

# HIRING PROCESS ANALYTICS

**Presented by**  
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## PROJECT DESCRIPTION Hiring Process Analytics

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This project focuses on analyzing the hiring process data of a multinational company. The objective is to identify patterns and trends in gender distribution, salary ranges, department-wise hiring, and job position tiers using Microsoft Excel

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### DATASET

[Link to the Dataset](#)

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### APPROACH

The Approach taken for this project

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#### Data Cleaning

Cleaned the data by identifying and handling missing values

#### Excel Functions

Used excel functions like COUNTIFS(), AVERAGE(), SUMIFS(), MIN(), MAX()

#### Pivot Table

Created pivot table for the summaries

#### Statistics

Applied statistical techniques like mean and median

#### Visualizations

Built visualizations using Pie Chart, Bar Chart and Histograms

#### Grouping

Grouped salary data into class intervals for distribution analysis

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### TECH STACK

The Tech-Stacks Used

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#### Microsoft Excel

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Used for the cleaning of data, pivot table, calculations and chart visualizations

#### Microsoft Word / Adobe Acrobat / Canva

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Microsoft Word Used for preparing and structuring the report and converting to PDF. Canva used for the title page.

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## Data Cleaning

A missing blank salary value was found for a Male employee in Sales Department with Post Name i7. To find this missing value approximately, I applied filters to isolate the data where:

- Gender = Male
- Department = Sales
- Post Name = i7

I then calculated the average salary for this filtered group, which gave the value of 49,994.06.

In the column Post Name, one of the rows contained a value '-'. The corresponding department was Sales, and the Offered Salary was 85,914. I then filtered the dataset to include only:

- Department = Sales
- Salary Between 80,000 and 95,000

Then I used a Pivot Table to find the count of the most frequent post name in the filtered group, 'c9', which was then used to replace the missing value.

The column event\_name contained 15 rows with the value '-', which was replaced with "Don't want to say", as they mean the same thing, that is, the candidate does not wish to disclose their gender.

The column Post Name contained 232 values with 'c-10', which appears to be a typing error, based on the naming pattern for other entries, c10, c9, c8, c5, etc. The inconsistency was corrected by replacing 'c-10' with 'c10'.

The column application\_id contains 54 rows with the same or duplicate value. They should either be removed or replaced with correct values. I used conditional formatting to find the duplicates and highlighted them with light red fill.

## A. HIRING ANALYSIS

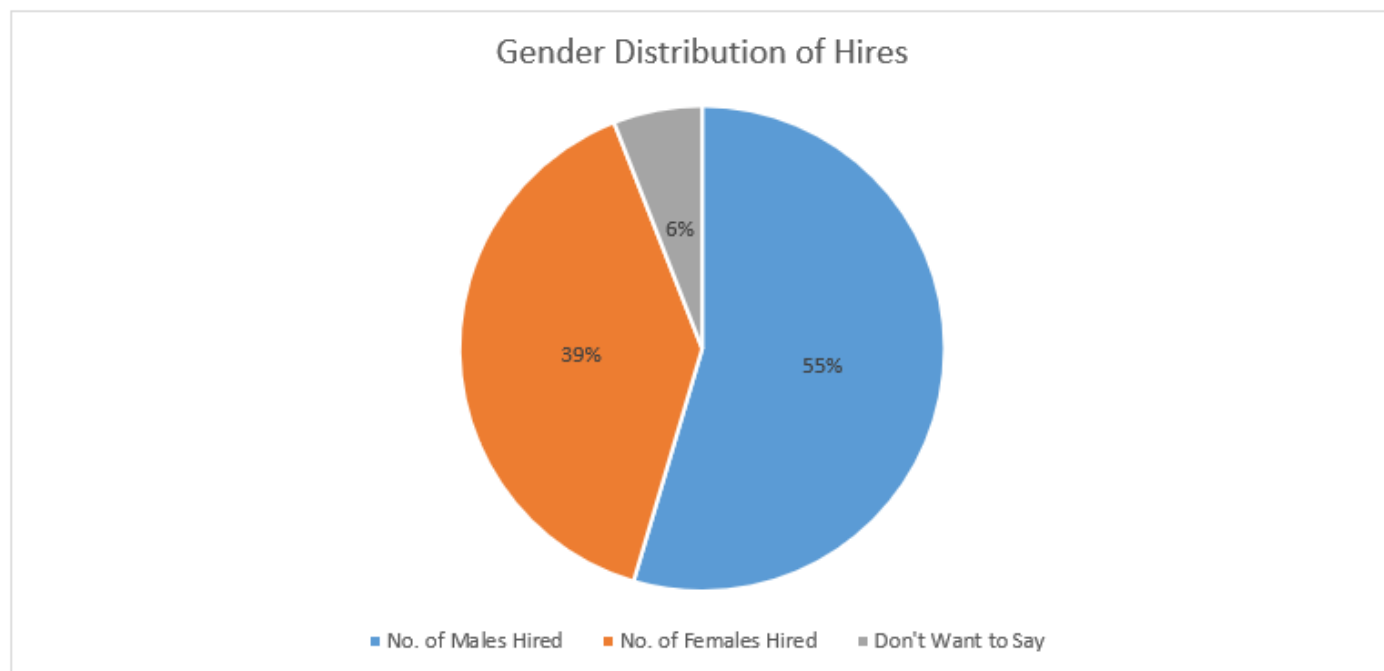
How many males and females have been hired by the company?

=COUNTIFS('Hiring Data'!D:D, "Male", 'Hiring Data'!C:C, "Hired")

=COUNTIFS('Hiring Data'!D:D, "Female", 'Hiring Data'!C:C, "Hired")

(I renamed the datasheet to Hiring Data)

A. HIRING ANALYSIS			
No. of Males Hired	No. of Females Hired	Don't Want to Say	Total
2563	1856	278	4697
55%	40%	6%	100%



## B. SALARY ANALYSIS

What is the average salary offered by the company?

The average salary is calculated by adding up the salaries of a group of employees and then dividing the total by the number of employees.

=AVERAGE(SUMIFS('Hiring Data'!G:G, 'Hiring Data'!C:C, "Hired") / COUNTIF('Hiring Data'!C:C, "Hired"))

B. SALARY ANALYSIS
Average Salary
49752.8961

The average salary offered to the employees by the company is 49,752.90.

## C. SALARY DISTRIBUTION

Creating class intervals for salaries in the company

The Minimum and Maximum Salary amount was checked first

=MIN('Hiring Data'!G:G)

=MAX('Hiring Data'!G:G)

Min	Max
100	400000

Then the Class Interval of the Salary is made and the frequency is calculated

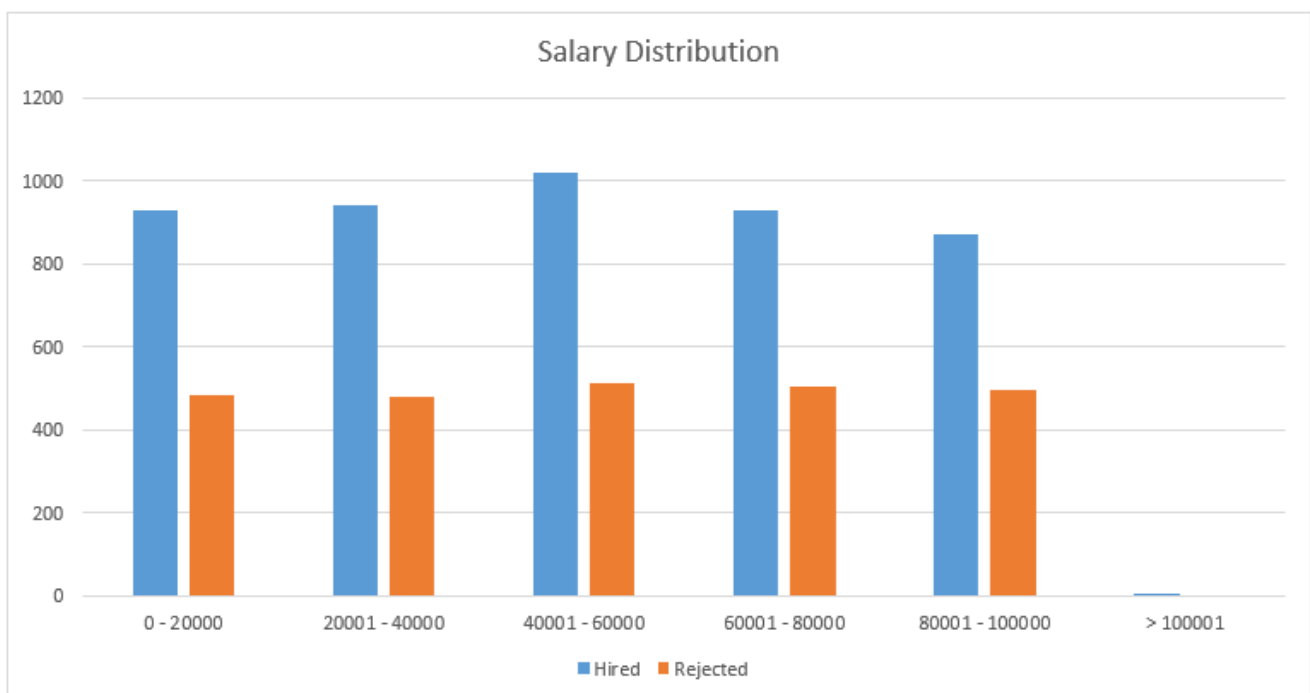
For Hired Employees”

=COUNTIFS('Hiring Data'!G:G, ">=0", 'Hiring Data'!G:G, "<=20000", 'Hiring Data'!C:C, "Hired")

For Rejected Employees”

=COUNTIFS('Hiring Data'!G:G, ">=0", 'Hiring Data'!G:G, "<=20000", 'Hiring Data'!C:C, "Rejected")

C. SALARY DISTRIBUTION		
Class Interval	Hired	Rejected
0 - 20000	928	482
20001 - 40000	943	478
40001 - 60000	1021	511
60001 - 80000	929	503
80001 - 100000	873	497
> 100001	3	0
Total	4697	2471



From this we can see that the maximum salary offered is between 40,001 and 60,000. The minimum salary offered is 80,001 and above. There are 3 employees with a salary offered above 1,00,000.

## D. DEPARTMENTAL ANALYSIS

Using visualization to show the proportion of people working in different departments

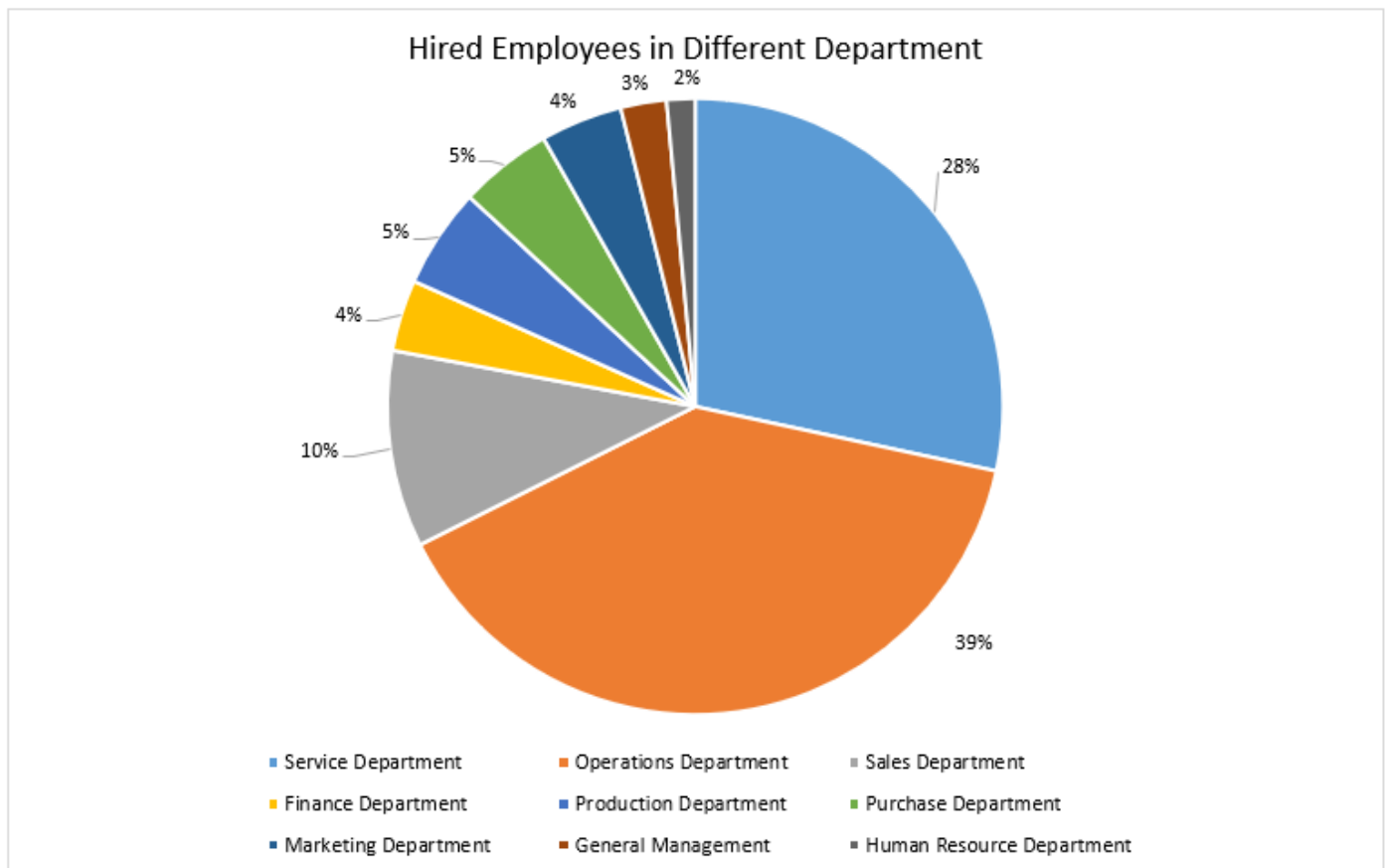
The Unique Departments in the Department tab is found first

=UNIQUE('Hiring Data'!E:E)

Then the corresponding number of employees in that department is found

=COUNTIFS('Hiring Data'!C:C, "Hired", 'Hiring Data'!E:E, "Department Name")

D. DEPARTMENTAL ANALYSIS		
Department	No. of Employees	% of Employees
Service Department	1332	28%
Operations Department	1843	39%
Sales Department	485	10%
Finance Department	176	4%
Production Department	246	5%
Purchase Department	230	5%
Marketing Department	202	4%
General Management	113	2%
Human Resource Department	70	1%
	<b>4697</b>	<b>100%</b>



Most of the employees work in the Operations Department followed by the Service Department. The least employees work in Human Resource Department that makes up 1%.

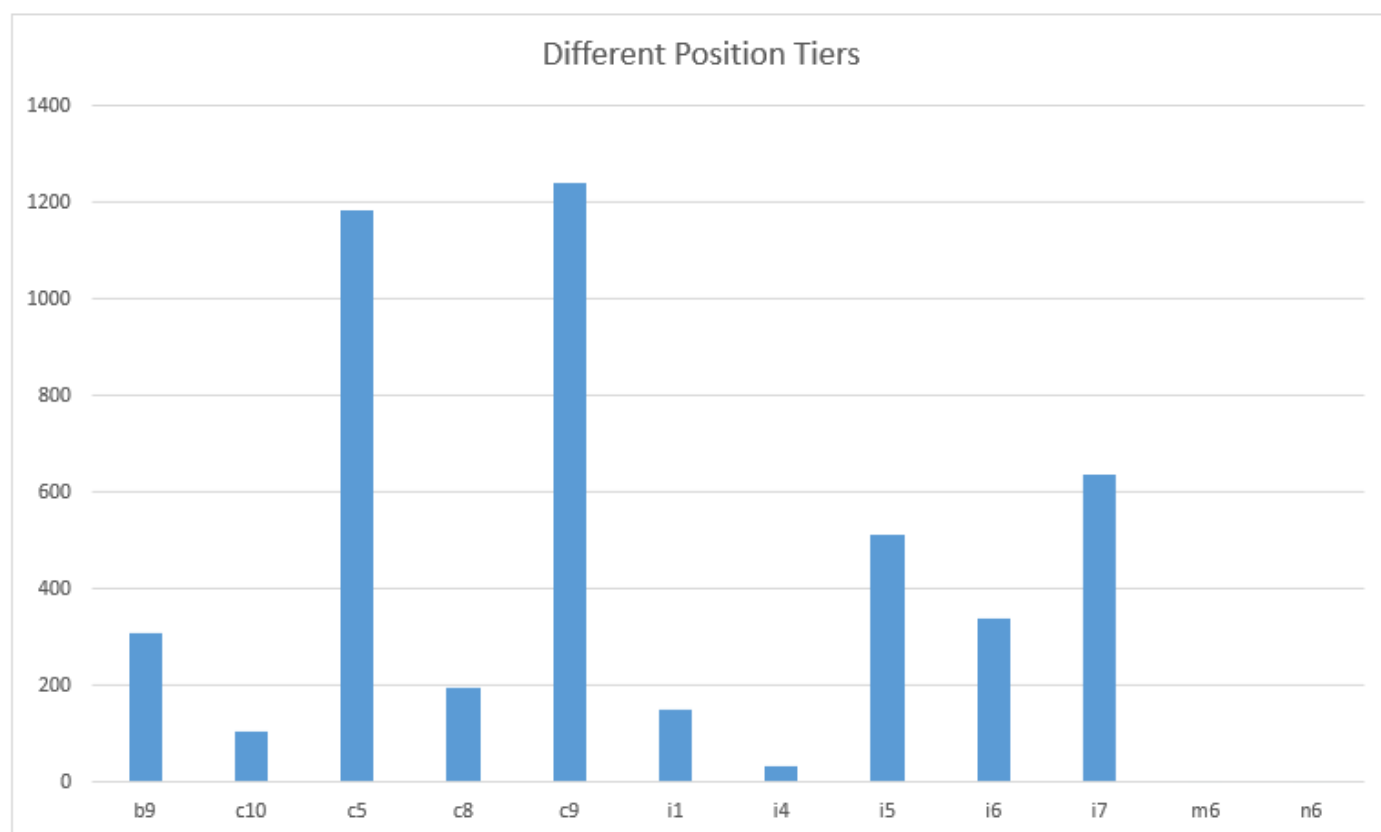
## E. POSITION TIER ANALYSIS

Using visualization to represent the different position tiers in the company

The unique positions in the company is found and then the number of employees for that respective post is found

=COUNTIFS('Hiring Data'!F:F, "Post Name", 'Hiring Data'!C:C, "Hired")

E. POSITION TIER ANALYSIS	
Post Name	No. of Employees
b9	308
c10	105
c5	1182
c8	193
c9	1240
i1	151
i4	32
i5	511
i6	337
i7	635
m6	2
n6	1



Here we can see that the company hired more employees for the position 'c9' followed by the position 'c5'. I have removed few positions which does not have any hired employees in the company.

## **RESULT**

This project helped me gain hands on experience in handling real world datasets using a spreadsheet software like Excel. I was able to strengthen my skills in statistical analysis, data visualization, and insight making. The insights can help the hiring departments focus on fair hiring, optimize salary structures, and understand departmental staffing needs.

## **THANK YOU**

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