EMPLOYEE DATA ANALYSIS USING EXCEL

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AGENDA

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PROBLEM STATEMENT

1. Compare Salaries by Gender and Department:Determine if there are significant differences in average salaries between male and female employees within each department.
2. Analyze Salary Trends Over Time:Evaluate how average salaries have changed over the years for different departments and genders.
3. Departmental Distribution by Work Location: Assess the distribution of employees across different departments within each work location.
4. Identify Disparities by Work Location:Investigate if there are any notable differences in salary levels based on work location.
5. Evaluate Employee Retention and Growth:Examine if there is a correlation between the year of joining and current salary levels within different departments.

This analysis will help in understanding compensation dynamics and identifying any potential areas of improvement for achieving pay equity and effective resource allocation.

PROJECT OVERVIEW

1.Gender-Based Salary Comparison:Compare average salaries between male and female employees for each year. Assess any gender pay gaps or disparities in compensation.
2.High and Low Salary Analysis:Identify the highest and lowest salaries for each year and gender. Analyze any extreme values or outliers.
3.Joining Year Impact:Analyze how the joining year impacts salary levels. Investigate if employees joining in later years tend to have higher or lower salaries compared to those joining earlier.
4.Overall Salary Distribution:Evaluate the overall distribution of salaries across the dataset. Determine the mean, median, and standard deviation of salaries for a comprehensive understanding of compensation ranges.

END USERS

1. HR Professionals:
   - Purpose: To assess and adjust salary structures to ensure equitable compensation practices.
   - Usage:Review salary trends and gender pay gaps to make informed decisions on compensation adjustments an

2. Finance Teams:
   -purpose: To manage and allocate budgets effectively, considering salary distributions.
   - Usage:Analyze salary data to plan and forecast financial resources for payroll and budgetary adjustments.

3. Executive Leadership:
   - purpose:To understand overall compensation trends and their impact on company performance and employee
   - Usage:*Use insights to make strategic decisions on talent acquisition, retention, and organizational structure.

4.Employees:
   - Purpose:*To gain transparency into compensation practices and identify potential areas for personal career de
   - Usage: Review data to understand industry salary standards and advocate for fair compensation.

5. Recruitment Agencies:
   - Purpose:To offer competitive salary packages to attract top talent.
   -Usage: Use salary data to benchmark and propose appropriate salary ranges for new hires.

SOLUTION

1. Data Aggregation and Analysis:
   - Calculate Average Salary by Gender*: Compute the average salary for male and female employees.
   - Calculate Average Salary by Year: Compute the average salary for each year of joining.
   - Compare Salaries by Gender and Year: Identify trends or disparities in salaries based on gender and joining year.

2. Statistical Summary:
   - Salary Statistics: Determine median, maximum, and minimum salaries for both genders and for different joining years.
   - Gender Pay Gap: Calculate the percentage difference in average salaries between genders.

3. Trend Analysis:
   - salary Trends over Time: Analyze how salaries have changed over the years for both genders.
   - Gender Representation: Evaluate the proportion of males and females in each year

PROPOSITION

1. Address Gender Pay Gap:
   - If there is a significant disparity in average salaries between genders, consider implementing policies to address the pay gap.

2. Review Recruitment and Promotion Policies:
   - Analyze the data to determine if certain years or genders are being underrepresented in higher-paying positions or promotions.

3. Develop Targeted Programs:
   - Create targeted salary review programs or training sessions to ensure fair compensation and career advancement opportunities for all employees.

4. Continuous Monitoring;
   - Establish a framework for ongoing monitoring of salary data to ensure that disparities are identified and addressed promptly.

5. Benchmarking:
   - Compare your salary data with industry benchmarks to ensure competitiveness and fairness in compensation.

DATASET DESCRIPTION

Total Records:45
*Columns: - Joining Year: Ranges from 2012 to 2018
  -Gender: Malw and Female
  -*Salary :Annual salary of employees

- Gender Distribution:
  - Male:27 records
  - Female :18 records

- Joining Year Distribution:
  - 2022: 5 records (all male)
  - 2021: 6 records (all male)
  - 2014: 8 records (5 male, 3 female)
  - 2016: 12 records (7 male, 5 female)
  - 2017: 15 records (10 male, 5 female)
  - 2018*:5 records (4 male, 1 female)

MODELING APPROACH

1.Data Preparation

2. Exploratory Data Analysis (EDA)

3.Modeling

4. Evaluation

5. Interpretation

RESULTS

1. Descriptive Statistics:
   - Average Salary by Gender:
     - Male: Average salary is approximately $77,230.
     - Female:Average salary is approximately $63,313.
   - Average Salary by Joining Year:
     - 2012: Average salary is $91,341.
     - 2013: Average salary is $81,829.
     - 2014: Average salary is $78,832.
     - 2016: Average salary is $51,343.
     - 2017: Average salary is $67,935.
     - 2018:Average salary is $96,459.

2.Salary Range:
   - Lowest Salary:$37,902.35
   - Highest Salary: $118,976.16

DISCUSSION

1.GENDER PAY GAP

a) observation

b) Implications

2. YEARLY TRENDS

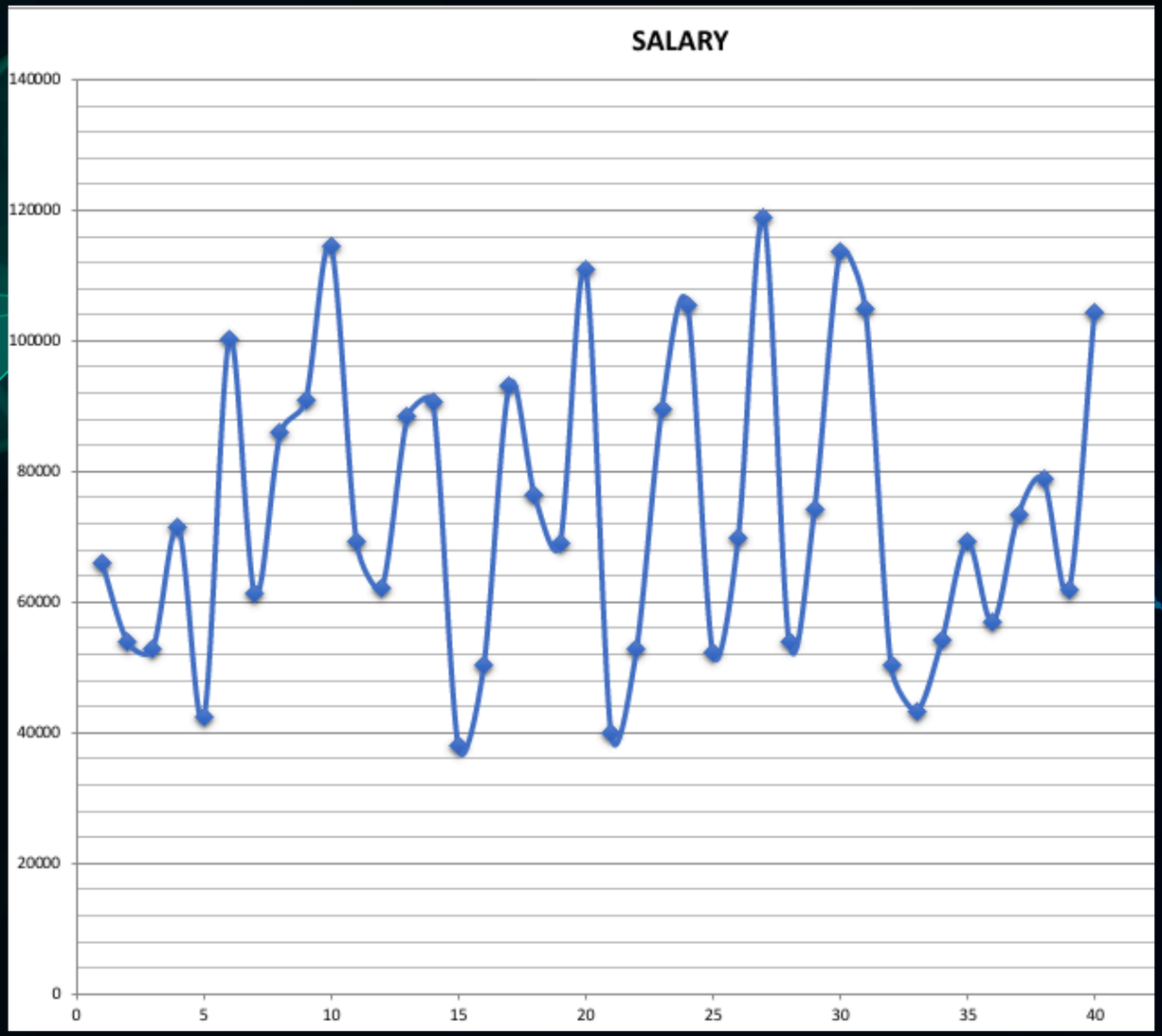
3. RECOMMENDATION

a) Address Gender Disparities

b) Monitor Compensation Trend

c) Data Collection

LINE CHAT （FOR SALARY）



CONCLUSION

1. Male salaries: There is significant variability in the salaries of males across the years. The highest male salary observed is in 2018 with ₹113,616.23, while the lowest is in 2016 with ₹37,902.35.

2. Female Salaries: Female salaries also show variation, but not as extreme as for males. The highest female salary observed is in 2018 with ₹110,906.35, while the lowest is in 2014 with ₹42,314.39.Yearly Analysis:2012:

3. B oth males and females had relatively high salaries, with males slightly leading.2016: There is a wide range of salaries for both genders, with males generally earning less than females.2017: This year shows considerable salary differences, with both genders having a broad range of earnings.

THANK YOU