

ABC CALL VOLUME TREND ANALYSIS

OCTOBER 5
By Aastha Kumar



Description

For your final project we are providing you with a dataset of a Customer Experience (CX) Inbound calling team for 23 days. Data includes Agent_Name, Agent_ID, Queue_Time [duration for which customer have to wait before they get connected to an agent], Time [time at which call was made by customer in a day], Time_Bucket [for easiness we have also provided you with the time bucket], Duration [duration for which a customer and executives are on call, Call_Seconds [for simplicity we have also converted those time into seconds], call status (Abandon, answered, transferred).

A customer experience (CX) team consists of professionals who analyze customer feedback and data, and share insights with the rest of the organization. Typically, these teams fulfil various roles and responsibilities such as: Customer experience programs (CX programs), Digital customer experience, Design and processes, Internal communications, Voice of the customer (VoC), User experiences, Customer experience management, Journey mapping, Nurturing customer interactions, Customer success, Customer support, Handling customer data, Learning about the customer journey.

Let's look at some of the most impactful AI-empowered customer experience tools you can use today:

Interactive Voice Response (IVR), Robotic Process Automation (RPA), Predictive Analytics, Intelligent Routing

In a Customer Experience team there is a huge employment opportunities for Customer service representatives A.k.a. call centre agents, customer service agents. Some of the roles for them include: Email support, Inbound support, Outbound support, social media support.

Inbound customer support is defined as the call centre which is responsible for handling inbound calls of customers. Inbound calls are the incoming voice calls of the existing customers or prospective customers for your business which are attended by customer care representatives. Inbound customer service is the methodology of attracting, engaging, and delighting your customers to turn them into your business' loyal advocates. By solving your customers' problems and helping them achieve

success using your product or service, you can delight your customers and turn them into a growth engine for your business.

Tools to Optimize Your Customer Experience



Social Media Listening Tools: Listen to what customers are posting about your brand.



Suggestion Boxes: They don't have to be physical boxes, they can be an email address or a section of your support site.



Behavioral Analytics: Learn how customers react after visiting your website.



Customer Relationship Management (CRM): Easily track and manage customer relationships throughout their journey.



Surveys: Design questions that pertain to customers' unique journeys with your brand.

Approach

First, I downloaded the dataset from Google Sheets onto my personal device for making modifications. I then used my knowledge in statistics and used different formulas in excel to draw necessary conclusions about the company.

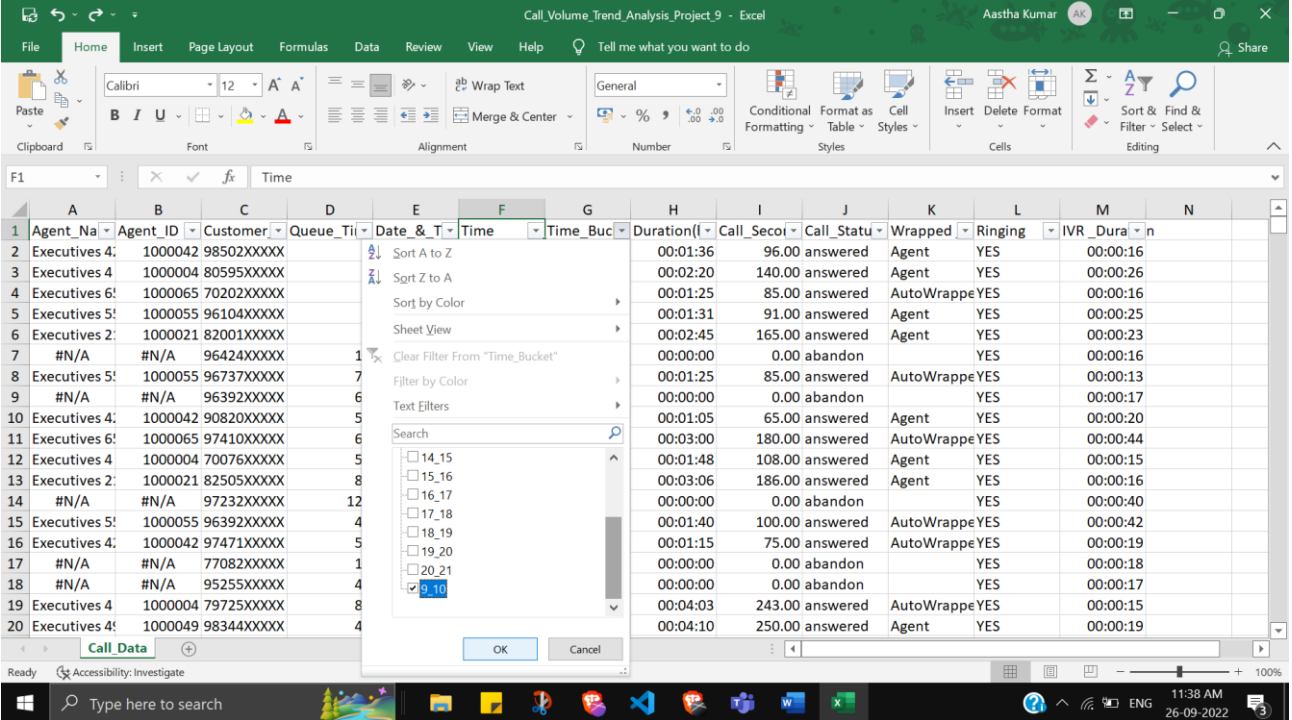
Tech-Stack Used

- Google Sheet

Insights

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

Use the Filter option to filter out only one slot (say 9_10) from the Time_Bucket column. Now all other fields except 9_10 is hidden.



The screenshot shows an Excel spreadsheet titled "Call Volume Trend Analysis Project 9 - Excel". The data is organized into columns: Agent_Na, Agent_ID, Customer, Queue_Ti, Date & T, Time, Time_Buc, Duration(t, Call_Seco, Call_Statu, Wrapped, Ringing, and IVR_Dura. The 'Time_Buc' column is filtered to show only the '9_10' slot. The 'Call Data' dialog box is open, showing the 'Time_Bucket' column selected for filtering. The dialog box also shows options for sorting and filtering by color, and a search bar.

Agent_Na	Agent_ID	Customer	Queue_Ti	Date & T	Time	Time_Buc	Duration(t	Call_Seco	Call_Statu	Wrapped	Ringing	IVR_Dura
Executives 4:	1000042	98502XXXXX					00:01:36	96.00	answered	Agent	YES	00:00:16
Executives 4:	1000004	80595XXXXX					00:02:20	140.00	answered	Agent	YES	00:00:26
Executives 6:	1000065	70202XXXXX					00:01:25	85.00	answered	AutoWrape	YES	00:00:16
Executives 5:	1000055	96104XXXXX					00:01:31	91.00	answered	Agent	YES	00:00:25
Executives 2:	1000021	82001XXXXX					00:02:45	165.00	answered	Agent	YES	00:00:23
#N/A	#N/A	96424XXXXX	1				00:00:00	0.00	abandon		YES	00:00:16
Executives 5:	1000055	96737XXXXX	7				00:01:25	85.00	answered	AutoWrape	YES	00:00:13
#N/A	#N/A	96392XXXXX	6				00:00:00	0.00	abandon		YES	00:00:17
Executives 4:	1000042	90820XXXXX	5				00:01:05	65.00	answered	Agent	YES	00:00:20
Executives 6:	1000065	97410XXXXX	6				00:03:00	180.00	answered	AutoWrape	YES	00:00:44
Executives 4:	1000004	70076XXXXX	5				00:01:48	108.00	answered	Agent	YES	00:00:15
Executives 2:	1000021	82505XXXXX	8				00:03:06	186.00	answered	Agent	YES	00:00:16
#N/A	#N/A	97232XXXXX	12				00:00:00	0.00	abandon		YES	00:00:40
Executives 5:	1000055	96392XXXXX	4				00:01:40	100.00	answered	AutoWrape	YES	00:00:42
Executives 4:	1000042	97471XXXXX	5				00:01:15	75.00	answered	AutoWrape	YES	00:00:19
#N/A	#N/A	77082XXXXX	1				00:00:00	0.00	abandon		YES	00:00:18
#N/A	#N/A	95255XXXXX	4				00:00:00	0.00	abandon		YES	00:00:17
Executives 4:	1000004	79725XXXXX	8				00:04:03	243.00	answered	AutoWrape	YES	00:00:15
Executives 4:	1000049	98344XXXXX	4				00:04:10	250.00	answered	Agent	YES	00:00:19

Calculate the average call time duration by using the simple formula:
Average = sum of all observations / number of observations

Call_Volume_Trend_Analysis_Project_9 - Excel

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Clipboard Font Alignment Number Styles Cells Editing

H117990 =AVERAGE(H2:H115048)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	Agent_Na	Agent_ID	Customer	Queue_Ti	Date & T	Time	Time_Buc	Duration(t	Call_Seco	Call_Statu	Wrapped	Ringing	IVR_Dura	n
1	Executives 4:	1000042	98502XXXXX	2	01-01-2022	9.00 9_10		00:01:36	96.00	answered	Agent	YES	00:00:16	
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14	Executives 5:	1000055	96392XXXXX	45	01-01-2022	9.00 9_10		00:01:40	100.00	answered	AutoWrape	YES	00:00:42	
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18	Executives 4:	1000004	79725XXXXX	88	01-01-2022	9.00 9_10		00:04:03	243.00	answered	AutoWrape	YES	00:00:15	
19	Executives 4:	1000049	98344XXXXX	46	01-01-2022	9.00 9_10		00:04:10	250.00	answered	Agent	YES	00:00:19	

Call Data

Edit 9588 of 117988 records found Accessibility: Investigate

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11:44 AM 26-09-2022

115048	Executives 6:	1000065	79813XXXXX		7	23-01-2022	9.00 9_10	00:05:58	358.00	answered	Agent	YES	00:00:17	
117990								00:02:19						
117991														

Repeat the same with all other baskets.

- b) 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,

Select the Time_Bucket and Duration columns to find the total volume of calls.

Call_Volume_Trend_Analysis_Project_9 - Excel

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PivotTable Recommended PivotTables Tables Add-ins My Add-ins Recommended Charts Charts Maps PivotChart 3D Map Tours Sparklines Win/Loss Slicer Timeline Link Text Symbols

H1 Duration(hh:mm:ss)

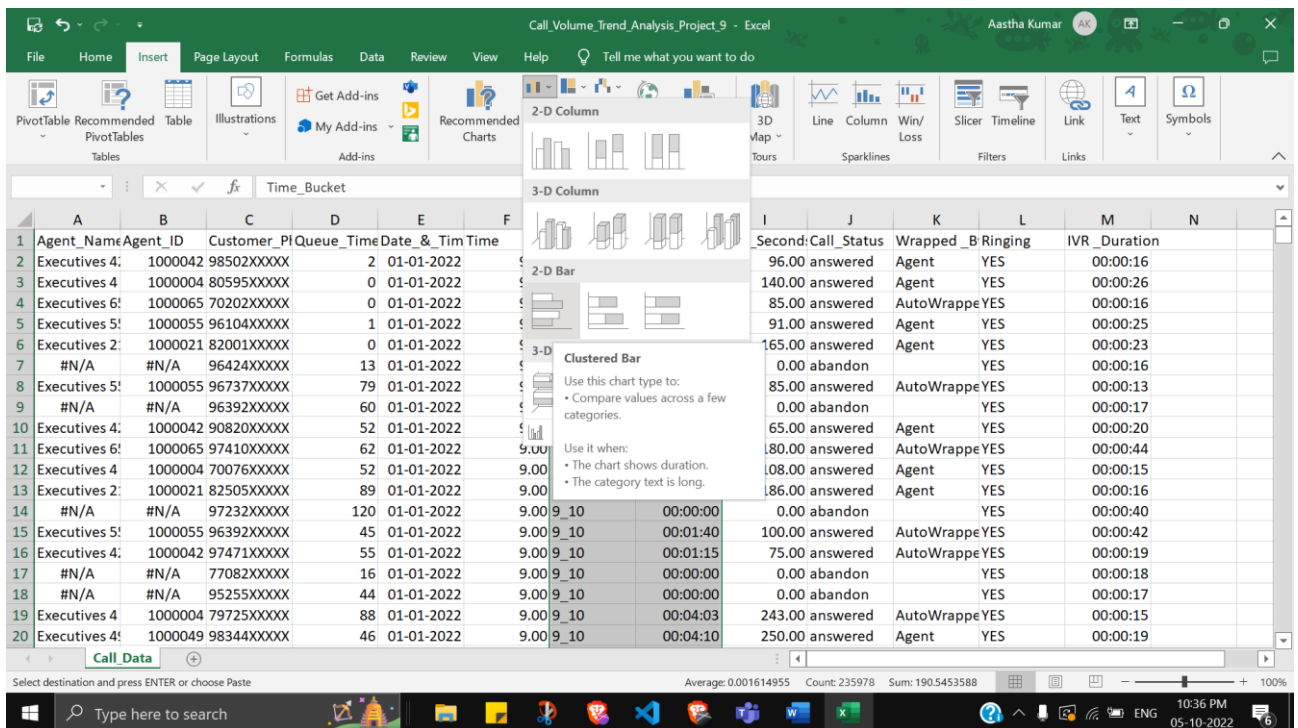
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	Agent_Name	Agent_ID	Customer_PI	Queue_Time	Date_&_Tim	Time	Time_Bucket	Duration(hh:mm:ss)	Call_Second	Call_Status	Wrapped_B	Ringing	IVR_Duration	
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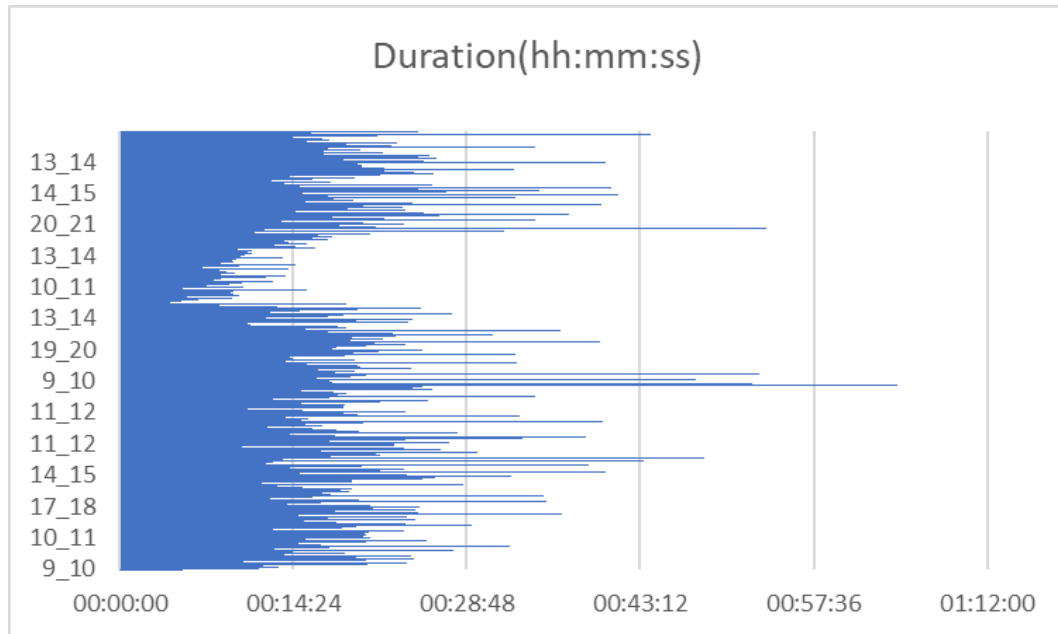
Call Data

Ready Accessibility: Investigate Average: 0.001614955 Count: 235978 Sum: 190.5453588

Type here to search 10:39 PM 05-10-2022

Go to Insert tab and click on Bar Chart to get the respective graph.





- c) 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.)

The Call Abandon Rate Formula:-

The formula for calculating Call Abandon Rate is:

$$\text{Call Abandon Rate (\%)} = \frac{\text{Number of Calls Offered} - \text{Number of Calls Handled}}{\text{Number of Calls Offered}} \times 100$$

So, if you have 100 calls offered and 95 are handled, you will have a 5% Call Abandon Rate.

Select the Time_Bucket column and filter the contents.

Call_Volume_Trend_Analysis_Project_9 - Excel

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Clipboard Font Alignment Number Styles Cells

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B U Merge & Center

General

Conditional Formatting Format as Table Cell Styles Insert Delete Format

Sort & Find & Filter Select

Sort A to Z Sort Z to A Custom Sort...

Filter (Ctrl+Shift+L)

Turn on filtering for the selected cells. Then, click the arrow in the column header to narrow down the data.

Filter Clear Reapply

Agent_Name	Agent_ID	Customer_PI	Queue_Time	Date_&_Time	Time_Bucket	Duration(hh:mm:ss)	Call_Second	Call_Status	Agent	Wrapped_B	Ring	IVR_Duration
Executives 4:	1000042	98502XXXXX	2	01-01-2022	9.00 9_10	00:01:36	96.00	answered	Agent	YES		00:00:16
Executives 4:	1000004	80595XXXXX	0	01-01-2022	9.00 9_10	00:02:20	140.00	answered	Agent	YES		00:00:26
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Executives 4:	1000049	98344XXXXX	46	01-01-2022	9.00 9_10	00:04:10	250.00	answered	Agent	YES		00:00:19

Call_Data

Ready Accessibility: Investigate Count: 117989 10:43 PM 05-10-2022

Uncheck all boxes except 9-10 Time_Bucket

Call_Volume_Trend_Analysis_Project_9 - Excel

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Clipboard Font Alignment Number Styles Cells

Calibri 12 A A

B U Merge & Center

General

Conditional Formatting Format as Table Cell Styles Insert Delete Format

Sort & Find & Filter Select

Sort A to Z Sort Z to A Custom Sort...

Filter (Ctrl+Shift+L)

Turn on filtering for the selected cells. Then, click the arrow in the column header to narrow down the data.

Filter Clear Reapply

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Call_Data

Ready Accessibility: Investigate Count: 117989 10:44 PM 05-10-2022

Note down the total number of calls in this particular time bucket (in this case : 117989)

Call_Volume_Trend_Analysis_Project_9 - Excel

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Clipboard Font Alignment Number Styles Cells Editing

Call_Status

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	Agent_Name	Agent_ID	Customer_PI	Queue_Time	Date_&_Tim	Time	Time_Bucket	Duration(hh	Call_Second	Call_Statu	Wrapped_B	Ringing	IVR_Duration	
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13	Executives 2:	1000021	82505XXXXX	89	01-01-2022	9.00	9_10	00:03:06	186.00	answered	Agent	YES	00:00:16	
14	#N/A	#N/A	97232XXXXX	120	01-01-2022	9.00	9_10	00:00:00	0.00	abandon		YES	00:00:40	
15	Executives 5:	1000055	96392XXXXX	45	01-01-2022	9.00	9_10	00:01:40	100.00	answered	AutoWrappe	YES	00:00:42	
16	Executives 4:	1000042	97471XXXXX	55	01-01-2022	9.00	9_10	00:01:15	75.00	answered	AutoWrappe	YES	00:00:19	
17	#N/A	#N/A	77082XXXXX	16	01-01-2022	9.00	9_10	00:00:00	0.00	abandon		YES	00:00:18	
18	#N/A	#N/A	95255XXXXX	44	01-01-2022	9.00	9_10	00:00:00	0.00	abandon		YES	00:00:17	
19	Executives 4:	1000004	79725XXXXX	88	01-01-2022	9.00	9_10	00:04:03	243.00	answered	AutoWrappe	YES	00:00:15	
20	Executives 4:	1000049	98344XXXXX	46	01-01-2022	9.00	9_10	00:04:10	250.00	answered	Agent	YES	00:00:19	

Count: 11798

Sort the Call_Status column such that only those calls with answered status are displayed

Call_Volume_Trend_Analysis_Project_9 - Excel

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Clipboard Font Alignment Number Styles Cells Editing

Call_Status

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	Agent_Name	Agent_ID	Customer_PI	Queue_Time	Date_&_Tim	Time	Time_Bucket	Duration(hh	Call_Second	Call_Statu	Wrapped_B	Ringing	IVR_Duration	
1	Executives 4:	1000042	98502XXXXX	2	01-01-2022	9.00	9_10	00:01:36	96.00	answered	Agent	YES	00:00:16	
3	Executives 4:	1000004	80595XXXXX	0	01-01-2022	9.00	9_10	00:02:20	140.00	answered	Agent	YES	00:00:26	
4	Executives 6:	1000065	70202XXXXX	0	01-01-2022	9.00	9_10	00:01:25	85.00	answered	AutoWrappe	YES	00:00:16	
5	Executives 5:	1000055	96104XXXXX	1	01-01-2022	9.00	9_10	00:01:31	91.00	answered	Agent	YES	00:00:25	
6	Executives 2:	1000021	82001XXXXX	0	01-01-2022	9.00	9_10	00:02:45	165.00	answered	Agent	YES	00:00:23	
8	Executives 5:	1000055	96737XXXXX	79	01-01-2022	9.00	9_10	00:01:25	85.00	answered	AutoWrappe	YES	00:00:13	
10	Executives 4:	1000042	90820XXXXX	52	01-01-2022	9.00	9_10	00:01:05	65.00	answered	Agent	YES	00:00:20	
11	Executives 6:	1000065	97410XXXXX	62	01-01-2022	9.00	9_10	00:03:00	180.00	answered	AutoWrappe	YES	00:00:44	
12	Executives 4:	1000004	70076XXXXX	52	01-01-2022	9.00	9_10	00:01:48	108.00	answered	Agent	YES	00:00:15	
13	Executives 2:	1000021	82505XXXXX	89	01-01-2022	9.00	9_10	00:03:06	186.00	answered	Agent	YES	00:00:16	
15	Executives 5:	1000055	96392XXXXX	45	01-01-2022	9.00	9_10	00:01:40	100.00	answered	AutoWrappe	YES	00:00:42	
16	Executives 4:	1000042	97471XXXXX	55	01-01-2022	9.00	9_10	00:01:15	75.00	answered	AutoWrappe	YES	00:00:19	
19	Executives 4:	1000004	79725XXXXX	88	01-01-2022	9.00	9_10	00:04:03	243.00	answered	AutoWrappe	YES	00:00:15	
20	Executives 4:	1000049	98344XXXXX	46	01-01-2022	9.00	9_10	00:04:10	250.00	answered	Agent	YES	00:00:19	
21	Executives 5:	1000050	96873XXXXX	64	01-01-2022	9.00	9_10	00:03:28	208.00	answered	Agent	YES	00:00:48	
22	Executives 4:	1000042	79899XXXXX	52	01-01-2022	9.00	9_10	00:02:34	154.00	answered		YES	00:00:26	
23	Executives 6:	1000065	95754XXXXX	67	01-01-2022	9.00	9_10	00:02:07	127.00	answered	AutoWrappe	YES	00:00:45	
24	Executives 5:	1000055	70546XXXXX	64	01-01-2022	9.00	9_10	00:03:11	191.00	answered	AutoWrappe	YES	00:00:40	
25	Executives 2:	1000021	97050XXXXX	47	01-01-2022	9.00	9_10	00:03:23	203.00	answered	Agent	YES	00:00:25	

Count: 82453

Note down the total number of calls in this particular time bucket (in this case : 82453)

Now put these numbers into the formula: $(82453/117989) \times 100\% = 69.88 \%$

Repeat the same process for other Time_Buckets

- d) 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%.

The Call Abandon Rate Formula:-

The formula for calculating Call Abandon Rate is:

$$\text{Call Abandon Rate (\%)} = \frac{\text{Number of Calls Offered} - \text{Number of Calls Handled}}{\text{Number of Calls Offered}} \times 100$$

So, if you have 100 calls offered and 95 are handled, you will have a 5% Call Abandon Rate.

Select the Time_Bucket column and filter the contents.

Call_Volume_Trend_Analysis_Project_9 - Excel

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Clipboard Font Alignment Number Styles Cells

Calibri 12 A A

B I U Merge & Center

Wrap Text

General

Conditional Formatting Format as Table Cell Styles Insert Delete Format

Sort & Filter Find & Select

Sort A to Z Sort Z to A Custom Sort...

Filter (Ctrl+Shift+L)

Turn on filtering for the selected cells. Then, click the arrow in the column header to narrow down the data.

Filter Clear Reapply

Agent_Name	Agent_ID	Customer_PI	Queue_Time	Date_&_Tim	Time_Bucket	Duration(hh	Call_Second	Call_Status	Wrapped_B	Ring	IVR_Duration
Executives 4:	1000042	98502XXXXX	2	01-01-2022	9.00 9_10	00:01:36	96.00	answered	Agent	YES	00:00:16
Executives 4:	1000004	80595XXXXX	0	01-01-2022	9.00 9_10	00:02:20	140.00	answered	Agent	YES	00:00:26
Executives 6:	1000065	70202XXXXX	0	01-01-2022	9.00 9_10	00:01:25	85.00	answered	AutoWrape	YES	00:00:16
Executives 5:	1000055	96104XXXXX	1	01-01-2022	9.00 9_10	00:01:31	91.00	answered	Agent	YES	00:00:25
Executives 2:	1000021	82001XXXXX	0	01-01-2022	9.00 9_10	00:02:45	165.00	answered	Agent	YES	00:00:23
#N/A	#N/A	96424XXXXX	13	01-01-2022	9.00 9_10	00:00:00	0.00	abandon	YES		00:00:16
Executives 5:	1000055	96737XXXXX	79	01-01-2022	9.00 9_10	00:01:25	85.00	answered	AutoWrape	YES	00:00:13
#N/A	#N/A	96392XXXXX	60	01-01-2022	9.00 9_10	00:00:00	0.00	abandon	YES		00:00:17
Executives 4:	1000042	90820XXXXX	52	01-01-2022	9.00 9_10	00:01:05	65.00	answered	Agent	YES	00:00:20
Executives 6:	1000065	97410XXXXX	62	01-01-2022	9.00 9_10	00:03:00	180.00	answered	AutoWrape	YES	00:00:44
Executives 4:	1000004	70076XXXXX	52	01-01-2022	9.00 9_10	00:01:48	108.00	answered	Agent	YES	00:00:15
Executives 2:	1000021	82505XXXXX	89	01-01-2022	9.00 9_10	00:03:06	186.00	answered	Agent	YES	00:00:16
#N/A	#N/A	97232XXXXX	120	01-01-2022	9.00 9_10	00:00:00	0.00	abandon	YES		00:00:40
Executives 5:	1000055	96392XXXXX	45	01-01-2022	9.00 9_10	00:01:40	100.00	answered	AutoWrape	YES	00:00:42
Executives 4:	1000042	97471XXXXX	55	01-01-2022	9.00 9_10	00:01:15	75.00	answered	AutoWrape	YES	00:00:19
#N/A	#N/A	77082XXXXX	16	01-01-2022	9.00 9_10	00:00:00	0.00	abandon	YES		00:00:18
#N/A	#N/A	95255XXXXX	44	01-01-2022	9.00 9_10	00:00:00	0.00	abandon	YES		00:00:17
Executives 4:	1000004	79725XXXXX	88	01-01-2022	9.00 9_10	00:04:03	243.00	answered	AutoWrape	YES	00:00:15
Executives 4:	1000049	98344XXXXX	46	01-01-2022	9.00 9_10	00:04:10	250.00	answered	Agent	YES	00:00:19

Call Data

Ready Accessibility: Investigate Count: 117989 10:43 PM 05-10-2022

Uncheck all boxes except 9-10 Time_Bucket

Call_Volume_Trend_Analysis_Project_9 - Excel

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Clipboard Font Alignment Number Styles Cells

Calibri 12 A A

B I U Merge & Center

Wrap Text

General

Conditional Formatting Format as Table Cell Styles Insert Delete Format

Sort & Filter Find & Select

Sort A to Z Sort Z to A Custom Sort...

Filter (Ctrl+Shift+L)

Turn on filtering for the selected cells. Then, click the arrow in the column header to narrow down the data.

Filter Clear Reapply

Agent_Name	Agent_ID	Customer_PI	Queue_Time	Date_&_Tim	Time_Buc	Duration(hh	Call_Second	Call_Status	Wrapped_B	Ring	IVR_Duration
Executives 4:	1000042	98502XXXXX				00:01:36	96.00	answered	Agent	YES	00:00:16
Executives 4:	1000004	80595XXXXX				00:02:20	140.00	answered	Agent	YES	00:00:26
Executives 6:	1000065	70202XXXXX				00:01:25	85.00	answered	AutoWrape	YES	00:00:16
Executives 5:	1000055	96104XXXXX				00:01:31	91.00	answered	Agent	YES	00:00:25
Executives 2:	1000021	82001XXXXX				00:02:45	165.00	answered	Agent	YES	00:00:23
#N/A	#N/A	96424XXXXX				00:00:00	0.00	abandon	YES		00:00:16
Executives 5:	1000055	96737XXXXX				00:01:25	85.00	answered	AutoWrape	YES	00:00:13
#N/A	#N/A	96392XXXXX				00:00:00	0.00	abandon	YES		00:00:17
Executives 4:	1000042	90820XXXXX				00:01:05	65.00	answered	Agent	YES	00:00:20
Executives 6:	1000065	97410XXXXX				00:03:00	180.00	answered	AutoWrape	YES	00:00:44
Executives 4:	1000004	70076XXXXX				00:01:48	108.00	answered	Agent	YES	00:00:15
Executives 2:	1000021	82505XXXXX				00:03:06	186.00	answered	Agent	YES	00:00:16
#N/A	#N/A	97232XXXXX				00:00:00	0.00	abandon	YES		00:00:40
Executives 5:	1000055	96392XXXXX				00:01:40	100.00	answered	AutoWrape	YES	00:00:42
Executives 4:	1000042	97471XXXXX				00:01:15	75.00	answered	AutoWrape	YES	00:00:19
#N/A	#N/A	77082XXXXX				00:00:00	0.00	abandon	YES		00:00:18
#N/A	#N/A	95255XXXXX				00:00:00	0.00	abandon	YES		00:00:17
Executives 4:	1000004	79725XXXXX				00:04:03	243.00	answered	AutoWrape	YES	00:00:15
Executives 4:	1000049	98344XXXXX				00:04:10	250.00	answered	Agent	YES	00:00:19

Call Data

Ready Accessibility: Investigate Count: 117989 10:44 PM 05-10-2022

Note down the total number of calls in this particular time bucket (in this case : 117989)

Call_Volume_Trend_Analysis_Project_9 - Excel

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Clipboard Font Alignment Number Styles Cells Editing

Calibri 12 A A

B I U Merge & Center

General

Conditional Formatting Format as Table Cell Styles Insert Delete Format Sort & Find & Filter Select

Count: 11798

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	Agent_Name	Agent_ID	Customer_PI	Queue_Time	Date_&_Tim	Time	Time_Bucket	Duration(hh	Call_Second	Call_Status	Wrapped_B	Ringing	IVR_Duration	
1	Executives 4:	1000042	98502XXXXX	2	01-01-2022	9.00	9_10	00:01:36	96.00	answered	Agent	YES	00:00:16	
3	Executives 4:	1000004	80595XXXXX	0	01-01-2022	9.00	9_10	00:02:20	140.00	answered	Agent	YES	00:00:26	
4	Executives 6:	1000065	70202XXXXX	0	01-01-2022	9.00	9_10	00:01:25	85.00	answered	AutoWrappe	YES	00:00:16	
5	Executives 5:	1000055	96104XXXXX	1	01-01-2022	9.00	9_10	00:01:31	91.00	answered	Agent	YES	00:00:25	
6	Executives 2:	1000021	82001XXXXX	0	01-01-2022	9.00	9_10	00:02:45	165.00	answered	Agent	YES	00:00:23	
7	#N/A	#N/A	96424XXXXX	13	01-01-2022	9.00	9_10	00:00:00	0.00	abandon		YES	00:00:16	
8	Executives 5:	1000055	96737XXXXX	79	01-01-2022	9.00	9_10	00:01:25	85.00	answered	AutoWrappe	YES	00:00:13	
9	#N/A	#N/A	96392XXXXX	60	01-01-2022	9.00	9_10	00:00:00	0.00	abandon		YES	00:00:17	
10	Executives 4:	1000042	90820XXXXX	52	01-01-2022	9.00	9_10	00:01:05	65.00	answered	Agent	YES	00:00:20	
11	Executives 6:	1000065	97410XXXXX	62	01-01-2022	9.00	9_10	00:03:00	180.00	answered	AutoWrappe	YES	00:00:44	
12	Executives 4:	1000004	70076XXXXX	52	01-01-2022	9.00	9_10	00:01:48	108.00	answered	Agent	YES	00:00:15	
13	Executives 2:	1000021	82505XXXXX	89	01-01-2022	9.00	9_10	00:03:06	186.00	answered	Agent	YES	00:00:16	
14	#N/A	#N/A	97232XXXXX	120	01-01-2022	9.00	9_10	00:00:00	0.00	abandon		YES	00:00:40	
15	Executives 5:	1000055	96392XXXXX	45	01-01-2022	9.00	9_10	00:01:40	100.00	answered	AutoWrappe	YES	00:00:42	
16	Executives 4:	1000042	97471XXXXX	55	01-01-2022	9.00	9_10	00:01:15	75.00	answered	AutoWrappe	YES	00:00:19	
17	#N/A	#N/A	77082XXXXX	16	01-01-2022	9.00	9_10	00:00:00	0.00	abandon		YES	00:00:18	
18	#N/A	#N/A	95255XXXXX	44	01-01-2022	9.00	9_10	00:00:00	0.00	abandon		YES	00:00:17	
19	Executives 4:	1000004	79725XXXXX	88	01-01-2022	9.00	9_10	00:04:03	243.00	answered	AutoWrappe	YES	00:00:15	
20	Executives 4:	1000049	98344XXXXX	46	01-01-2022	9.00	9_10	00:04:10	250.00	answered	Agent	YES	00:00:19	

Ready Accessibility: Investigate

Type here to search

10:46 PM 05-10-2022

Sort the Call_Status column such that only those calls with answered status are displayed

Call_Volume_Trend_Analysis_Project_9 - Excel

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Clipboard Font Alignment Number Styles Cells Editing

Calibri 12 A A

B I U Merge & Center

General

Conditional Formatting Format as Table Cell Styles Insert Delete Format Sort & Find & Filter Select

Count: 82453

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	Agent_Name	Agent_ID	Customer_PI	Queue_Time	Date_&_Tim	Time	Time_Bucket	Duration(hh	Call_Second	Call_Status	Wrapped_B	Ringing	IVR_Duration	
1	Executives 4:	1000042	98502XXXXX	2	01-01-2022	9.00	9_10	00:01:36	96.00	answered	Agent	YES	00:00:16	
3	Executives 4:	1000004	80595XXXXX	0	01-01-2022	9.00	9_10	00:02:20	140.00	answered	Agent	YES	00:00:26	
4	Executives 6:	1000065	70202XXXXX	0	01-01-2022	9.00	9_10	00:01:25	85.00	answered	AutoWrappe	YES	00:00:16	
5	Executives 5:	1000055	96104XXXXX	1	01-01-2022	9.00	9_10	00:01:31	91.00	answered	Agent	YES	00:00:25	
6	Executives 2:	1000021	82001XXXXX	0	01-01-2022	9.00	9_10	00:02:45	165.00	answered	Agent	YES	00:00:23	
8	Executives 5:	1000055	96737XXXXX	79	01-01-2022	9.00	9_10	00:01:25	85.00	answered	AutoWrappe	YES	00:00:13	
10	Executives 4:	1000042	90820XXXXX	52	01-01-2022	9.00	9_10	00:01:05	65.00	answered	Agent	YES	00:00:20	
11	Executives 6:	1000065	97410XXXXX	62	01-01-2022	9.00	9_10	00:03:00	180.00	answered	AutoWrappe	YES	00:00:44	
12	Executives 4:	1000004	70076XXXXX	52	01-01-2022	9.00	9_10	00:01:48	108.00	answered	Agent	YES	00:00:15	
13	Executives 2:	1000021	82505XXXXX	89	01-01-2022	9.00	9_10	00:03:06	186.00	answered	Agent	YES	00:00:16	
15	Executives 5:	1000055	96392XXXXX	45	01-01-2022	9.00	9_10	00:01:40	100.00	answered	AutoWrappe	YES	00:00:42	
16	Executives 4:	1000042	97471XXXXX	55	01-01-2022	9.00	9_10	00:01:15	75.00	answered	AutoWrappe	YES	00:00:19	
19	Executives 4:	1000004	79725XXXXX	88	01-01-2022	9.00	9_10	00:04:03	243.00	answered	AutoWrappe	YES	00:00:15	
20	Executives 4:	1000049	98344XXXXX	46	01-01-2022	9.00	9_10	00:04:10	250.00	answered	Agent	YES	00:00:19	
21	Executives 5:	1000050	96873XXXXX	64	01-01-2022	9.00	9_10	00:03:28	208.00	answered	Agent	YES	00:00:48	
22	Executives 4:	1000042	79899XXXXX	52	01-01-2022	9.00	9_10	00:02:34	154.00	answered		YES	00:00:26	
23	Executives 6:	1000065	95754XXXXX	67	01-01-2022	9.00	9_10	00:02:07	127.00	answered	AutoWrappe	YES	00:00:45	
24	Executives 5:	1000055	70546XXXXX	64	01-01-2022	9.00	9_10	00:03:11	191.00	answered	AutoWrappe	YES	00:00:40	
25	Executives 2:	1000021	97050XXXXX	47	01-01-2022	9.00	9_10	00:03:23	203.00	answered	Agent	YES	00:00:25	

Ready 82452 of 117988 records found Accessibility: Investigate

Type here to search

10:49 PM 05-10-2022

Note down the total number of calls in this particular time bucket (in this case : 82453)

Now put these numbers into the formula: $(82453/117989) \times 100\% = 69.88 \%$

Repeat the same process for other Time_Buckets

Resources



Call Volume Trend Analysis

Result

It would have been impossible or very time consuming for an ordinary human to be able to process such large bits of information. A computer can do it within seconds with the right commands. That's why companies like Instagram hire data analysts to control the waves of data they collect every day, makes sense of it, and then draw conclusions or make predictions. This is the process of turning data into insights, and it's how analysts help businesses put all their data to good use.

The more detailed definition you learned earlier is that data analysis is the collection, transformation, and organization of data in order to draw conclusions, make predictions, and drive informed decision-making.

Data analytics can help organizations completely rethink something they do or point them in a totally new direction. For example, maybe data leads them to a new product or unique service, or maybe it helps them find a new way to deliver an incredible customer experience.