



Hiring Process Analytics

31.07.2023

PRAJJWAL PANDEY

HIRING PROCESS ANALYTICS

Project Description

The project is about analyzing the hiring process data of a multinational company. The goal is to draw meaningful insights from the data and help the company improve its hiring process.

The project will involve following things that I have found in the analysis:

- A. Checking for missing values and outliers in the dataset.
- B. Cleaning and preparing the data for analysis.
- C. Answering the data analytics questions listed in the projects description.
- D. Creating a report to present the findings.

The data analytics questions will focus on the following areas:

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

My task - Determine the gender distribution of hires. How many males and females have been hired by the company?

- **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.

My task - What is the average salary offered by this company? Using Excel analysis to calculate this.

- **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.

My task - Create class intervals for the salaries in the company. This will help us understand the salary distribution.

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

My task - Use a pie chart, bar graph, or any other suitable visualisation to show the proportion of people working in different departments.

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

My task - Use a chart or graph to represent the different position tiers within the company. This

will help us to understand the distribution of positions across different tiers.

Approach

The approach was to use Excel to analyse the Hiring Analytics database. The following operations were used to answer the above questions:

- To determine the gender distribution of hires. How many males and females have been hired by the company, the following operation was used:

Males hired - 2563

Females hired - 1856

and following operation were used -

=COUNTIFS(D:D,"Male",C:C,"Hired")

=COUNTIFS(D:D,"Female",C:C,"Hired")

=COUNTIFS(D:D,"Female",C:C,"Hired")					
event_name	Department	Post Name	Offered Salary		
Male	Service Department	c8	56553		
Female	Service Department	c5	22075		
Male	Service Department	c5	70069		
Female	Operations Department	i4	3207		
Male	Operations Department	i4	29668		
Male	Sales Department	-	85914		
Male	Sales Department	i7	69904		
Male	Sales Department	i7	11758		
Female	Service Department	i4	15156	2563	No. of males hired
Female	Service Department	i4	49515	1856	No. of females hired
Male	Service Department	n10	26990		

- To determine the average salary offered by the company , the following operation was used:

=AVERAGE(G:G)

Avg salary - Rs. 49983.02902

=AVERAGE(G:G)						
C	D	E	F	G	H	I
	event_name	Department	Post Name	Offered Salary		
	Male	Service Department	c8	56553		
	Female	Service Department	c5	22075		
	Male	Service Department	c5	70069		
	Female	Operations Department	i4	3207		
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	Male	Sales Department	i7	11758		
	Female	Service Department	i4	15156		2563
	Female	Service Department	i4	49515		1856
	Male	Service Department	n10	26990		
	Female	Service Department	b9	200000		
	Male	Service Department	b9	86787		
	Male	Finance Department	b9	2308		
	Female	Service Department	i7	56688		49983.02902
	-	Service Department	i7	81757		

- To determine the average salary offered by the different departments, the following operations were used:

=AVERAGEIF(E:E,"Finance Department",G:G)

=AVERAGEIF(E:E,"Service Department",G:G)

=AVERAGEIF(E:E,"Operations Department",G:G)

=AVERAGEIF(E:E,"Production Department",G:G)

=AVERAGEIF(E:E,"Marketing Department",G:G)

=AVERAGEIF(E:E,"Purchase Department",G:G)

=AVERAGEIF(E:E,"Sales Department",G:G)

=AVERAGEIF(E:E,"General Department",G:G)

=AVERAGEIF(E:E,"Human Resources Department",G:G)

49628.00694	Finance Dept.
50629.88418	Service Dept.
49151.35438	Operations Dept.
49448.48421	Production Dept.
48489.93538	Marketing Dept.
52564.77477	Purchase Dept.
49310.3807	Sales Dept.
58722.09302	General Management
49002.27835	Human Res. Dept.

- To determine the number of hiring by the different departments, the following operations were used:

=COUNTIFS(E:E,"Finance Department",C:C,"Hired")

=COUNTIFS(E:E,"Service Department",C:C,"Hired")

=COUNTIFS(E:E,"Operations Department",C:C,"Hired")

=COUNTIFS(E:E,"Production Department",C:C,"Hired")

=COUNTIFS(E:E,"Marketing Department",C:C,"Hired")

=COUNTIFS(E:E,"Purchase Department",C:C,"Hired")

=COUNTIFS(E:E,"Sales Department",C:C,"Hired")

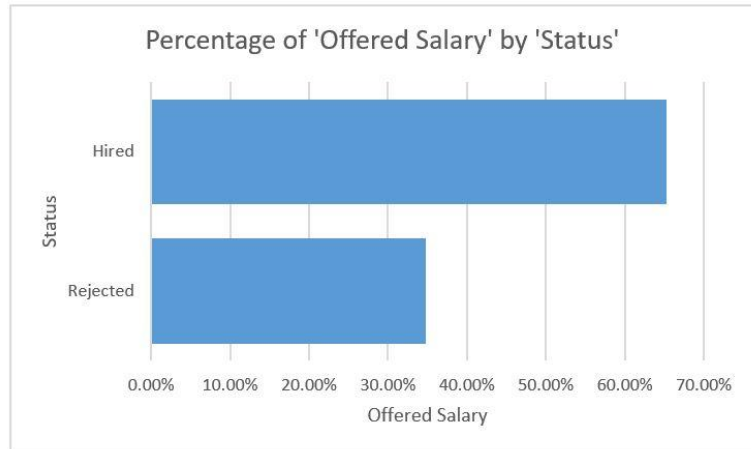
=COUNTIFS(E:E,"General Department",C:C,"Hired")

=COUNTIFS(E:E,"Human Resources Department",C:C,"Hired")

1332	Serv. Dept. Hired
1843	Ops. Dept. Hired
485	Sales Dept. Hired
176	Finance Dept. Hired
230	Purchase Dept. Hired
246	Production Dept. Hired
70	Human Res. Dept. Hired
202	Marketing Dept. Hired
113	General Management

% of total 'Offered Salary' by 'Status'

Status	Sum of Offered Salary
Hired	65.23%
Rejected	34.77%
Grand Total	100.00%



Total 'Offered Salary' by 'Department'

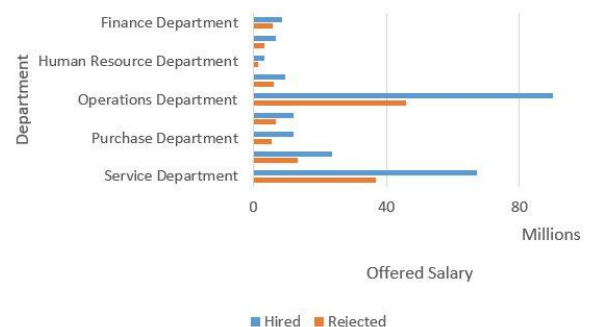
Department	Sum of Offered Salary
Operations Department	136198403
Service Department	104044412
Sales Department	36785544
Production Department	18790424
Purchase Department	17504070
Marketing Department	15759229
Finance Department	14292866
General Management	10100200
Human Resource Department	4753221
Grand Total	358228369

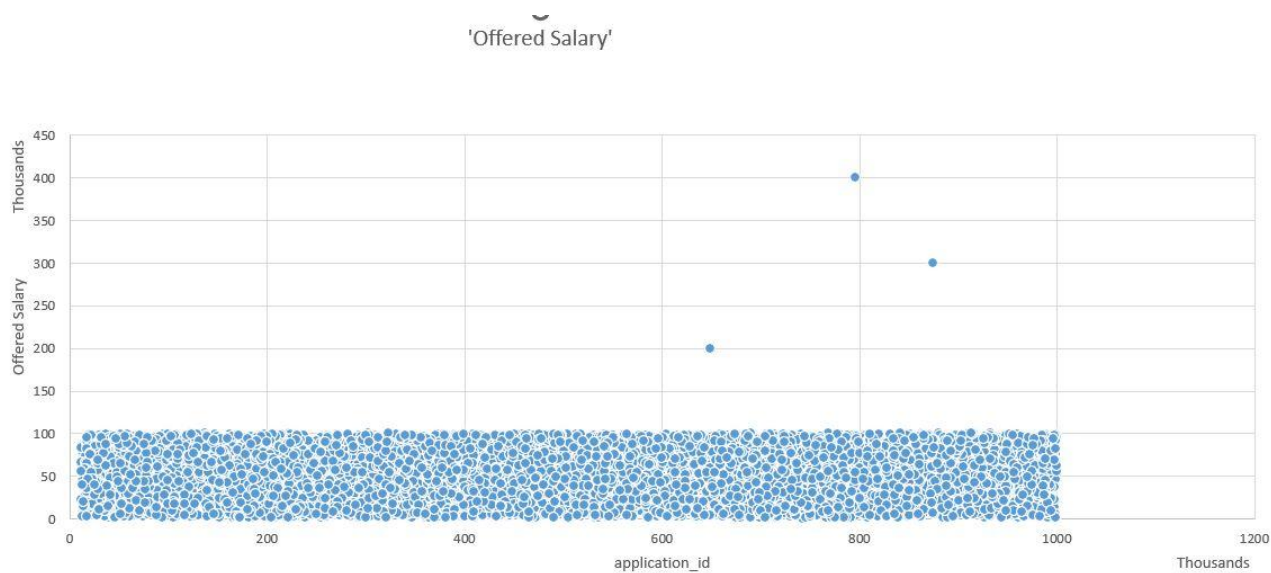
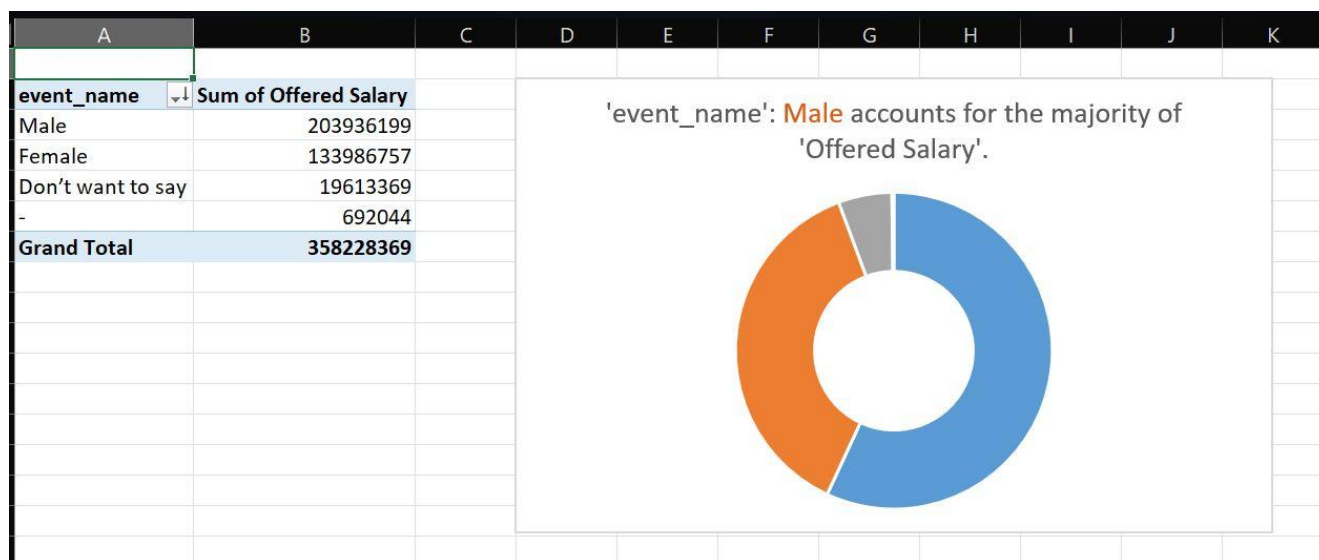


Sum of Offered Salar Post Nar																	
event_name	c9	c5	i7	i5	i6	b9	c8	c-10	i1	i4	m6	-	n9	n6	m7	n10	Grand Total
Male	50254588	48229634	27105743	23058054	15701609	13157159	9988646	7698161	6177217	2308318	102764	85914			41402	26990	2.04E+08
Female	34112756	34553323	19507549	13295993	9255999	8350191	5290633	3459624	4241279	1827691	800		46219	44700			1.34E+08
Don't want to say	5495073	4648452	2419070	2512990	780676	1411632	932719	679662	567854	165241							19613369
-	98108	291582	81757	4408		76730	12470	25785	101204								692044
Grand Total	89960525	87722991	49114119	38871445	25738284	22995712	16224468	11863232	11087554	4301250	103564	85914	46219	44700	41402	26990	3.6E+08

A	B	C	D	E	F	G	H	I	J	K	L	M																		
Sum of Offered Salary	Status				<div><h3>'Offered Salary' by 'Department' and 'Status'</h3><table border="1"><thead><tr><th>Department</th><th>Hired (Millions)</th><th>Rejected (Millions)</th></tr></thead><tbody><tr><td>Finance Department</td><td>14.29</td><td>5.71</td></tr><tr><td>Human Resource Department</td><td>4.75</td><td>3.43</td></tr><tr><td>Operations Department</td><td>136.19</td><td>46.04</td></tr><tr><td>Purchase Department</td><td>17.50</td><td>5.52</td></tr><tr><td>Service Department</td><td>104.04</td><td>36.71</td></tr></tbody></table></div>								Department	Hired (Millions)	Rejected (Millions)	Finance Department	14.29	5.71	Human Resource Department	4.75	3.43	Operations Department	136.19	46.04	Purchase Department	17.50	5.52	Service Department	104.04	36.71
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Finance Department	8579698	5713168	14292866																											
General Management	6871553	3228647	10100200																											
Human Resource Department	3431008	1322213	4753221																											
Marketing Department	9664366	6094863	15759229																											
Operations Department	90148854	46049549	136198403																											
Production Department	12140315	6650109	18790424																											
Purchase Department	11979912	5524158	17504070																											
Sales Department	23541682	13243862	36785544																											
Service Department	67331965	36712447	104044412																											
Grand Total	2.34E+08	1.25E+08	358228369																											

'Offered Salary' by 'Department' and 'Status'





Tech-Stack Used

The following tech stack was used to do this project:

- Database- Excel
- Data Analysis Tool - Excel

RESULTS

The results of this project have provided valuable insights into Hiring Analytics. This information can be used by management team to analyse the past hiring records of the company.