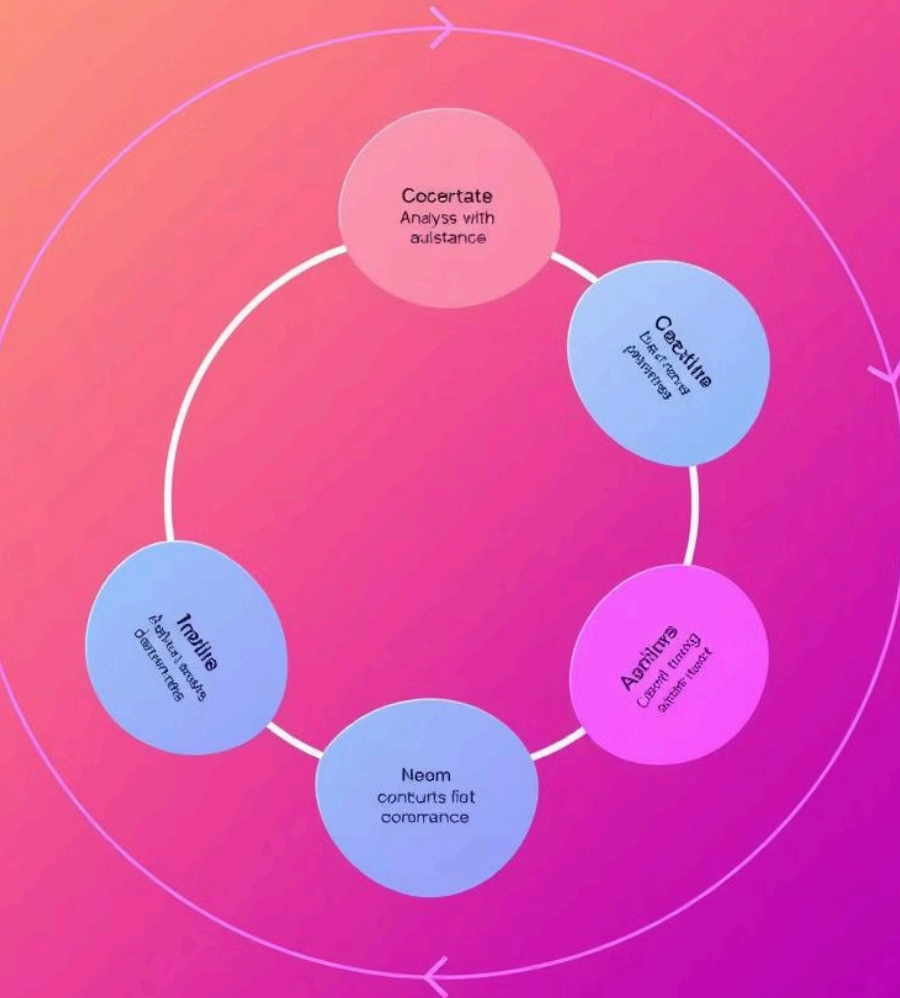# HR Data Analysis Report

In-depth analysis of employee data to support HR decisions

Covers demographics, diversity, salaries, and retention trends

Follows Data Analysis Lifecycle from collection to recommendations

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Data Analysis Lifecycle Overview

1 **Business Understanding**

Define objectives and goals for the analysis

2 **Data Understanding**

Explore data sources and identify key metrics

3 **Data Preparation**

Clean and prepare data for analysis

4 **Data Analysis**

Perform descriptive and diagnostic analysis

Business Understanding

1 **Workforce Diversity**

Analyze employee demographics and diversity patterns

2 **Compensation Trends**

Examine salary distribution across departments and roles

3 **Employee Retention**

Identify turnover trends and high-risk areas

4 **Geographic Distribution**

Map employee locations and regional differences

Data Understanding

Data Sources

- Employee ID
- Personal Information
- Job Details
- Compensation
- Geographic Data

Key Metrics

- Diversity Metrics
- Compensation Metrics
- Retention Metrics

Data Preparation (Cleaning)

1 — **Correcting Data Types**

Ensure proper formatting for numeric and text fields

2 — **Handling Missing Data**

Infer missing values or flag incomplete records

3 — **Removing Duplicates**

Eliminate duplicate employee entries for accuracy

4 — **Standardizing Formats**

Maintain consistency in geographic and categorical data

Data Analysis Overview

Descriptive Analysis

Identify general trends in demographics and distribution

Diagnostic Analysis

Examine reasons behind key trends and patterns

Gender and Leadership

Analyze gender distribution in senior roles

Ethnic Disparity

Investigate representation of minorities in leadership

Data Visualization Techniques

Gender and Ethnicity

Pie charts for gender distribution

Salary Distribution

Histograms for salary ranges

Hiring Trends

Line charts for hiring patterns

Geographic Distribution

Scatter maps for employee locations

Key Insights

Gender Balance	Fairly balanced, women in senior roles
Ethnic Diversity	Underrepresentation of Black employees in leadership
Salary Inequity	Geographic discrepancies, especially Manaus vs Seattle
Turnover Rates	Higher in Finance and Operations departments

Recommendations

1 **Diversity Programs**

Implement mentorship and diverse recruitment initiatives

2 **Salary Equity**

Conduct comprehensive audit to address geographic disparities

3 **Retention Strategies**

Develop targeted programs for high-turnover departments

4 **Global Expansion**

Diversify talent pool in underrepresented regions

Conclusion

Comprehensive Analysis

Insights into workforce demographics, salaries, and retention

Actionable Recommendations

Targeted strategies to improve diversity and performance

Future Impact

Potential for more equitable and high-performing organization