Hiring Process Analytics

Statistics and MS-Excel

Project Description:

The hiring process is a crucial function of any company, and understanding trends such as the number of rejections, interviews, job types, and vacancies can provide valuable insights for the hiring department. As a data analyst my task is to analyse the company's hiring process data and draw meaningful insights from it. My insights could potentially help the company improve its hiring process and make better hiring decisions in the future.

Approach:

Performing data analytics tasks in the hiring process using Microsoft Excel involves several steps, including data collection, cleaning, analysis, visualization, and reporting. Here is a detailed approach:

Step 1. Data Collection

- Downloaded the “Statistics Dataset” provided, as MS Excel. Then converted this dataset into table.

Step 2. Data Cleaning

- Handling Missing Data: There were three columns in which data were missing. The column named event_name it had 15 cells in which data was “- “. It was replaced with “Don’t want to say”. Another column named Post name there were few cells where the post name had “- “in between. It was looking inconsistent with other cells therefore it was removed. Also, one cell in this column was missing that was handled by replacing NA. Another column named Offered_salary had value missing so it was filled with average of sales department for the post name i7.
- There were no columns with multiple categories that could be combined, and there were no outliers that could skew our analysis. At this step the dataset was cleaned and was prepared for further analysis.

Step 3: Data Analysis

- For further understanding the data four slicers on columns event_name, Post name, Department and status were inserted. Using these slicers different filtering was possible.
- We performed analysis on “Offered salary” column since it was the numeric data type.
- After this each data analytics task was performed which are explained in Data Analytics Tasks section.

Tech-Stack Used:

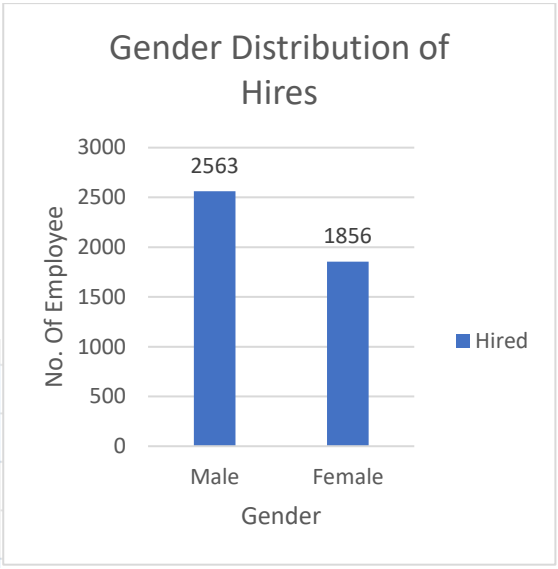
- MS Excel 2021 for performing data analytics tasks.
- MS Word for preparing the report.

Data Analytics Tasks:

A. Hiring Analysis: The hiring process involves bringing new individuals into the organization for various roles.

Excel Task: Determine the gender distribution of hires. How many males and females have been hired by the company?

Count of event_name	Column Labels
Row Labels	Hired
Male	2563
Female	1856



Insights: For this task pivot table was created and then clustered column chart and pie chart was created. Basically, an analysis that the total number of males hired is 2563 and the total number of females hired is 1856.

B. Salary Analysis: 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.

Excel Task: What is the average salary offered by this company? Use Excel functions to calculate this.

Average salary offered	49983.03013
Maximum Salary	400000
Minimum Salary	100

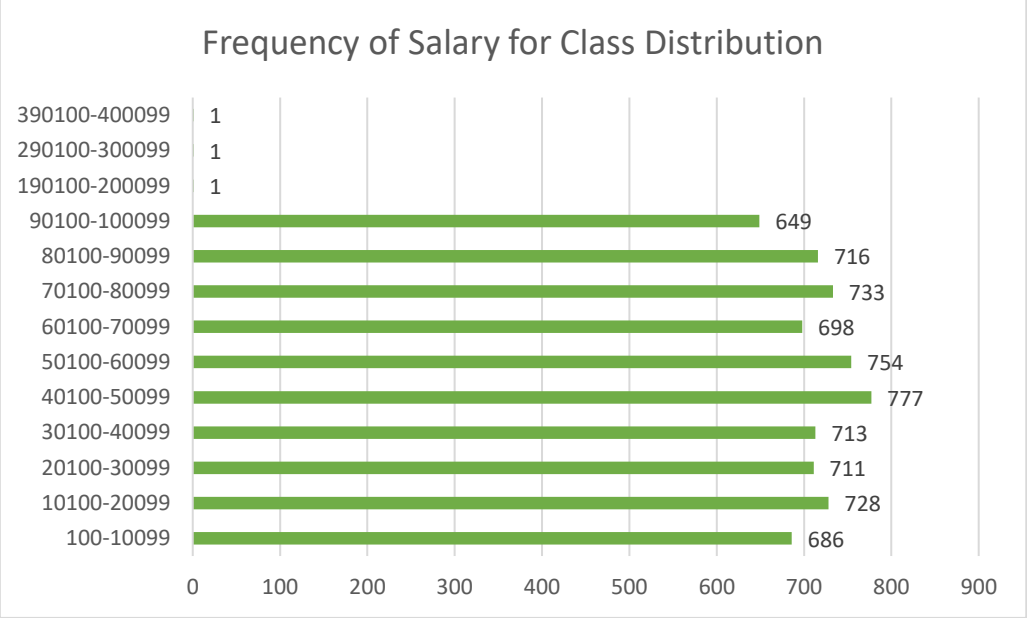
Insight: Here the number of employees (hired + rejected) was counted and then took out a summation of all the salaries of the employees and divide it by the total number of employees. Using the average function, this could be done very easily.

After this calculation, it was found that the average salary offered to the employees in the company is Rs. 49983.03.

C. Salary Distribution: Class intervals represent ranges of values, in this case, salary ranges. The class interval is the difference between the upper and lower limits of a class.

Excel Task: Create class intervals for the salaries in the company. This will help you understand the salary distribution.

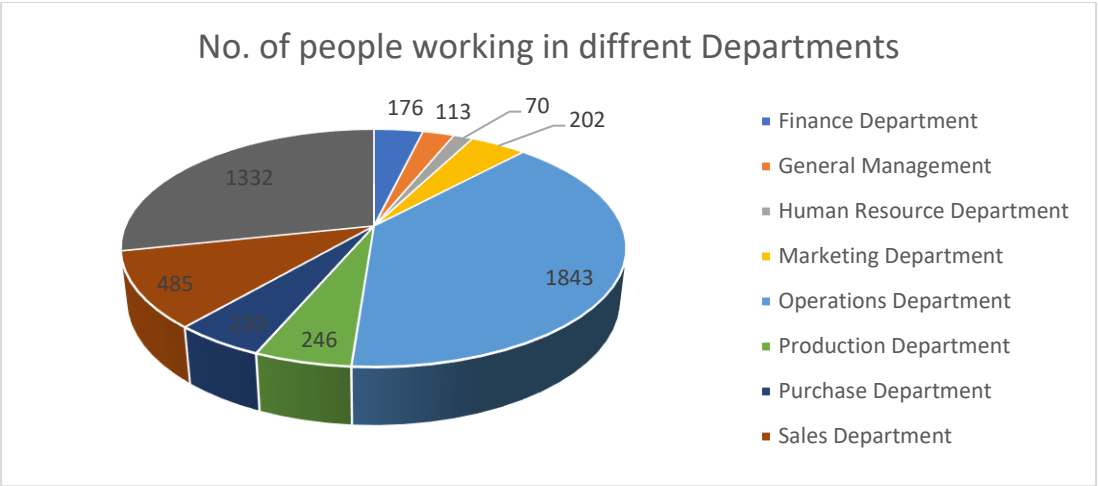
Class Interval	Number of Salary
100-10099	686
10100-20099	728
20100-30099	711
30100-40099	713
40100-50099	777
50100-60099	754
60100-70099	698
70100-80099	733
80100-90099	716
90100-100099	649
190100-200099	1
290100-300099	1
390100-400099	1



D. Departmental Analysis: Visualizing data through charts and plots is a crucial part of data analysis.

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

Status	Hired
Row Labels	**Count of Department**
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**



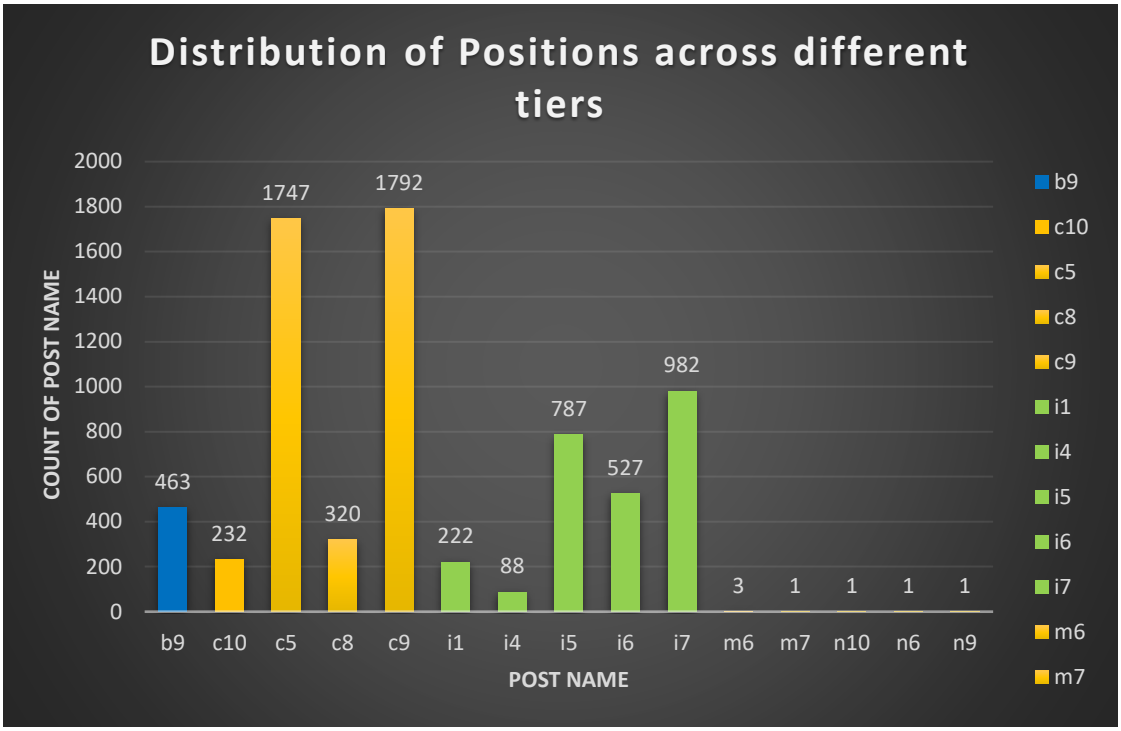
Insight: Here, a pivot table was created showing the different departments and the count of people in different departments. Then focused on making a chart that visualized the scattered proportion of the people.

Here the biggest proportion of the people are there in the Operations Department and Service Departments.

E. Position Tier Analysis: Different positions within a company often have different tiers or levels.

Excel Task: Use a chart or graph to represent the different position tiers within the company. This will help you understand the distribution of positions across different tiers.

Post Name	Count of Post Name
b9	463
c10	232
c5	1747
c8	320
c9	1792
i1	222
i4	88
i5	787
i6	527
i7	982
m6	3
m7	1
n10	1
n6	1
n9	1



Insights: Here, a pivot table was created related to all the post names and counted how many are there in those posts, and eventually created a column chart for the same. And can now clearly see the chart/graph which can be distinguish accordingly.

After the visualization, C5 and N9 posts are showing the highest bar in the column chart.

- **Result:** By doing this project I was able to use my knowledge of statistics and Excel to draw meaningful conclusions about the company's hiring process.

- **Link:**

https://docs.google.com/spreadsheets/d/1rT2oA9iaD-56ZyhBW2eoTIi9zO_CvHjo/edit?usp=drive_link&ouid=104742351045324653369&rtpof=true&sd=true