Hiring Process Analytics Statistics

By Aniket Kirtania

Agenda

- **Project Description :** As the lead Data Analyst at a prominent organization, tasked with analyzing hiring trends for a multinational company (MNC), my goal is to extract actionable insights from a provided dataset detailing applicants for specific roles across various departments.The dataset includes the details about people who registered for a particular post in a department of this company.

- **Approach :** The project employs a methodical approach to Exploratory Data Analysis (EDA), focusing on understanding data columns, handling missing data, consolidating categorical variables for deeper insights, identifying and addressing outliers, and summarizing the dataset. Using statistical techniques and Excel formulas, it aims to uncover meaningful insights into the hiring trends of the multinational company. The resulting detailed report will provide actionable recommendations to the hiring department, aiding in decision-making and enhancing the overall effectiveness of the recruitment process.

- **Tech-Stack Used :** The project will rely on **Excel** as its primary tool for data analysis and manipulation. Excel's features such as formulas, pivot tables, and charts will be used extensively for tasks such as cleaning data, calculating statistics, identifying trends, and creating visual representations of hiring data. Its intuitive interface ensures accessibility and efficiency in delivering actionable insights to enhance decision-making within the hiring department.

Data Analytics Tasks:

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

Total no. of male employees hired	Total no. of female employees hired
2563	1856

Insights: The company hired more males (2,563) than females (1,856).

Recommendations: The company may conduct a gender diversity audit to ensure fair hiring practices.

Male : Female proportion of hired employees

42%

58%

- Total no. of male employees hired
- Total no. of female employees hired
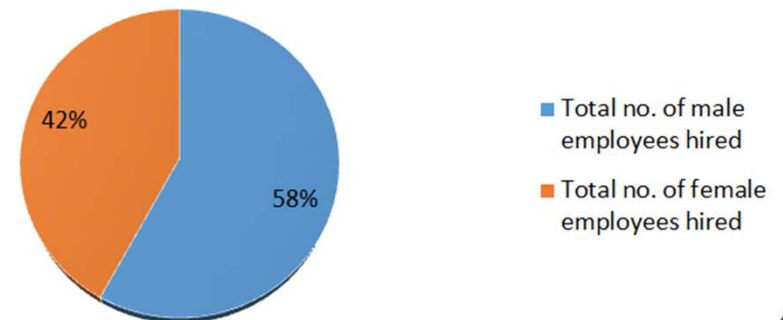
B. Salary Analysis: The average salary is calculated by adding up the salaries of a group of employees and then dividing the total by the number of employees.

Average salary offered in the company
49752.8961

Insights: The average salary offered in the company is $49752.8961

Recommendations: The company should review the average salary compared to industry standards and competitors. If it's lower, they should adjust compensation to attract and retain top talent.

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.

Class Intervals	Frequency
0-40000	2831
40001-80000	2963
80001 - 120000	1370
120001 - 160000	0
160001 - 200000	1
200001 - 240000	0
240001 - 280000	0
280001 - 320000	1
320001 - 360000	0
360001 - 400000	1
Grand Total	7167

Insights: Most employees earn between $0 and $80,000 annually.

Recommendations: The company can use this data to analyze salary distribution and consider adjustments to ensure fair and competitive compensation, especially for roles lacking representation in specific salary ranges.

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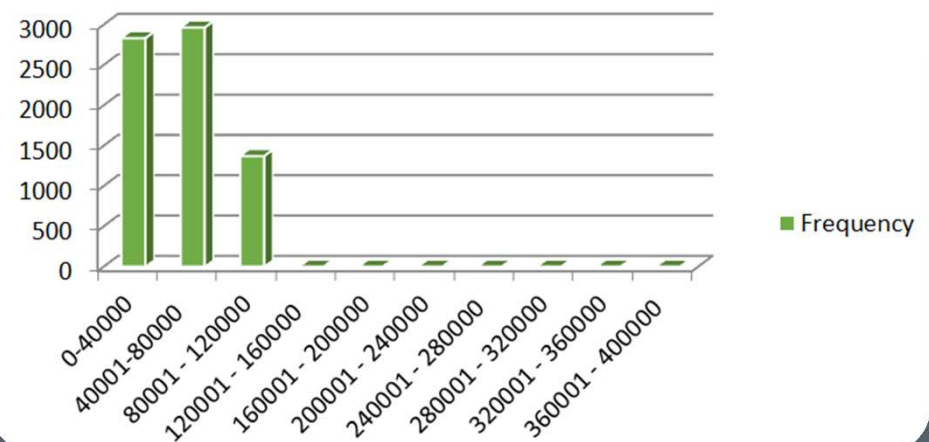
D. Departmental Analysis: Visualizing data through charts and plots is a crucial part of data analysis.

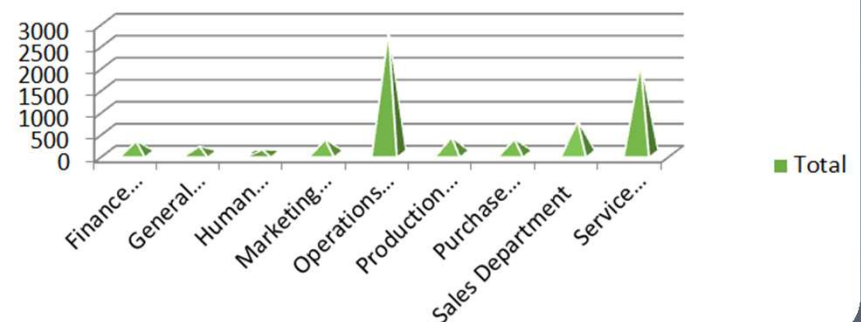| Department	Count of Department
Finance Department	288
General Management	172
Human Resource Department	97
Marketing Department	325
Operations Department	2771
Production Department	380
Purchase Department	333
Sales Department	747
Service Department	2055
Grand Total	**7168**

Insights: Most employees work in the "Operations Department" and "Service Department".

Recommendations: The company can assess departmental distribution and boost other departments by adjusting recruitment efforts or offering incentives to attract more talent.

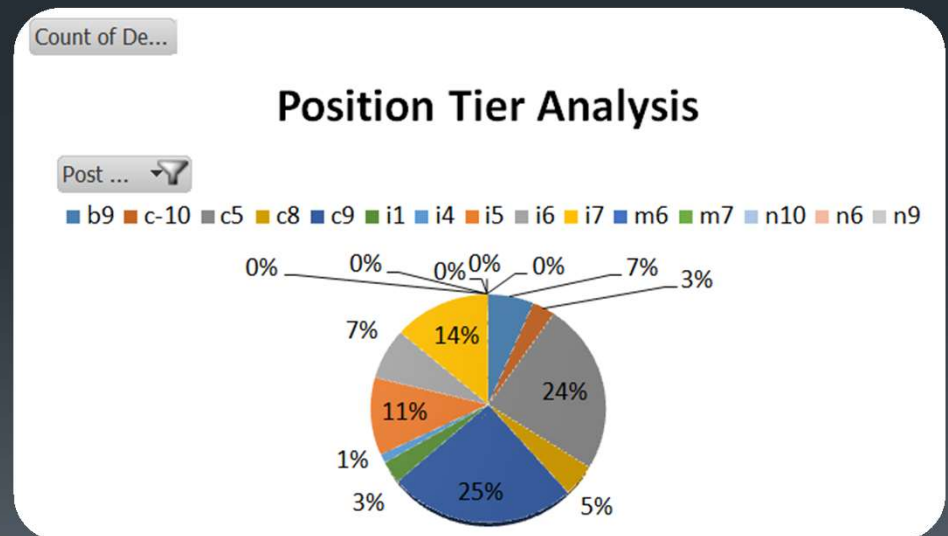Count of De...

Departmental Analysis

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

Post Name	Count of Department
b9	463
c-10	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
Grand Total	**7167**

Insights: The majority of employees are in the "c9" post tier, followed by "c5" and "i7".

Recommendations: The company can use this data to evaluate workforce structure, ensure career progression, and align post tier distribution with growth plans.

Position Tier Analysis

Count of De...

Post ...

b9 █ c-10 █ c5 █ c8 █ c9 █ i1 █ i4 █ i5 █ i6 █ i7 █ m6 █ m7 █ n10 █ n6 █ n9

Result

Throughout this project, I successfully conducted an in-depth analysis of hiring data, distinguishing between male and female hires and calculating average salary offers. Additionally, I developed class intervals for salary ranges and effectively visualized departmental proportions and post tiers using charts and graphs. This experience has significantly enhanced my skills in data analysis, statistical calculations, and data visualization techniques. Working with real-world datasets has provided valuable insights and strengthened my capabilities as a data analyst.

Link for the dataset :
https://docs.google.com/spreadsheets/d/1VFSh7KwPJZ_kvrdrgDn-KGRzhMkUtomCE6jhI5O0pmc/edit?usp=sharingResult