Hiring Process Analytics

Project – 4

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Project Description

Consider yourself a data analyst for a global powerhouse like Google. Your job is to examine the information the organisation has collected about its employment procedures and extract useful information from it. Hiring is an essential element of any business, and HR may benefit from tracking metrics like the number of applications received, interviews conducted, job categories filled, and open positions.

Insights

As a professional data analyst, I was given a large dataset comprising specific information about previous employee interactions. To help the organisation strategically improve its hiring practises, it was my critical responsibility to investigate this abundance of data and draw forth key insights.

Tech-Stack

This analytical endeavour is carried out with the expert use of Microsoft Excel, utilising its comprehensive array of statistical functions such as COUNT, Pivot Charts, and other sophisticated tools. My knowledge of decoding this data will aid in the identification of actionable patterns and trends, ultimately guiding the organisation to more informed and effective recruiting decisions.

Excel file

Trainity_PROJECT4

TRAINITY_PROJECT4.xlsx

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A. Hiring Analysis:

STATMENT:

During the hiring process, the company fills open positions with qualified candidates. Find out how male and female hires compare. How many men and women do you have working for you?

APPROACH:

With the help of 2 functions one can find out total number of men and women working in the company. Both the functions are demonstrated in the excel file. The functions are:

- CountA – To calculate the number of rows consisting of text data, this function is used.
- ROWS – This function is used to calculate the total number of rows for the selected ARRAY.

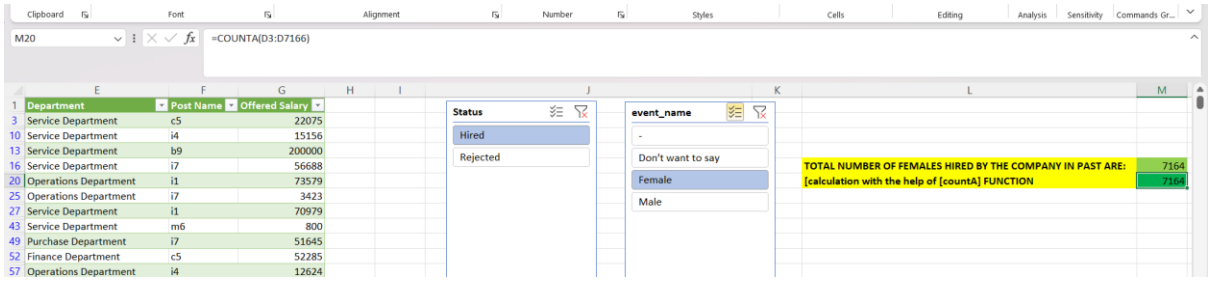


FIG 1 Total Number of Females Hired by the Company in the Past

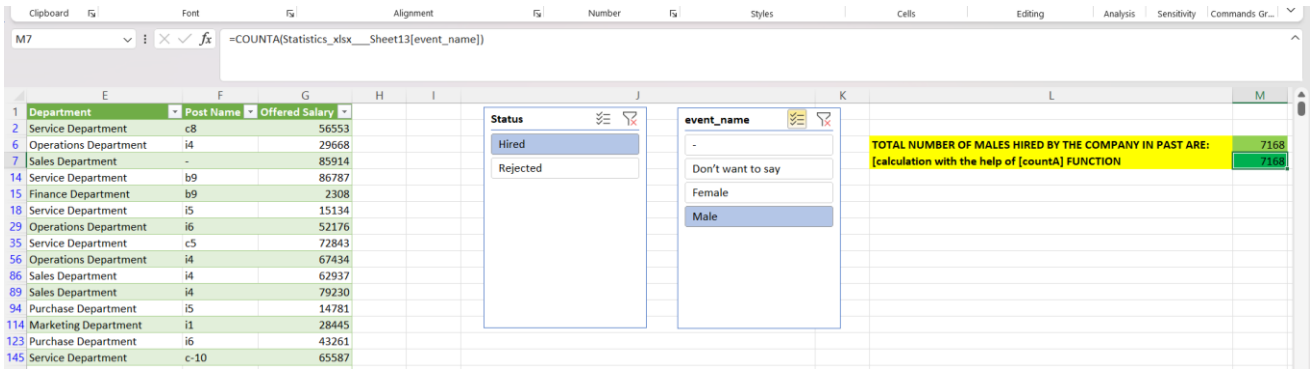
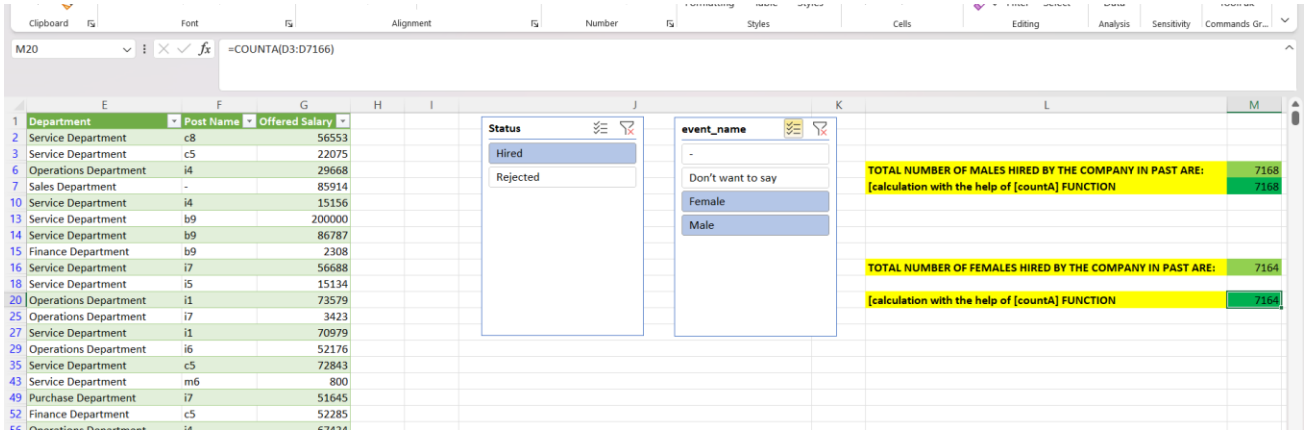


FIG 2 Total Number of Males Hired by the Company in the Past



Department	Post Name	Offered Salary
Service Department	c8	56553
Service Department	c5	22075
Operations Department	i4	29668
Sales Department	-	85914
Service Department	i4	15156
Service Department	b9	200000
Service Department	b9	86787
Finance Department	b9	2308
Service Department	i7	56688
Service Department	i5	15134
Operations Department	i1	73579
Operations Department	i7	3423
Service Department	i1	70979
Operations Department	i6	52176
Service Department	c5	72843
Service Department	m6	800
Purchase Department	i7	51645
Finance Department	c5	52285

FIG 3 Total Number of Females & Males individually Hired by the Company in the Past

INTERPRETATION:

- From the above images we can see that, there were total 7164 females working in the company.
- Whereas 7168 males worked in this company.

B. Salary Analysis:

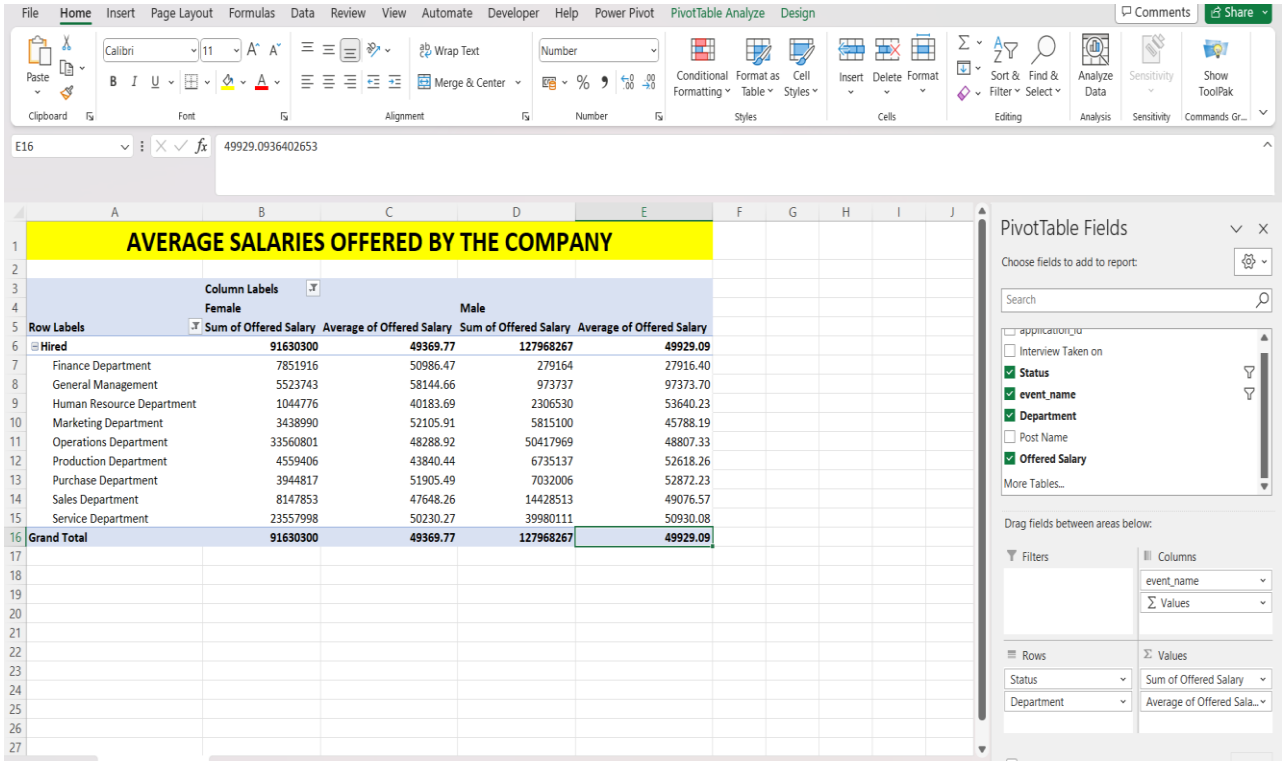
STATMENT:

Taking the total salaries paid to a set of workers and dividing by their total number gives the average salary for that group. How much does an average worker make here?

APPROACH:

To calculate the average salary of the employees working in google, I have used Pivot Table for the same. Following are the steps that I have taken:

- I have divided the workers in two groups male and female.
- After that, I selected the columns which I needed to analyse the same.
- And in the values tab, I added sum of offered salary and average of offered salary.
- From the Fig4 we can clearly see the output of the steps.



AVERAGE SALARIES OFFERED BY THE COMPANY

	Column Labels			
	Female		Male	
Row Labels	Sum of Offered Salary	Average of Offered Salary	Sum of Offered Salary	Average of Offered Salary
Hired	**91630300**	**49369.77**	**127968267**	**49929.09**
Finance Department	7851916	50986.47	279164	27916.40
General Management	5523743	58144.66	973737	97373.70
Human Resource Department	1044776	40183.69	2306530	53640.23
Marketing Department	3438990	52105.91	5815100	45788.19
Operations Department	33560801	48288.92	50417969	48807.33
Production Department	4559406	43840.44	6735137	52618.26
Purchase Department	3944817	51905.49	7032006	52872.23
Sales Department	8147853	47648.26	14428513	49076.57
Service Department	23557998	50230.27	39980111	50930.08
Grand Total	**91630300**	**49369.77**	**127968267**	**49929.09**

FIG 4 Average Salaries of Females & Males individually offered by the Company.

INTERPRETATION:

- From the above images we can see that, the average salary offered to females is comparatively less than males working in the company.
- Females average offered salary is 49369.77, while men average offered salary is 49929.09.

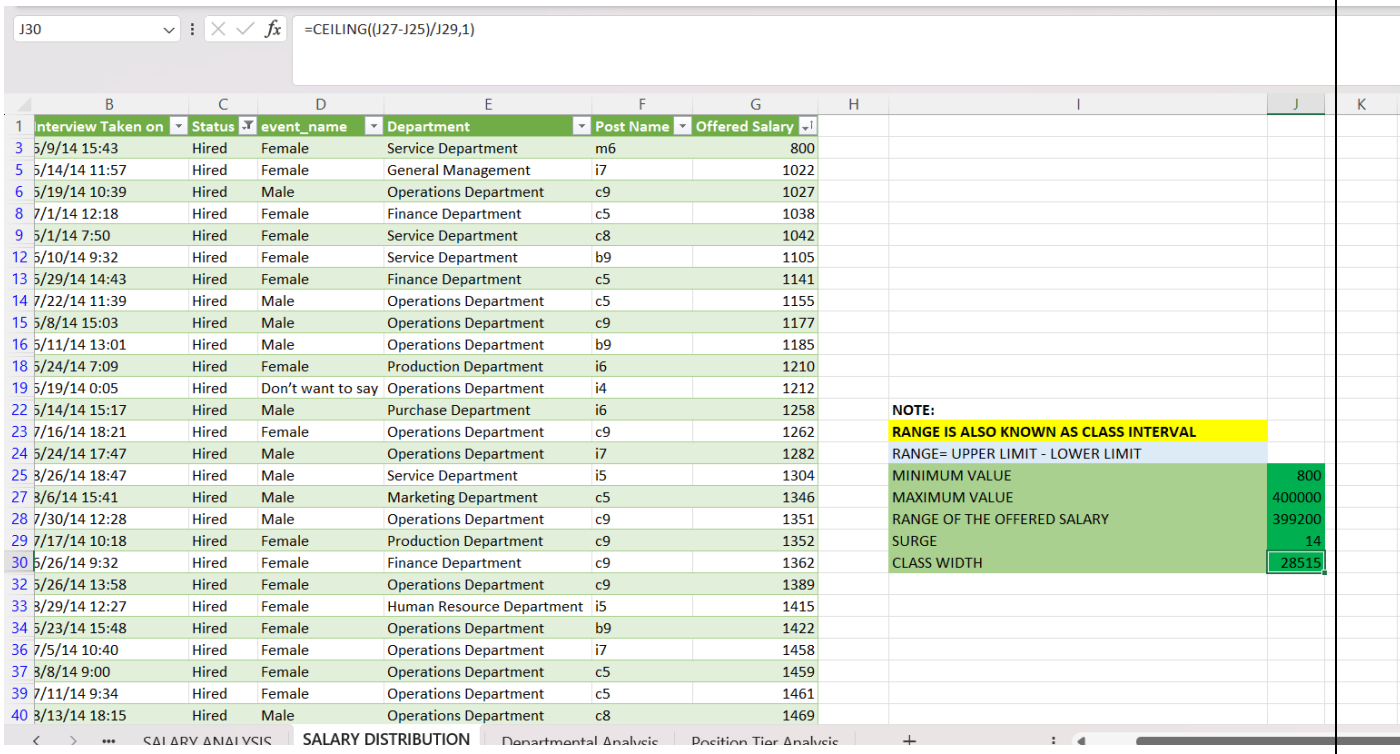
C. Salary Distribution:

STATMENT:

Ranges of values, in this case, wage ranges, are represented by class intervals. The distance between a class's top and lower limits is known as the class interval. Create class intervals for the company's salary. You can better comprehend the salary distribution by doing this.

APPROACH:

- Range is also known as class interval.
- Class interval = Upper limit – Lower limit
- I have found out Upper limit with the help of Max Function and Lower limit with the help of Min Function.
- To determine the number of classes (n) for categorizing the data. I have used the Sturges' Rule, this is use to determine how many classes or categories are required.
- Then after I have selected an empty cell and type =Ceiling(1+3.3*LOG10(count(range)),) to rounds a given number up to the nearest multiple of significance.



	B	C	D	E	F	G	H	I	J	K
1	nterview Taken on	Status	event_name	Department	Post Name	Offered Salary				
3	5/9/14 15:43	Hired	Female	Service Department	m6	800				
5	5/14/14 11:57	Hired	Female	General Management	i7	1022				
6	5/19/14 10:39	Hired	Male	Operations Department	c9	1027				
8	7/1/14 12:18	Hired	Female	Finance Department	c5	1038				
9	5/1/14 7:50	Hired	Female	Service Department	c8	1042				
12	5/10/14 9:32	Hired	Female	Service Department	b9	1105				
13	5/29/14 14:43	Hired	Female	Finance Department	c5	1141				
14	7/22/14 11:39	Hired	Male	Operations Department	c5	1155				
15	5/8/14 15:03	Hired	Male	Operations Department	c9	1177				
16	5/11/14 13:01	Hired	Male	Operations Department	b9	1185				
18	5/24/14 7:09	Hired	Female	Production Department	i6	1210				
19	5/19/14 0:05	Hired	Don't want to say	Operations Department	i4	1212				
22	5/14/14 15:17	Hired	Male	Purchase Department	i6	1258		NOTE:		
23	7/16/14 18:21	Hired	Female	Operations Department	c9	1262		RANGE IS ALSO KNOWN AS CLASS INTERVAL		
24	5/24/14 17:47	Hired	Male	Operations Department	i7	1282		RANGE= UPPER LIMIT - LOWER LIMIT		
25	3/26/14 18:47	Hired	Male	Service Department	i5	1304		MINIMUM VALUE	800	
27	3/6/14 15:41	Hired	Male	Marketing Department	c5	1346		MAXIMUM VALUE	400000	
28	7/30/14 12:28	Hired	Male	Operations Department	c9	1351		RANGE OF THE OFFERED SALARY	399200	
29	7/17/14 10:18	Hired	Female	Production Department	c9	1352		SURGE	14	
30	5/26/14 9:32	Hired	Female	Finance Department	c9	1362		CLASS WIDTH	28515	
32	5/26/14 13:58	Hired	Female	Operations Department	c9	1389				
33	3/29/14 12:27	Hired	Female	Human Resource Department	i5	1415				
34	5/23/14 15:48	Hired	Female	Operations Department	b9	1422				
36	7/5/14 10:40	Hired	Female	Operations Department	i7	1458				
37	3/8/14 9:00	Hired	Female	Operations Department	c5	1459				
39	7/11/14 9:34	Hired	Female	Operations Department	c5	1461				
40	3/13/14 18:15	Hired	Male	Operations Department	c8	1469				

FIG 5 Class Interval for offered Salary.

INTERPRETATION:

- From the above images we can see that, the company salary distribution is near to 25000 to 30000 as class width is 28515.

D. Departmental Analysis:

STATMENT:

Data analysis must include the visual representation of data through charts and graphs. To display the percentage of employees in each department, use a pie chart, bar graph, or other suitable visualisation.

APPROACH:

To calculate the employees in each department working in google including the salary offered department wise, I have used Pivot Table for the same. Following are the steps that I have taken:

- I have divided the workers in two groups male and female.
- After that, I selected the columns which I needed to analyse the same.
- And with the help of pie charts and I have represented the data.
- From the Fig6 and Fig 7, we can clearly see the output of the steps.

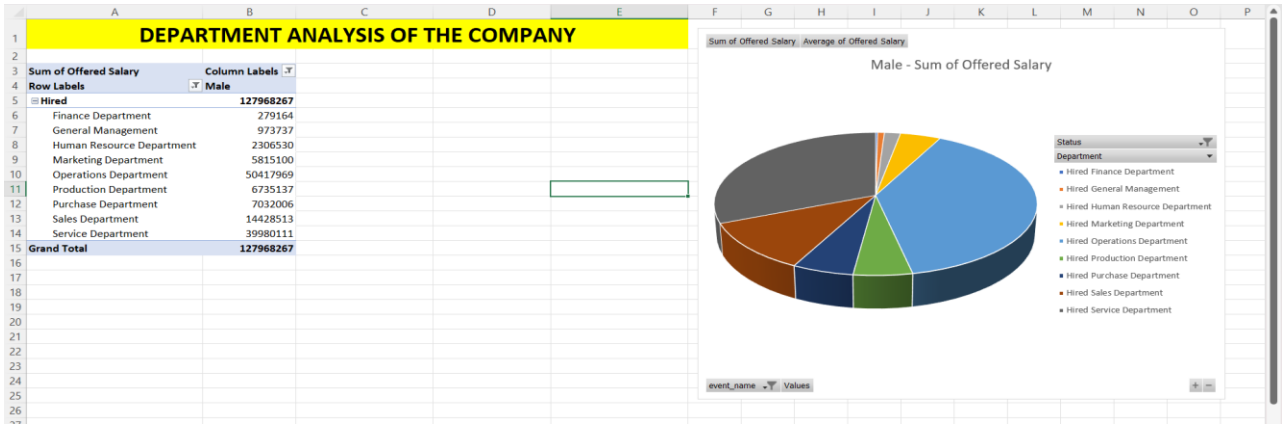


FIG 6 Departmental Analysis for Men

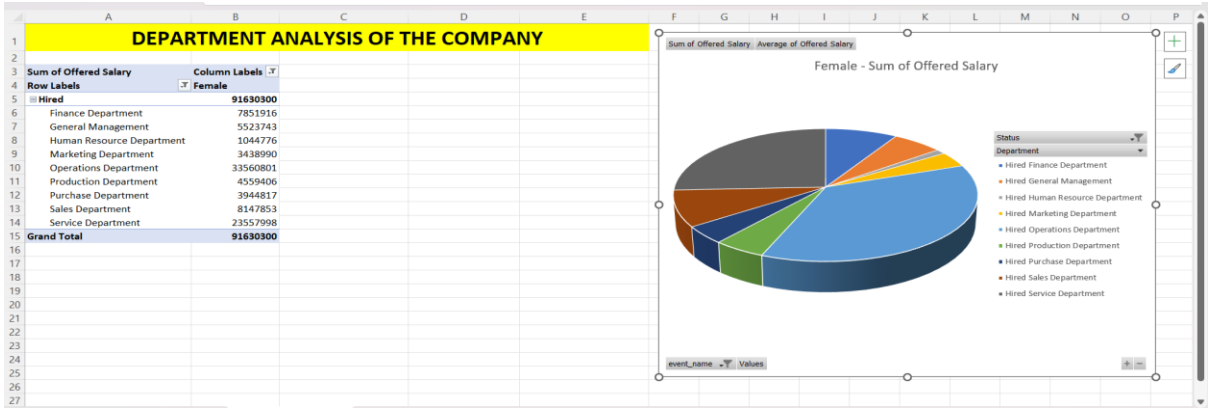


FIG 7 Departmental Analysis for Women

INTERPRETATION:

- From the above pie chart, operations department has a greater number of employees in both male and female.

E. Position Tier Analysis:

STATMENT:

There are frequently numerous tiers or levels for various positions inside a firm. The various job tiers within the firm can be represented using a chart or graph. You can then comprehend how positions are distributed throughout the various tiers.

APPROACH:

To calculate the position of each tier working in google including the salary offered department wise, I have used Pivot Table for the same. Following are the steps that I have taken:

- I selected the columns which I needed to analyse the same.
- And with the help of bar graph and I have represented the data.
- From the Fig8 we can clearly see the output of the steps.

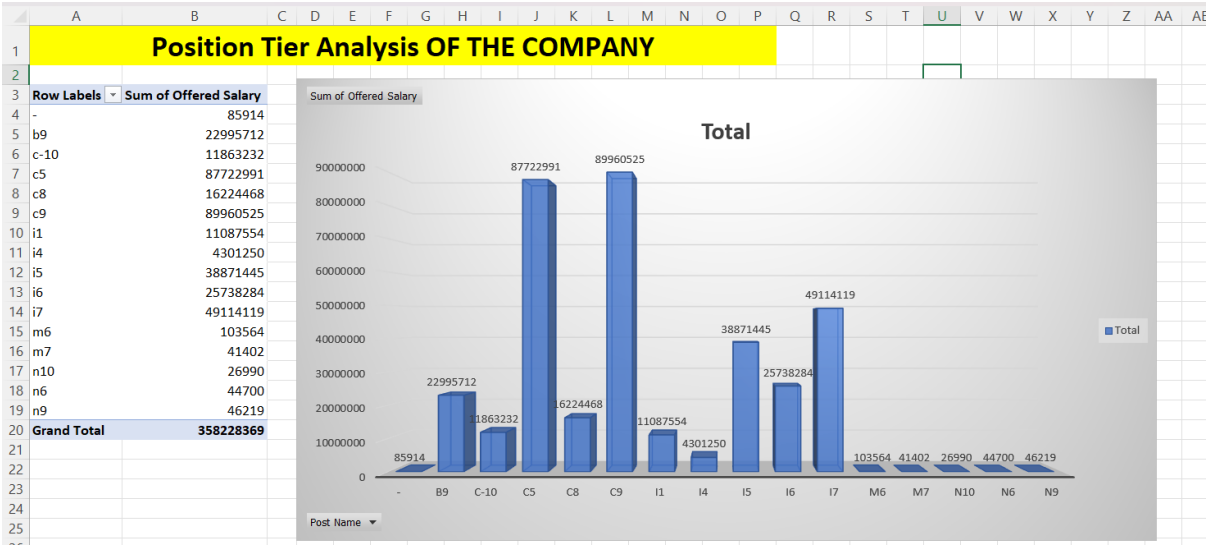


FIG 8 Position Tier Analysis

INTERPRETATION:

- From the above images we can figure out that, C9 and C5 are the post in which a greater number of employees are appointed.
- That means more labour is required in that particular tier.
- So, company will hire accordingly.