HR ANALYTICS REPORT

Data Literacy with Tableau

Team ID
NM2023TMID13500

Members
VENUGOPAL
NAVEENKUMAR
DHAMOOTHARAN
SIVADHANUSU

Project Title
HR ANALYTICS WITH TABLEAU

Paper Title
DATA LITERACY WITH TABLEAU

Details
III YEAR,
B.Sc., MATHEMATICS
PG & RESEARCH DEPARTMENT OF MATHEMATICS,
GOVERNMENT ARTS COLLEGE,
TIRUVANNAMALAI

University affliated
THIRUVALLUVAR UNIVERSITY, VELLORE

We have used Mural for defining our problem and then aided this with Tableau application for proposing solutions on the predefined data set available.

The Tableau HR Scorecard is a framework designed to measure and evaluate the success of talent management strategies within an organization. It provides a way for HR professionals and business leaders to track and analyze key performance indicators (KPIs) related to workforce planning, recruitment, retention, and development.

We have used Tableau for creating different visualization so as to analysis easier. This includes pie chart, donut chart, lollipop chart, bar graphs and tabulations.

Different visualizations

1. **KPI**
2. **Department wise Attrition**
3. **No. of employees by Age Group**
4. **Job Satisfaction Rating**
5. **Education Field wise Attrition**

1.2 Purpose

Human Resource (HR) analysis is a data-driven approach to measure and improve the performance, engagement, and productivity of an organization's workforce. HR analysis involves the collection and analysis of employee or human resource data, also known as HR metrics. The data collected can be used to make personnel decisions, restructure company policies, and make more data-driven decisions for the company.

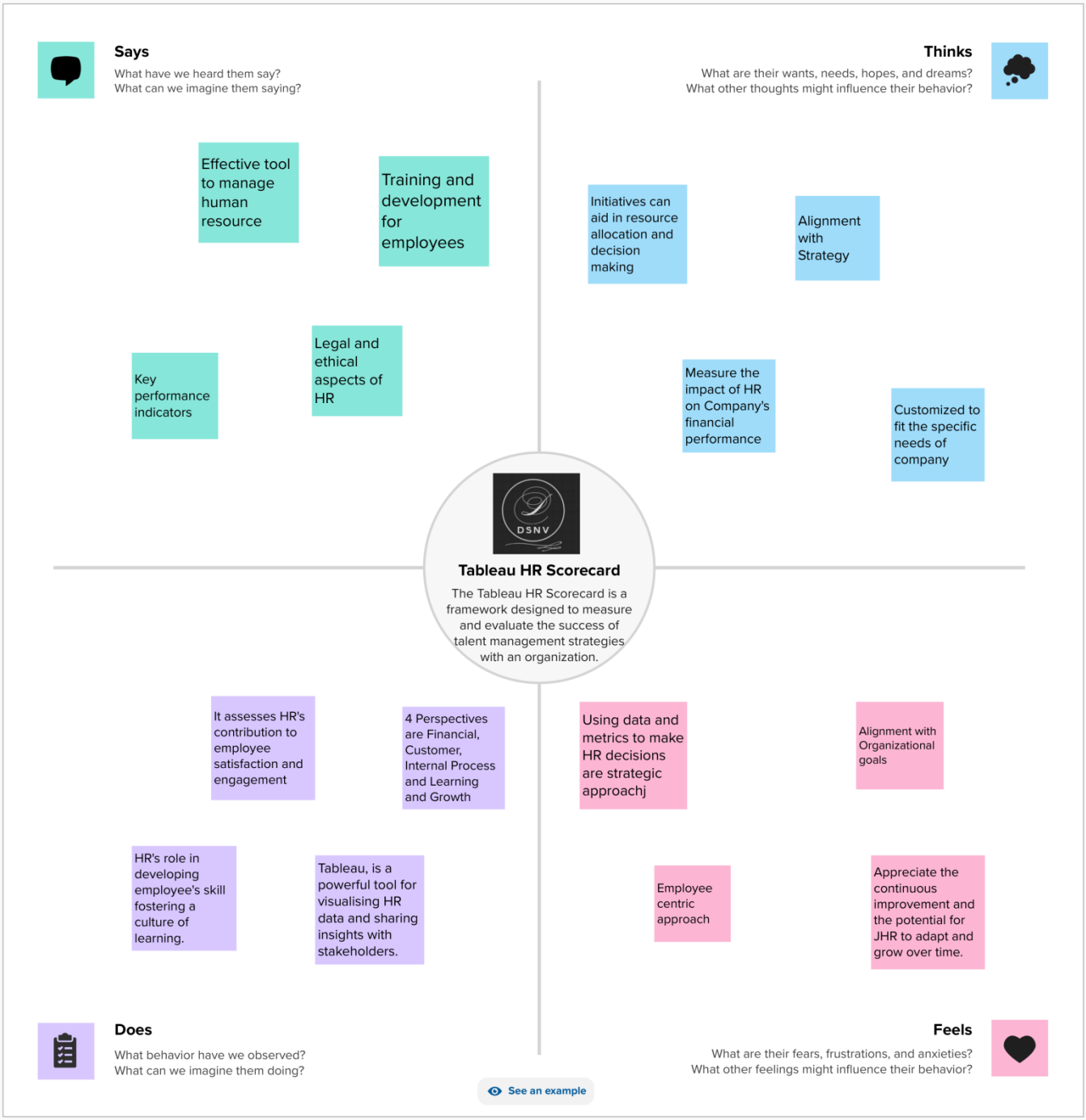
The importance of HR analysis lies in its ability to provide insights so that HR leaders can make better decisions and improve human resource management. HR metrics are essential for improving HR practices. By using analytics, businesses can improve even one variable, which can trigger a chain reaction of benefits. The benefit of using metrics is that the decisions are better-informed and backed by facts—rather than hunches—and thus make key people decisions far more 'sellable' to the business.

HR analytics came to be in the hopes that businesses could improve internal processes that relate to functions such as payroll, benefits, hiring, employee onboarding, employee performance, and overall employee morale. It is the best way to use data to forge an understanding of how well a business is performing. Businesses track HR metrics to measure and improve performance, engagement, and productivity. Small business HR teams can track metrics for all workforce processes. This includes hiring, pay, time and labor, training, engagement, and retention. Common HR metrics include time-to-hire, cost-per-hire, time-to-productivity,

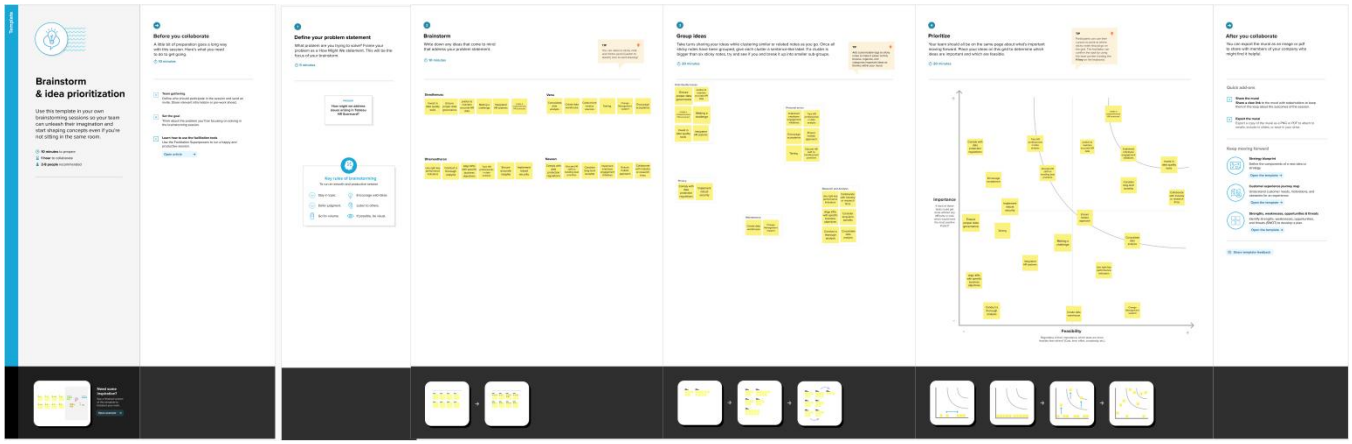
and employee turnover rate, absenteeism or absence rate, and overtime ratio, revenue per employee, diversity and inclusion

2 - Problem Definition & Design Thinking

2.1 Empathy Map

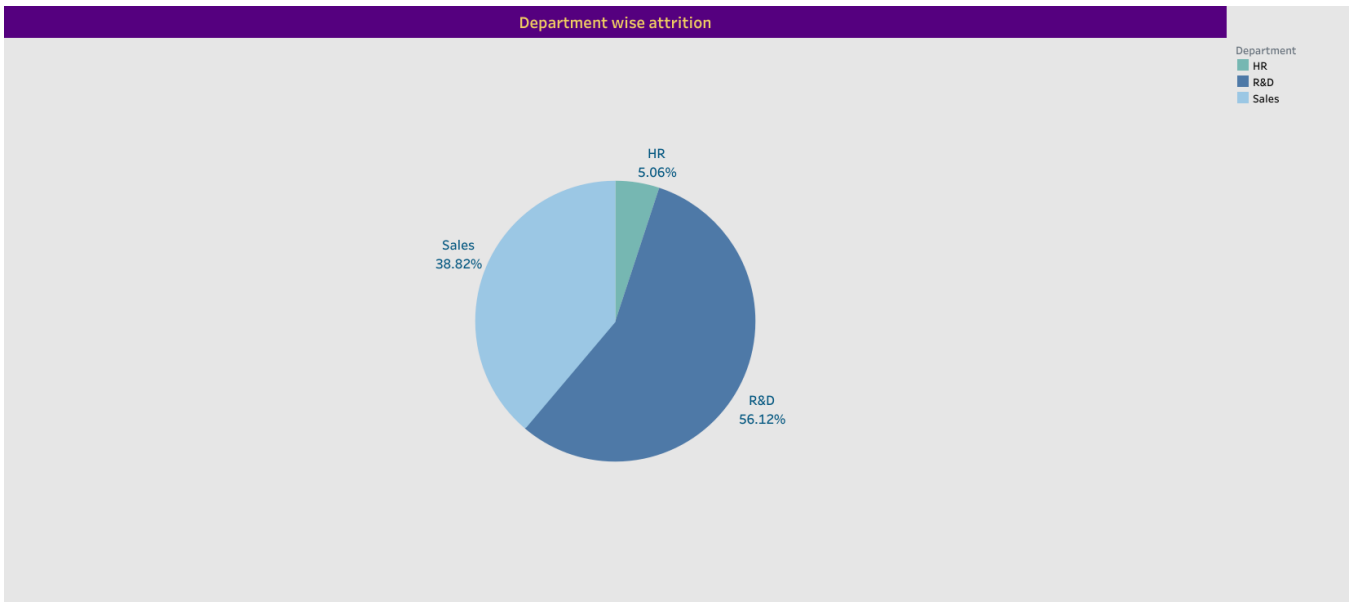


2.2 Ideation and Brainstorming map

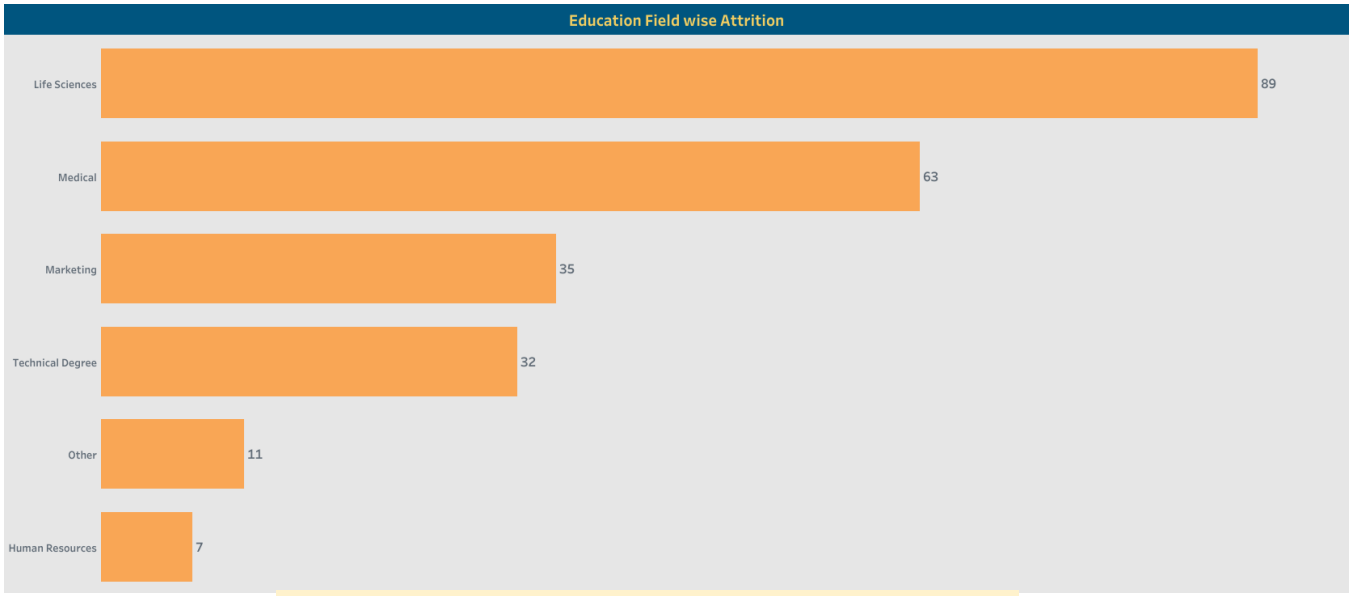


3 – Result

HR analytics is the process of collecting and analyzing Human Resource (HR) data in order to improve an organization's workforce performance. The process can also be referred to as talent analytics, people analytics, or even workforce analytics. This method of data analysis takes data that is routinely collected by HR and correlates it to HR and organizational objectives. Doing so provides measured evidence of how HR initiatives are contributing to the organization's goals and strategies.



DEPARTMENT WISE ATTRITION



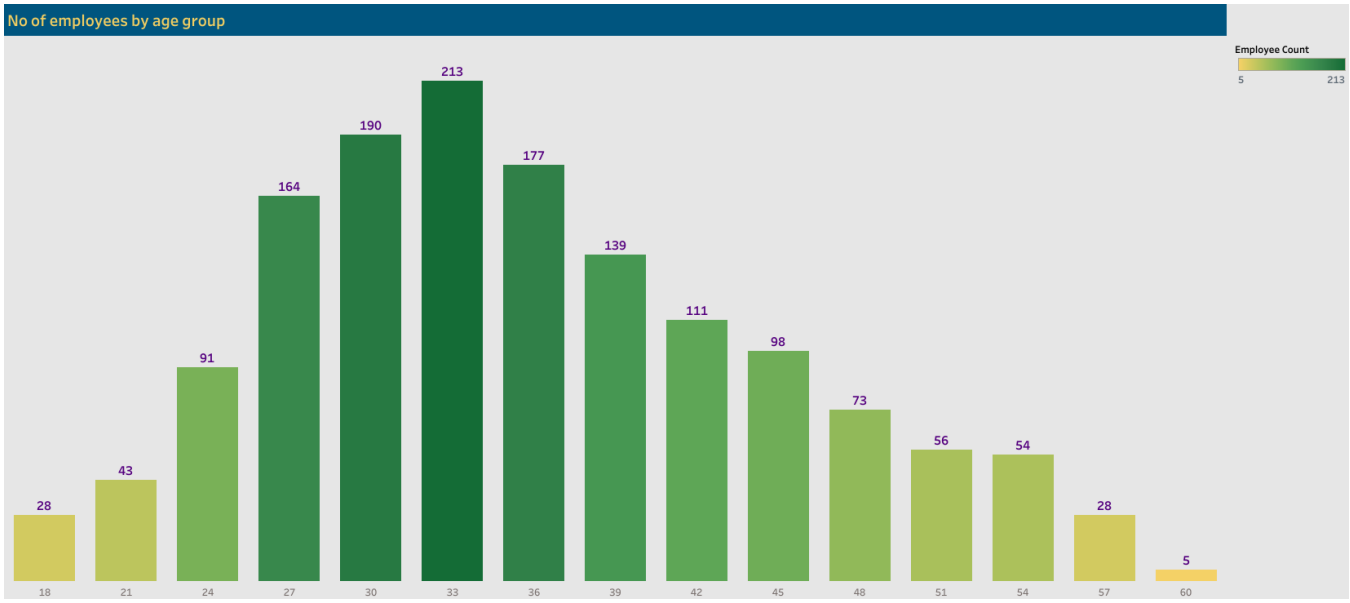
EDUCATION FIELD WISE ATTRITION

Job Satisfaction Rating

Job Role	Job Satisfaction 1	2	3	4	Grand Total
Healthcare Representative	26	19	43	43	131
Human Resources	10	16	13	13	52
Laboratory Technician	56	48	75	80	259
Manager	21	21	27	33	102
Manufacturing Director	26	32	49	38	145
Research Director	15	16	27	22	80
Research Scientist	54	53	90	95	292
Sales Executive	69	54	91	112	326
Sales Representative	12	21	27	23	83
Grand Total	289	280	442	459	1,470

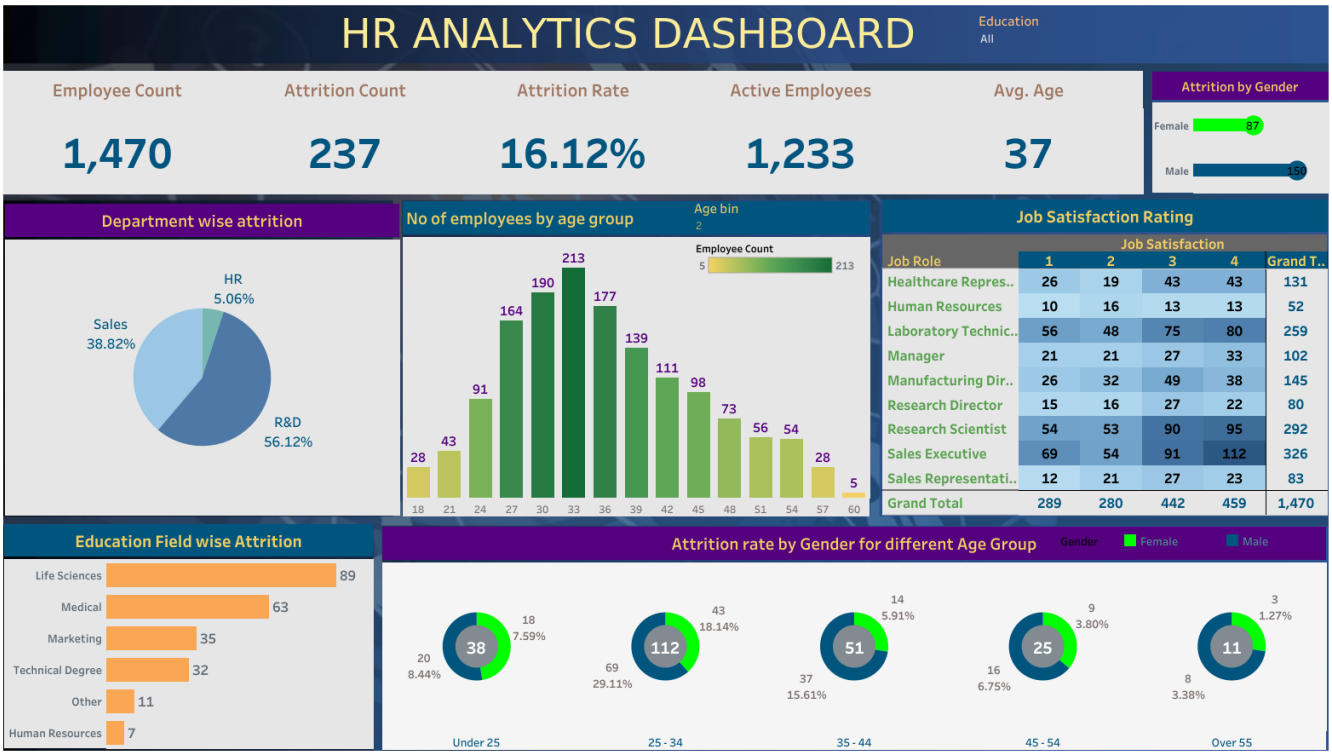
Employee Count
10 112

JOB SATISFACTION RATING



NUMBER OF EMPLOYEES BY AGE GROUP

For example, if a software engineering firm has high employee turnover, the company is not operating at a fully productive level. It takes time and investment to bring employees up to a fully productive level. HR analytics provides data-backed insight on what is working well and what is not so that organizations can make improvements and plan more effectively for the future. As in the example above, knowing the cause of the firm's high turnover can provide valuable insight into how it might be reduced. By reducing the turnover, the company can increase its revenue and productivity.

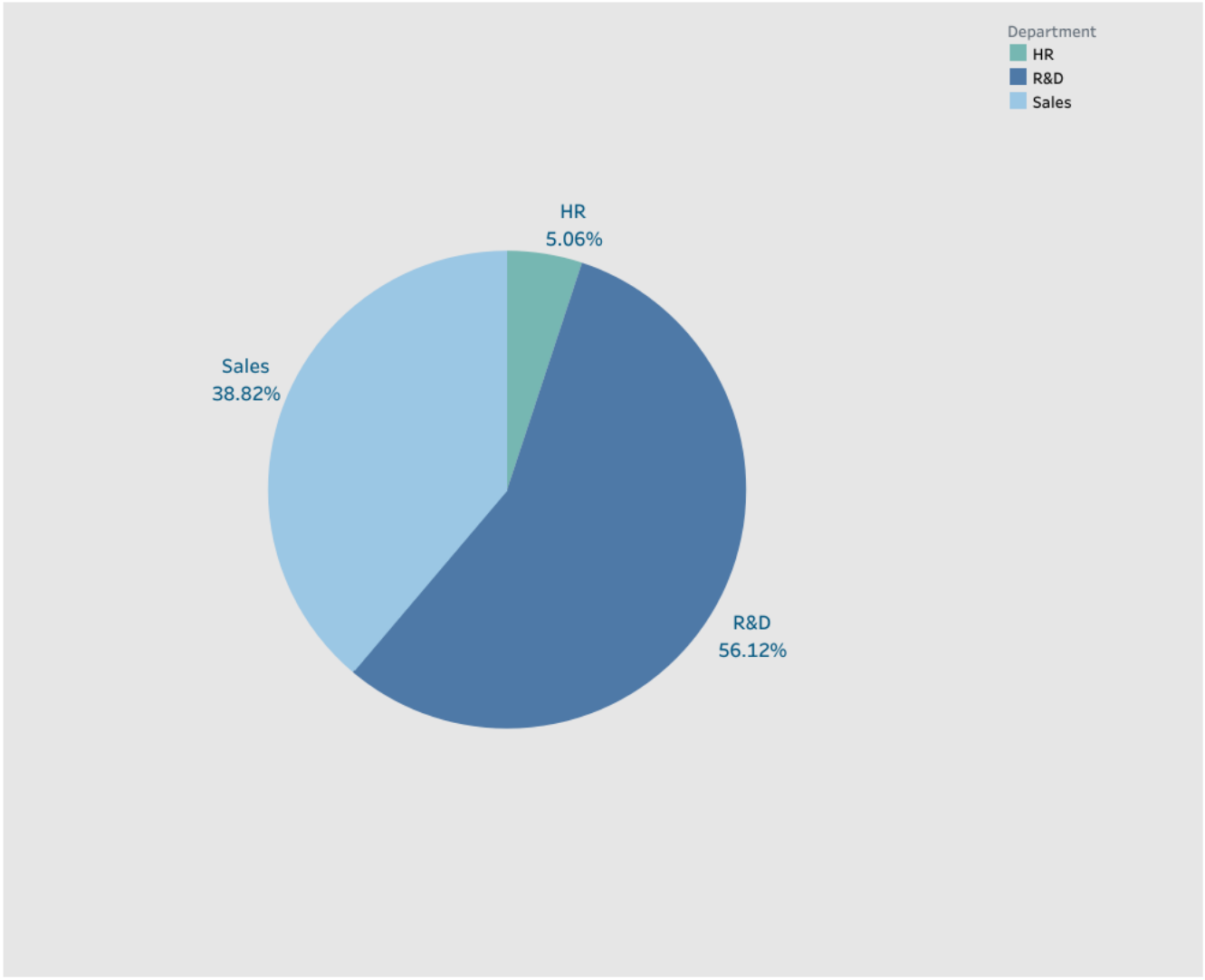


HR ANALYTICS DASHBOARD

HR metrics are essential for improving HR practices. By using analytics, businesses can improve even one variable, which can trigger a chain reaction of benefits. Common HR metrics include time-to-hire, cost-per-hire, time-to-productivity, and employee turnover rate, absenteeism or absence rate, and overtime ratio, revenue per employee, diversity and inclusion.

HR Analytics StoryLine

From this department wise attrition chart, i..	From the representation of em..	112 employees from Sales executive role r..	89 employees are from LIfe Sciences backgro..	112 employees in 25-34 age group are a..



From this department wise attrition chart, it is clear that Research and Development i.e., R&D has higher rate of about 56.12%.

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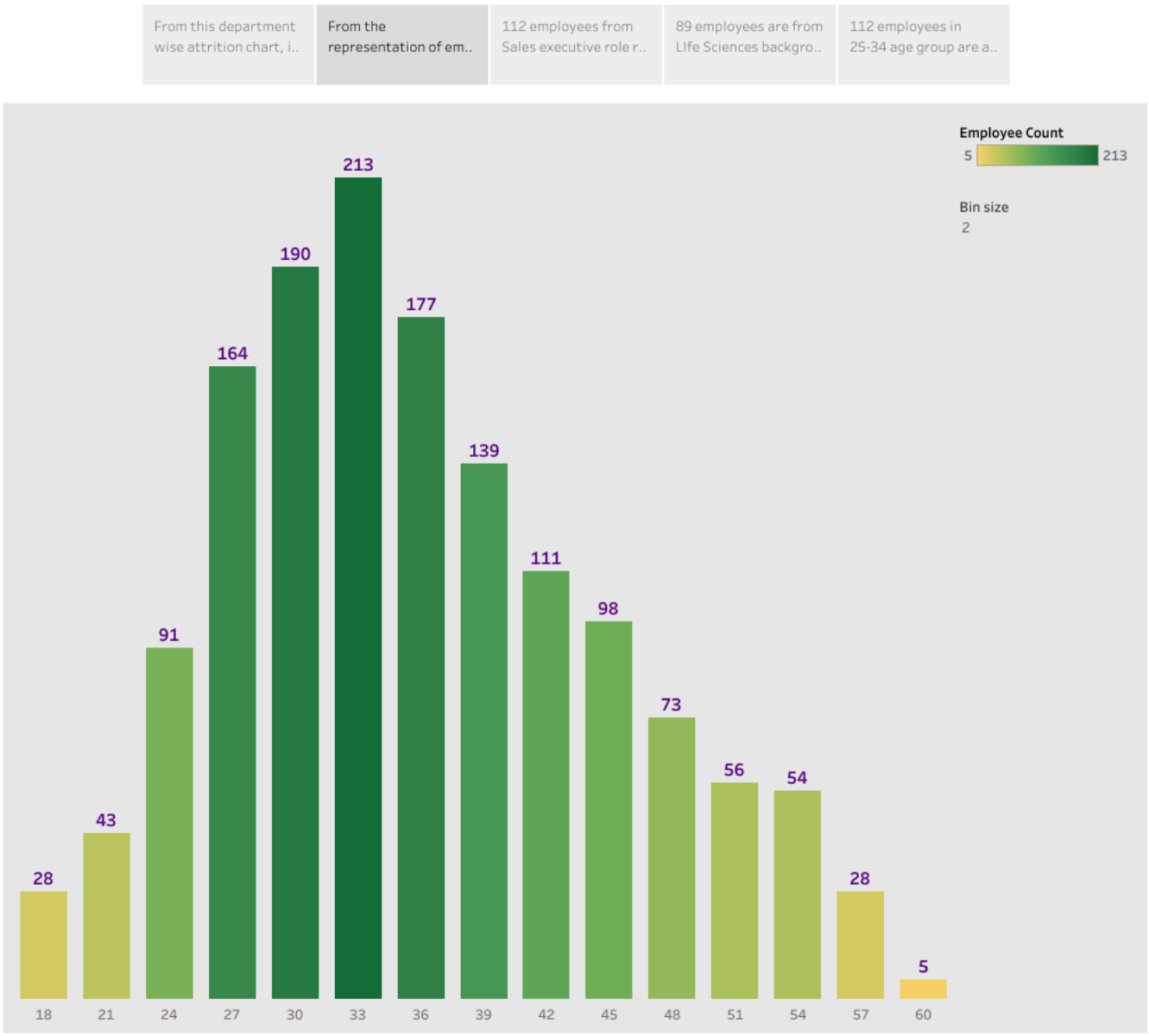

From the representation of employees by age group, maximum is at the age of 32-34 of about 213 and least is 60 years and 5 employees is at the band.

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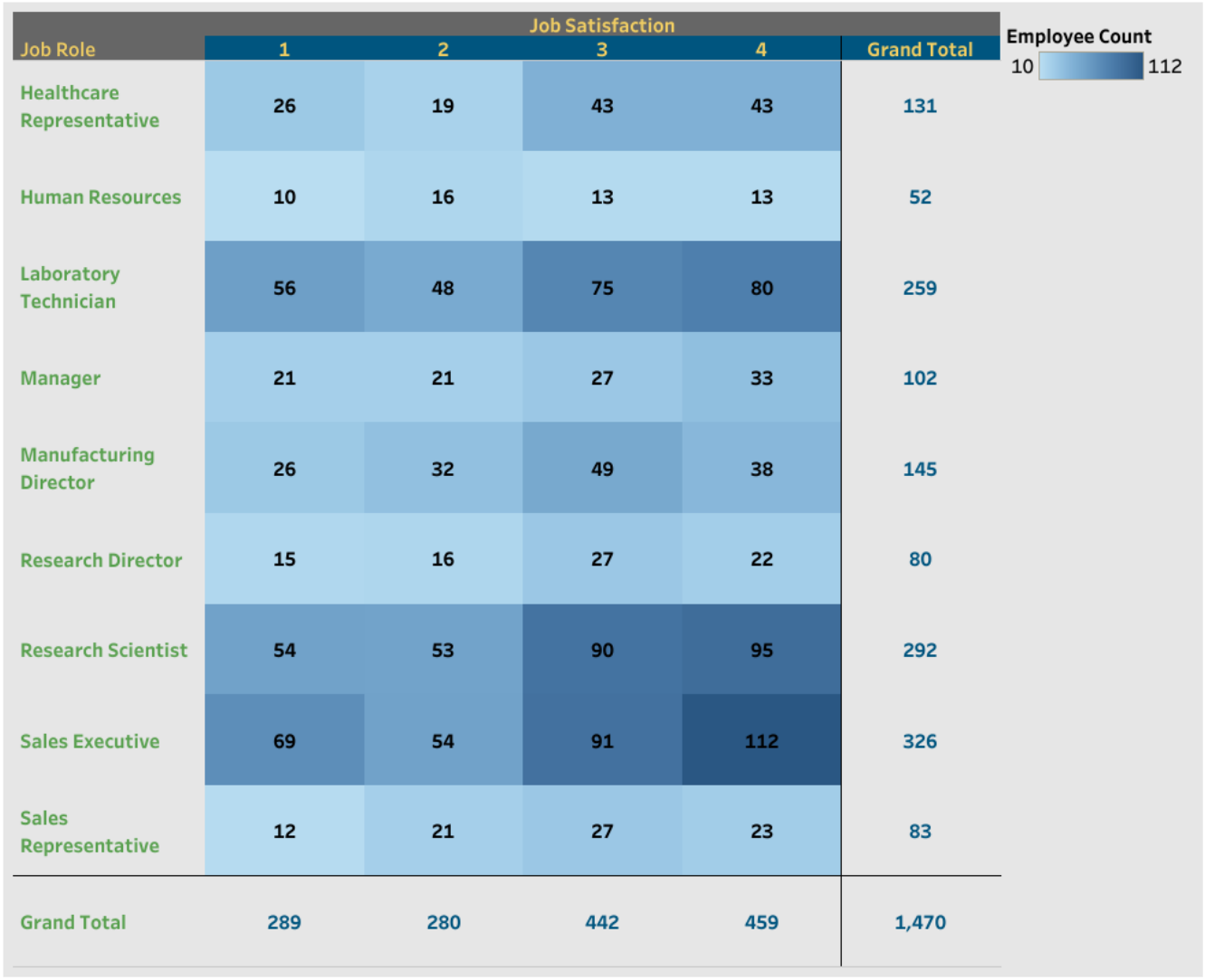

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112 employees from Sales executive role rated 4 by their job satisfaction, 80 LaboratoryTechnicians follow the list while 69 Sales executive rate 1 for job satisfaction.

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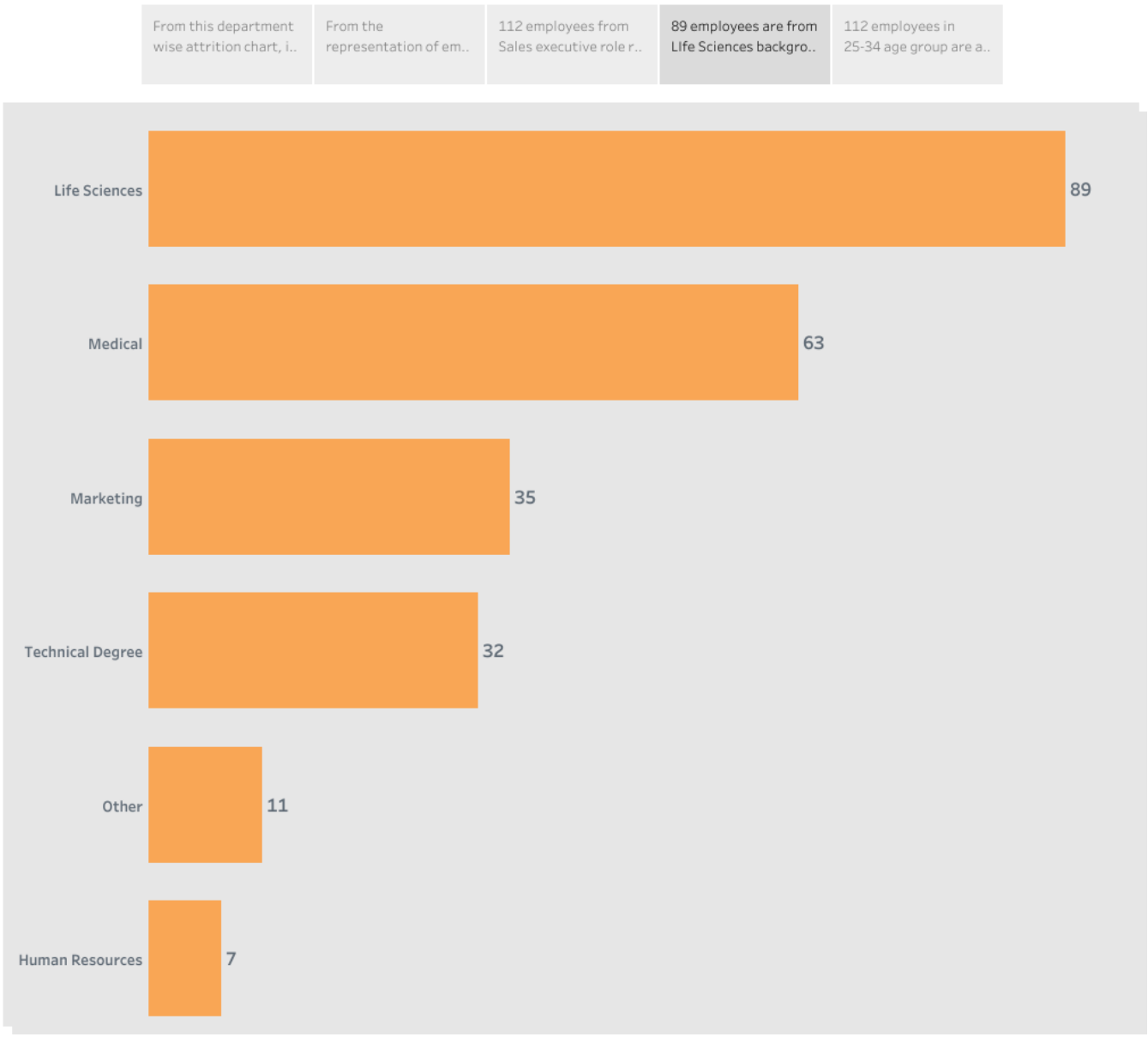
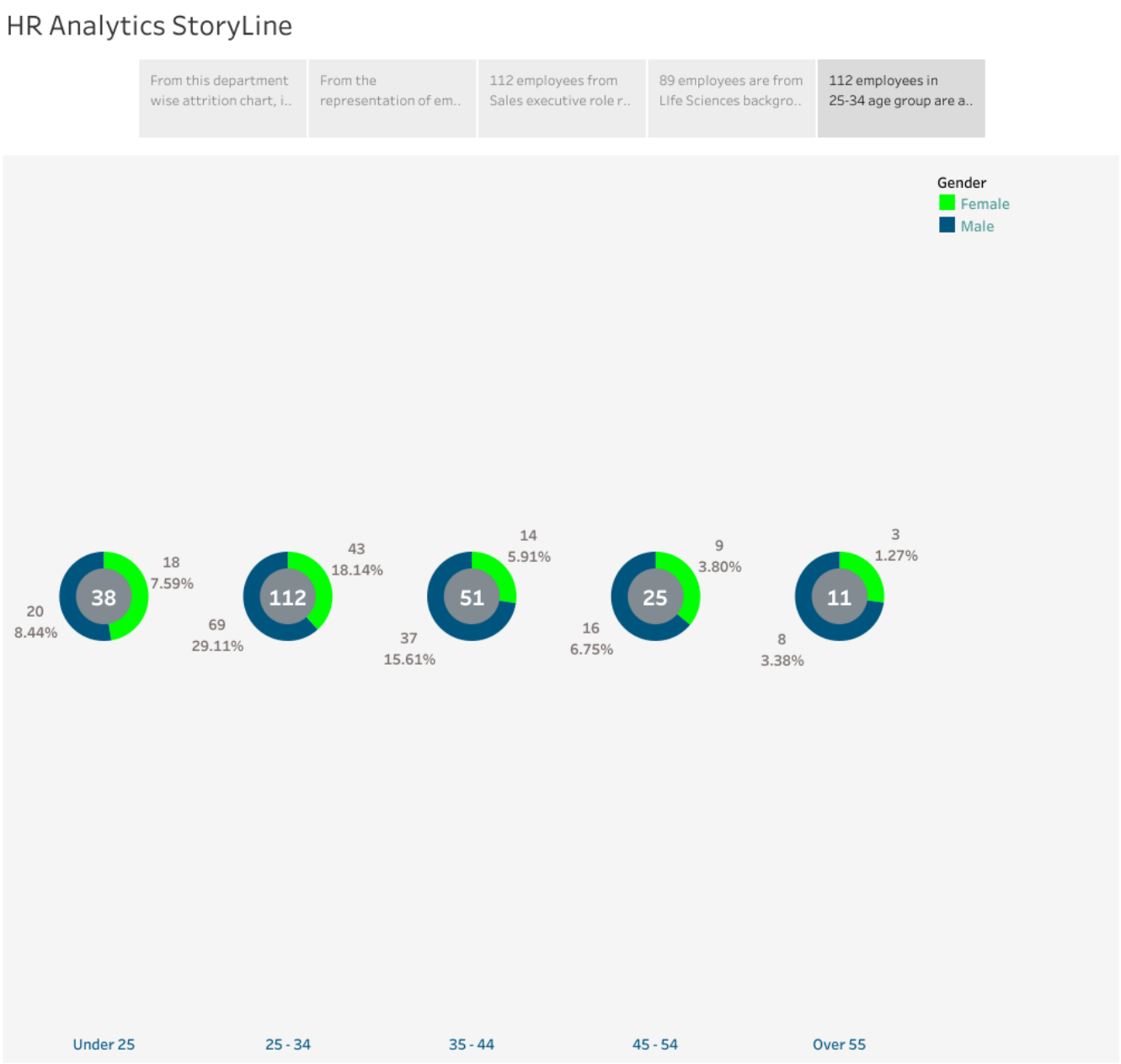


89 employees are from LIfe Sciences background, Medical science scores second with 63 employees while 7 are from Human Resource background.



112 employees in 25-34 age groups are attrited.

Design thinking is a problem-solving approach that involves empathizing with users to understand their needs, defining the problem statement, ideating solutions, prototyping solutions, and testing them with users. In the context of HR analysis, design thinking can be used to identify problems in HR practices by empathizing with employees and understanding their needs. Once

the problem statement is defined, ideation can begin on how to solve it. Prototyping solutions can help test out different ideas before implementing them in the organization

4 – Advantages and Disadvantages

HR analytics provides several benefits to businesses. Here are some of the advantages of HR analytics:

1. Practicing evidence-based HR: Evidence-based HR centers on making decisions supported by evidence from internal data, research findings and studies, expert judgment, real-life experience, values, and concerns. This approach enables HR professionals to base HR decisions on facts and evidence rather than relying solely on a gut feeling.
2. Improving recruitment and talent acquisition: By tracking data such as time-to-hire and cost-per-hire, businesses can gain valuable insights into their hiring process and make improvements to boost efficiency.
3. Managing employee performance and productivity: HR analytics can help businesses identify areas where employees need improvement and provide targeted training to improve performance.
4. Helping build equitable compensation and benefits packages: By analyzing compensation data across the organization, businesses can ensure that their compensation packages are fair and equitable.
5. Enabling effective workforce planning: By analyzing workforce data such as turnover rates and employee demographics, businesses can plan for future workforce needs.

Here are some of the disadvantages of HR analytics:

1. Data privacy and security concerns: HR analytics involves handling sensitive employee data, which raises concerns about data privacy and security.
2. Reliance on data quality: The accuracy and reliability of HR analytics depend on the quality of the underlying data.
3. Potential for bias: HR analytics can be biased if the data used is not representative or if the algorithms used to analyze the data are biased.
4. Access to quality data: Access to quality data can be a problem for companies that do not have up-to-date systems.
5. Lack of analytical skills: Smaller HR teams may not always have the statistical and analytical skill set for working with large datasets.

5 – Applications

Here are some of the applications of HR analytics:

1. Recruitment and talent acquisition: HR analytics can help businesses identify the best sources for finding top talent and optimize their recruitment process.
2. Employee retention: By analyzing employee data such as turnover rates and exit interviews, businesses can identify the reasons why employees leave and take steps to improve retention.
3. Performance management: HR analytics can help businesses identify areas where employees need improvement and provide targeted training to improve performance.

4. Compensation management: By analyzing compensation data across the organization, businesses can ensure that their compensation packages are fair and equitable.
5. Workforce planning: By analyzing workforce data such as turnover rates and employee demographics, businesses can plan for future workforce needs.

6 – Conclusion

Some findings

1. From this department wise attrition chart, it is clear that Research and Development i.e., R&D has higher rate of about 56.12%.

2. From the representation of employees by age group, maximum is at the age of 32-34 of about 213 and least is 60 years and 5 employees is at the band.

3. 112 employees from Sales executive role rated 4 by their job satisfaction, 80 LaboratoryTechnicians follow the list while 69 Sales executive rate 1 for job satisfaction.

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5. 112 employees in 25-34 age groups are attrited.

7 – Future Scope

Here are some of the predictions for the future of HR analytics:

1. Increased use of AI and machine learning: The use of AI and machine learning in HR analytics is expected to increase, allowing businesses to make more accurate predictions and data-driven decisions.
2. Greater emphasis on employee experience: HR analytics will focus more on employee experience, including employee engagement, satisfaction, and well-being.
3. More emphasis on diversity and inclusion: HR analytics will play a more significant role in promoting diversity and inclusion in the workplace.
4. Greater use of predictive analytics: Predictive analytics will become more prevalent in HR analytics, allowing businesses to predict future trends and make data-driven decisions accordingly.
5. Increased focus on skills development: HR analytics will play a more significant role in identifying skills gaps and developing training programs to address them.

These are just a few examples of how HR analytics is expected to evolve in the future. As technology continues to advance, we can expect HR analytics to become even more sophisticated and data-driven.