HIRING PROCESS ANALYTICS

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Description

At the heart of every successful company lies its hiring process, a fundamental and paramount function. It serves as the lens through which multinational corporations decipher essential trends shaping their recruitment landscape. Metrics such as rejection rates, interview frequencies, job role diversity, and overall vacancy dynamics form the bedrock of insightful analysis. These trends, when scrutinised, provide invaluable data guiding companies in the strategic hiring of fresh talent or experienced individuals. Consequently, this situation unveils a promising avenue for those eyeing positions in the realm of Data Analysis.

Imagine you're a data analyst at a multinational company like Google. Your task is to analyze the company's hiring process data and draw meaningful insights from it. 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, you'll be given a dataset containing records of previous hires. Your job is to analyze this data and answer certain questions that can help the company improve its hiring process.

Problem

Hiring: Process of intaking of people into an organisation for different kinds of positions.

Your task: How many males and females are Hired ?

Average Salary: Adding all the salaries for a select group of employees and then dividing the sum by the number of employees in the group.

Your task: What is the average salary offered in this company ?

Class Intervals: The class interval is the difference between the upper class limit and the lower class limit.

Your task: Draw the class intervals for salary in the company ?

Charts and Plots: This is one of the most important part of analysis to visualize the data.

Your task: Draw Pie Chart / Bar Graph (or any other graph) to show proportion of people working different department ?

Charts: Use different charts and graphs to perform the task representing the data.

Your task: Represent different post tiers using chart/graph?

Design

- Firstly To commence the analysis, I've duplicated the raw data, creating a separate copy where any modifications made will not impact the integrity of the original dataset.

- Secondly I looked for blank spaces and NULL values if any.

- Then I had imputed the numerical blank and NULL cells with mean of the column(if no outliers existed for that particular column) or with median (if outliers existed for that column)

- Then I looked for if any outliers exists and replaced them with the median of the particular column where the outlier existed

- Then for blank cells of categorical variables I had replaced with the variable with the highest count

- Then I looked for duplicate rows and removed them if any

- Then I removed the irrelevant columns(data) from the dataset which was not necessary for doing the analysis
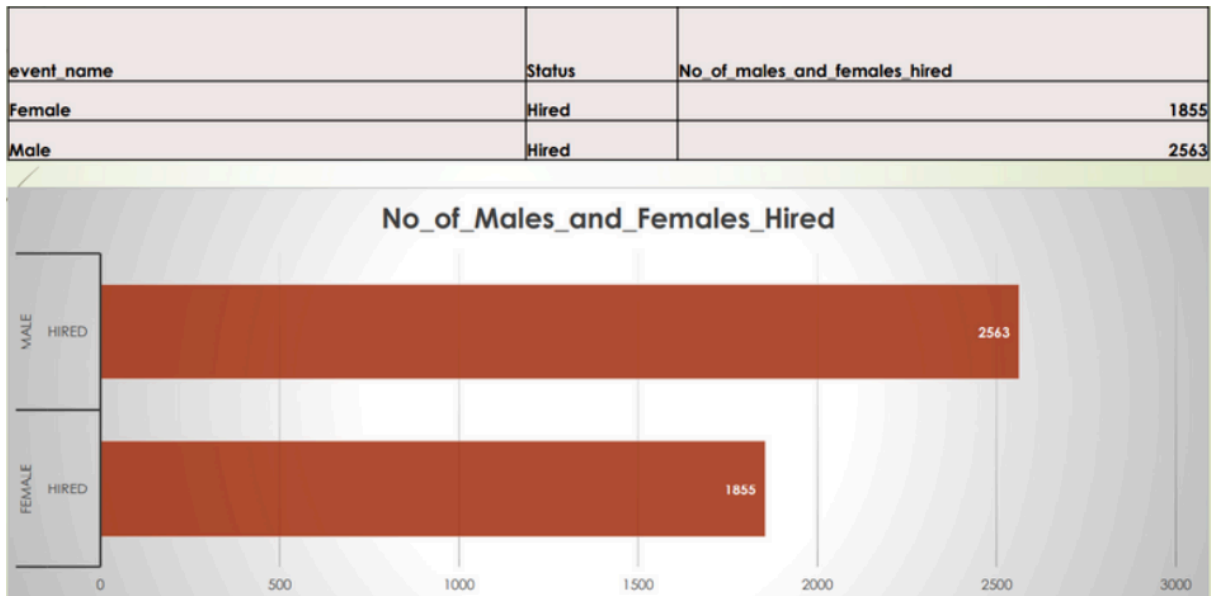
Software used - Microsoft Excel

Findings 1

event_name	Status	No_of_males_and_females_hired
Female	Hired	1855
Male	Hired	2563

No_of_Males_and_Females_Hired

From the above table and bar plot I have inferred that:-

➔ There are 2563 Males hired for different roles in the company.

➔ While there are only 1855 Females hired for different roles in the company

Findings 2

☐ To find the average salary offered in this company:- 1. First, we need to remove the outliers i.e. to remove the salaries below 1000 and above 100000 2.

☐ Then using the formula =AVERAGE(entire_column_of_salary_after_removing_outliers).

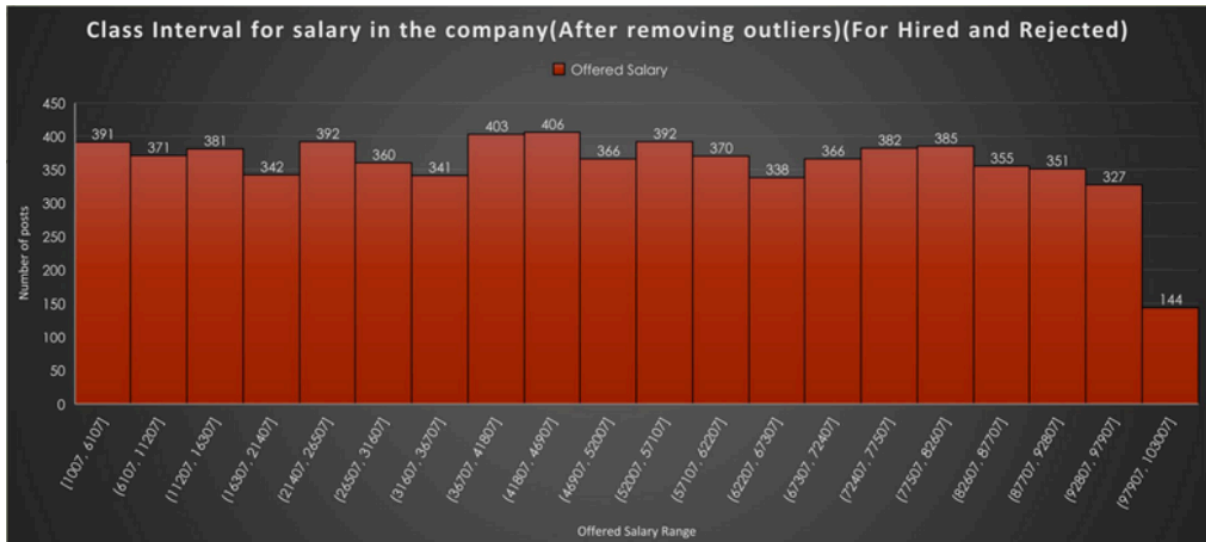Output = 49983.03223

Findings 3

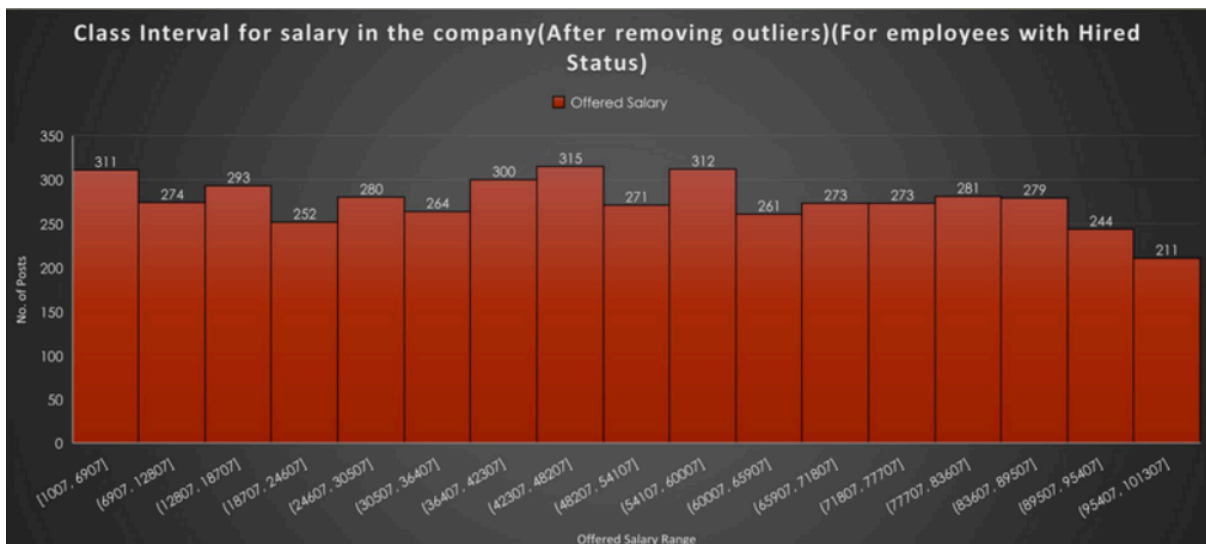Class Interval for salary in the company(After removing outliers)(For Hired and Rejected)

From the above Bar plot I have inferred that the highest number of posts (both hired and rejected) is 406 for the salary range 41807 to 46907.

Class Interval for salary in the company(After removing outliers)(For employees with Hired Status)

From the above Bar plot I have inferred that the highest number of posts (hired) is 315 for the salary range 42307 to 54107.

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Findings 4

Department	Status	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

Proportion of people working in different department

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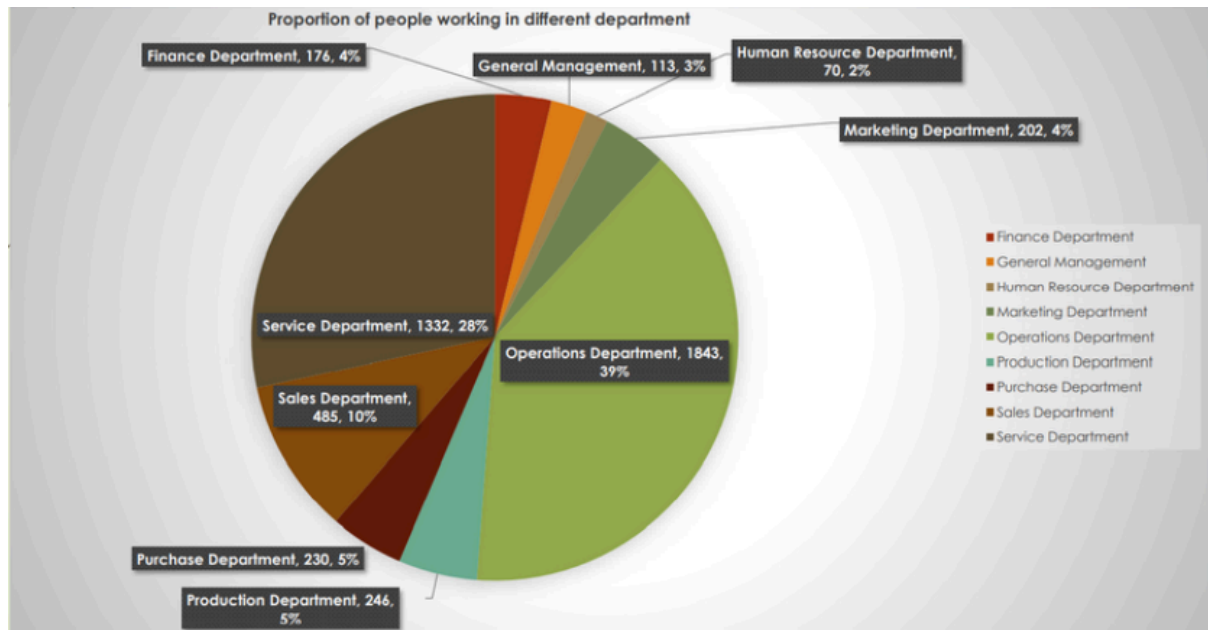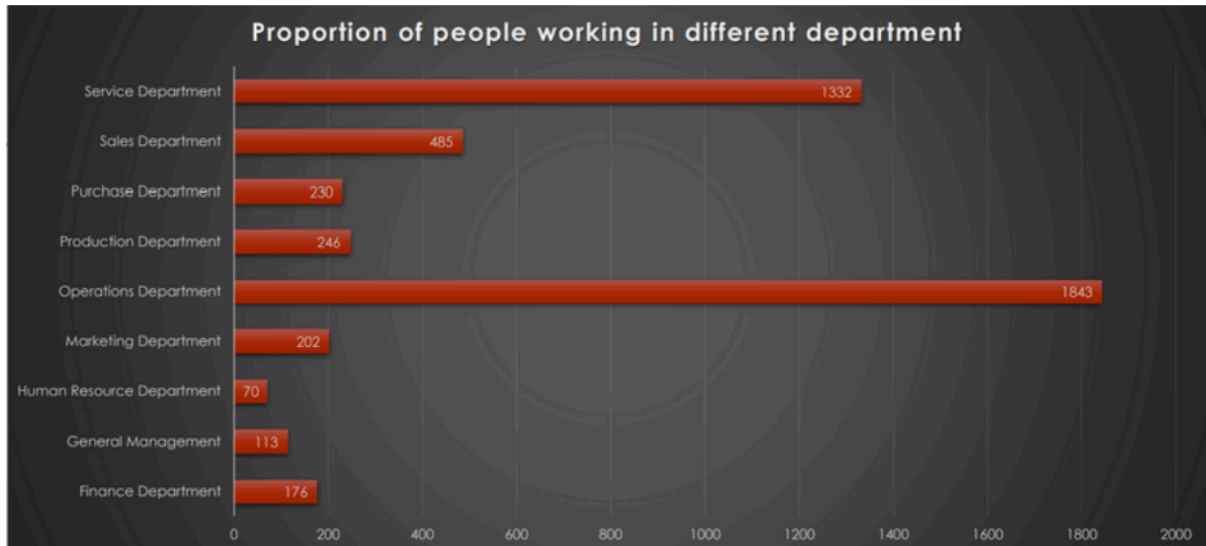
From the above table, pie chart and Bar Plot I have inferred that the Highest number of people were working in the Operations Department i.e. 1843 which accounts for almost 39% of the total workforce of the company.
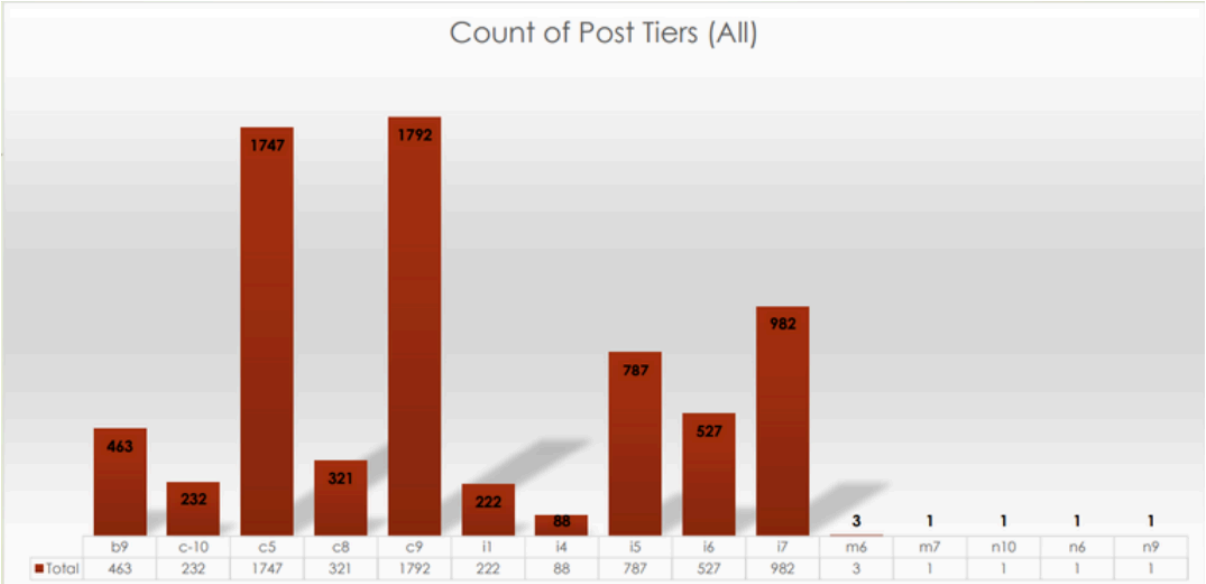
Findings 5

Post Name	Status	Count of Post Tiers (All)
b9		463
c-10		232
c5		1747
c8		321
c9		1792
i1		222
i4		88
i5		787
i6		527
i7		982
m6		3
m7		1
n10		1
n6		1
n9		1

Count of Post Tiers (All)

	b9	c-10	c5	c8	c9	i1	i4	i5	i6	i7	m6	m7	n10	n6	n9
■Total	463	232	1747	321	1792	222	88	787	527	982	3	1	1	1	1

Count of Post Tiers (All)
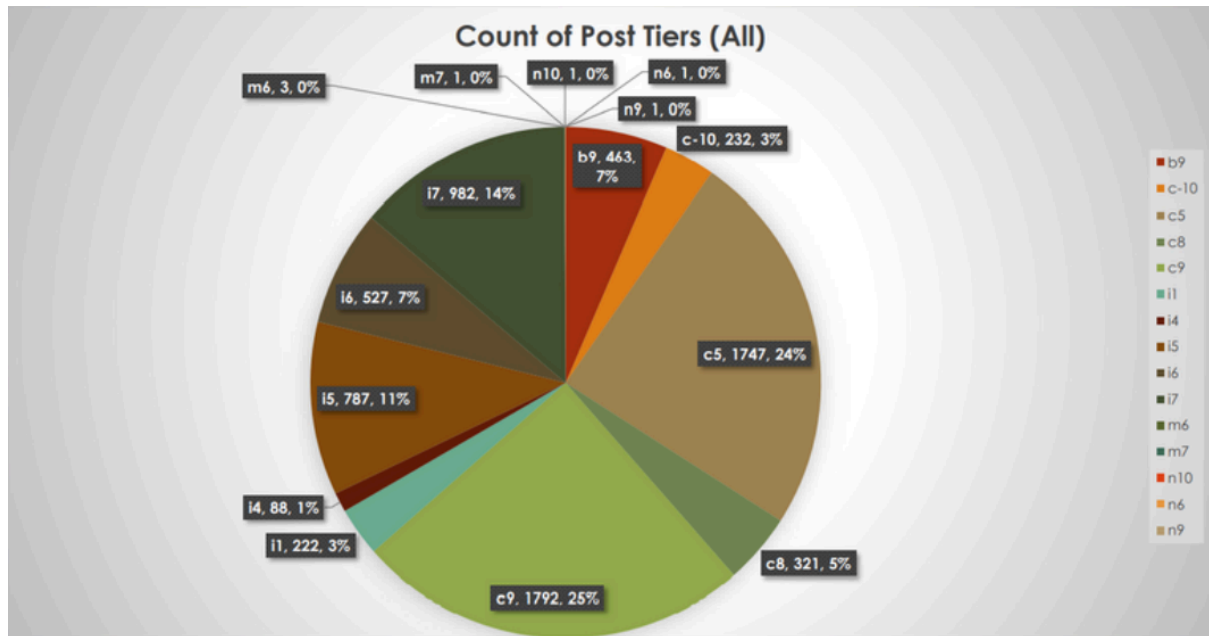
From the above table, Bar plot and Pie chart I have inferred that the c9 post has the highest number of openings i.e. 1792 which accounts for 25% of the total job openings of the company/firm.

Analysis

Leveraging the "Why's" approach, I am delving deeper to unearth additional insights:

Why is there a significant disparity in the total number of males and females hired?
This discrepancy stems from the multinational nature of the company, encompassing a workforce from diverse global regions. Gender equality has not yet reached every corner of the world, leading to variations. Some regions, particularly in Gulf countries, African continents, and certain Asian nations, grapple with persistent gender imbalances.

Why is there a lower count of individuals earning salaries exceeding 85,000, while a higher number falls within the 35,000 to 60,000 range?
This phenomenon is attributed to specialized roles within the company demanding seasoned professionals with extensive experience. The company seeks such skilled individuals and offers them higher salary packages, recognizing their significant contributions. Meanwhile, a larger segment of the workforce falls into the 35,000 to 60,000 salary range, comprising employees who have spent 3-4 years in the company, with their salary and increments tied to ongoing performance assessments.

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Why does the Operations department boast the highest number of employees?

The Operations Department serves as the central hub, orchestrating tasks for all other departments. It shoulders the bulk of execution responsibilities, making it the department with the highest workload compared to others.

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Conclusion

In conclusion, the realm of Hiring Process Analytics emerges as a pivotal determinant for companies and firms, shaping decisions regarding future job openings. This analytical practice is conducted on a periodic basis—monthly, quarterly, or yearly—in alignment with the unique needs and policies of each organisation.

The preeminence of the Operations Department, boasting the highest workforce, is a testament to its role as the central hub for executive tasks within any company. This department shoulders the significant workload inherent in orchestrating tasks for all other departments.

Salary differentials within a company are often reflective of specialized skills and extensive experience possessed by certain employees. Those with unique expertise command higher salary packages, acknowledging their contributions to their respective fields.

Crucially, Hiring Process Analytics serves as a compass for companies, guiding decisions on various fronts. It aids in determining salaries for incoming freshers, discerning workforce requirements for each department, and shaping appraisals and increments for existing employees. Through this analytical lens, companies navigate the dynamic landscape of human resource management with precision and foresight.

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