

HR ANALYTICS REPORT

Data literacy with tableau

TEAM ID

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PROJECT TITTLE

HR ANALYTICS WITH TABLEAU

PAPER TITTLE

DATA LITERACY WITH TABLEAU

DETAILS

**III YEAR ,
B.SC. MATHEMATICS,
KALAINAR KARUNANIDHI GOVERNMENT ARTS
COLLEGE,
THIRUVANNAMLA.**

Introduction**1.1 overview**

Data literacy refers to the ability to read, understand, analyze, and communicate with data. It involves skills such as data visualization, data analysis, and data storytelling.

Tableau is a powerful data visualization tool that helps make data more accessible and understandable through interactive and visually appealing charts, graphs, and dashboards. With Tableau, you can explore and analyze data, uncover insights, and present your findings in a visually compelling way. It's a great tool for enhancing data literacy and effectively communicating data-driven stories.

Sure, here are a few more points about data literacy with Tableau:

1. **Data Exploration:** Tableau allows you to explore your data in a visual and interactive manner. You can easily filter, sort, and drill down into your data to uncover patterns, trends, and outliers.

2. Data Visualization: Tableau offers a wide range of visualization options, including bar charts, line graphs, scatter plots, maps, and more. You can choose the most appropriate visualization type to effectively communicate your data insights.

3. Dashboard Creation: With Tableau, you can create interactive dashboards that consolidate multiple visualizations into a single view. Dashboards provide a comprehensive overview of your data and allow users to interact with the data to gain deeper insights.

4. Data Collaboration: Tableau supports collaborative data analysis by allowing you to share your visualizations and dashboards with others. You can publish your work to Tableau Server or Tableau Public, making it accessible to colleagues, stakeholders, or the public.

5. Data Storytelling: Tableau enables you to tell compelling stories with your data. You can [8:46 pm, 15/10/2023] Nasrin: Different visualizations

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

Purpose:

Using data literacy with Tableau opens up a world of possibilities! Here are some things you can achieve:

1. Visualize Data: With Tableau, you can create stunning visualizations that bring your data to life. Whether it's charts, graphs, or maps, you can present your data in a way that's easy to understand and visually appealing.

2. Gain Insights: By analyzing your data in Tableau, you can uncover valuable insights and patterns. You can spot trends, identify outliers, and understand the story behind your data.

3. Make Informed Decisions: With data literacy and Tableau, you can make data-driven decisions. By exploring and analyzing your data, you can gain a deeper understanding of your business, customers, or any other area you're interested in.

4. Communicate Findings: Tableau helps you effectively communicate your data findings. You can create interactive dashboards and reports that allow others to explore the data on their own. It's a great way to share insights and collaborate with colleagues or stakeholders.

5. Optimize Performance: Tableau provides tools to optimize the performance of your data analysis. You can create calculations, apply filters, and use advanced features to get the most out of your data.

6. Identify Opportunities: By analyzing your data with Tableau, you can identify opportunities for growth, improvement, or cost savings. It helps you spot areas where you can make a positive impact.

7. Drive Data Culture: Tableau promotes a data-driven culture within organizations. It encourages everyone to engage with data, ask questions, and make decisions based on evidence.

8. Data Exploration: With Tableau, you can easily explore your data from different angles and dimensions. You can slice and dice your data to uncover hidden patterns and relationships.

9. Data Storytelling: Tableau allows you to create compelling data stories. You can combine visualizations, annotations, and narratives to create a narrative that engages your audience and helps them understand the insights you've discovered.

10. Collaborative Analysis: Tableau supports collaborative analysis, allowing multiple users to work on the same dataset simultaneously. It promotes teamwork and knowledge sharing, leading to more comprehensive analysis and better decision-making.

11. Real-time Data Analysis: Tableau can connect to live data sources, enabling real-time data analysis. You can monitor key metrics and make timely decisions based on up-to-date information.

12. Predictive Analytics: Tableau integrates with advanced analytics tools, allowing you to perform predictive analytics on your data. You can build models, make forecasts, and identify future trends.

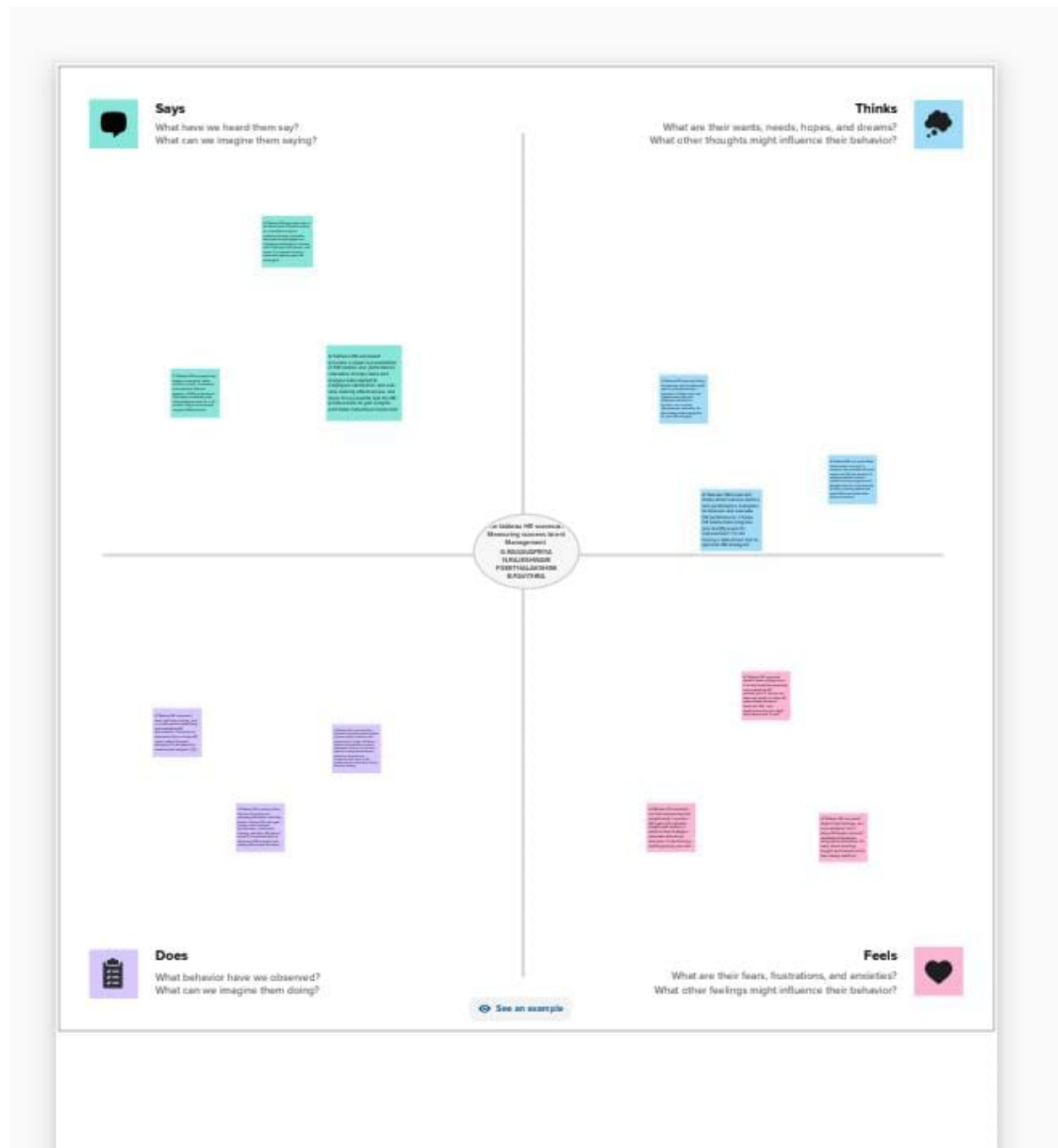
13. Data Governance: Tableau provides features for data governance, ensuring data accuracy, security, and compliance. You can control access to data, monitor data quality, and enforce data policies.

14. Mobile Accessibility: Tableau offers mobile apps, allowing you to access your data and visualizations on the go. You can stay connected and make data-driven decisions from anywhere.

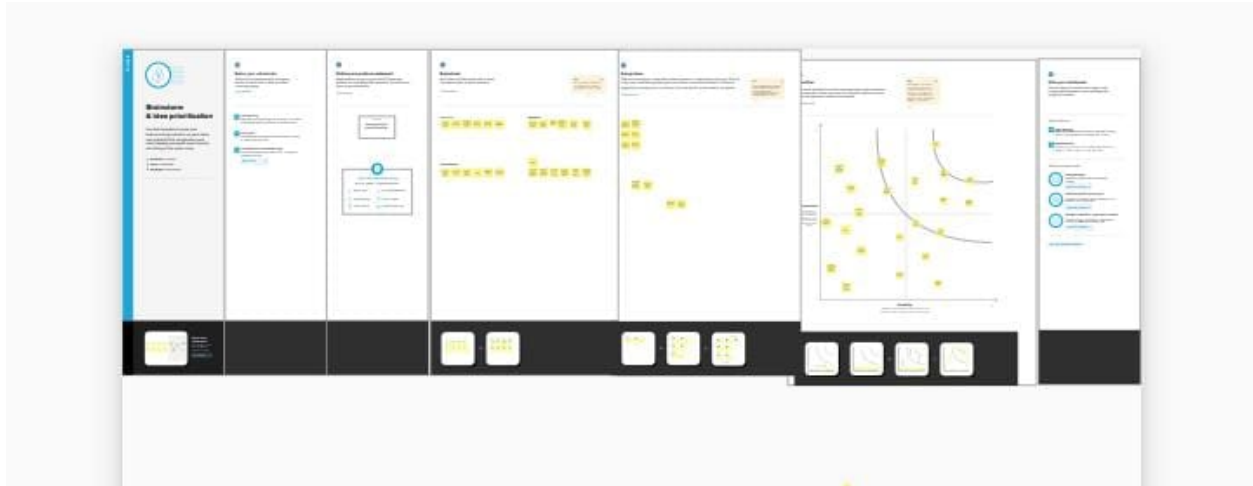
15. Community Support: Tableau has a vibrant community of users and experts who share knowledge, best practices, and tips. You can learn from others, get help when needed, and stay up to date with the latest trends in data analysis
create a narrative flow by combining multiple visualizations, annotations, and interactive elements to guide your audience through the data story

2. Problem Definition and design thinking

2.1 Empathy map



2.2 Ideation and Brainstorm map



3 – Result

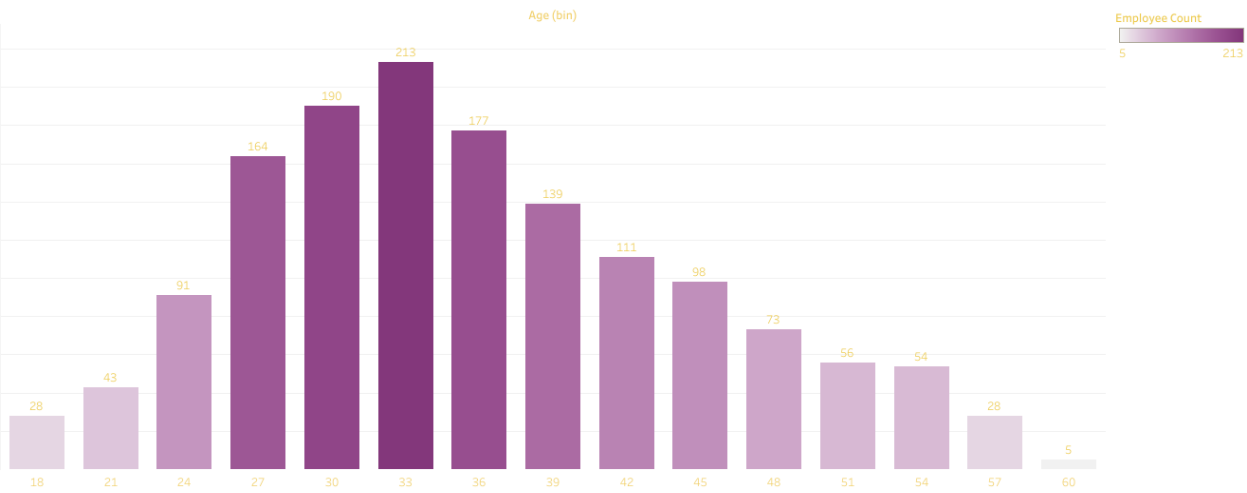
HR analytics is the process of collecting and analyzing Human Resource (HR) data in order to improve an organization's workforce performance. The process can also be referred to as talent analytics, people analytics, or even workforce analytics.

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.

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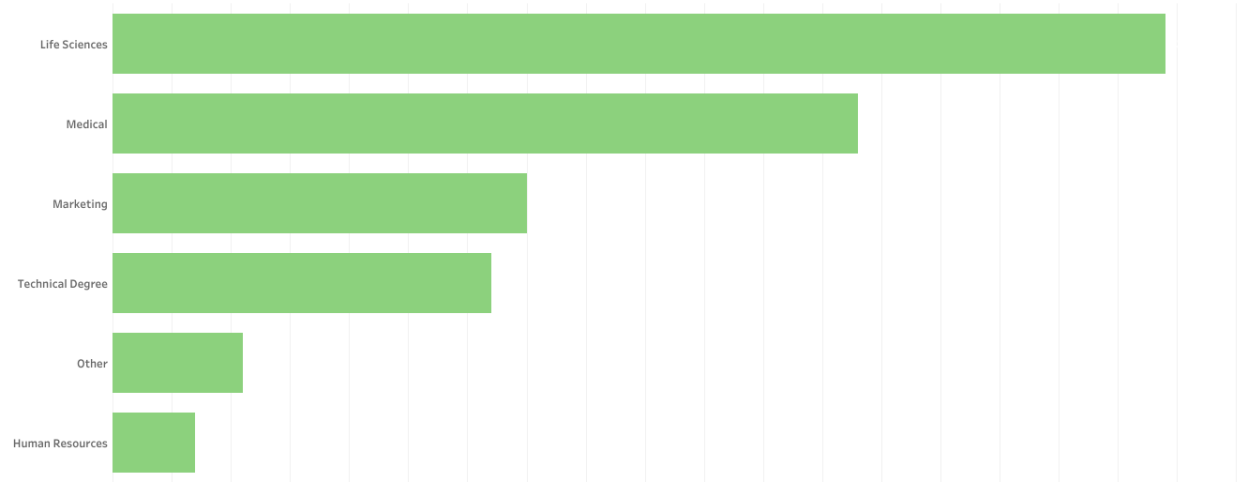
No of employee by age group



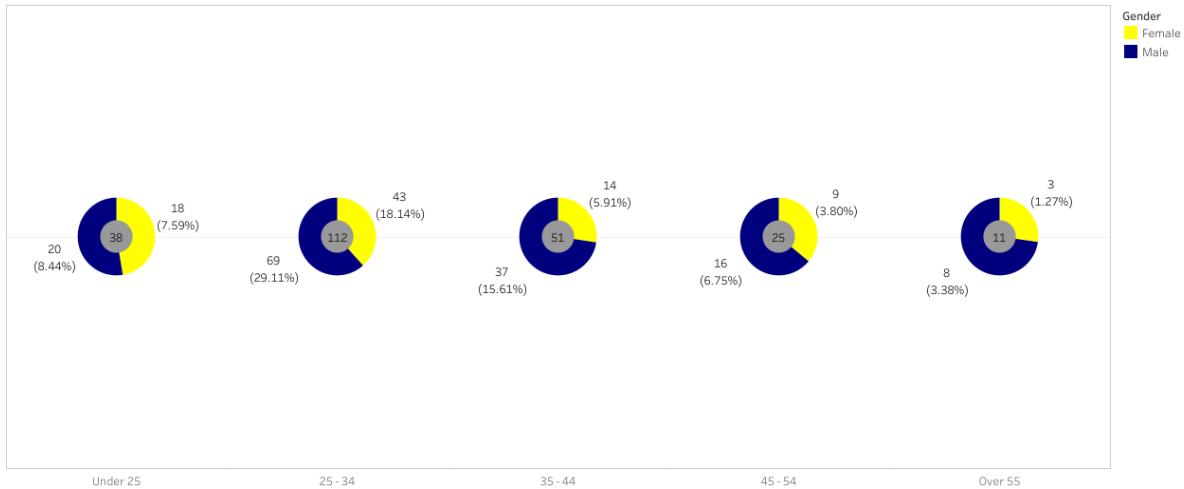
job satisfaction Rating

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

Education field wise attrition



Attrition Rate by Gender for different Age group



4. Advantages and Disadvantages

Advantages

HR analytics has several advantages that can greatly benefit organizations:

- 1. Data-Driven Decision Making:** HR analytics allows organizations to make data-driven decisions when it comes to managing their workforce. By analyzing HR data, such as employee performance, engagement, and retention, organizations can gain valuable insights that inform strategic decisions.
- 2. Improved Hiring Process:** HR analytics can help optimize the hiring process by identifying the most effective recruitment channels, improving candidate screening methods, and predicting candidate success. This can lead to better quality hires and reduced turnover.
- 3. Employee Engagement and Retention:** With HR analytics, organizations can identify factors that contribute to employee engagement and retention. By understanding what motivates and satisfies employees, organizations can implement targeted initiatives to improve engagement and reduce turnover.
- 4. Performance Management:** HR analytics enables organizations to track and analyze employee performance data. This allows for more accurate performance evaluations, identification of high-performing employees, and targeted development plans to enhance individual and team performance.
- 5. Workforce Planning:** By analyzing HR data, organizations can forecast future workforce needs and plan accordingly. This includes identifying skills gaps, succession planning, and optimizing workforce allocation, leading to more efficient resource management.

6. Diversity and Inclusion: HR analytics can help organizations measure and track diversity and inclusion initiatives. By analyzing data on representation, pay equity, and employee experiences, organizations can identify areas for improvement and implement strategies to foster a more inclusive workplace.

7. Cost Optimization: HR analytics can help organizations identify areas where costs can be optimized. By analyzing HR data related to compensation, benefits, and workforce productivity, organizations can make informed decisions to allocate resources effectively.

While HR analytics has many advantages, there are also a few potential disadvantages to consider:

1. Data Privacy Concerns: HR analytics involves collecting and analyzing employee data, which can raise privacy concerns. Organizations must ensure that they handle and protect employee data in compliance with privacy regulations and ethical standards.

2. Data Quality and Accuracy: The effectiveness of HR analytics relies on the quality and accuracy of the data being analyzed. If the data is incomplete, outdated, or inaccurate, it can lead to flawed insights and decision-making.

3. Bias in Data Analysis: HR analytics relies on algorithms and models to analyze data, and these algorithms can be influenced by biases present in the data or the algorithms themselves. This can result in biased outcomes, such as discriminatory hiring or promotion practices.

4. Limited Human Element: While HR analytics provides valuable insights, it may not capture the full complexity of human behavior and interactions in the workplace. It's important to balance data-driven insights with human judgment and intuition.

5. Resistance to Change: Implementing HR analytics can face resistance from employees and managers who may be skeptical of data-driven decision-making or fear the potential consequences of analytics

5. Applications

HR analytics has various applications across different areas of human resources. Here are a few examples:

1. Recruitment and Selection: HR analytics can be used to identify the most effective recruitment channels, optimize candidate screening processes, and predict candidate success. This helps organizations make data-driven decisions to attract and select the best candidates.

2. Employee Engagement and Retention: HR analytics can help organizations understand the factors that contribute to employee engagement and retention. By analyzing data on employee

satisfaction, feedback, and performance, organizations can implement targeted initiatives to improve engagement and reduce turnover.

3. Performance Management: HR analytics enables organizations to track and analyze employee performance data. This allows for more accurate performance evaluations, identification of high-performing employees, and targeted development plans to enhance individual and team performance.

4. Learning and Development: HR analytics can help organizations identify skill gaps and training needs within their workforce. By analyzing data on employee training and performance, organizations can design effective learning programs and measure their impact on employee development.

5. Succession Planning: HR analytics can assist in identifying potential successors for key positions within an organization. By analyzing employee performance, skills, and career aspirations, organizations can create succession plans to ensure a smooth transition when key employees leave or retire.

6. Diversity and Inclusion: HR analytics can help organizations measure and track diversity and inclusion initiatives. By analyzing data on representation, pay equity, and employee experiences, organizations can identify areas for improvement and implement strategies to foster a more inclusive workplace

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 Laboratory Technicians follow the list while 69 Sales executive rate 1 for job satisfaction.

4. 89 employees are from Life Sciences background, Medical science scores second with 63 employees while 7 are from Human Resource background.

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

7. Future scope

1. Predictive Analytics: HR analytics will increasingly focus on predictive modeling, using historical data to forecast future outcomes.
2. Artificial Intelligence and Machine Learning: AI and ML technologies will play a significant role in HR analytics.
3. Employee Experience Analytics: HR analytics will shift towards measuring and improving the overall employee experience.
4. Talent Management and Succession Planning: HR analytics will continue to evolve in the area of talent management and succession planning. Advanced analytics techniques can help organizations identify high-potential employees, assess their readiness for key roles, and develop tailored career paths to nurture future leaders.
5. Workforce Planning and Optimization: HR analytics will assist organizations in optimizing their workforce planning processes. By analyzing data on workforce demographics, skills, and performance, organizations can make informed decisions about workforce size, structure, and deployment to align with business goals.
6. Ethical and Responsible Use of Data: With the increasing use of HR analytics, there will be a growing emphasis on ethical and responsible data practices.