HIRING PROCESS ANALYTICS STATISTICS

-- By Kartik Roy

AGENDA

Project Description:

As the Lead Data Analyst at a reputed organization, I have been assigned the task of analyzing hiring patterns for a multinational corporation (MNC). The objective is to derive actionable insights from a dataset that contains information about candidates who registered for various roles across multiple departments within the company.

Approach:

This project adopts a structured Exploratory Data Analysis (EDA) methodology. The focus is on understanding the structure and contents of the dataset, managing missing values, consolidating categorical variables for better insights, detecting and resolving outliers, and summarizing the data effectively. By applying statistical techniques and leveraging Excel's analytical capabilities, the analysis aims to reveal significant patterns and trends in hiring. The insights derived will be compiled into a comprehensive report, offering data-driven recommendations to support the recruitment team in making informed decisions and optimizing the hiring process.

Tech-Stack Used:

Microsoft Excel serves as the primary tool for data handling and analysis in this project. Key Excel functionalities—including formulas, pivot tables, charts, and data cleaning tools—are utilized for processing the data, computing key metrics, visualizing trends, and presenting findings. Excel’s user-friendly interface ensures an efficient and accessible workflow, enabling the delivery of meaningful insights that can enhance strategic planning within the hiring department.

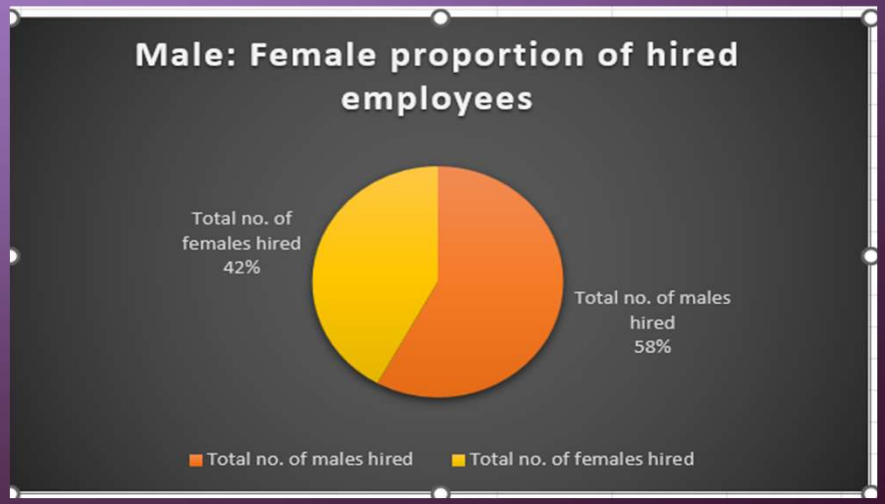
DATA ANALYTICS TASKS:

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

Total no. of males hired	Total no. of females 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.



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 of employees
49752.8961

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

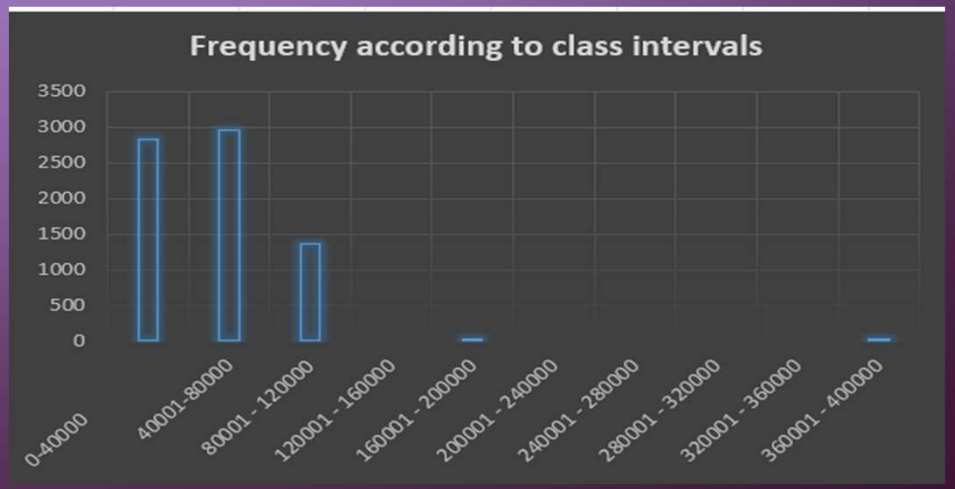
Recommendations: The company should review the average salary compared to industry standards and competitors. If it's lower, they should adjust compensation
to attract and retain top talent.

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	0
320001 - 360000	0
360001 - 400000	1

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.



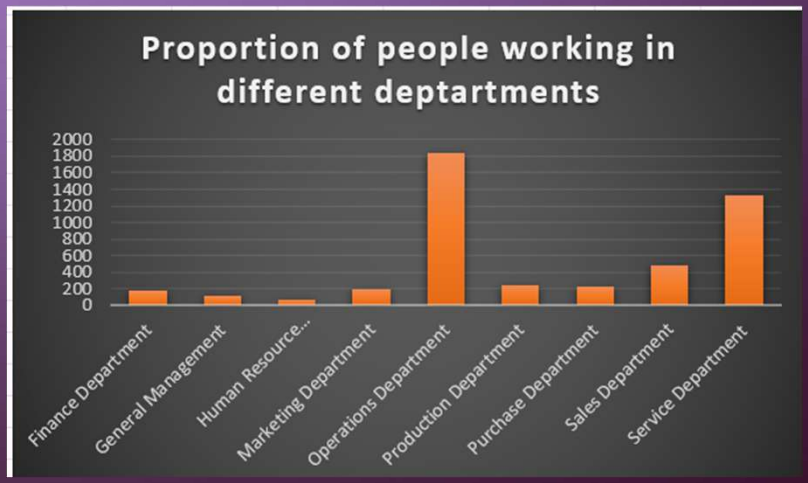
D. Departmental Analysis: Visualizing data through charts and plots

is a crucial part of data analysis.

Proportion of people working in different deptartments	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

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

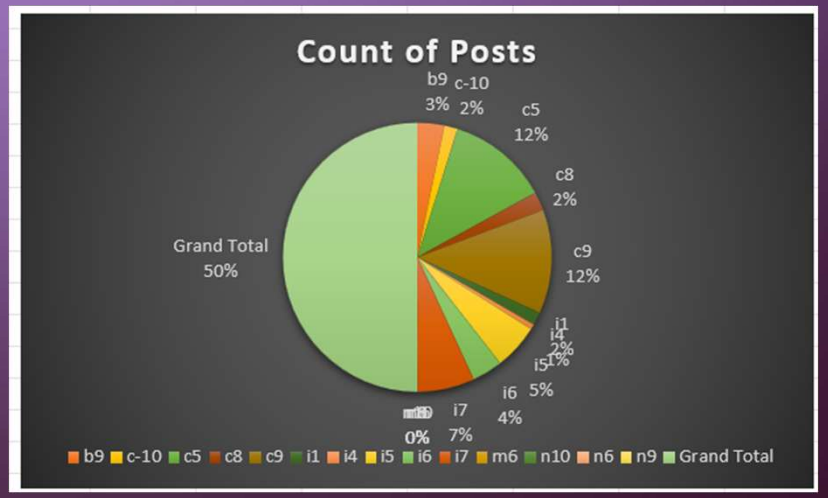
Recommendations: The company can assess departmental distribution and boost other departments by adjusting recruitment efforts or offering incentives to attract more talent.



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

Proportion of different post tiers	Count of Posts
b9	463
c-10	232
c5	1747
c8	320
c9	1792
i1	222
i4	88
i5	787
i6	527
i7	981
m6	3
n10	1
n6	1
n9	1
Grand Total	7165

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.

RESULT

During the course of this project, I carried out a comprehensive analysis of the hiring dataset, successfully differentiating between male and female applicants and computing the average salary offers. I also created class intervals for salary distribution and utilized charts and graphs to visually represent the proportions of departments and job tiers. This project significantly improved my proficiency in data analysis, statistical computation, and data visualization. Working with real-world data provided practical experience and deepened my understanding of analytical processes, further enhancing my skill set as a data analyst.

Link for the dataset :
https://docs.google.com/spreadsheets/d/1p1YUk4LFpRuGikvihx6V5guDVUtCGFQP/edit?usp=drive_link&ouid=104085400374792427516&rtpof=true&sd=true