PROJECT – 8:

ABC CALL VOLUME TREND ANALYSIS

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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.

IN THE CURRENT ERA, SEVERAL AI-POWERED TOOLS ARE BEING USED TO ENHANCE CUSTOMER EXPERIENCE. THESE INCLUDE INTERACTIVE VOICE RESPONSE (IVR), ROBOTIC PROCESS AUTOMATION (RPA), PREDICTIVE ANALYTICS, AND INTELLIGENT ROUTING.

ONE OF THE KEY ROLES IN A CX TEAM IS THAT OF THE CUSTOMER SERVICE REPRESENTATIVE, ALSO KNOWN AS A CALL CENTRE AGENT. THESE AGENTS HANDLE VARIOUS TYPES OF SUPPORT, INCLUDING EMAIL, INBOUND, OUTBOUND, AND SOCIAL MEDIA SUPPORT.

INBOUND CUSTOMER SUPPORT, WHICH IS THE FOCUS OF THIS PROJECT, INVOLVES HANDLING INCOMING CALLS FROM EXISTING OR PROSPECTIVE CUSTOMERS. THE GOAL IS TO ATTRACT, ENGAGE, AND DELIGHT CUSTOMERS, TURNING THEM INTO LOYAL ADVOCATES FOR THE BUSINESS.

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.

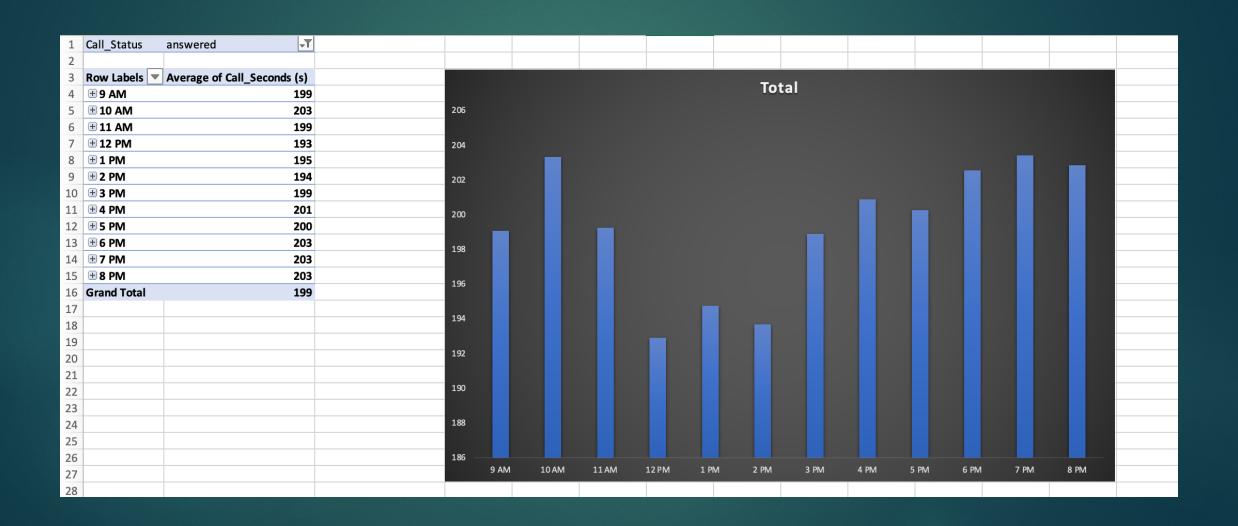
THE ADVERTISING BUSINESS IS HIGHLY COMPETITIVE, WITH MANY PLAYERS BIDDING LARGE AMOUNTS OF MONEY TO TARGET THE SAME AUDIENCE SEGMENT. THIS IS WHERE THE COMPANY'S ANALYTICAL SKILLS COME INTO PLAY. THE GOAL IS TO IDENTIFY THOSE MEDIA PLATFORMS THAT CAN CONVERT AUDIENCES INTO CUSTOMERS AT A LOW COST.

TOOLS & TECHNOLOGY USED:

MICROSOFT EXCEL

1) AVERAGE CALL DURATION:

WHAT IS THE AVERAGE DURATION OF CALLS FOR EACH TIME BUCKET?



2) CALL VOLUME ANALYSIS:

CREATE A CHART OR GRAPH THAT SHOWS THE NUMBER OF CALLS RECEIVED IN EACH TIME BUCKET??



3) MANPOWER PLANNING:

WHAT IS THE MINIMUM NUMBER OF AGENTS REQUIRED IN EACH TIME BUCKET TO REDUCE THE ABANDON RATE TO 10%?

	А	В	С	D	Е	F	G	Н	I	J	K	L	M	N	0	Р
2																
	Pow Labola =	Sum of Call_Seconds (s)	cum of call hours													
	01-Jan	676664	187.96				assumptions					Pow Labols	Count of Call Seconds (c)	Count of Call_Seconds (s)2	Time dist	Agents req.
	02-Jan	574003	159.45				assumptions					⊕ 9 AM	9588			
	03-Jan	812863	225.80				total working hours	9 hours				■ 10 AM	13313			
	04-Jan	861946	239.43				break duration	1.5 hours				■ 11 AM	14626			
	05-Jan	846798	235.22					7.5 hours				■ 12 PM	12652			
	06-Jan	829040	230.29				working hours	4.5				●1PM	11561	9.80%		
	07-Jan	757019	210.28									⊕ 2 PM	10561	00/8890000		
	08-Jan	735444	204.29									■3 PM	9159			
	09-Jan	541147	150.32				total hours worked	187.96				⊕ 4 PM	8788			
13	10-Jan	778739	216.32				no of agent worked (each 4.5 hours)	42				⊕ 5 PM	8534	7.23%	0.07	4
	11-Jan	785717	218.25									■ 6 PM	7238	6.13%	0.06	3
15	12-Jan	709934	197.20									■ 7 PM	6463	5.48%	0.05	3
16	13-Jan	691320	192.03				so 42 agents work so as to keep working rate of 70%					■8 PM	5505	4.67%	0.05	3
17	14-Jan	564227	156.73									Grand Total	117988	100.00%	1.00	54
18	15-Jan	556267	154.52				to reduce the abondon rate to 10% use unitary metho	d	agents	rate						<u> </u>
	16-Jan	674394	187.33													
	17-Jan	945615	262.67						42	70						
	18-Jan	796768	221.32						X	90						
	19-Jan	750270	208.41													
	20-Jan	759613	211.00													
	21-Jan	639855	177.74						X	54						
	22-Jan	621577	172.66													
	23-Jan	553899	153.86				therefore we need 12 more agents									
27																
28																

4) NIGHT SHIFT MANPOWER PLANNING:

PROPOSE A MANPOWER PLAN FOR EACH TIME BUCKET THROUGHOUT THE DAY, KEEPING THE MAXIMUM ABANDON RATE AT 10%.

\mathbb{Z}	А	В	С	D	Е	F	G	Н	1	J	K	L	М	N	0
1															
2															
3	Count of Call_Status	Column Labels						average calls made per day	5130		time	calls	call dist.	agents	
4	Row Labels ▼	abandon	answered	transfer	Grand Total						9-10 pm	3	0.10	2	2
5	01-Jan	684	3883	77	4644			given that, 30% calls are done at night	1539		10-11pm	3	0.10	2	2
6	02-Jan	356	2935	60	3351						11pm-12am	2	0.07	1	1
7	03-Jan	599	4079	111	4789			avg seconds req to answer the call	306261		12-1 am	2	0.07	1	1
8	04-Jan	595	4404	114	5113						1-2 am	1	0.03	1	1
9	05-Jan	536	4140	114	4790			avg hours req	85.0725		2-3 am	1	0.03	1	1
10	06-Jan	991	3875	85	4951						3-4 am	1	0.03	1	1
11	07-Jan	1319	3587	42	4948			for 10% abondon rate	76.56525		4-5 am	1	0.03	1	1
12	08-Jan	1103	3519	50	4672						5-6 am	3			
13	09-Jan	962	2628	62	3652			no of agents req	17		6-7 am	4			
	10-Jan	1212	3699	72	4983						7-8 am	4			
	11-Jan	856	3695	86	4637						8-9 am	5			
16	12-Jan	1299	3297	47	4643							30	1.00	17	7
	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										-
29					5130										-
30															

THANK YOU