

ABC CALL VOLUME TREND ANALYSIS



CONTENT

- ❖ Introduction
- ❖ Approach
- ❖ Tech Stack Used
- ❖ Tasks
- ❖ Insight
- ❖ Summary
- ❖ Source



The background is a dark blue gradient with various financial symbols and numbers scattered across it. Symbols include the dollar sign (\$), euro sign (€), pound sign (£), and yen sign (¥). Numbers are in different colors (green, yellow, blue) and sizes. Some numbers are accompanied by small upward or downward arrows, suggesting trends or data points. The overall theme is financial or economic.

PROJECT DESCRIPTION

In this project, we will analyze a company's inbound calling team data set for customer experience (CX) analysis. The dataset lasts 23 days and includes information such as agent name and ID, queue time, call time, duration and status (dropped, answered, or transferred).

The CX team analyzes customer information and data, derives insights, and shares them across the organization. Their responsibilities include managing customer experience programs, internal communications, customer journey mapping, and processing customer data. AI-powered tools such as Interactive Voice Response (IVR), Robotic Process Automation (RPA), Predictive Analytics, and Intelligent Routing enhance the customer experience.

Customer service representatives, or call center representatives, handle support through email, incoming and outgoing calls, and social media. This service aims to engage, engage and delight customers, ultimately converting them into loyal advocates of their business

The background is a gradient of purple and blue. It is decorated with various financial symbols and numbers in different colors and sizes. Symbols include the dollar sign (\$), yen sign (¥), pound sign (£), and euro sign (€). Numbers include 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0. Some numbers are accompanied by small upward or downward arrows, suggesting trends or growth. The overall theme is finance and economics.

APPROACH...

HERE ARE THE STEPS WE WILL FOLLOW FOR EXECUTING OUR PROJECT:

- Download the data set
- Then clean the data by removing unwanted information, duplicate, handle the missing data.
- After cleaning the data convert the data types and make it ready to use.
- Now understand the data and use the excel and perform the tasks
- With the help of excel we will perform different types of chart and graphs, average, volume, manpower planning, etc.
- And at the end we get insight from it.



TECH STACK USED...



Excel



PowerPoint

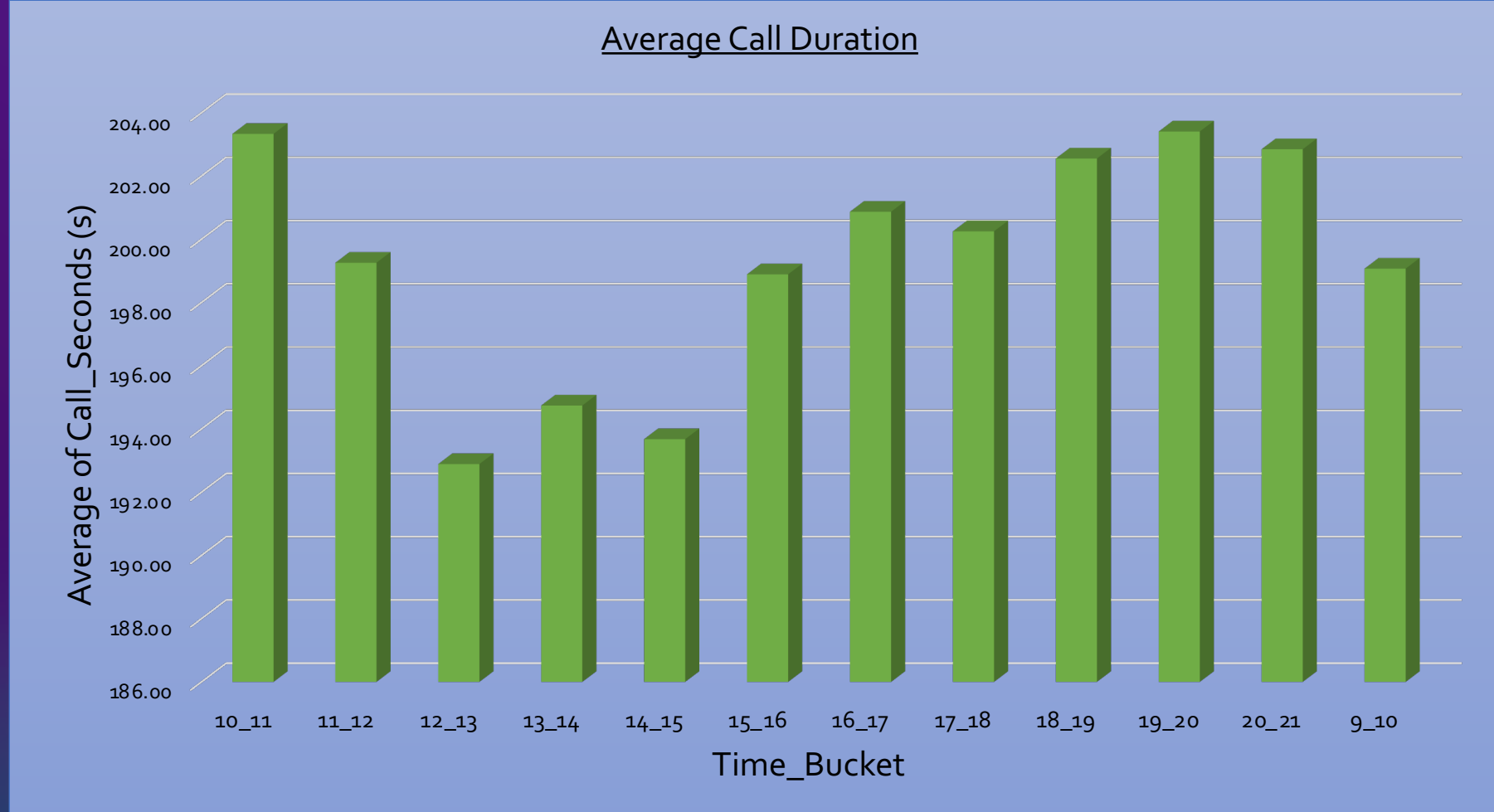


Loom

The background is a dark blue gradient. It is populated with various financial symbols and numbers in different colors and sizes. In the top left, there's a large blue '6', a green '1', a green '2', a green '9', a blue '4', and a blue '7'. In the top right, there's a blue '\$', a green '1', a blue '6', a green '5', a blue '£', a green '0', a blue '1', a green '4', and a blue '3'. In the bottom left, there's a blue '€', a green '5', a blue '2', a green '£', a blue '8', and a green '5'. In the bottom right, there's a blue '€', a green '7', a blue '¥', a green '2', a blue '8', a blue '5', and a green '4'. There are also several upward and downward arrows in blue and green. The word 'INSIGHT' is written in a white, serif font, followed by three double quotation marks.

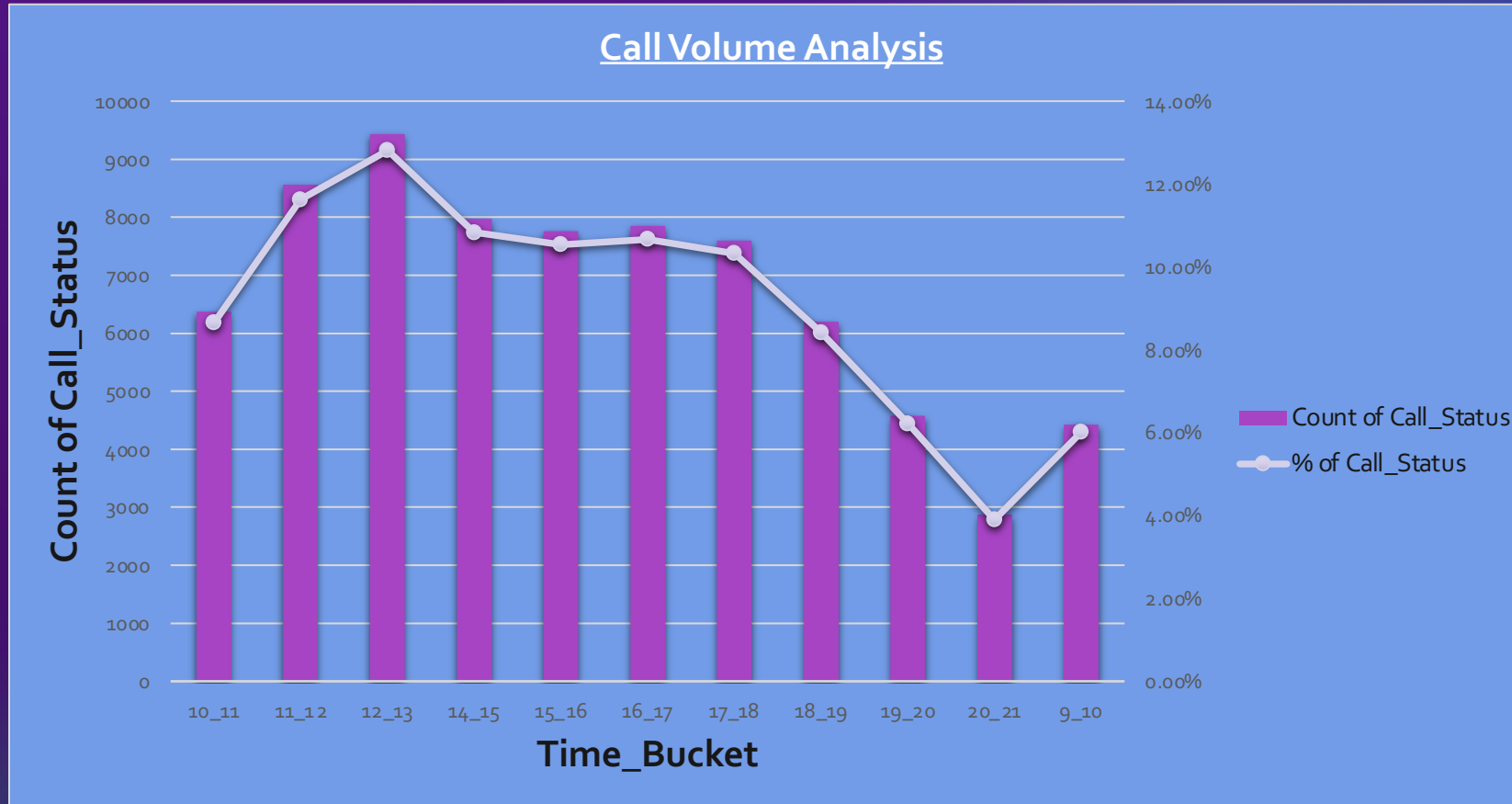
INSIGHT „ „ „

The Average Duration of all Incoming Calls Received By Agents



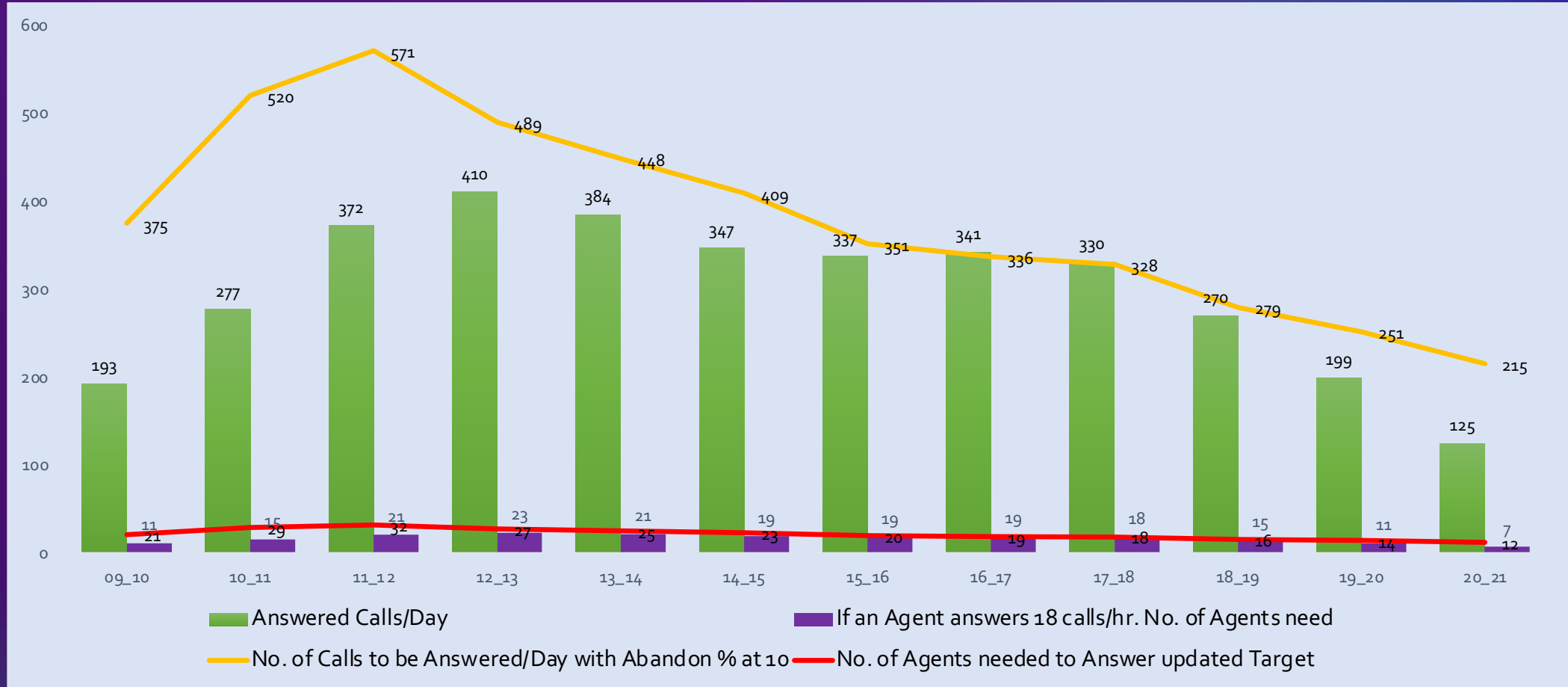
- An Overall Increasing Trend from 9am to 9pm with average duration of 198.62 seconds
- lowest during 12pm to 1pm slot followed by 2pm to 3pm then 1pm to 2pm
- Longest duration during 10am to 11am followed by 8pm to 9pm then 7pm to 8pm
- In morning hours from 9 am to 12 pm and from 6pm to 9pm the call duration is highest

Create a Chart or Graph That Shows the Number of Calls Received in Each Time Bucket?



- The Call volume follows a left skewed bell curve, with the 9588 at 9am to 10am peaking at 11 to 12 with 14626 then continuously declining to 5505 in 8pm to 9pm slot
- Overall decreasing trend is followed
- During the initial number of hours large number of calls are abandoned, and during the last hour large number of calls are abandoned in comparison to the call answered

What is the minimum number of agents required in each time bucket to reduce the abandon rate to 10%?



1.Calls answered/day: Varies from hour to hour, peaking at 410 calls between 12-13 hours.

2.Agents Required: Calculated based on agents handling 18 calls per hour, ranging from 7 to 23 agents depending on the time bucket.

3.Target calls with a 10% abandonment rate: Changes the number of calls that must be answered to maintain a 10% abandonment rate, which means more targets.

4.Update Agents Required: Increases the number of agents required to meet the update call goal, displayed from 12 to 32 agents.

Propose a manpower plan for each time bucket throughout the day, keeping the maximum abandon rate at 10%



This chart shows the number of employees required to work night shifts in a call center. The data points represent buckets of time at night, indicating the number of laborers required.

This visualization helps to understand staffing needs throughout the night, ensuring that the best staffing is allocated at different times

1. Peak Hours: The highest demand for agents occurs between 11:00 and 12:00, requiring 32 agents. Other high-demand periods include 10:00-11:00 (29 agents) and 12:00-13:00 (27 agents).

2. Off-Peak Hours: During the night and early morning (01:00-05:00), the required number of agents drops significantly to as low as 3 agents.

3. Moderate Demand: Evening hours and early morning (05:00-09:00) show a moderate demand, with the number of agents needed ranging from 8 to 13.

4. Transition Periods: The demand gradually decreases after the peak, with a steady need for 8 to 18 agents from 17:00 to 22:00.

LINKS

EXCEL SPREADSHEET

VIDEO PRESENTATION

The background is a gradient of purple and blue. It is decorated with various financial symbols and numbers in different colors and sizes. Symbols include the dollar sign (\$), yen sign (¥), pound sign (£), and euro sign (€). Numbers include 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 16, and 14. Some numbers are accompanied by small upward or downward arrows, suggesting trends or data points. The word 'SUMMARY' is centered in a white, serif font.

SUMMARY

This project focuses on analyzing a company's inbound calling team data for customer experience (CX) analysis. The dataset includes information such as agent name and ID, queue time, call time, duration, and status. The CX team uses AI-powered tools like IVR, RPA, Predictive Analytics, and Intelligent Routing to enhance the customer experience. The analysis reveals insights such as the overall increasing trend of calls from 9 am to 9 pm, lowest average duration during 12 pm to 1 pm, and highest call duration during morning hours and evening hours. The visualization helps understand staffing needs and transition periods in the call center.

In conclusion, the challenge presents valuable insights into call extent tendencies, common name period, and staffing necessities for keeping a 10% abandon price.

The utilization of excel gear and the thorough information analysis show a comprehensive method to improving the purchaser experience and optimizing the performance of the inbound calling team.

THANKS!