

HR Analytics

Using Power BI


By: Modita





Project Initiation and Vision

The project commenced with a vision to discover the potential of HR analytics, aimed at empowering HR professionals with actionable insights for smart decision-making. I focused on using Power BI, to streamline HR operations and improve how we manage our workforce.



Data Gathering and Preparation

The journey commenced with meticulous data gathering and preparation. Drawing from sample data provided in Excel format, I diligently imported and connected datasets within Power BI Desktop. Subsequent steps involved rigorous data cleansing and transformation, including the removal of irrelevant columns, deduplication, and data type refinement. Through these foundational steps, the data was primed for insightful analysis.

Visualization and Reporting

With the data refined and organized, I delved into the realm of visualization and reporting. Drawing upon a comprehensive suite of visualization techniques, I crafted dynamic dashboards brimming with actionable insights.

Attrition Report: This comprehensive dashboard provided a 360-degree view of attrition analysis, encompassing key KPIs such as attrition rate, average tenure, and workforce demographics.

Attrition by Education Donut Chart: This visualization offered a breakdown of attrition based on educational background, shedding light on trends and patterns within the workforce.

- Life Sciences accounted for 41.22% of Count of Attrition.

Attrition by Age Column Chart: This visualization offered insights into attrition trends across different age groups, facilitating targeted retention strategies.

- This column chart accounts for Sum of Attrition Count based on their age group
- At 116, 26-35 had the highest Sum of Attrition Count. 26-35 accounted for 48.95% of Sum of Attrition Count.
- Across all 5 Age Group, Sum of Attrition Count ranged from 8 to 116.

Attrition by Years at Company Line Chart: By examining attrition rates relative to employee tenure, I identified opportunities to enhance organizational loyalty and retention efforts.

- Employees with 1 year experience had the highest sum of Attrition Count of 59.
- Employees with more than 10 Year experience at company had the least amount of Attrition Count i.e. 2

Attrition by Salary Column Chart: Analyzing attrition rates in conjunction with salary bands facilitated the identification of potential discrepancies and informed compensation strategies.

- The sum of Attrition Count is maximum for the people who have salary upto 5k.

Attrition by Job Role: This visualization shed light on attrition dynamics within different job roles, guiding departmental interventions for improved retention.

- Laboratory Technician had the highest Sum of Attrition Count of 62 and Sales Representative, which had the lowest Sum of Attrition Count of 33 .

Job Satisfaction Matrix: By assessing job satisfaction levels across various roles, I identified areas for improvement and tailored initiatives to enhance employee engagement.

- It simplifies that Laboratory Technician job employees were most unsatisfied with their work as they have highest number of 1 star rating

HR ANALYTICS DASHBOARD

Human Resources

Research & Development

Sales

Count of
Employee

1470

Attrition

237

Attrition Rate

16.1%

Avg Age

37

Avg Salary

6.5K

Avg Years

7.0

Attrition by Gender

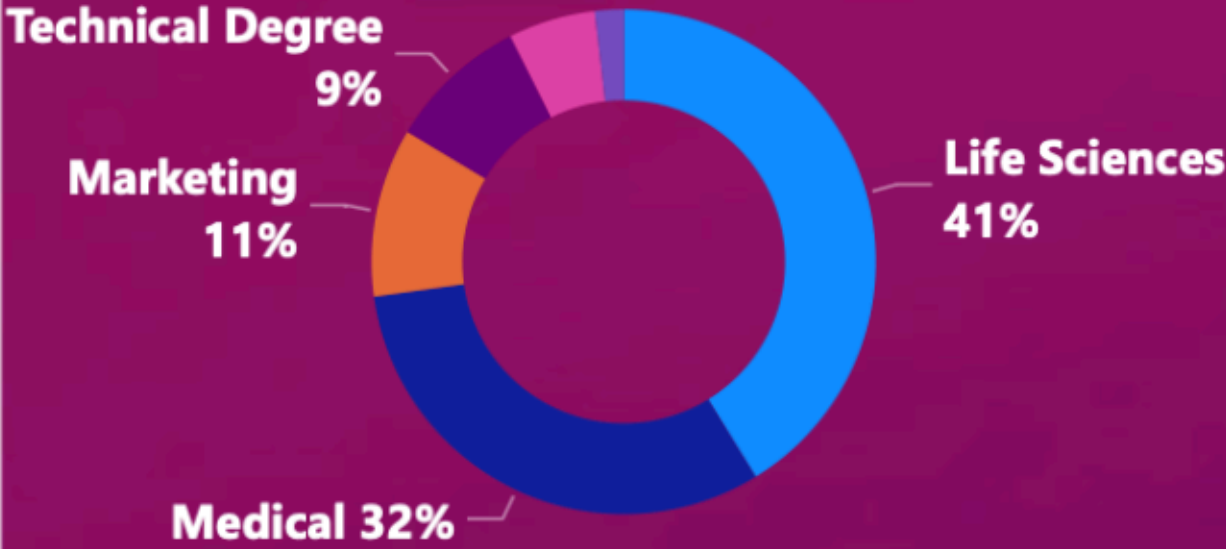
Male

140

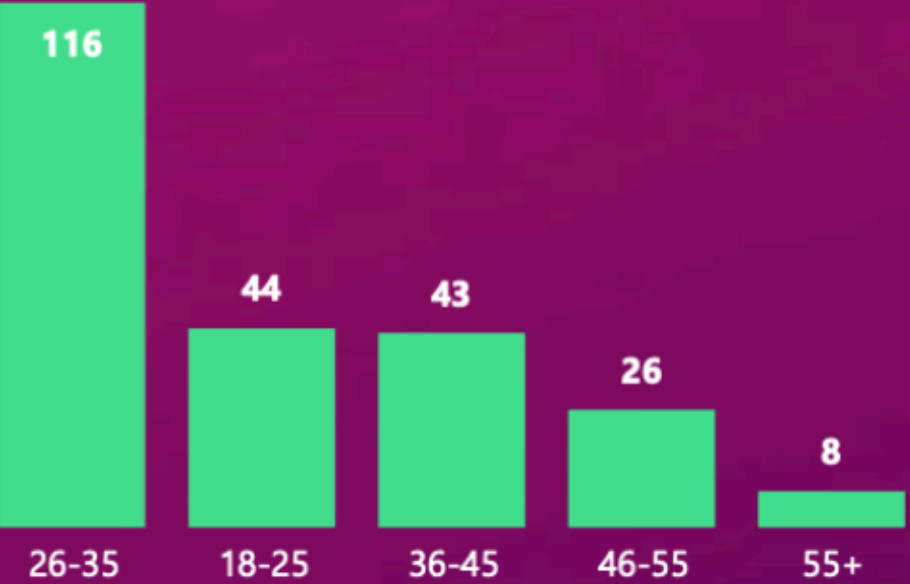
Female

79

Attrition by EducationField



Attrition by Age



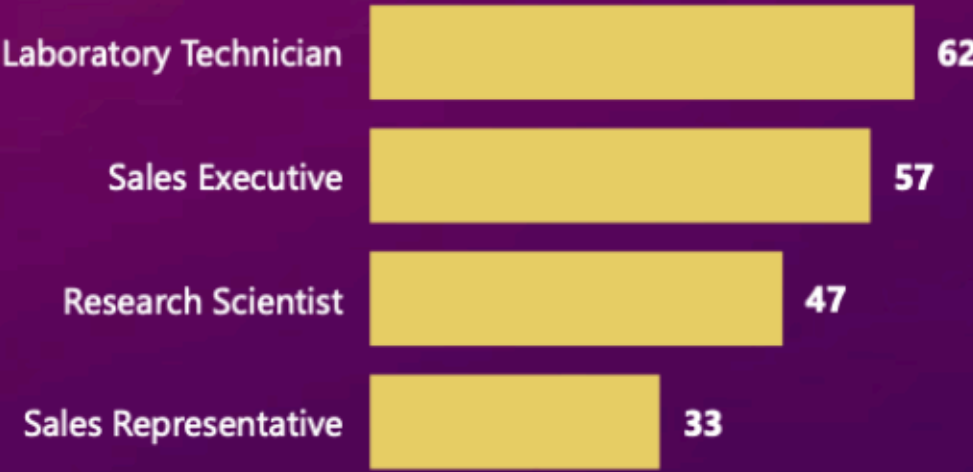
Job Satisfaction

JobRole	1	2	3	4	Total
Healthcare Representative	2	2	1	4	9
Human Resources	5	2	3	2	12
Laboratory Technician	20	8	21	13	62
Manager	1	2	1	1	5
Manufacturing Director	2	2	4	2	10
Research Director	0	1	1	0	2
Research Scientist	13	10	15	9	47
Sales Executive	16	9	18	14	57
Sales Representative	7	10	9	7	33
Total	66	46	73	52	237

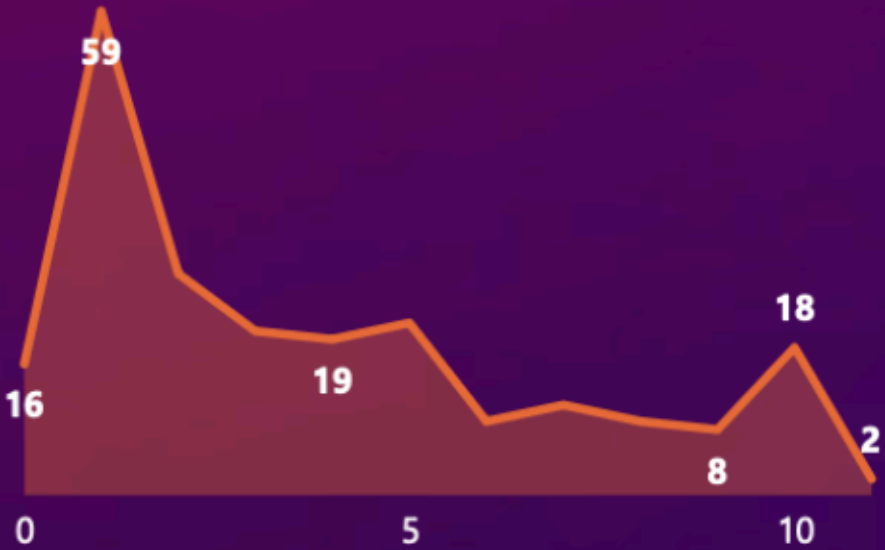
Attrition by Salary



Attrition by Job Role



Attrition by Years at company





Project Impact and Takeaways

Enhanced Talent Retention: Insights gleaned from attrition analytics empowered HR professionals to devise targeted retention strategies, fostering workforce stability and continuity.

Optimized Hiring Practices: Data-driven insights informed the refinement of hiring practices, ensuring the acquisition of talent aligned with organizational objectives and values.

Employee Empowerment and Satisfaction: Addressing underlying issues identified through analytics nurtured an environment conducive to employee growth and satisfaction, nurturing a culture of continuous improvement and innovation.

Establishment of Trust and Transparency: The transparent dissemination of insights fostered trust and confidence among employees, nurturing a culture of openness and collaboration within the organization.


Conclusion


In summary, this project showcases how data analytics can transform organizations and promote a culture of informed decision-making. By utilizing tools such as Power BI and applying insights to guide strategic actions, companies can strengthen their competitive advantage, enhance workforce management practices, and pave the way for sustained success in the digital age.





Thank you



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