

# Career Development Analysis Dashboard

## 1. Data Loading and Preparation

### a. Import Dataset

- Open **Power BI Desktop**.
- Go to **Home > Get Data > Excel** (or appropriate data source) and import your dataset.

### b. Data Cleaning

- Review the dataset for any missing or inconsistent data.

## 2. Data Transformation

### a. Check for datatypes of all the columns

### b. Create Calculated Columns

- **Target attrition column** :- To convert target column "Attrition" from ENUM type to Binary Boolean type.

```
target_att = IF('hrdata'[Attrition]="Yes",1,0)
```

- **Age Range**: Convert different Employee age into a category in which grouping can be done for particular age section of employee

```
age_range =  
    SWITCH (TRUE(),  
        hrdata[Age]>10 && hrdata[Age] <=30, "<30",  
        hrdata[Age]>30 && hrdata[Age] <=40, "30-40",  
        hrdata[Age]>40 && hrdata[Age] <=50, "40-50",  
        hrdata[Age]>50, "above 50")
```

- **Income\_slab**: Grouping employee salary to different range.

```
income_slab =  
    SWITCH (TRUE(),  
        hrdata[MonthlyIncome]>0 && hrdata[MonthlyIncome]<5000, "0-5000",  
        hrdata[MonthlyIncome]>=5000 && hrdata[MonthlyIncome]<10000, "5000-10000",  
        hrdata[MonthlyIncome]>=10000 && hrdata[MonthlyIncome]<15000, "10000-15000",  
        hrdata[MonthlyIncome]>=15000 && hrdata[MonthlyIncome]<20000, "15000-20000")
```

### 3. Data Modeling

#### a. Create Measures (for KPIs)

- Active Employees :- No. of employees working currently  
`m_active_emp = count(hrdata[EmployeeNumber]) - sum(hrdata[target_att])`
- Attrition Rate :- Percentage of attrition w.r.t total employees  
`m_attrition_rate = DIVIDE(SUM('hrdata'[target_att]),  
COUNT('hrdata'[EmployeeNumber]),"")`

### 4. Dashboard Design

#### KPIs used for visualization

##### a. Average years at company

- Drag a **Gauge** onto the report canvas.
- Set the **Value** to the average of **YearsAtCompany** column
- Set the **minimum** value to the minimum years value in YearsAtCompany column.
- Set the **maximum** value to the maximum years value in YearsAtCompany column.

##### b. Average Years in Current Role

- Drag a **Gauge** onto the report canvas.
- Set the **Value** to the average of **YearsInCurrentRole** column
- Set the **minimum** value to the minimum years value in YearsInCurrentRole column.
- Set the **maximum** value to the maximum years value in YearsInCurrentRole column.

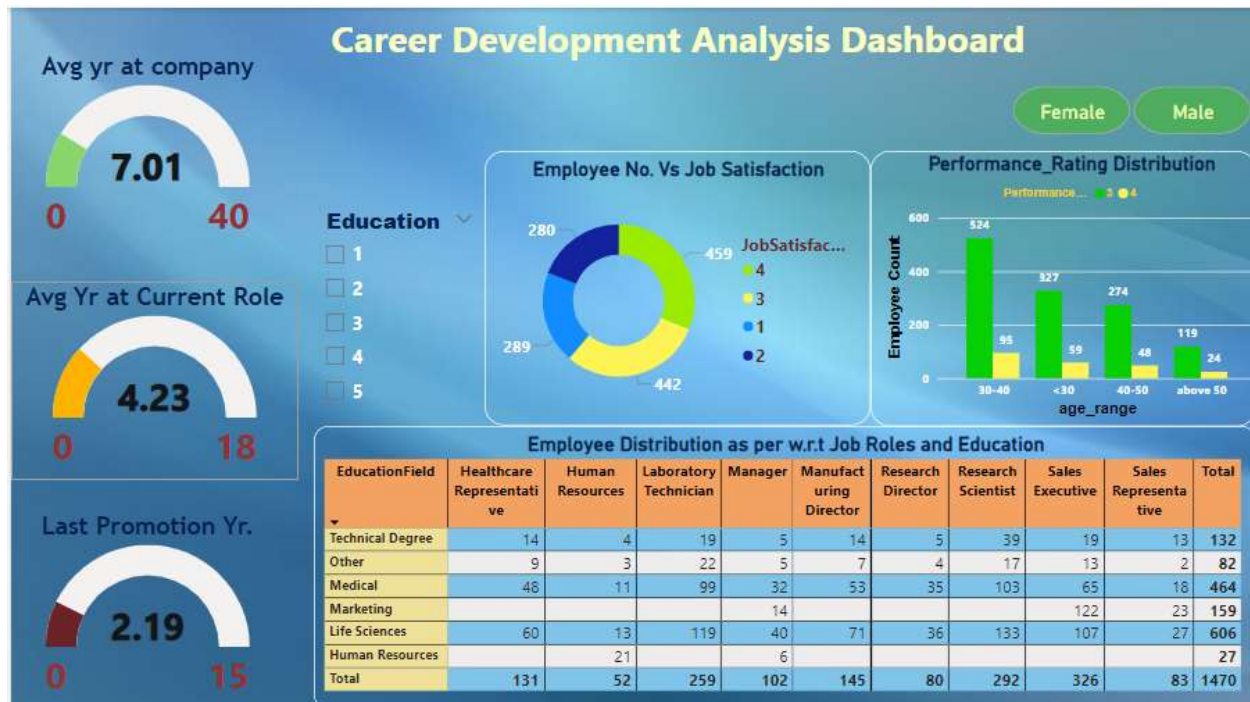
##### c. Average Years since Last Promotion

- Drag a **Gauge** onto the report canvas.
- Set the **Value** to the average of **YearsSinceLastPromotion** column
- Set **minimum** value to the minimum years value in YearsSinceLastPromotion column.
- Set **maximum** value to the maximum years value in YearsSinceLastPromotion column.

##### d. Distribution of Education Levels

- Drag a **Matrix** onto the report canvas.  
Matrix covers data about **no. of Employees** working in **different Job roles** and with **Education Background**. The **Slicer** of **Education Level** helps in knowing **the degree Employee holds**.
- **Stacked Column Chart** with X axis as **age\_range** and Y axis as **No. of Employee** with **filters** as **Performance Rating**

## Dashboard Visual:-



## OBSERVATIONS

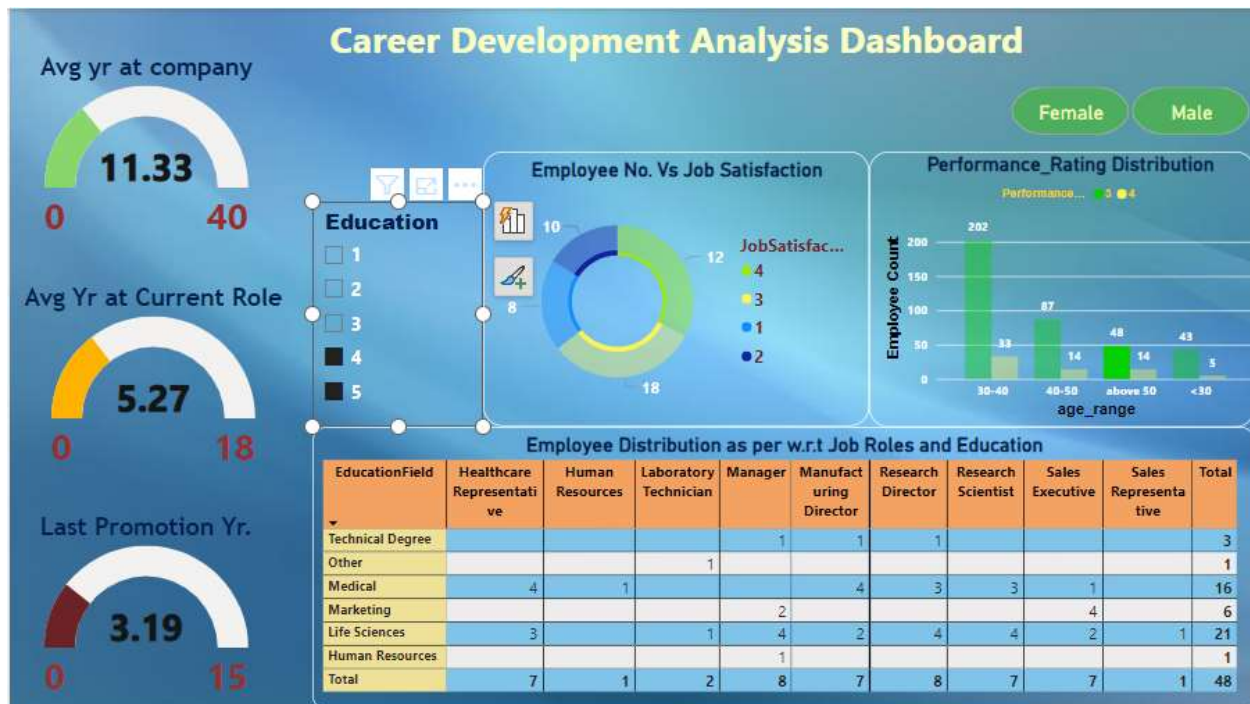
A.) From the below dashboard, we can draw below inferences:-

- All the employee who is above 50 years of age are working in company for more than 11 years.
- Educational background of Medical and Life Science have majorly undergone through Masters and Post doctorate degrees.
- Average years in current role is more than 5years, which shows the positional /responsibility promotion occurs only at 5years.

Possible reasons for below scenario may occur because :-

- **Job Security:** Older employees often value the stability and security that comes with long-term employment. A stable job provides them with a sense of security, especially as they approach retirement age.
- **Comfort and Familiarity:** After working for a company for many years, employees become accustomed to the company culture, processes, and their colleagues. This familiarity can make staying in their current job more appealing than starting fresh elsewhere.

- **Work-Life Balance:** Older employees might value a good work-life balance more than career advancement. If their current job offers a manageable workload and flexibility, they might be less inclined to leave.
- **Limited External Opportunities:** In some cases, older employees might perceive fewer opportunities available to them outside their current company due to age discrimination or the challenges of competing with younger job seekers.
- **Strong Relationships:** Over the years, employees build strong professional relationships and networks within their company. These connections can be a strong reason to stay, as they provide support, mentorship, and a sense of community.



**B.)** From the below dashboard, we can draw below inferences:-

- Employee with only education of college and below college with age range of below 30 years are getting more frequent promotion than others. This behavior is more common in Job Roles of Sales and Research Scientist.
- Employee with Laboratory Technician and Research scientist are having more satisfied with their jobs than other.
- There is **one flaw** in this observation, Many **research scientists** are having **education of college or below**, which shows **error in this data**.



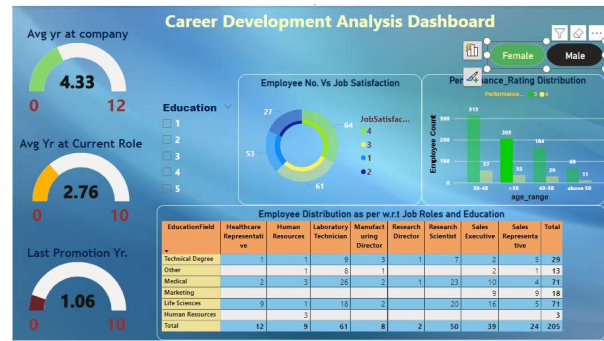
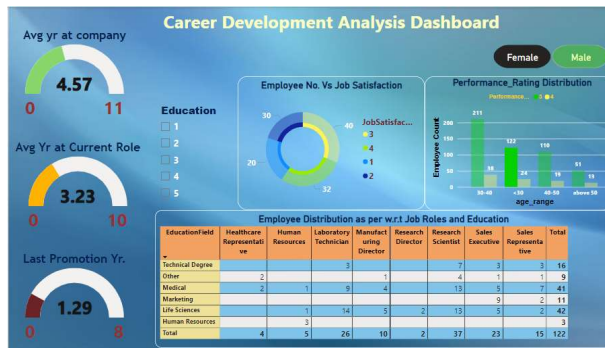
C.) From the below dashboard, we can draw below inferences:-

- Average years at company and current role is lower for male employee than Female Employee.
- Promotion of Male employee is more frequent than Female Employee.
- Job satisfaction level 4 is more in Male than female w.r.t Job Satisfaction level.

Possible reasons for below scenario may occur because :-

- **Career Interruptions:** Women are more likely to take career breaks for family reasons, such as maternity leave or caring for children, which can lead to longer tenure in roles that offer flexibility and stability.
- **Work-Life Balance Priorities:** Women might prioritize work-life balance more, leading them to stay in roles and companies that offer flexibility and support for their personal and family commitments. This can result in longer tenures.
- **Career Advancement Opportunities:** Men might have more opportunities or be more aggressive in seeking career advancement, leading to more frequent job changes. Women might face barriers to advancement, resulting in longer stays in their current roles.



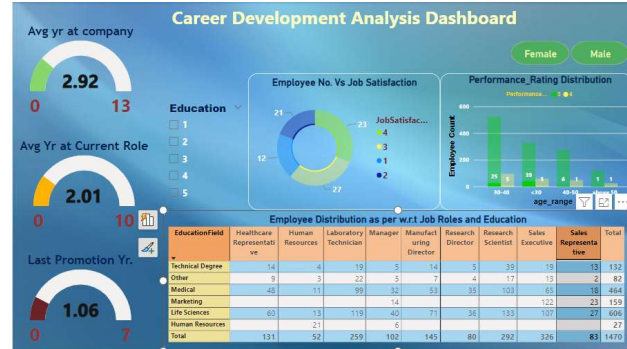
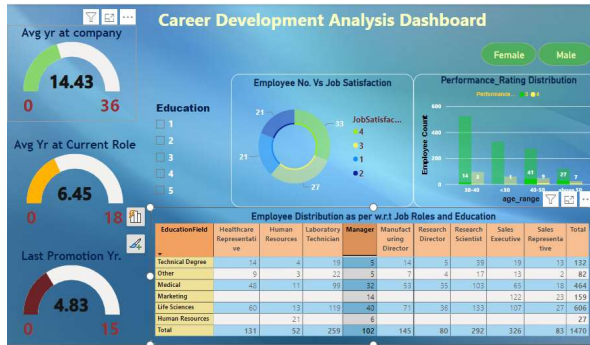


D.) From the below dashboard, we can draw below inferences:-

- Promotion in Sales roles is more frequent than being in manager role.
- Average staying years in a company in manager role is 14 times the average staying in Sales Job roles.
- Mainly the managers are in age above 40 and sales representative are below 40 age.

Possible reasons for below scenario may occur because :-

- **Performance Metrics:** Sales roles typically have clear, quantifiable performance metrics such as sales targets, revenue generation, and customer acquisition. Meeting or exceeding these metrics can lead to faster promotions.
- **Sales Growth Opportunities:** Sales positions often have a structured career progression path, such as moving from junior sales representative to senior sales representative, then to sales manager, and so on. This provides more frequent promotional opportunities.
- **Fewer Positions Available:** There are typically fewer managerial positions available compared to sales roles, leading to fewer opportunities for promotion.
- **Longer Tenure in Roles:** Managers might need to spend more time in each role to demonstrate their ability to lead teams, manage projects, and contribute to the company's strategic goals before being considered for promotion.



## Areas Of Improvement:-

- **Retention Programs:** Develop comprehensive retention programs aimed at reducing employee turnover and increasing the average tenure.
- **Employee Engagement:** Enhance engagement initiatives to create a more inclusive, positive, and motivating work environment.
- **Competitive Compensation and Benefits:** Regularly review and update compensation packages to ensure they are competitive and aligned with industry standards.
- **Career Pathing:** Provide clear and structured career paths to give employees a vision of their future within the company.
- **Feedback Mechanisms:** Implement regular feedback surveys and action plans based on the feedback received.
- **Recognition Programs:** Establish robust employee recognition programs to celebrate achievements and milestones.
- **Work-Life Balance:** Promote work-life balance through flexible working arrangements and wellness programs.
- **Role Rotation and Lateral Moves:** Encourage role rotation and lateral moves to broaden employees' experience and skill sets.
- **Transparent Promotion Criteria:** Ensure promotion criteria are clear, transparent, and communicated effectively to all employees.