# ABC Call Volume Trend Analysis

**Final Project-4**

By

**Mohammad Hashem Sheikh**

## Introduction

In this project, the focus will be on Customer Experience (CX) analytics, with a specific emphasis on the inbound calling team of a company. The dataset provided covers a period of 23 days and contains a range of information, including the agent's name and ID, queue time (the duration customers waited before connecting with an agent), call time, call duration, and call status (abandoned, answered, or transferred).

The Customer Experience (CX) team is a vital component of any company, as they are tasked with analyzing customer feedback and data, extracting valuable insights, and disseminating these insights throughout the organization. Their responsibilities encompass a broad spectrum of tasks, such as overseeing customer experience programs, facilitating internal communications, mapping out customer journeys, and managing customer data, among other duties. In today's age, numerous AI-powered tools are being employed to elevate the customer experience. These tools encompass Interactive Voice Response (IVR), Robotic Process Automation (RPA), Predictive Analytics, and Intelligent Routing.

A pivotal position within a CX team is that of the customer service representative, commonly referred to as a call center agent. These agents are responsible for managing diverse forms of support, including email, inbound, outbound, and social media support. Inbound customer support, the primary focus of this project, entails addressing incoming calls from current or potential customers. The objective is to captivate, involve, and satisfy customers, thereby fostering their loyalty and advocacy for the business.

## Business Understanding:

Advertising is crucial for businesses, targeting local, regional, national, or international audiences through various channels. The industry is highly competitive, requiring analytical skills to identify cost-effective media platforms. This project focuses on analyzing call volume trends in the CX team to derive insights.

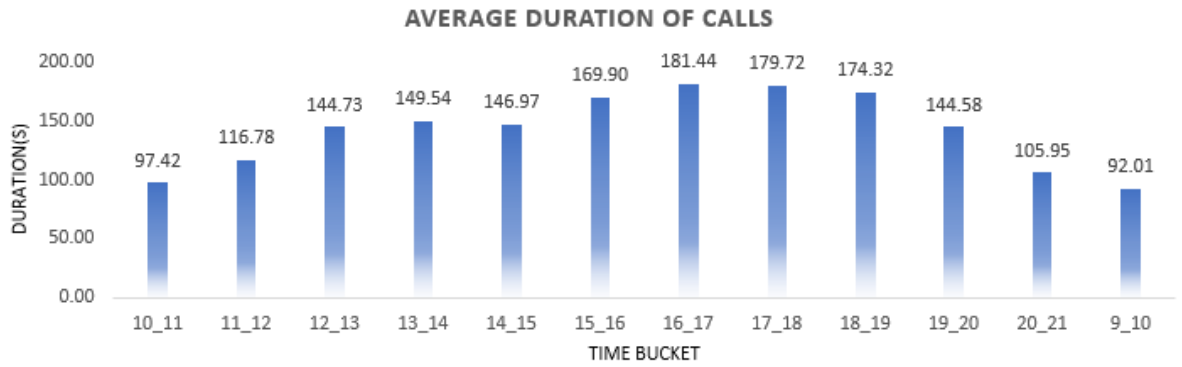
Tech/Tools used – We used below mentioned tools to perform the analysis: -

- MS Word – To prepare a detailed report on the observations based on the data received.
- EXCEL – Excel was used to perform entire analysis and the questions asked were answered.
-

Data Analytics Tasks:

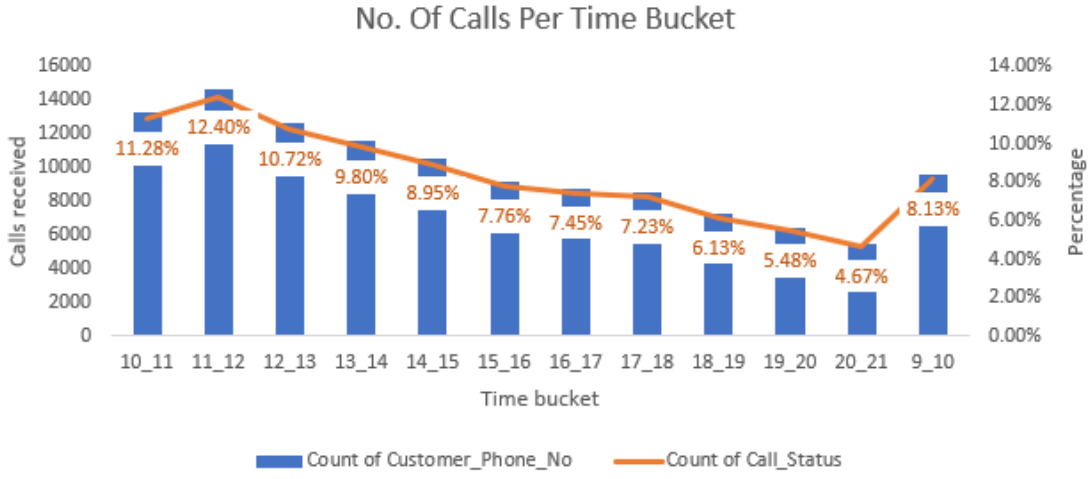
1. **Average Call Duration:** Determine the average duration of all incoming calls received by agents. This should be calculated for each time bucket.

   **Task:** What is the average duration of calls for each time bucket?



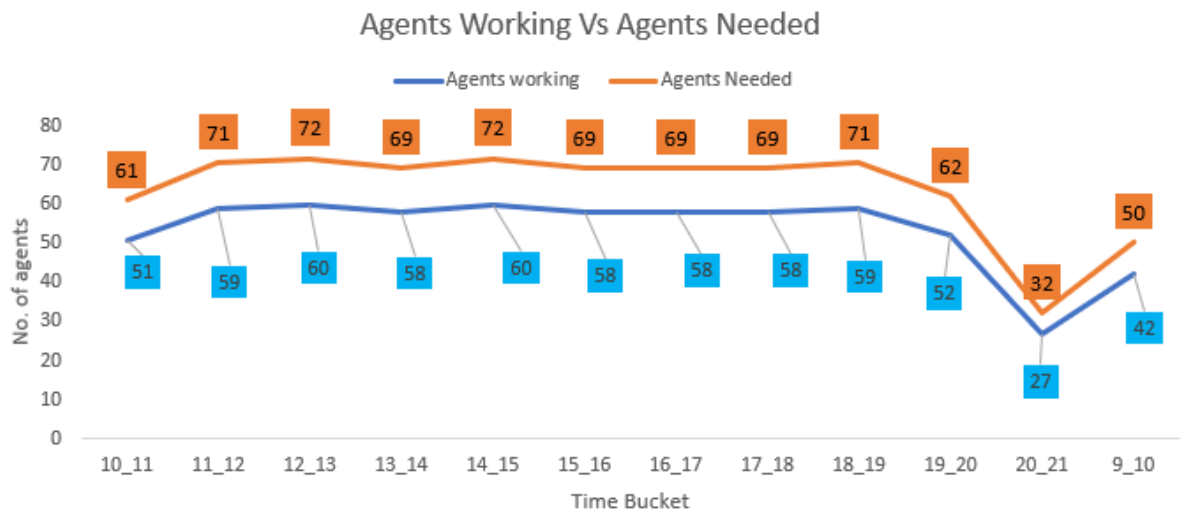

2. **Call Volume Analysis:** Visualize the total number of calls received. This should be represented as a graph or chart showing the number of calls against time. Time should be represented in buckets (e.g., 1-2, 2-3, etc.).

   **Task:** Can you create a chart or graph that shows the number of calls received in each time bucket?

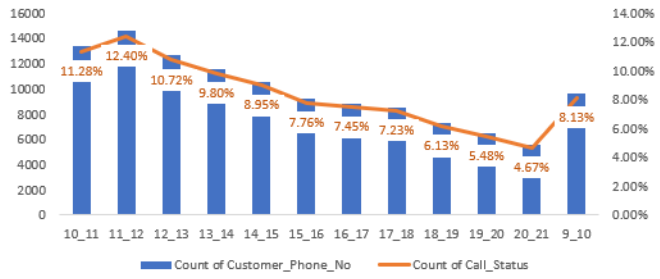


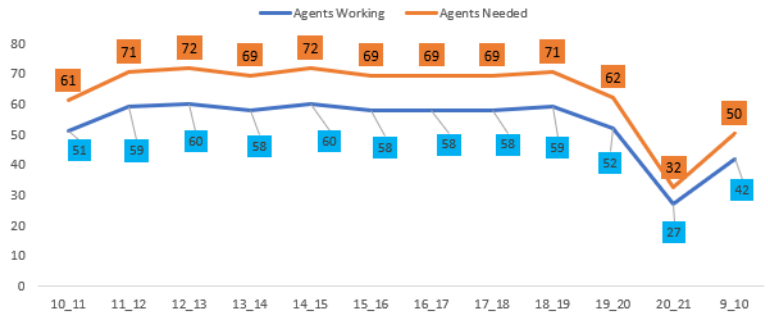
3. **Manpower Planning:** The current rate of abandoned calls is approximately 30%. Propose a plan for manpower allocation during each time bucket (from 9 am to 9 pm) to reduce the abandon rate to 10%. In other words, you need to

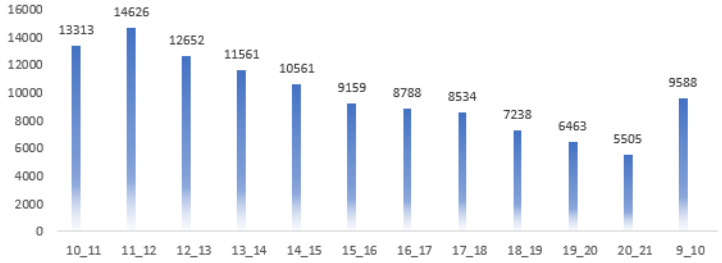
   **Your Task:** What is the minimum number of agents required in each time bucket to reduce the abandon rate to 10%. Calculate the minimum number of agents required in each time bucket to ensure that at least 90 out of 100 calls are answered.

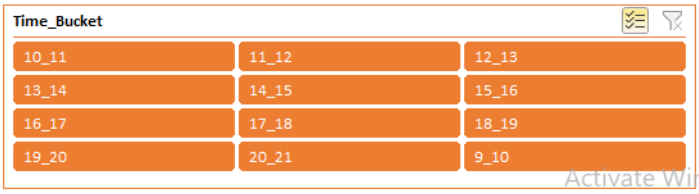



## Dashboard






Dataset Link: [Click here to Access.]