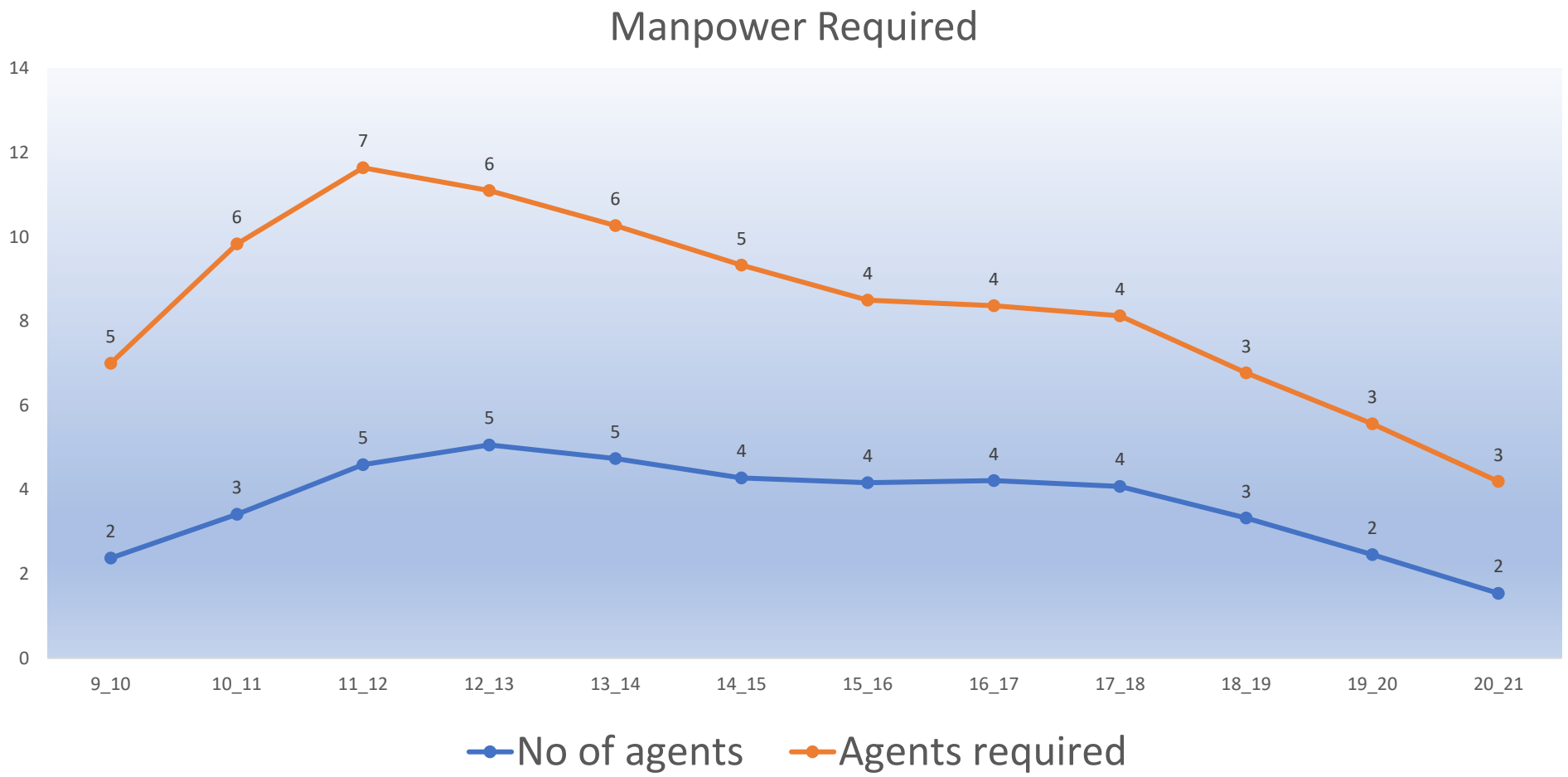




MANPOWER PLANNING

Column1	Calls answered/day	No of agents	No of calls to be answered	Agents required
9_10	193	11	375	21
10_11	277	15	520	29
11_12	372	21	571	32
12_13	410	23	489	27
13_14	384	21	448	25
14_15	347	19	409	23
15_16	337	19	351	20
16_17	341	19	336	19
17_18	330	18	328	18
18_19	270	15	279	16
19_20	199	11	251	14
20_21	125	7	215	12
Grand total	**3585**	**199**	**4573**	**254**

MANPOWER REQUIRED



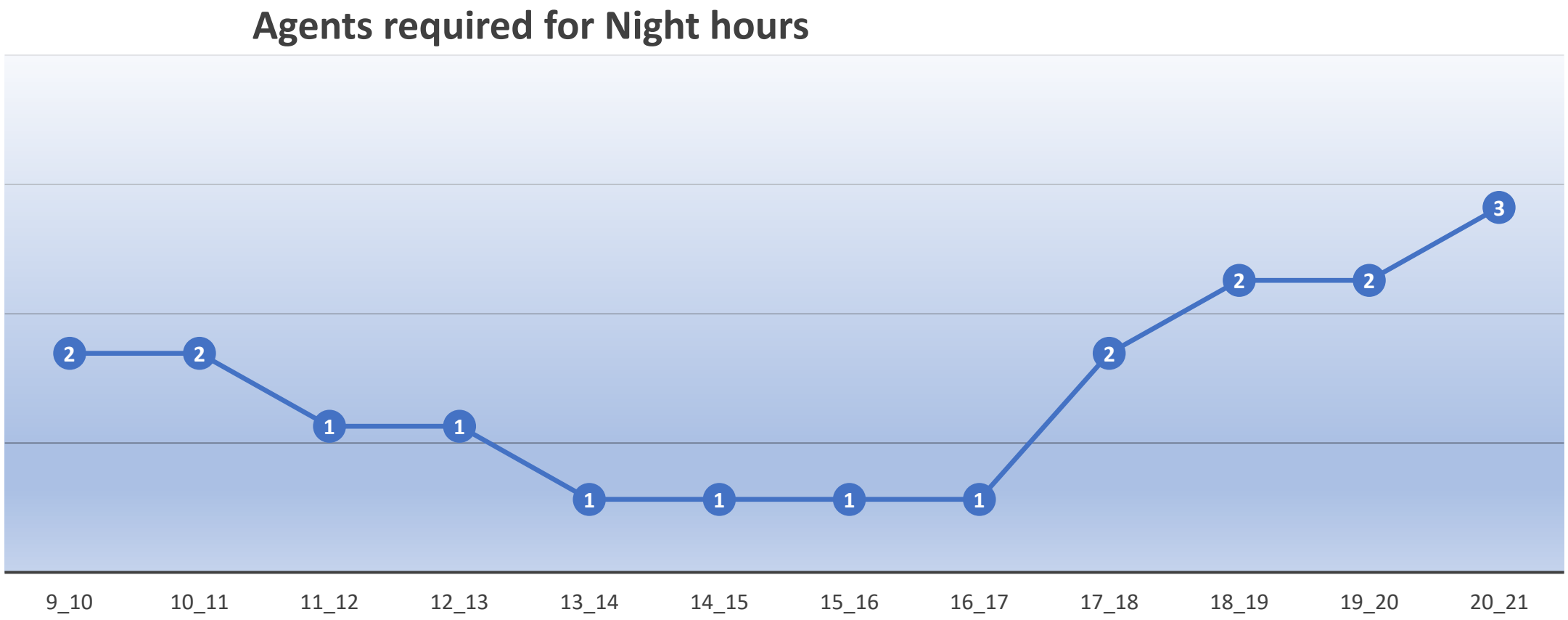
INSIGHTS

Based on the analysis, the distribution of call statuses is as follows: Answered calls: Approximately 70% of the total calls. Abandoned calls: Around 29% of the total calls. Transferred calls: Approximately 1% of the total calls

To handle 90% of the incoming calls, a total of 56 agents are needed daily. This calculation takes into account the below assumptions:

An agent works for 6 days a week. An agent's total working hours are 9 hours, out of which 1.5 hours are spent on lunch and snacks in the office. On average, an agent spends 60% of their total actual working hours (i.e., 60% of 7.5 hours) on calls with customers/users. The total number of days in a month is 30.

MANPOWER FOR NIGHT SHIFT

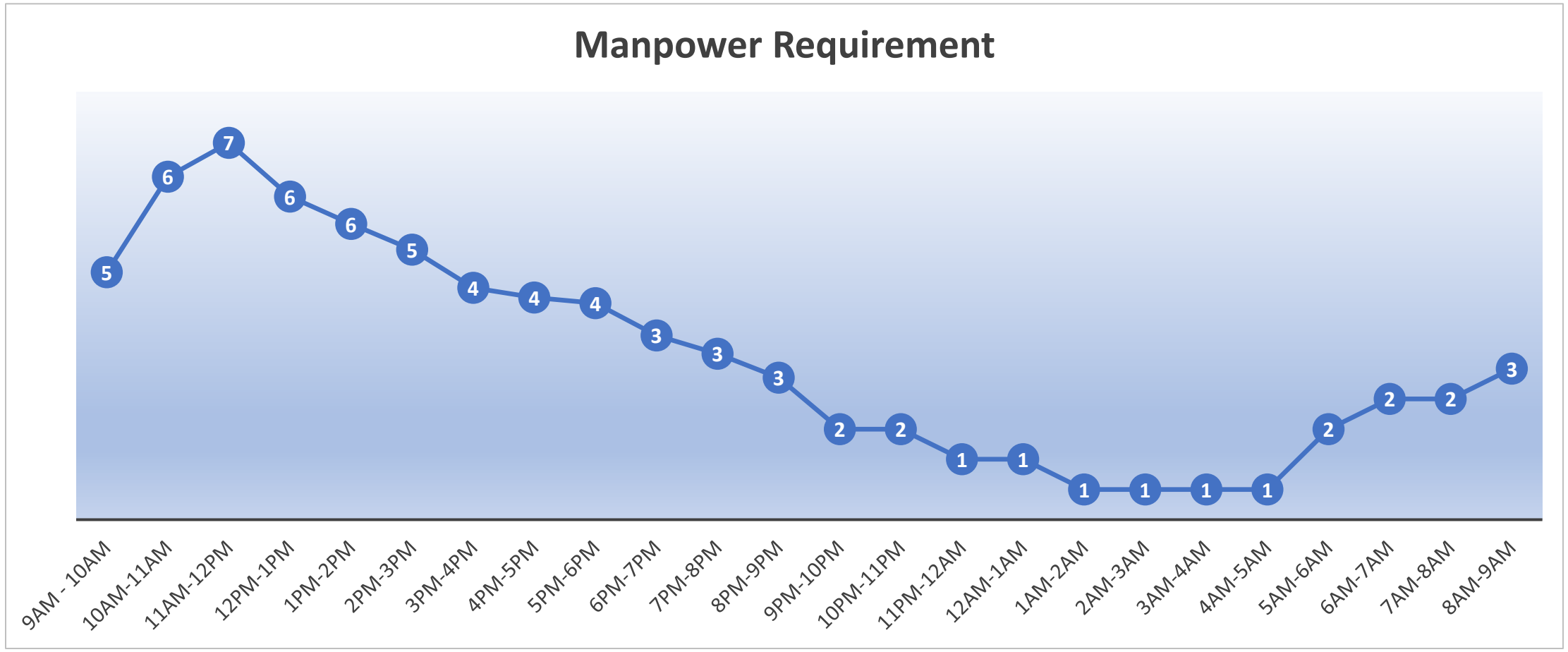


INSIGHTS

Customers tend to call most frequently between 9pm and 11pm followed by 5am to 9am. 8am to 9am receives highest calls.

The hours between 1am and 5am experience the lowest number of customer calls. During this time, the call volume is comparatively lower than other hours.

24 HOUR MANPOWER PLAN



RESULTS

Customers call the least in the evening. As a result, the organisation can expect less traffic during this time and also utilize it for meetings.

Customers tend to call most frequently between 11 am and 12 pm

The peak calling time is the mid morning hours and the early night hours.