

PROJECT-8

ABC Call Volume Trend Analysis

FINAL PROJECT-4

BY : - PRADEEP SHET

TECH STACK USED:-

1.MS EXCEL

2.MS POWERPOINT

HYPERLINK OF EXCEL SHEET

<https://docs.google.com/spreadsheets/d/1nZTfvLuxoZlgEsOEoA8oiER87hYkLY7T/edit#gid=963442003>

PROJECT DESCRIPTION :

In this project, you'll be diving into the world of Customer Experience (CX) analytics, specifically focusing on the inbound calling team of a company. You'll be provided with a dataset 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).

A Customer Experience (CX) team plays a crucial role in a company. They analyze customer feedback and data, derive insights from it, and share these insights with the rest of the organization. This team is responsible for a wide range of tasks, including managing customer experience programs, handling internal communications, mapping customer journeys, and managing customer data, among others.

BUSINESS UNDERSTANDING:

- Advertising is a crucial aspect of any business. It helps increase sales and makes the audience aware of the company's products or services. The first impressions of a business are often formed through its advertising efforts.
- The target audience for businesses can be local, regional, national, or international. Various types of advertising are used to reach these audiences, including online directories, trade and technical press, radio, cinema, outdoor advertising, and national papers, magazines, and TV.
- The advertising business is highly competitive, with many players bidding large amounts of money to target the same audience segment. This is where the company's analytical skills come into play. The goal is to identify those media platforms that can convert audiences into customers at a low cost.
- In this project, you'll be using your analytical skills to understand the trends in the call volume of the CX team and derive valuable insights from it.

1.

- **Average Call Duration**: Determine the average duration of all incoming calls received by agents. This should be calculated for each time bucket.
- **Your Task**: What is the average duration of calls for each time bucket?

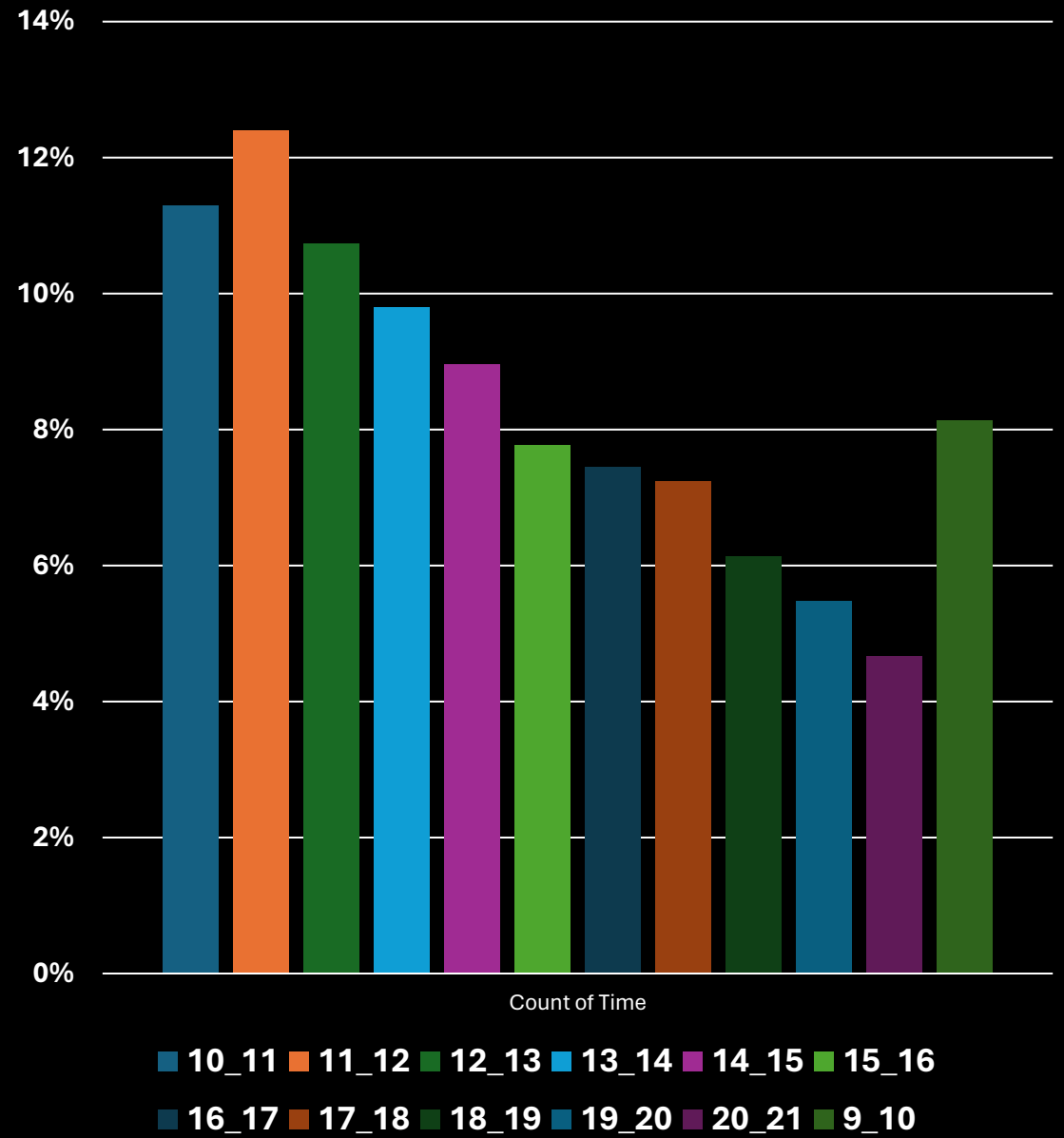
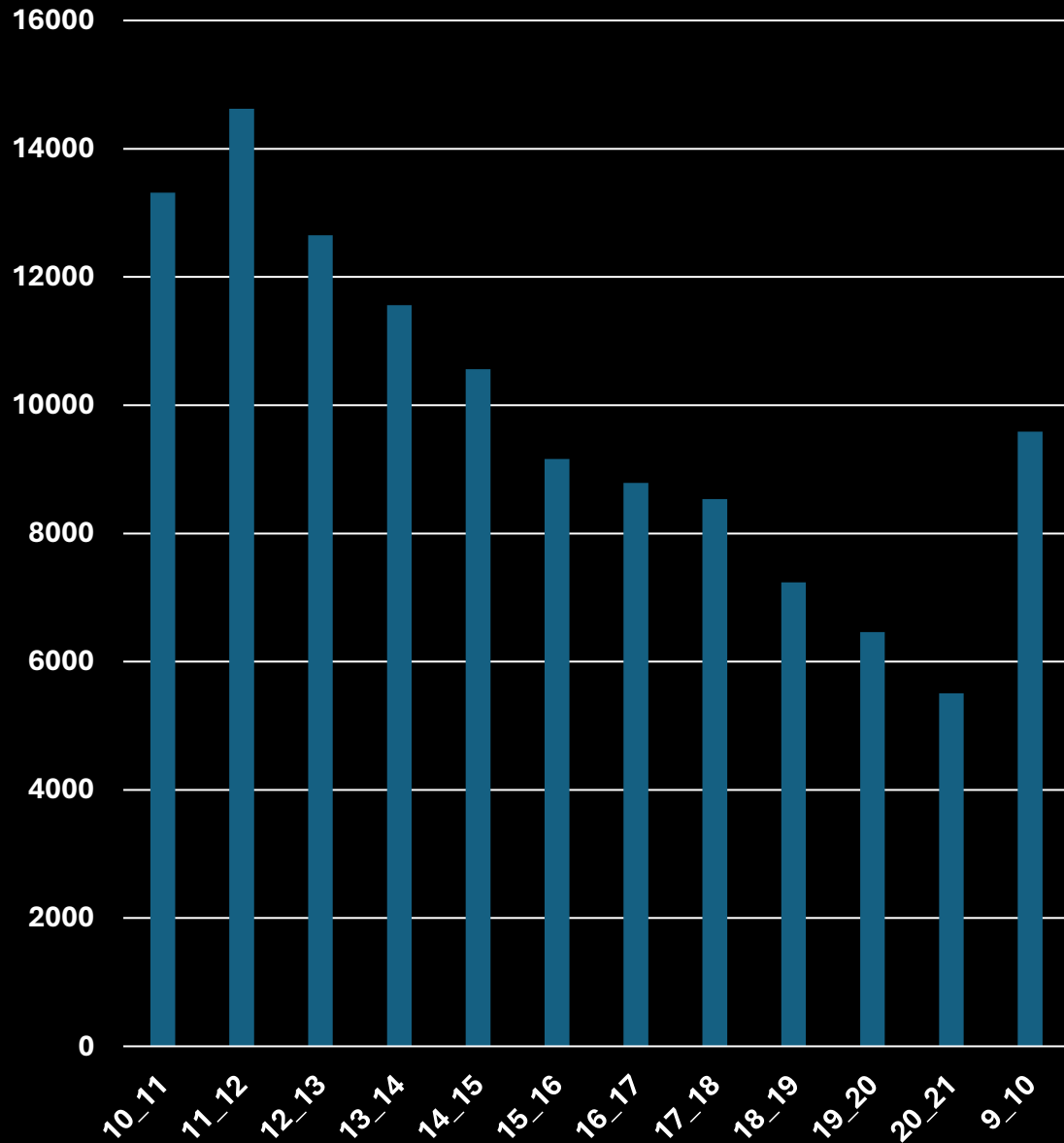
CALL_STATUS	ANSWERED
ROW LABELS	AVERAGE OF CALL_SECONDS (S)
10_11	203.3310302
11_12	199.2550234
12_13	192.8887829
13_14	194.7401744
14_15	193.6770755
15_16	198.8889175
16_17	200.8681864
17_18	200.2487831
18_19	202.5509677
19_20	203.4060725
20_21	202.845993
9_10	199.0691057
GRAND TOTAL	198.6227745

2.

- **Call Volume Analysis**: Visualize the total number of calls received. This should be represented as a graph or chart showing the number of calls against time. Time should be represented in buckets (e.g., 1-2, 2-3, etc.).
- **Your Task**: Can you create a chart or graph that shows the number of calls received in each time bucket?

ROW LABELS	COUNT OF CUSTOMER_PHONE_NO	COUNT OF TIME
10_11	13313	11.28%
11_12	14626	12.40%
12_13	12652	10.72%
13_14	11561	9.80%
14_15	10561	8.95%
15_16	9159	7.76%
16_17	8788	7.45%
17_18	8534	7.23%
18_19	7238	6.13%
19_20	6463	5.48%
20_21	5505	4.67%
9_10	9588	8.13%
(blank)		0.00%
Grand Total	117988	100.00%

Count of Customer_Phone_No



3.

- **Manpower Planning**: The current rate of abandoned calls is approximately 30%. Propose a plan for manpower allocation during each time bucket (from 9 am to 9 pm) to reduce the abandon rate to 10%. In other words, you need to calculate the minimum number of agents required in each time bucket to ensure that at least 90 out of 100 calls are answered.
- **Your Task**: What is the minimum number of agents required in each time bucket to reduce the abandon rate to 10%?

Count of Duration(hh:mm:ss)	Column Labels				
Row Labels	abandon	answered	transfer	(blank)	Grand Total
<01-01-2022					
01-Jan	684	3883	77		4644
02-Jan	356	2935	60		3351
03-Jan	599	4079	111		4789
04-Jan	595	4404	114		5113
05-Jan	536	4140	114		4790
06-Jan	991	3875	85		4951
07-Jan	1319	3587	42		4948
08-Jan	1103	3519	50		4672
09-Jan	962	2628	62		3652
10-Jan	1212	3699	72		4983
11-Jan	856	3695	86		4637
12-Jan	1299	3297	47		4643
13-Jan	738	3326	59		4123
14-Jan	291	2832	32		3155
15-Jan	304	2730	24		3058
16-Jan	1191	3910	41		5142
17-Jan	16636	5706	5		22347
18-Jan	1738	4024	12		5774
19-Jan	974	3717	12		4703
20-Jan	833	3485	4		4322
21-Jan	566	3104	5		3675
22-Jan	239	3045	7		3291
23-Jan	381	2832	12		3225
Grand Total	34403	82452	1133		117988

4.

- **Night Shift Manpower Planning:** Customers also call ABC Insurance Company at night but don't get an answer because there are no agents available. This creates a poor customer experience. Assume that for every 100 calls that customers make between 9 am and 9 pm, they also make 30 calls at night between 9 pm and 9 am. The distribution of these 30 calls is as follows:
- **Your Task:** Propose a manpower plan for each time bucket throughout the day, keeping the maximum abandon rate at 10%.

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INSIGHTS

- A. THE MAX AVERAGE DURATION IS 10-11 AND 19-20.
- B. THE MINIMUM NUMBER OF AGENTS REQUIRED IN EACH TIME BUCKET TO REDUCE THE ABANDON RATE TO 10% IS 57.
- C. AVERAGE CALLS IN NIGHT 1539.
NUMBER OF AGENTS REQUIRED FROM 9AM TO 9PM IS 57.
NUMBER OF AGENTS REQUIRED FROM 9PM TO 9AM IS 17.

RESULTS OF THE PROJECT

- UNDERSTOOD EXCEL FUNCTIONS AND THEIR USAGE MUCH BETTER.
- GOT FAMILIAR WITH EXCEL.
- GOT TO KNOW ABOUT ADVANCED EXCEL FUNCTIONS.
- UNDERSTOOD HOW TO PLOT VARIOUS GRAPHS.

THANK YOU