Hiring Process Analytics

Project Description
The project involves assuming the role of a data analyst to grasp the statistics related to the hiring process. Using the fundamental statistical concepts, we'll manipulate the data to perform further analysis. Additionally, we'll explore how Excel functions can efficiently extract information essential for a data analyst's routine tasks. Teaching the practical application of these functions is the primary aim of this project.

Approach
The project is a simple one on the difficulty level scale. The approach will be to perform the tasks in an organized way, creating separate sheets in the workbook for different tasks performed.

Tech-Stack Used
The analysis for this project has been performed using Microsoft Excel 16.78.3 as it offers a user-friendly interface that allows users to work with data, perform calculations, and create visual representations without extensive programming knowledge.

Insights
1. Gender Distribution:
- *Diversity Metrics*: Understanding the ratio of male to female hires provides insight into the company's gender diversity. It helps assess if there's a balanced representation or potential biases in the hiring process.
- *Equality Measures*: Comparing male and female representation across departments or salary brackets can highlight potential disparities that might require attention.

2. Average Salary:
- *Pay Equality*: Analyzing average salaries by gender can reveal if there's a gender pay gap within the organization.
- *Departmental Variances*: Comparing average salaries across different departments can identify discrepancies in compensation, indicating areas for review or adjustment.

3. Salary Class Intervals:
- *Distribution Analysis*: Breaking down salaries into intervals provides a clearer view of how salaries are distributed within the company.
- *Identifying Outliers*: It helps identify outliers or excessively high/low salaries that might need further investigation.

4. Departmental Analysis:
- *Recruitment Success*: Analyzing the number of hires in each department provides insights into which departments are expanding or experiencing turnover.
- *Resource Allocation*: Comparing the distribution of resources (budget, staff, etc.) across departments based on hiring can guide future resource allocation decisions.

5. Posts in the Hiring Process:
- *Skill Gap Identification:* Examining the types of positions being hired for can reveal the skills or expertise the organization is seeking, aiding in strategic planning for training or recruitment.

Result

1. **Missing data:**

When filled has been highlighted with **green color.**

For post:

Data for post in sales department was missing, it was replaced with the post with highest frequency in said department.

For event_name:

The data for event_name(gender) could be filled on the basis on count of particular gender in the specific department or on the basis of gender specific average salary offered in departments. But using count seemed to be a more practical approach.

2. **Outliers removal:**

Outliers have been removed through the thumb rule of z score less than -3 or greater than 3. 3 outliers were detected and were removed instead of replacing them as we had sufficient data.

Z score was calculated through the formula: (X- mean)/Standard deviation

3. **Hiring Analysis:**

Pivot table has been created with event_name and count while keeping a slicing on status.

4. **Average Salary:**

Pivot table with department and average salary offered has been created with slicing on status and event_name.

5. **Salary Class Intervals:**

Pivot table with salary and count of application_id has been created and then salary column has been grouped to create intervals. The data is further presented through bar graph.

6. **Departmental Analysis**:

Pivot table with department and count of application id has been created with slicing on status. Then a pie chart is created to show the department wise share.

7. **Posts in the Hiring Process:**

Pivot table with post name, average salary offered and count of application id is created with slicing on status, event name and department. A combination of bar graph and line chart is plotted to showcase the data from pivot table. So according to the information required, we can tweak our pivot table.

https://docs.google.com/spreadsheets/d/1M2aJIISfrGKEUd9wMdZ5jbrPwgcA27-V/edit?usp=share_link&ouid=101949921485202693908&rtpof=true&sd=true