ABC Call Volume Trend Analysis

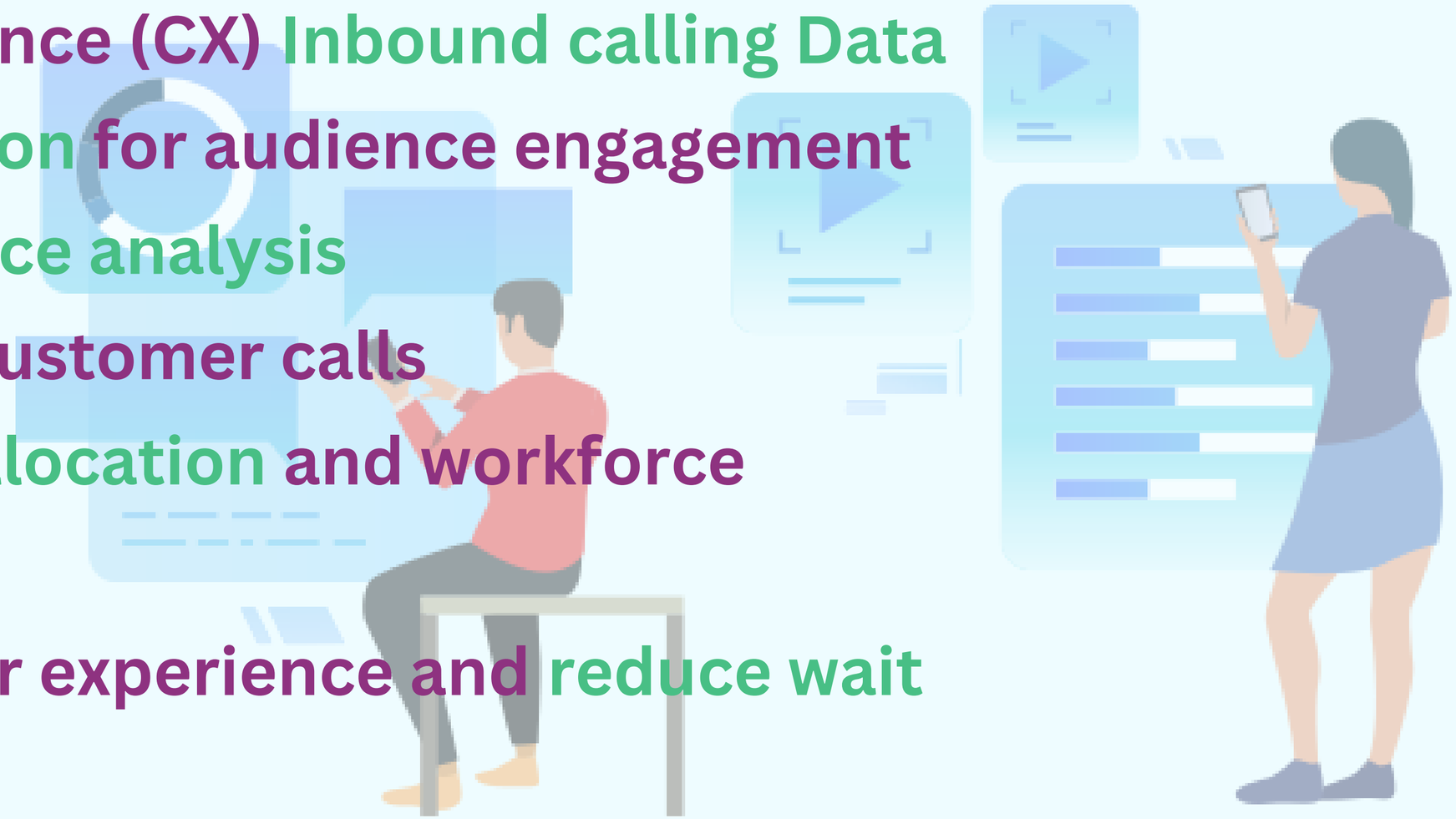
by Suraj Beloshe

Powered by

trainity

Project Description

- Customer Experience (CX) Inbound calling Data
- Intense competition for audience engagement in advertising hence analysis
- Response to the customer calls
- Better resource allocation and workforce management.
- Enhance customer experience and reduce wait times.



Approach

Insights

Analysis with Excel

Data Celaning

Business Need

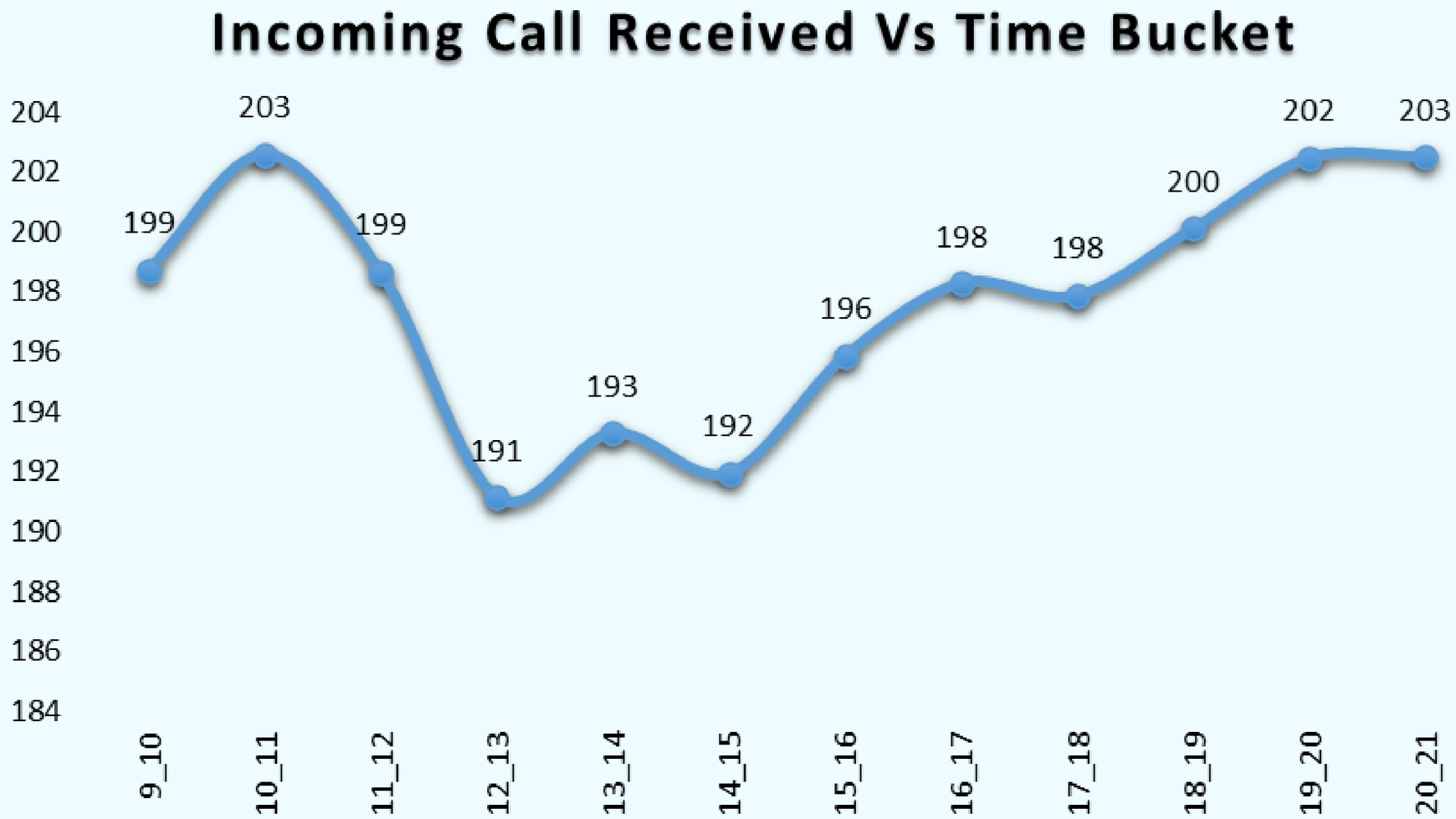
Understanding Dataset

Tech-Stack Used

- Familiar and accessible
- Provides powerful Functions such as Pivot table & What if Anlysis.
- Variety of graphs to create visualisation.
- Sumifs, Countifs and Ifs

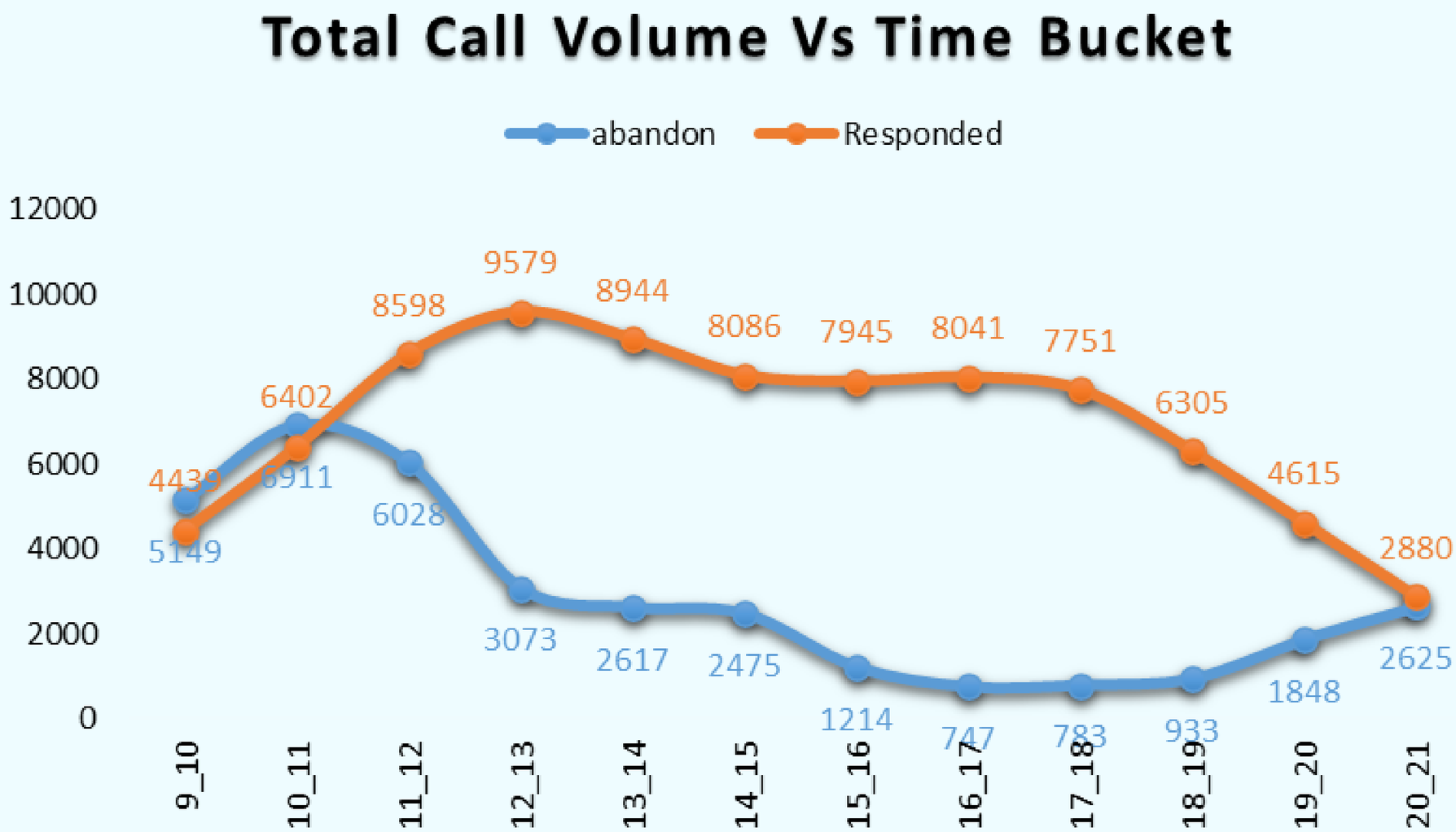
Insights

Calculate the average call time duration for all incoming calls received by agents (in each Time_Bucket).



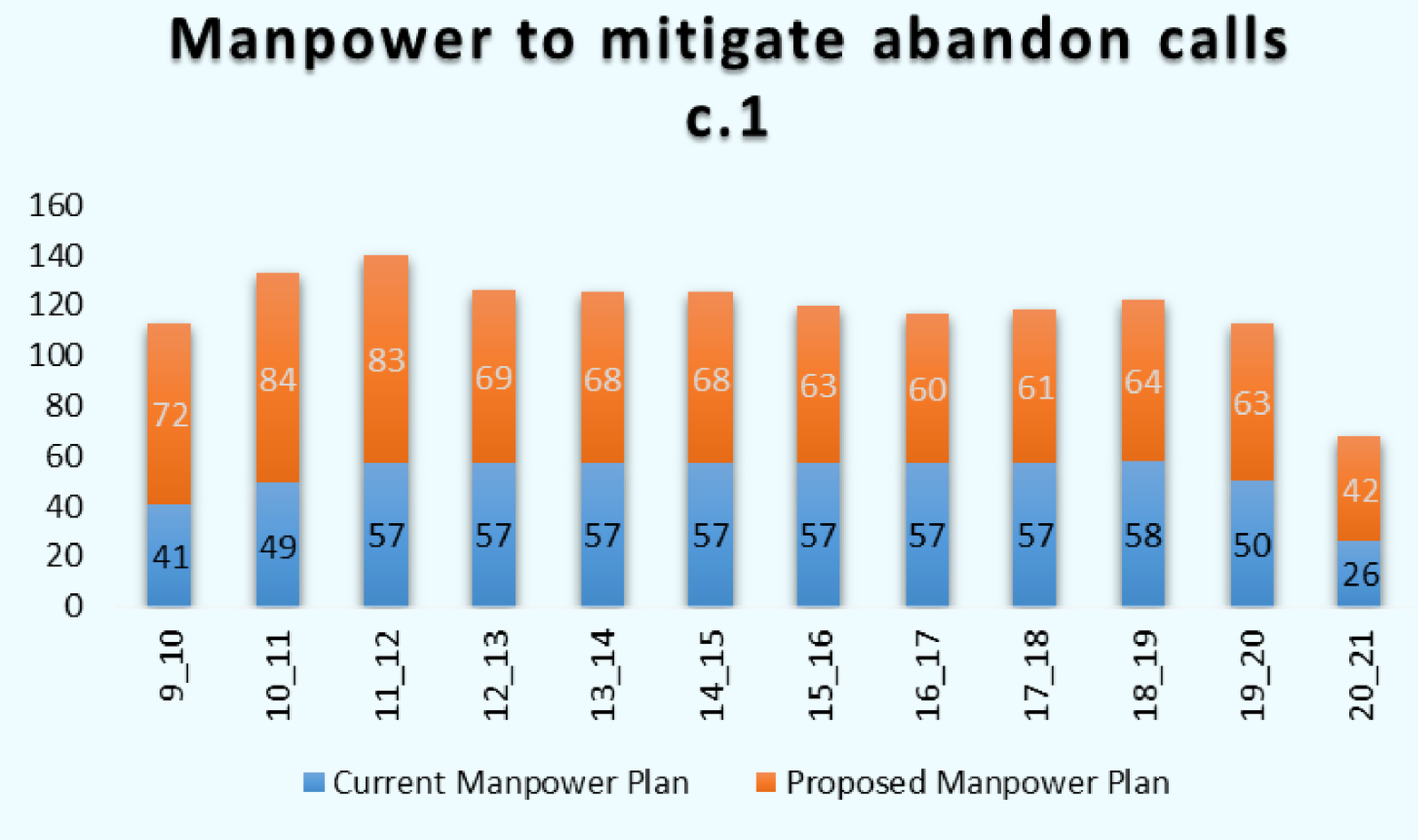
Insights

Show the total volume/ number of calls coming in via charts/ graphs [Number of calls v/s Time].
You can select time in a bucket form (i.e. 1-2, 2-3, ...)



Insights

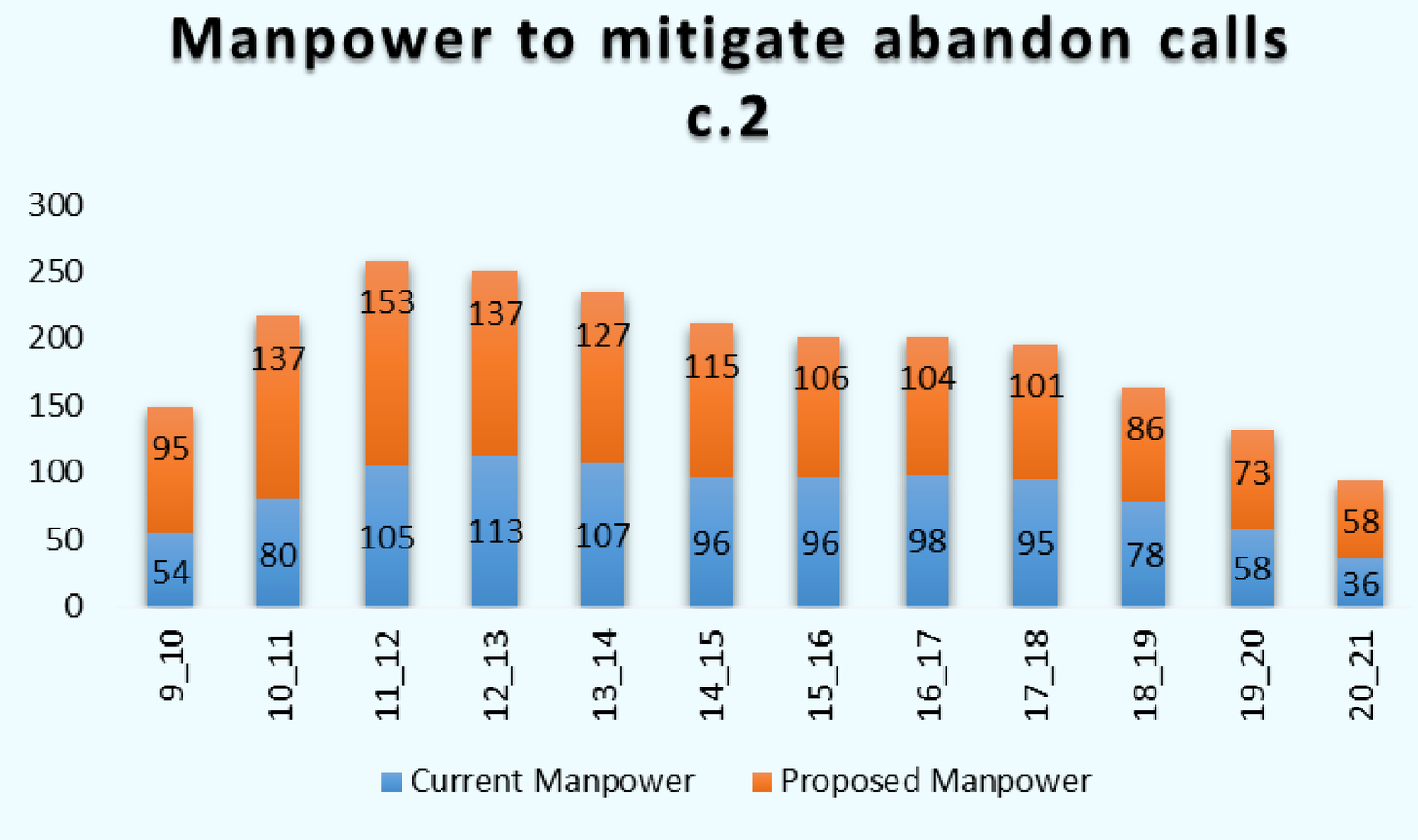
As you can see current abandon rate is approximately 30%. Propose a manpower plan required during each time bucket [between 9am to 9pm] to reduce the abandon rate to 10%. (i.e. You have to calculate minimum number of agents required in each time bucket so that at least 90 calls should be answered out of 100.)



Time Bucket	Current Manpower Plan	Proposed Manpower Plan
9_10	41	72
10_11	49	84
11_12	57	83
12_13	57	69
13_14	57	68
14_15	57	68
15_16	57	63
16_17	57	60
17_18	57	61
18_19	58	64
19_20	50	63
20_21	26	42

Insights

As you can see current abandon rate is approximately 30%. Propose a manpower plan required during each time bucket [between 9am to 9pm] to reduce the abandon rate to 10%. (i.e. You have to calculate minimum number of agents required in each time bucket so that at least 90 calls should be answered out of 100.)



Time Bucket	Current Manpower	Proposed Manpower
9_10	54	95
10_11	80	137
11_12	105	153
12_13	113	137
13_14	107	127
14_15	96	115
15_16	96	106
16_17	98	104
17_18	95	101
18_19	78	86
19_20	58	73
20_21	36	58

Insights

Let’s say customers also call this ABC insurance company in night but didn’t get answer as there are no agents to answer, this creates a bad customer experience for this Insurance company. Suppose every 100 calls that customer made during 9 Am to 9 Pm, customer also made 30 calls in night between interval [9 Pm to 9 Am] and distribution of those 30 calls are as follows:

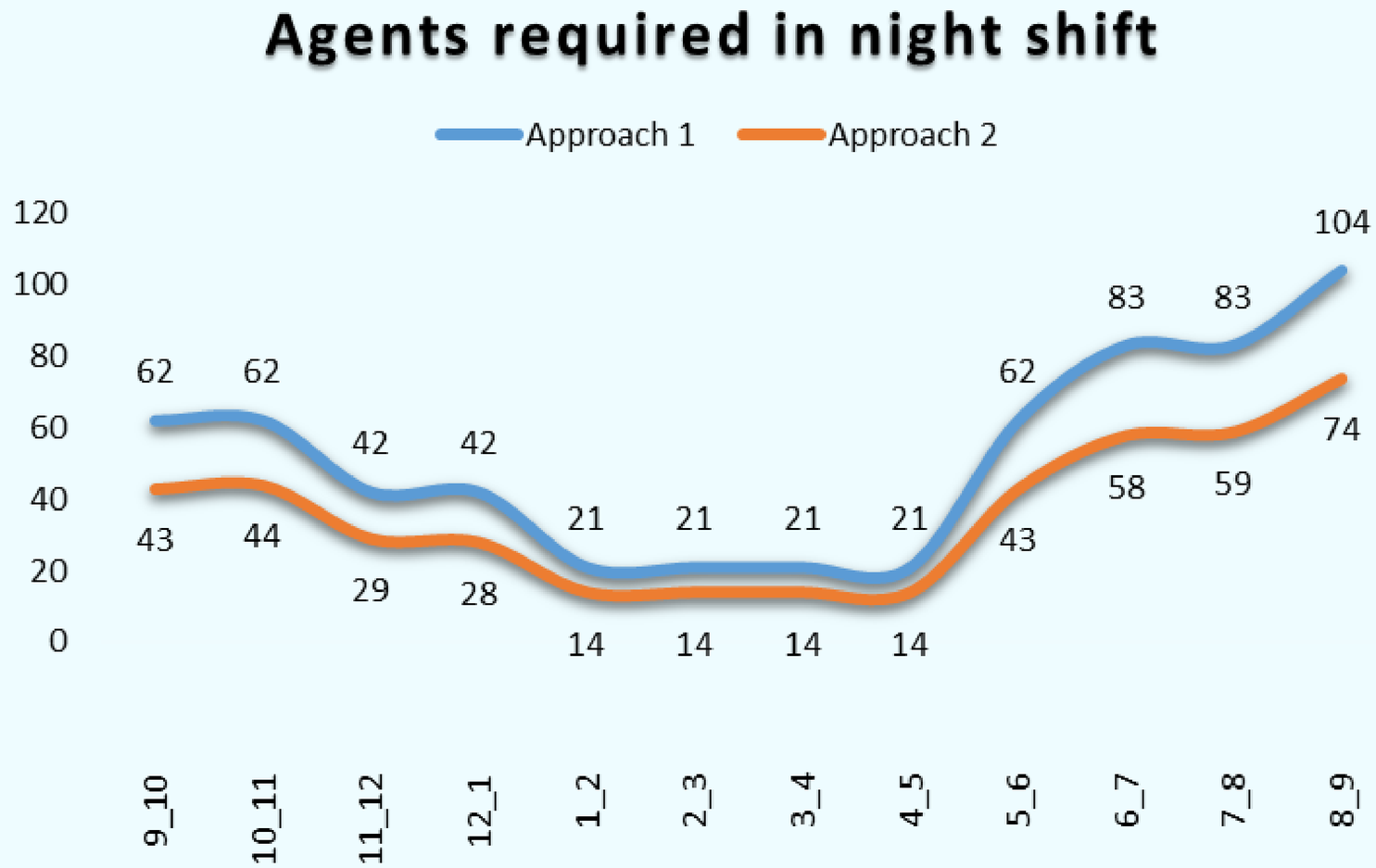
Distribution of 30 calls coming in night for every 100 calls coming in between 9am - 9pm (i.e. 12 hrs slot)											
9pm- 10pm	10pm - 11pm	11pm- 12am	12am- 1am	1am - 2am	2am - 3am	3am - 4am	4am - 5am	5am - 6am	6am - 7am	7am - 8am	8am - 9am
3	3	2	2	1	1	1	1	3	4	4	5

Now propose a manpower plan required during each time bucket in a day. Maximum Abandon rate assumption would be same 10%.

Assumption: An agent work for 6 days a week; On an average total unplanned leaves per agent is 4 days a month; An agent total working hrs is 9 Hrs out of which 1.5 Hrs goes into lunch and snacks in the office. On average an agent occupied for 60% of his total actual working Hrs (i.e 60% of 7.5 Hrs) on call with customers/ users. Total days in a month is 30 days.

Insights

Time Bucket	Required agents
9_10	62
10_11	62
11_12	42
12_1	42
1_2	21
2_3	21
3_4	21
4_5	21
5_6	62
6_7	83
7_8	83
8_9	104



Time Bucket	Required agents
9_10	43
10_11	44
11_12	29
12_1	28
1_2	14
2_3	14
3_4	14
4_5	14
5_6	43
6_7	58
7_8	59
8_9	74

Result

- Understand operations of customer experience department
- Experienced how the duty roster impact on the call volume.
- Data Analysis helps to forecast requirements.
- Hands on experience on pivot tables
- Use of Functions such as countif
- Importance of graphs and visualisation

Attachment:- Link for project file

Thank You for your time....