HR ANALYTICS

UNLOCKING HUMAN POTENTIAL

AGENDA

1. OBJECTIVE
2. TOOLS USED
3. OVERVIEW
4. KPI’s ANALYSIS
5. DAHBOARDS
6. CONCLUSION

OBJECTIVE

- The objective is to analyze data of 50,000 employees and attrition trends.
- **Explore Attrition Trends:** Delve into historical data to uncover patterns and trends related to employee attrition within the organization.
- **Uncover Contributing Factors:** Analyze data to identify key factors influencing attrition rates, shedding light on the underlying causes.
- **Enable Proactive Measures:** Provide insights to empower management in taking proactive measures aimed at reducing attrition rates and fostering employee retention.

Tools used:

EXCEL

TABLE

POWER

MySQL

OVERVIEW

Total Employees

50000

Total Attrition

25105

Active Employees

24895

Attrition Rate

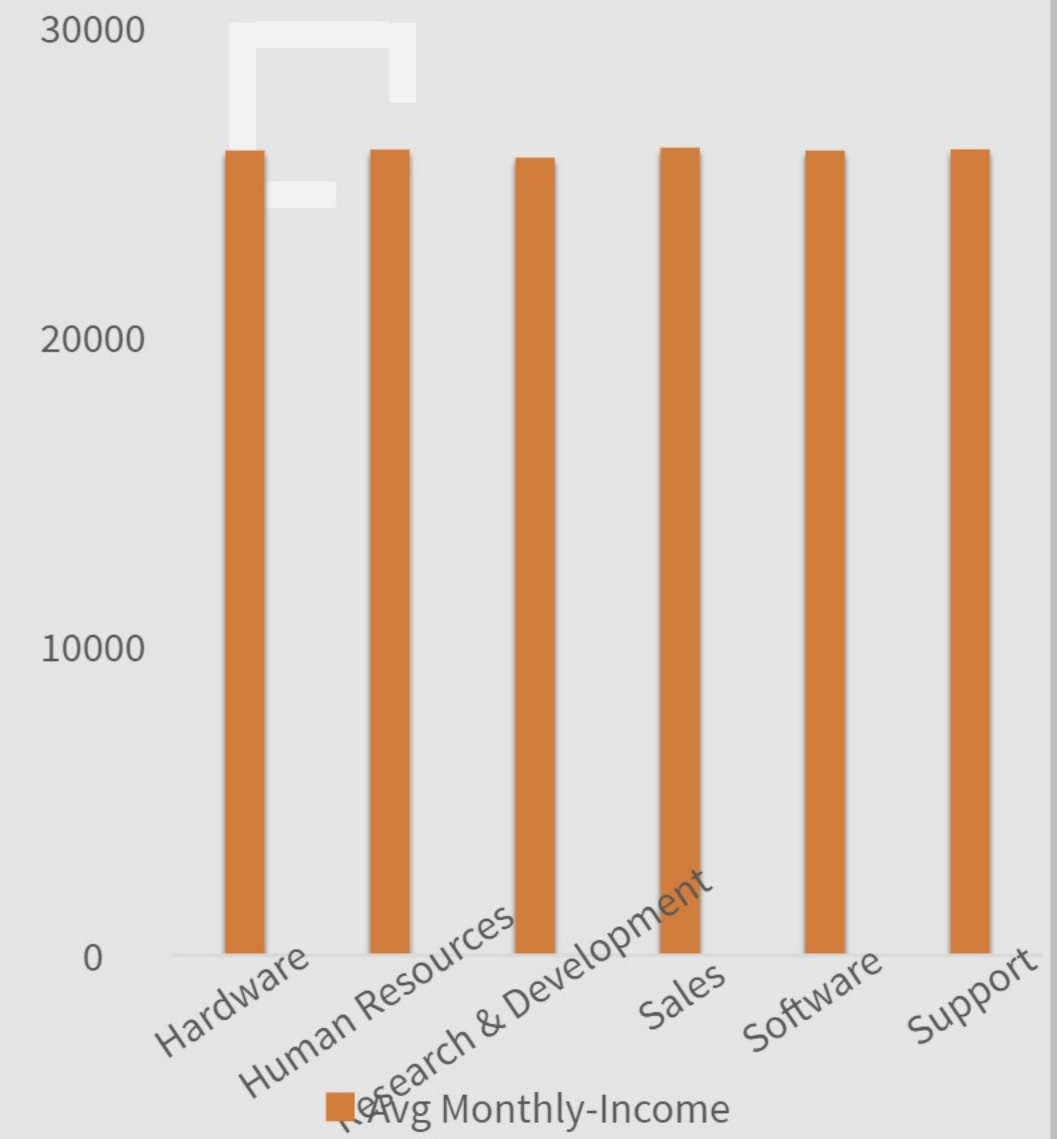
50.21%

Average Age

39 years

KPI 1:Department-wise Attrition

- Research and Development has high attrition rate with 51.21% whereas Hardware has low attrition rate with 49.44%.
- Foster a culture that values and rewards innovative ideas, providing an environment where employees feel their contributions make a significant impact.
- With a 51.21% attrition rate in Research and Development versus 49.44% in Hardware, fostering an innovative culture is vital. Creating an environment where employees feel their ideas matter can boost satisfaction and retention, addressing attrition challenges in R&D.

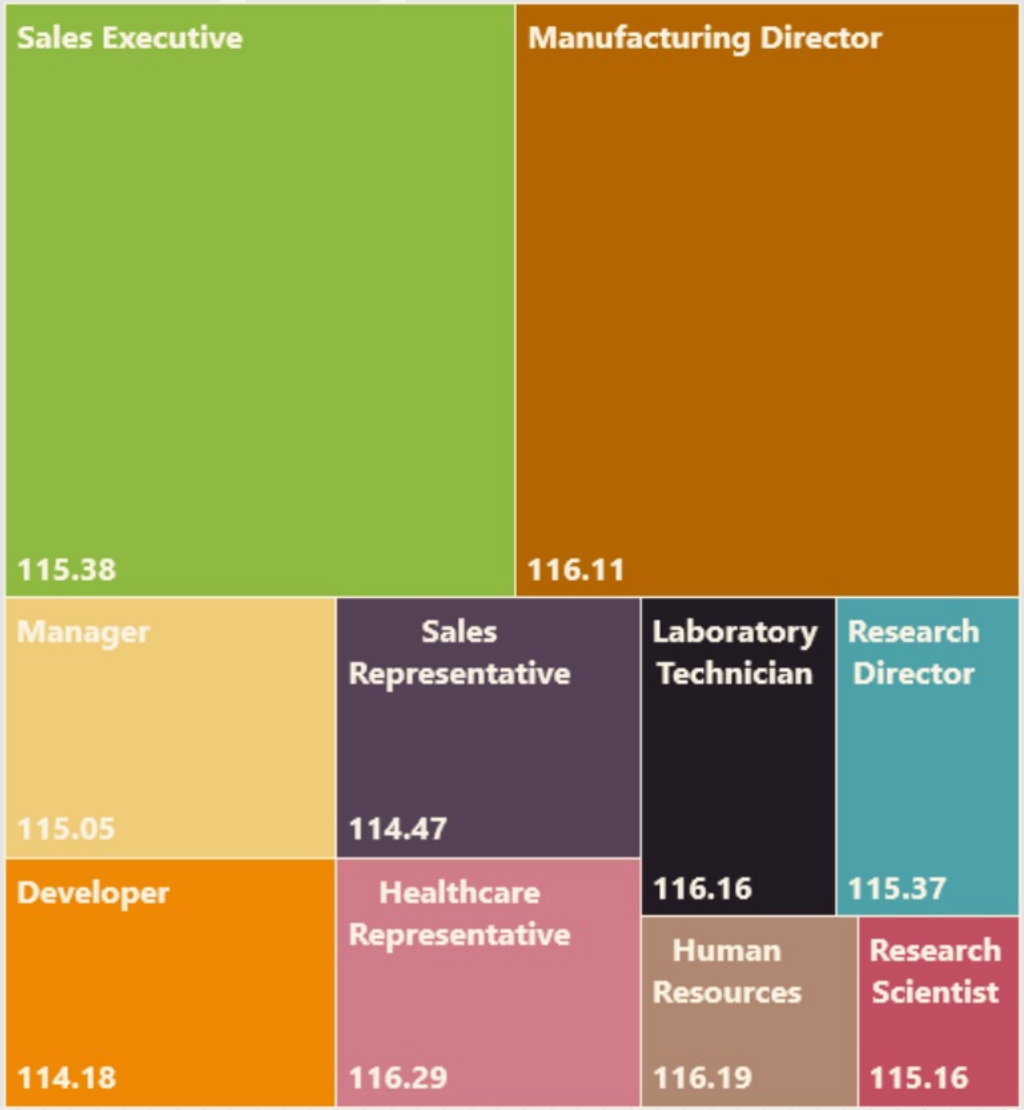


KPI 2: Attrition rate Vs Monthly income stats

- Sales department has higher avg monthly income of 26,119 with least attrition rate of 50.02% whereas R&D department has avg monthly income of 25,796 with attrition rate of 51.21%.

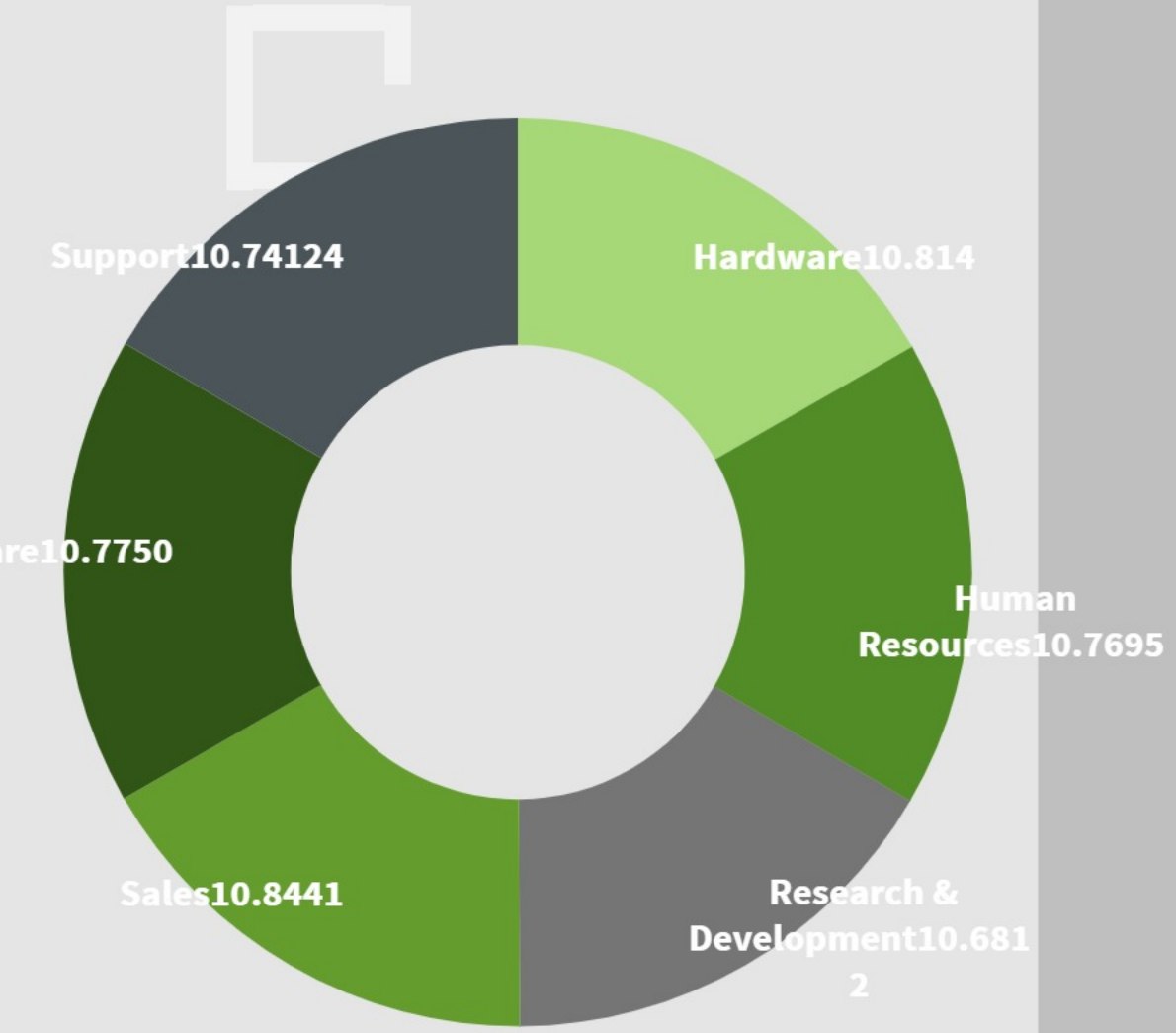
- Consider revisiting compensation structures in the R&D department to align with the higher attrition rate and explore opportunities for income enhancement.

- Despite the Sales department's higher average monthly income and lower attrition, addressing compensation differentials in the R&D department could contribute to better retention and overall workforce stability.



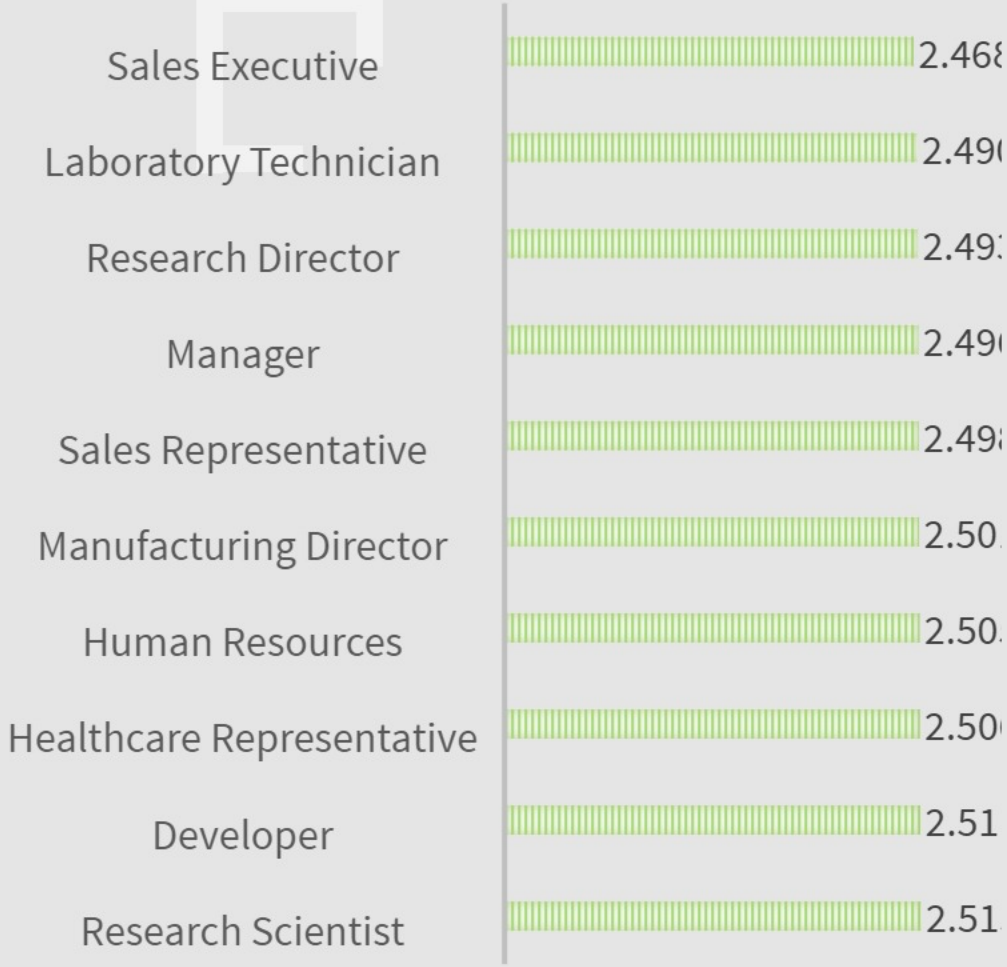
KPI 3: Average Hourly Rate of Male Research Scientist

- Average hourly rate for male research scientist is 114.45.
- Review and ensure that the average hourly rate for male research scientists remains competitive with industry standards to attract and retain top talent.
- Maintaining a competitive average hourly rate for male research scientists is crucial for talent retention and ensuring the organization remains attractive in the competitive job market. Regularly assess and adjust compensation to align with industry benchmarks.



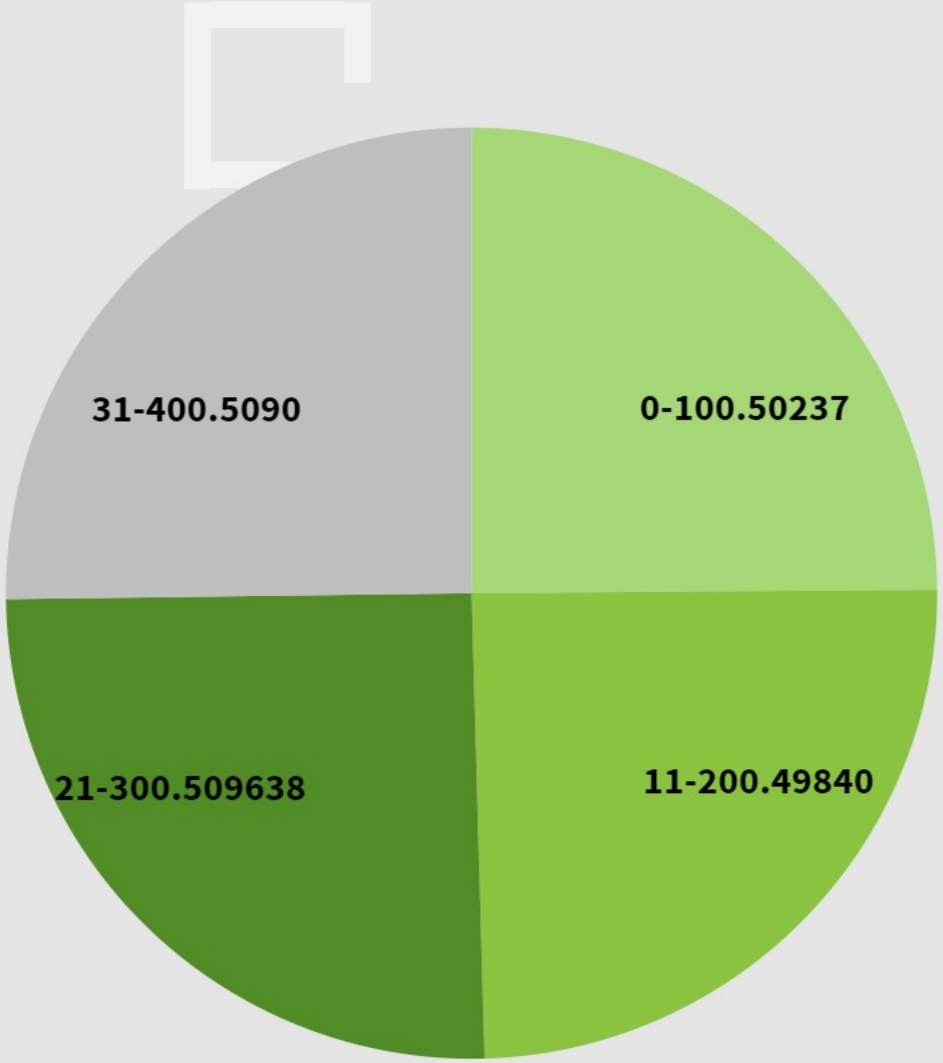
KPI 4: Average Working Years for each Department

- Sales department has the highest average working years with 10.84 years whereas R&D department has the lowest average working years with 10.68 years.
- Consider implementing professional development programs in the R&D department to enhance employee engagement and retention.
- While the Sales department boasts higher average working years, introducing development initiatives in R&D can foster longevity and contribute to a more experienced and stable workforce.



KPI 5: Job Role vs Work-Life Balance

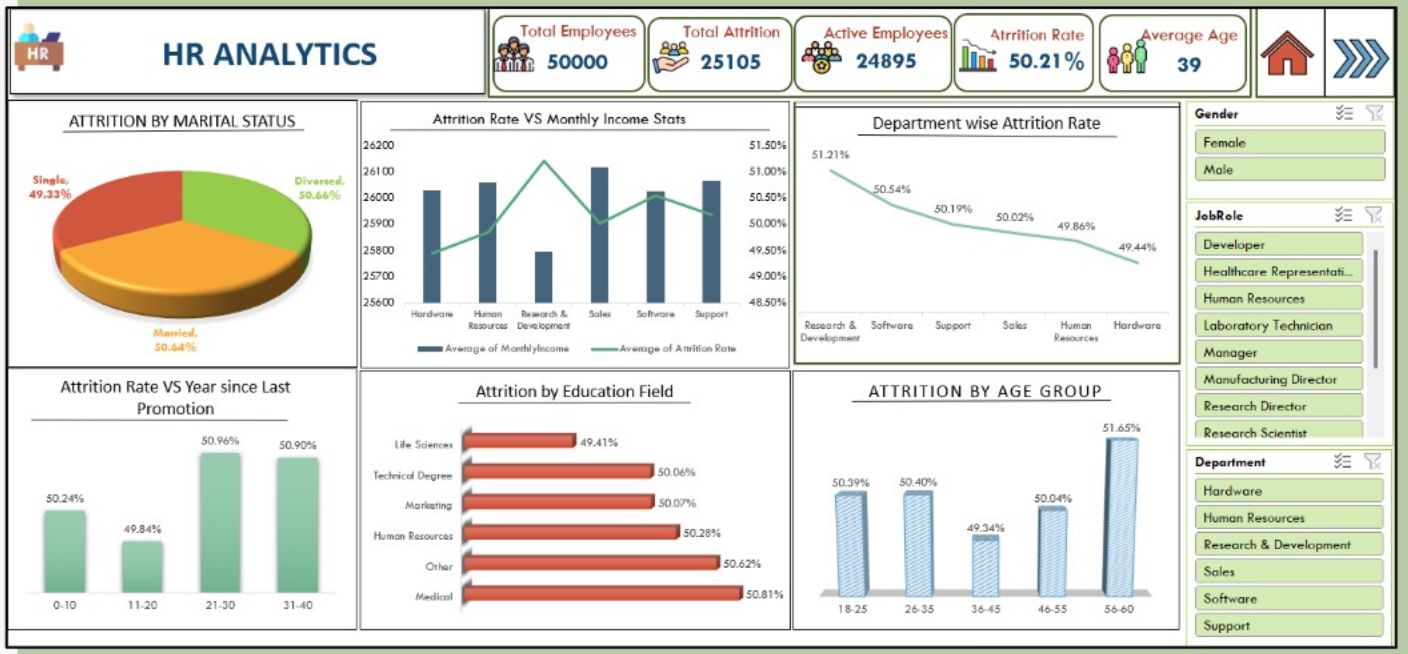
- Research Scientists have the highest rating of work-life balance with 2.514 whereas Sales Executives have the lowest rating with 2.469.
- Implement targeted work-life balance initiatives for Sales Executives to enhance overall job satisfaction.
- While Research Scientists exhibit the highest work-life balance ratings, addressing specific concerns within the Sales Executive role can contribute to improved job satisfaction and well-being.

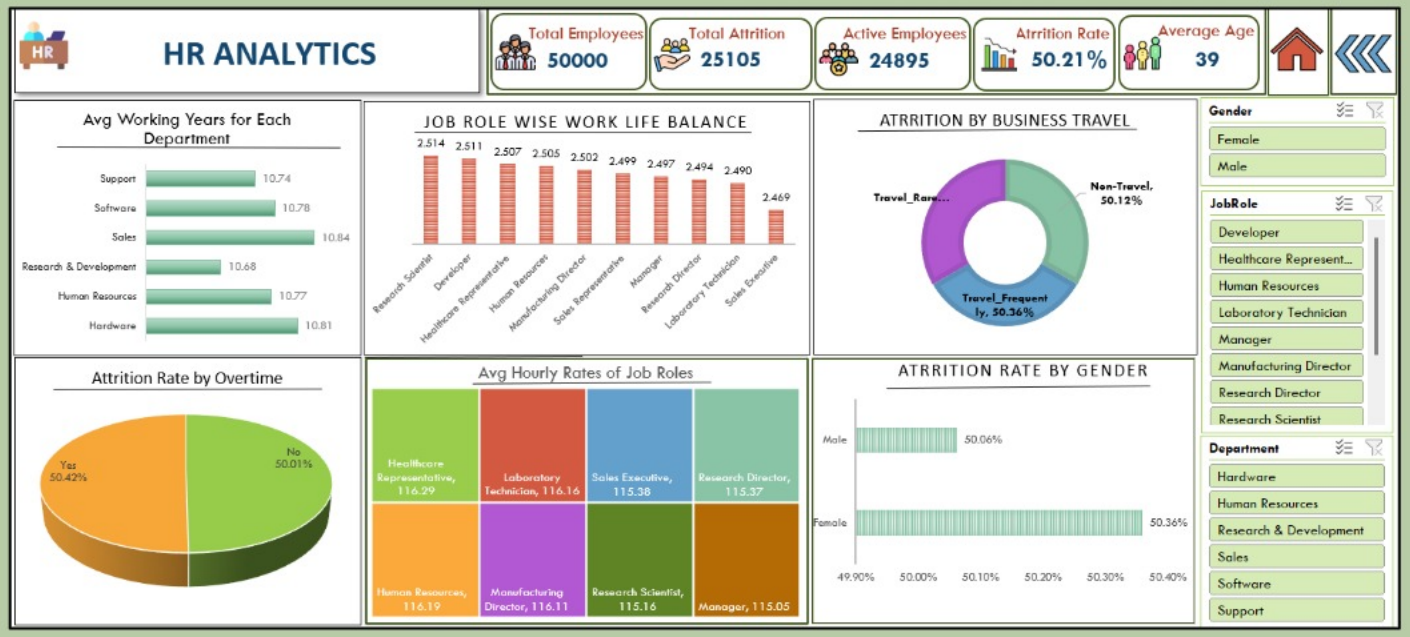


KPI 6: Attrition Rate vs Years since Last Promotion Relation

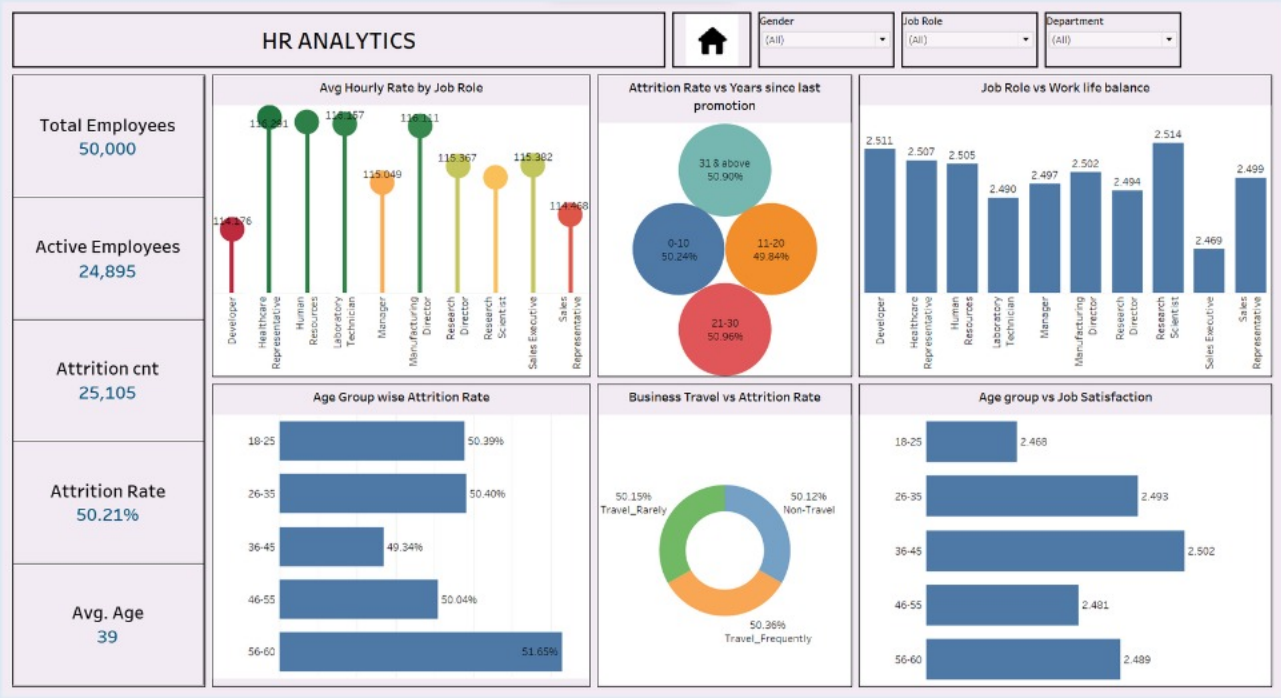
- Employees who has not been promoted since last 20 years have high attrition rate whereas employees who has been promoted in between 11-20 years have low attrition rate.
- Initiate career advancement programs for long-serving employees to mitigate attrition risk and boost job satisfaction.
- The data suggests a correlation between promotions and attrition rates. Implementing programs for long-serving employees to advance in their careers could positively impact retention and overall workforce satisfaction.

Excel

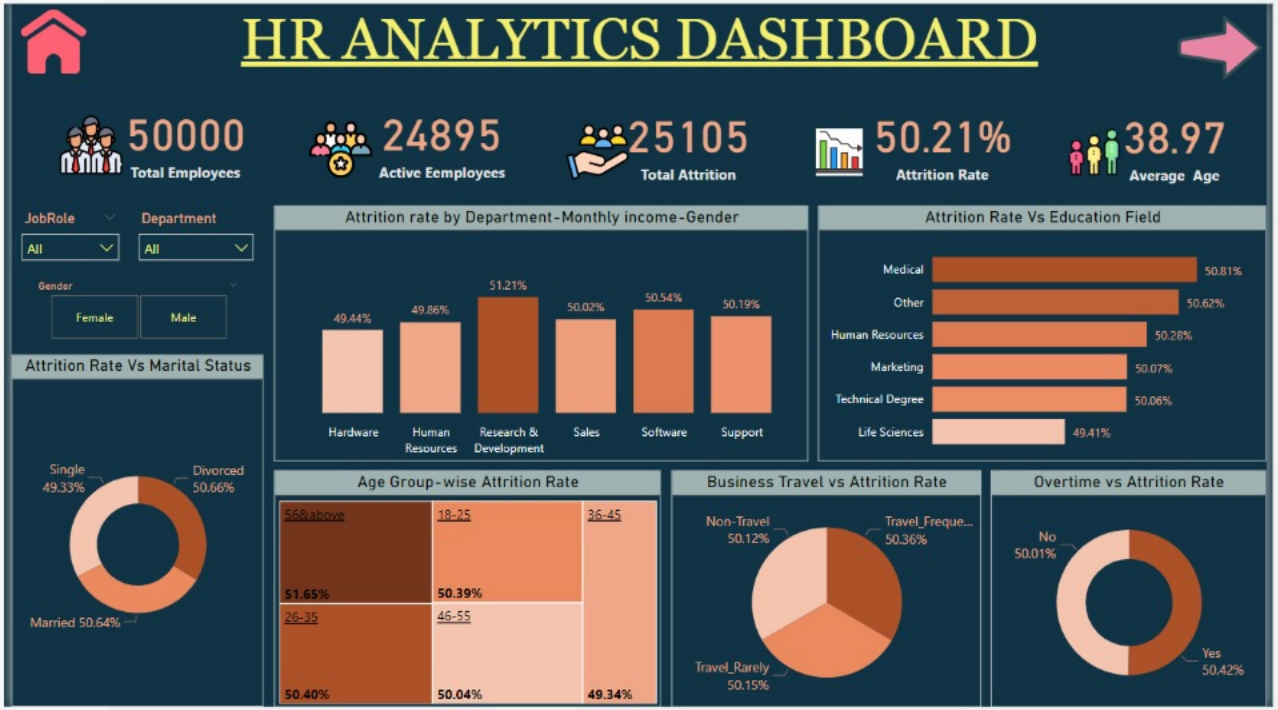

HR ANALYTICS
Total Employees 50000
Total Attrition 25105
Active Employees 24895
Attrition Rate 50.21%
Average Age 39
ATTRITION BY MARITAL STATUS
Single, 49.33%
Divorced, 50.66%
Married, 50.64%
Attrition Rate VS Monthly Income Stats
Average of MonthlyIncome
Average of Attrition Rate
Department wise Attrition Rate
51.21%
50.54%
50.19%
50.02%
49.86%
49.44%
Research & Development
Software
Support
Sales
Human Resources
Hardware
Gender
Female
Male
JobRole
Developer
Healthcare Representati...
Human Resources
Laboratory Technician
Manager
Manufacturing Director
Research Director
Research Scientist
Department
Hardware
Human Resources
Research & Development
Sales
Software
Support
Attrition Rate VS Year since Last Promotion
50.24%
49.84%
50.96%
50.90%
0-10
11-20
21-30
31-40
Attrition by Education Field
Life Sciences 49.41%
Technical Degree 50.06%
Marketing 50.07%
Human Resources 50.28%
Other 50.62%
Medical 50.81%
ATTRITION BY AGE GROUP
50.39%
50.40%
49.34%
50.04%
51.65%
18-25
26-35
36-45
46-55
56-60


HR ANALYTICS
Total Employees 50000
Total Attrition 25105
Active Employees 24895
Attrition Rate 50.21%
Average Age 39
Avg Working Years for Each Department
Support 10.74
Software 10.78
Sales 10.84
Research & Development 10.68
Human Resources 10.77
Hardware 10.81
JOB ROLE WISE WORK LIFE BALANCE
2.514
2.511
2.507
2.505
2.502
2.499
2.497
2.494
2.490
2.469
Research Scientist
Developer
Healthcare Representative
Human Resources
Manufacturing Director
Sales Representative
Manager
Research Director
Laboratory Technician
Sales Executive
ATRRITION BY BUSINESS TRAVEL
Travel_Rare...
Non-Travel, 50.12%
Travel_Frequently, 50.36%
Attrition Rate by Overtime
Yes 50.42%
No 50.01%
Avg Hourly Rates of Job Roles
Healthcare Representative, 116.29
Laboratory Technician, 116.16
Sales Executive, 115.38
Research Director, 115.37
Human Resources, 116.19
Manufacturing Director, 116.11
Research Scientist, 115.16
Manager, 115.05
ATRRITION RATE BY GENDER
Male 50.06%
Female 50.36%
49.90%
50.00%
50.10%
50.20%
50.30%
50.40%
Gender
Female
Male
JobRole
Developer
Healthcare Represent...
Human Resources
Laboratory Technician
Manager
Manufacturing Director
Research Director
Research Scientist
Department
Hardware
Human Resources
Research & Development
Sales
Software
Support

HR ANALYTICS
Gender
(All)
Job Role
(All)
Department
(All)
Total Employees
50,000
Active Employees
24,895
Attrition cnt
25,105
Attrition Rate
50.21%
Avg. Age
39
Attrition by Marital Status
Single
49.33%
Divorced
50.66%
Married
50.64%
Attrition Rate vs Monthly Income Stats
26,028.1
26,058.4
25,796.1
26,118.8
26,026.3
26,065.2
0.494
0.499
0.522
0.500
0.505
0.502
Hardware
HR
R & D
Sales
Software
Support
Departmentwise Attrition Rate
R & D
51.21%
Software
50.54%
Support
50.19%
Sales
50.02%
HR
49.86%
Hardware
49.44%
Education Field wise Attrition Rate
50.81%
50.62%
50.28%
50.07%
50.06%
49.41%
Medical
Other
Human Resources
Marketing
Technical Degree
Life Sciences
Average Working Years for each Department
10.815
10.770
10.681
10.844
10.775
10.741
Hardware
HR
R & D
Sales
Software
Support
Overtime vs Attrition Rate
50.01%
No
50.42%
Yes


HR ANALYTICS
Gender
(All)
Job Role
(All)
Department
(All)
Total Employees
50,000
Active Employees
24,895
Attrition cnt
25,105
Attrition Rate
50.21%
Avg. Age
39
Avg Hourly Rate by Job Role
115,049
115,367
115,382
Developer
Healthcare Representative
Human Resources
Laboratory Technician
Manager
Manufacturing Director
Research Director
Research Scientist
Sales Executive
Sales Representative
Attrition Rate vs Years since last promotion
31 & above
50.90%
0-10
50.24%
11-20
49.84%
21-30
50.96%
Job Role vs Work life balance
2.511
2.507
2.505
2.490
2.497
2.502
2.494
2.514
2.469
2.499
Developer
Healthcare Representative
Human Resources
Laboratory Technician
Manager
Manufacturing Director
Research Director
Research Scientist
Sales Executive
Sales Representative
Age Group wise Attrition Rate
18-25
50.39%
26-35
50.40%
36-45
49.34%
46-55
50.04%
56-60
51.65%
Business Travel vs Attrition Rate
50.15%
Travel_Rarely
50.12%
Non-Travel
50.26%
Travel_Frequently
Age group vs Job Satisfaction
18-25
2.468
26-35
2.493
36-45
2.502
46-55
2.481
56-60
2.489

Power BI


HR ANALYTICS DASHBOARD
50000
Total Employees
24895
Active Eemployees
25105
Total Attrition
50.21%
Attrition Rate
38.97
Average Age
JobRole
All
Department
All
Gender
Female
Male
Attrition rate by Department-Monthly income-Gender
49.44%
49.86%
51.21%
50.02%
50.54%
50.19%
Hardware
Human Resources
Research & Development
Sales
Software
Support
Attrition Rate Vs Education Field
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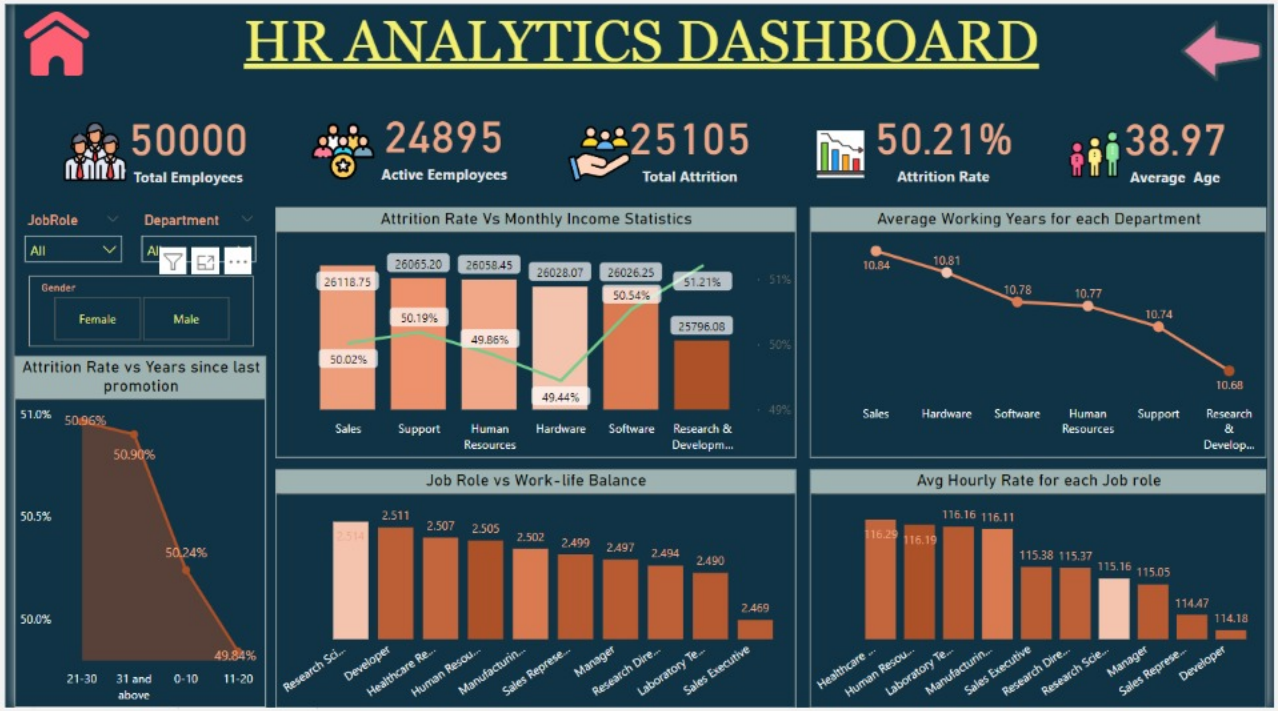
Married 50.64%
Age Group-wise Attrition Rate
56&above 51.65%
18-25 50.39%
36-45 49.34%
26-35 50.40%
46-55 50.04%
Business Travel vs Attrition Rate
Non-Travel 50.12%
Travel_Freque... 50.36%
Travel_Rarely 50.15%
Overtime vs Attrition Rate
No 50.01%
Yes 50.42%


HR ANALYTICS DASHBOARD
50000
Total Employees
24895
Active Eemployees
25105
Total Attrition
50.21%
Attrition Rate
38.97
Average Age
JobRole
All
Department
All
Gender
Female
Male
Attrition Rate Vs Monthly Income Statistics
26118.75
26065.20
26058.45
26028.07
26026.25
25796.08
50.02%
50.19%
49.86%
49.44%
50.54%
51.21%
Sales
Support
Human Resources
Hardware
Software
Research & Developm...
Average Working Years for each Department
10.84
10.81
10.78
10.77
10.74
10.68
Sales
Hardware
Software
Human Resources
Support
Research & Develop...
Attrition Rate vs Years since last promotion
51.0%
50.5%
50.0%
50.96%
50.90%
50.24%
49.84%
21-30
31 and above
0-10
11-20
Job Role vs Work-life Balance
2.511
2.507
2.505
2.502
2.499
2.497
2.494
2.490
2.469
Research Sci...
Developer
Healthcare Re...
Human Resou...
Manufacturin...
Sales Represe...
Manager
Research Dire...
Laboratory Te...
Sales Executive
Avg Hourly Rate for each Job role
116.29
116.19
116.16
116.11
115.38
115.37
115.16
115.05
114.47
114.18
Healthcare ...
Human Resou...
Laboratory Te...
Manufacturin...
Sales Executive
Research Dire...
Research Scie...
Manager
Sales Represe...
Developer

```sql
use p296;
# HR_ANALYTICS-EMPLOYEE RETENTION

#-----------------------------------#

# CARDS BY USING VIEWS

# 1.TOTAL NUMBER OF EMPLOYEES

create view `Total no of Employees` as
select count(EmployeeNumber)as `No of Employees`  from p296.hr_1_csv ;

select * from `Total no of Employees`;



# 2.ATTRITION COUNT

create view Attrition_count as select
count(case when Attrition = "yes" then 1 end) as Attrition_count
from p296.hr_1_csv;

select * from Attrition_count;

# 3.ATTRITION RATE

create view Attrition_rate as
select
 concat(round((count(case when Attrition = "yes" then 1 end)/count(*))*100,2),'%') as avg_attrition_rate
from p296.hr_1_csv;
```

Conclusion

- ✓ Strategic Decision Insights: The analysis of KPIs provides valuable insights guiding strategic HR decisions.
- ✓ Foundation for Targeted Initiatives: Understanding attrition rates, hourly rates, and promotion timelines establishes a basis for implementing targeted HR initiatives.
- ✓ Impact of Job Roles on Work-Life Balance: Recognizing the influence of job roles on work-life balance highlights the need for tailored policies.
- ✓ Tenure Dynamics Awareness: Acknowledging the varying tenure dynamics in each department allows for more effective workforce planning.
- ✓ Engagement and Stability Enhancement: The gathered insights aim to foster a more engaged and stable workforce through informed HR policies.

THANK YOU!