Hiring Process Analysis

By

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1 Project Description:

1.1 About Project

Hiring process analysis is the systematic evaluation and examination of an organization's recruitment and selection procedures used to bring in new employees. The analysis typically involves reviewing job postings, application processes, screening methods, interviewing techniques, assessment tools, and decision-making processes. The goal is to optimize the hiring process to attract top talent, reduce biases, minimize time and resource wastage, and ultimately contribute to building a more effective and skilled workforce.

Here we are given a dataset containing records of previous hires. Our job is to analyze this data and answer certain questions that can help the company improve its hiring process leveraging our expertise in statistics and utilizing Excel formulas to extract meaningful insights and make informed deductions about the company's situation.

1.2 Data Handling

The first and foremost thing to do is to understand the various columns of the data and to get familiarize with the process that is happening in the given dataset.

I have made use of Exploratory Data Analysis (EDA) to find out the required answers involving the following –

- Handling missing data.
- Clubbing columns with multiple categories.
- Detecting outliers.
- Removing outliers or leaving them as is.
- Data summary.

1.3 Data Analytics Tasks

A. **Hiring Analysis:** How many males and females have been hired by the company?
B. **Salary Analysis:** Average Salary offered by this company?
C. **Salary Distribution:** Creating class intervals for different salaries.
D. **Departmental Analysis:** Use a pie chart, bar graph, or any other suitable visualization to show the proportion of people working in different departments.
E. **Position Teir Analysis:** Draw a chart or graph to represent the different position tiers within the company.

2 Approach:

The first thing is to understand the different columns of the table and their correlation. Then various functions and pivot tables were used to carry out the analysis.

3 Tech-Stack Used:

Microsoft office professional plus 2019 MS Word – For Documentation.

Microsoft office professional plus 2019 MS Excel – For Analysis.

4 Insights:

A. **Hiring Analysis:** How many males and females have been hired by the company?

Gender	Number of applicants
Female	819
Male	1522
Grand Total	**2341**

B. Salary Analysis: Average Salary offered by this company?

Note: The salary is offered to both applicants that are hired or rejected.

Department	Average of Offered Salary	Number of applicants
Finance Department	49,628.01	288
General Management	58,722.09	172
Human Resource Department	49,002.28	97
Marketing Department	48,489.94	325
Operations Department	49,151.35	2771
Production Department	49,448.48	380
Purchase Department	52,564.77	333
Sales Department	49,310.38	747
Service Department	50,629.88	2055
Grand Total	**49,983.03**	**7168**

C. Salary Distribution: Creating class intervals for different salaries.
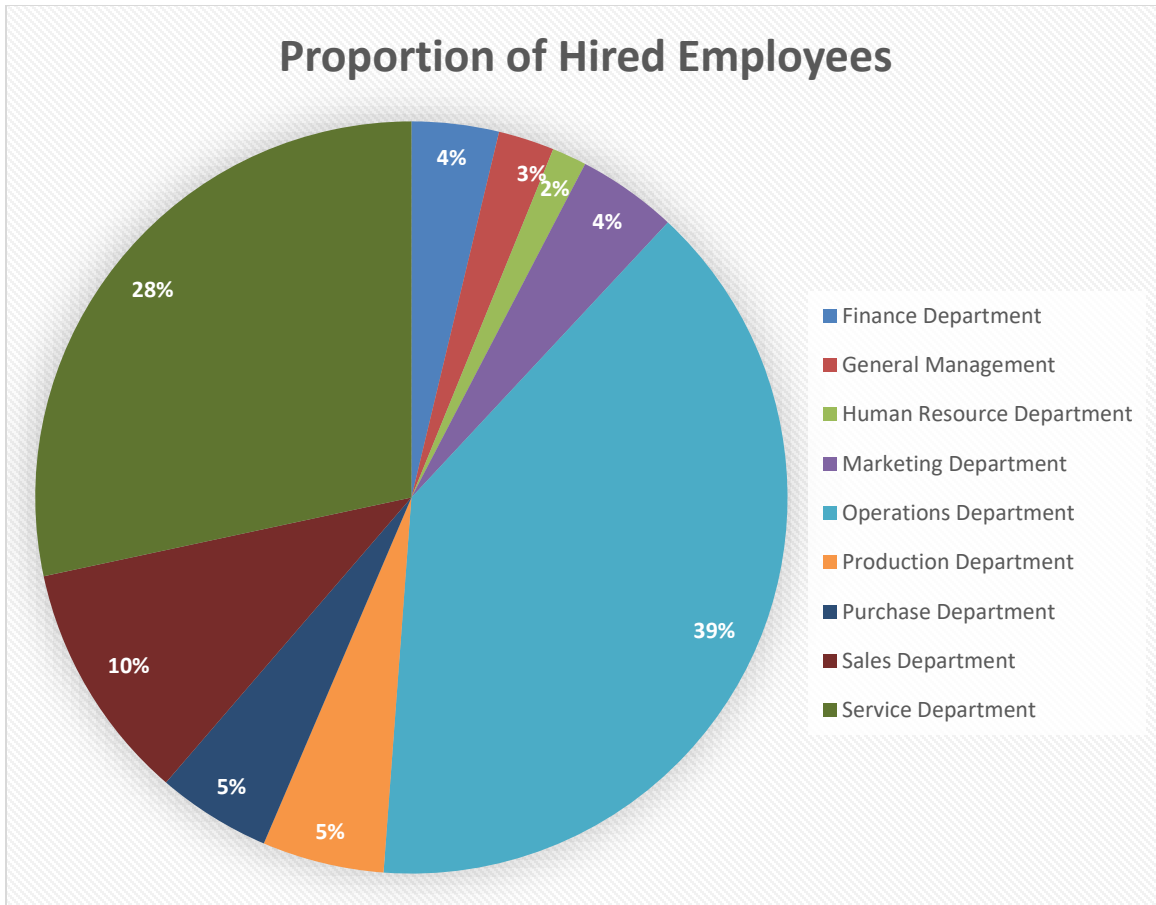
Note: Class Interval here is 4999.

Salary	Frequency
(blank)	-
100-5099	306
5100-10099	380
10100-15099	355
15100-20099	373
20100-25099	349
25100-30099	362
30100-35099	335
35100-40099	378
40100-45099	418
45100-50099	358
50100-55099	388
55100-60099	366
60100-65099	337
65100-70099	361
70100-75099	353
75100-80099	380
80100-85099	360
85100-90099	356

90100-95099	321
95100-100099	328
195100-200099	1
295100-300099	1
395100-400099	1
Grand Total	**7167**

D. **Departmental Analysis:** Use a pie chart, bar graph, or any other suitable visualization to show the proportion of people working in different departments.

Note: As the number of working employees is require, we will consider only those who were hired.

Department	Total Number of employees
Finance Department	176
General Management	113
Human Resource Department	70
Marketing Department	202
Operations Department	1843
Production Department	246
Purchase Department	230
Sales Department	485
Service Department	1332
Grand Total	**4697**

Proportion of Hired Employees

Legend:
- Finance Department
- General Management
- Human Resource Department
- Marketing Department
- Operations Department
- Production Department
- Purchase Department
- Sales Department
- Service Department

Values shown: 4%, 3%, 2%, 4%, 28%, 39%, 10%, 5%, 5%

E. **Position Teir Analysis:** Draw a chart or graph to represent the different position tiers within the company.

Post Name	Average Salary
-	85,914.00
b9	49,666.76
c-10	51,134.62
c5	50,213.50
c8	50,701.46
c9	50,201.19
i1	49,943.94
i4	48,877.84
i5	49,391.93
i6	48,839.25
i7	50,065.36
m6	34,521.33
m7	41,402.00

n10	26,990.00
n6	44,700.00
n9	46,219.00
Grand Total	**49,983.03**
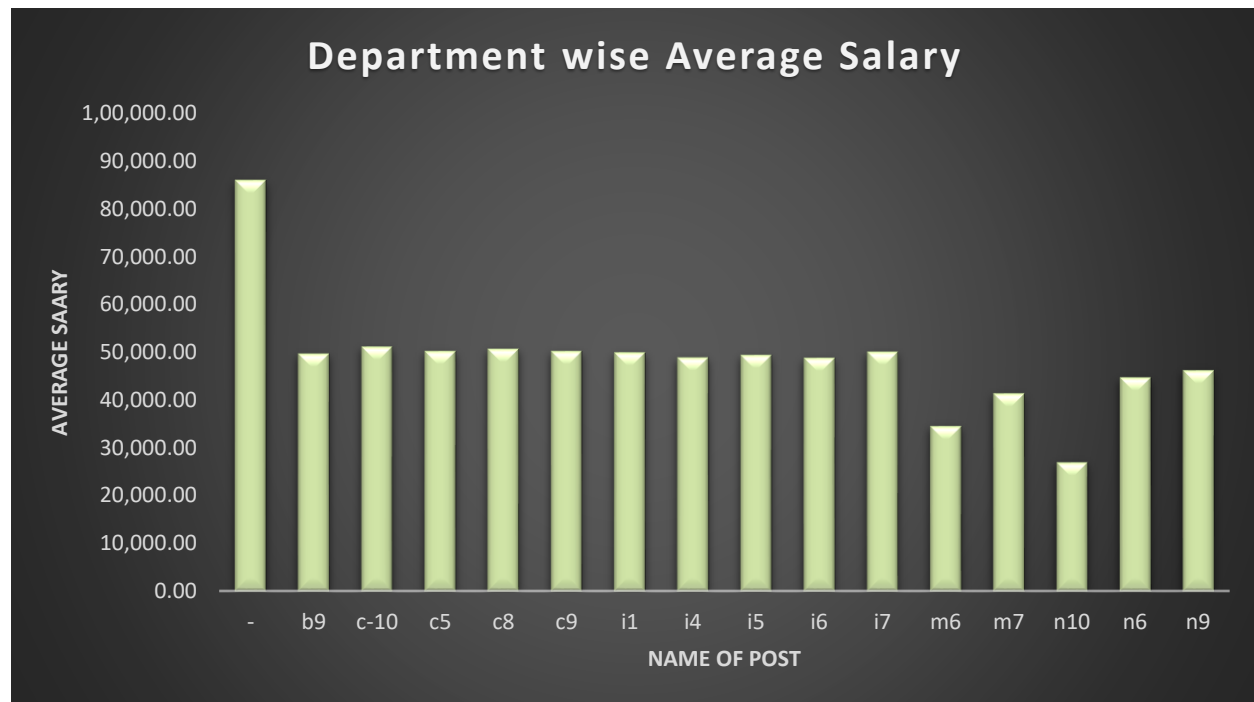
- Most number of applicants were hired in Operations Department which is 1843.
- Highest Salary is offered in General Management.
- Least number of male applicants were hired in Finance Department.
- Least number of female applicants were hired in Human Resources.
- The number of applicants were higher in July. Probably because that is the time of year where students graduate.
- The rejection rate of females is approximately 7% less than males.

5 Result:

- This project is a great way to learn data cleaning, use of pivot table and data visualization and to derive useful insights by combining these skills.