AN ANALYSIS ON THE WORKING FORCE OF ALTERA

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Introduction:

Project Objective: Develop a Simple HR Analytics Dashboard that provides insightful reporting on the workforce of, Altera, a fictional company in Ghana. The dashboard should serve as a decision-support tool highlighting key metrics and performance indicators.

The dashboard will highlight key deliverables such as, metrics on Total Employees, Employment Type Breakdown, Employee Recruitment Channels, Gender Distribution, Location Distribution, Training Metrics, Awards and Recognition, Employee Age Distribution, Gender-Based Ratings and Experience, Education Level, Performance Metrics and Length of Service.

Data Preparation:

- **Data Source:** The data used in this analysis, *ALTERA EMPLOYEE DATA,* want provided by ***Only Quality Data.***
- **Metadata:**

    1. *EmpID:* A unique identifier for each employee
    2. *Department*: Indicates the departments the employee works in
    3. *Location*: The working location of the employee
    4. *Education*: The educational level of the employee
    5. *Gender*: Illustrates whether they are male or female.
    6. *Recruitment_Channel*: Indicates whether they were recruited from the company's website or social networking websites.
   7. *FT/PT*: Indicates whether they are full-time (FT) or part-time (PT) employees

8. *Number_of_Trainings*: The number of trainings the employee has had.

9. *Age*: Shows the age of the employee

10. *Previous_year_rating*: The employee rating from the previous year.

11. *Length_of _service*: Indicates how long the employee has worked at Altera.

12. *KPIs_met_>80%:* Shows whether they met at least 80% of their KPIs.

13. *Awards_Won: Shows how many awards they have won*

14. *Average_training_score.:* Indicates the average training score of the employee.

- **Data Cleaning:** The data was loaded to Power Query in Microsoft Power Bi where the data types for each column was checked and verified. Some values in the column, '*Previous_Year_Rating',* were missing. These were replaced by using the mean rating for all the employees.

- **Data Preparation:** With regards to data transformation, a new column called, '*Working_Location', was* created to make it easier for the map feature to recognise the locations in Ghana. A DAX formula was used to create the new column.

Dashboard Design and Features
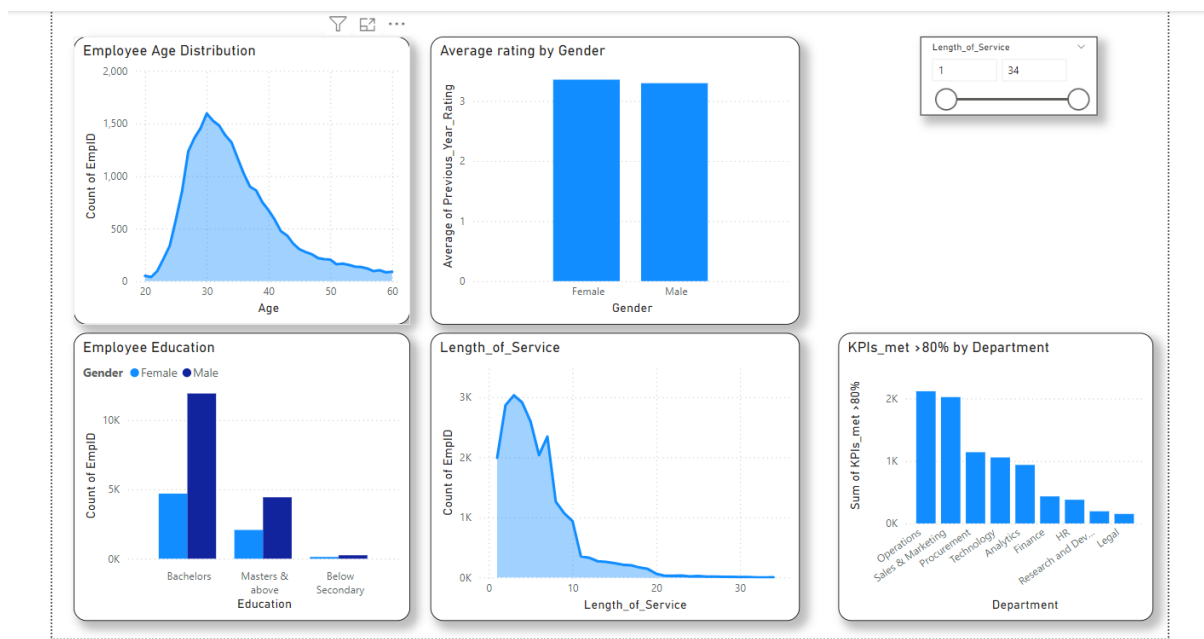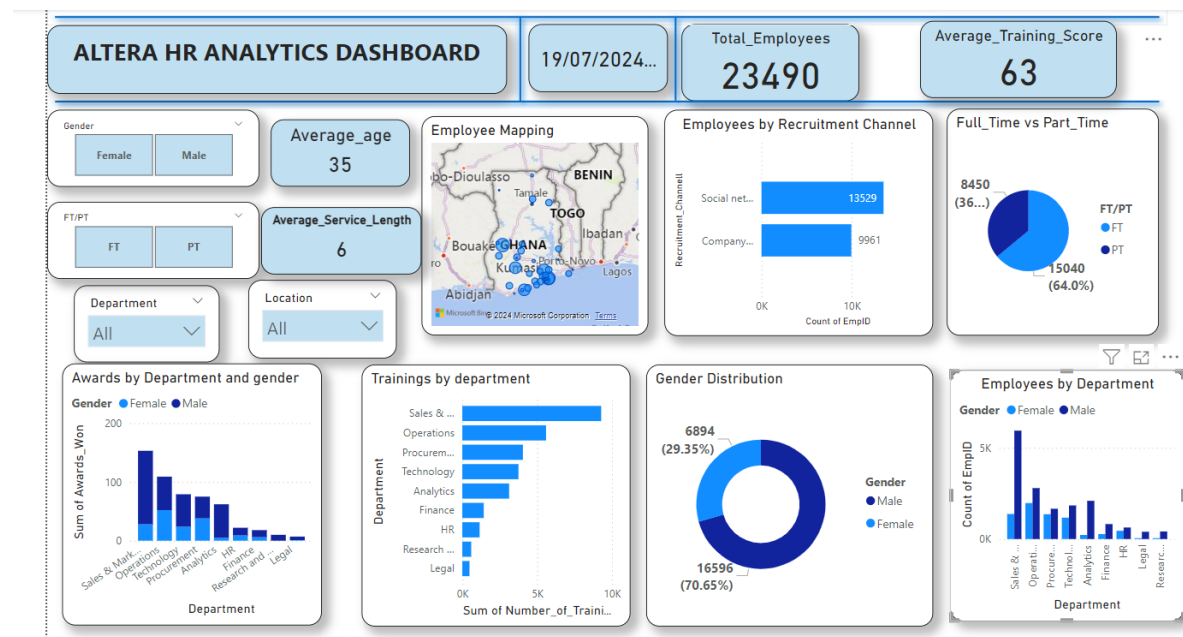
Follow this *link* to get an interactive view of this dashboard.

As mentioned earlier, the dashboard highlights key deliverables such as, metrics on:

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Total Employees: This widget displays the current total number of employees within the organization. This single value card provides a quick and straightforward count, which is essential for understanding the overall workforce size.

Employment Type Breakdown: This is demonstrated by a pie chart, comparing full-time and part-time employees.

Employee Recruitment Channels: This clustered bar chart illustrates the different channels through which employees were recruited. Each bar represents a recruitment channel.

Gender Distribution: This pie chart that shows the distribution of employees by gender.

Location Distribution: This visualization is a map that shows the geographic distribution of employees. Each location is marked with a bubble, where the size of the bubble corresponds to the number of employees at that location.

Department breakdown: Illustrated by a clustered column chart that displays the number of employees in each department. Each bar represents a department, and the length of the bar corresponds to the number of employees.

Training Metrics: This chart represents the total number of training sessions completed by employees broken down by department.

Awards and Recognition: Represented by a stacked bar chart that showcases the number of awards won, segmented by department and gender. Each bar represents a department, with segments indicating awards won by male and female employees.

Employee Age Distribution: This is demonstrated by a line graph.

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Gender-Based Ratings: Displayed by a stacked column chart, illustrates employee ratings based on gender.

Education Level: This clustered column chart displays the level education attained by employees.

Performance Metrics: Using a clustered column chart, we observe departments with the most amount of KPIs met.

Length of Service: This is illustrated by a line graph, and it shows an overview of what the length of service with regards to employees looks like.

Key Insights

- Altera currently employs a total of 23,490 individuals.
- Most of the employees (64%) are full-time, while 36% are part-time.
- Altera has an average employee age of 35.
- The average length of service is 6 years.
- More employees are recruited through Social Networking sites (13,529 employees) than the Company website (9,961 employees)
- The workforce is 70% male and 20 female.
- The Sales and Marketing department has the highest number of employees followed by Operations, Procurement, Technology, Analytics, Finance, HR, Legal and Research & Development respectively.
- Most of the employees have a bachelor's (16,612 employees) degree, followed by those with master's and above (6509 employees) and finally, those with a secondary education (374 employees).
- Sales and marketing department won the highest number of awards, and the Legal department won the least.

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- Most employees are located in the central and southern part of Ghana.
- The Operations department had the highest number of employees achieving more than 80% of their KPIs.
- On average, females (3.35) had a slightly higher employee rating than males (3.30).

Implications

- Since Altera has such a large workforce, robust HR systems and processes are required. This includes efficient payroll management, employee engagement strategies, and a strong HR infrastructure to support employee needs. Significant resources must be allocated to training, development, and employee welfare programs.
- The average age indicates a relatively young workforce, highlighting the need for career development programs and opportunities for growth to retain younger employees.
- A 6-year average service length suggests moderate employee retention, which can be a positive sign of employee satisfaction and stability within the organization.
- Social networking sites are highly effective recruitment channels, indicating the need to continue leveraging these platforms for hiring. A Strong presence on social networks enhances employer branding and attracts a larger pool of candidates.
- The gender imbalance highlights the need for diversity and inclusion initiatives to ensure a more balanced workforce. Encouraging more female candidates to join can help tap into a broader talent pool and foster diverse perspectives.

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- The high number of employees in Sales and Marketing suggests a strong focus on customer acquisition and market expansion.
- Employees with lower education levels may require advanced training programs to further develop their skills.
- The high performance of the Operations department can serve as a benchmark for other departments. Sharing their best practices could improve overall organizational performance. High-performing departments might need additional resources to sustain and further enhance their performance.
- The slight difference in ratings suggests that performance evaluations are relatively equitable across genders. Ensuring that high-performing employees have access to career development and advancement opportunities is crucial for retention and gender diversity.

Recommendations

1. Enhance Diversity and Inclusion

- **Diversity Hiring Initiatives:** Implement targeted recruitment campaigns to attract more female candidates and other underrepresented groups.
- **Inclusive Policies:** Develop and promote policies that support work-life balance, such as flexible working hours, parental leave, and remote work options.
- **Employee Resource Groups:** Establish and support employee resource groups focused on diversity and inclusion to foster a more inclusive workplace culture.

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2. Leverage Effective Recruitment Channels

- **Strengthen Social Media Recruitment:** Continue leveraging social networking sites for recruitment by investing in targeted advertising and engaging content.
- **Optimize Company Website:** Improve the career section of the company website with user-friendly navigation, detailed job descriptions, and testimonials from current employees to attract more candidates.

3. Focus on Employee Development and Retention

- **Career Development Programs:** Implement comprehensive career development programs, including mentorship, training, and clear career paths, to help employees advance within the company.
- **Employee Engagement Surveys:** Conduct regular employee engagement surveys to gather feedback and address any concerns that may affect retention.

4. Support Regional Offices and Distributed Workforce

- **Regional Support Programs:** Develop programs to support regional offices, including local leadership development, regional team-building activities, and improved communication channels.
- **Remote Work Infrastructure:** Strengthen remote work infrastructure to ensure employees in less represented regions have the same opportunities and resources as those in central locations.

5. Promote Gender Equality in Performance and Recognition

- **Equitable Recognition Programs:** Ensure recognition programs are fair and inclusive, celebrating achievements across all genders and departments.
- **Bias Training:** Provide training on unconscious bias for managers to ensure performance evaluations and recognition are based on merit.

6. Utilize Best Practices from High-Performing Departments

- **Share Best Practices:** Identify and document the best practices from the Operations department and share them across other departments to improve overall performance.
- **Cross-Departmental Training:** Facilitate cross-departmental training sessions where high-performing teams can share their strategies and approaches.

7. Enhance Training and Development Programs

- **Continuous Learning Opportunities:** Offer continuous learning opportunities such as workshops, certifications, and online courses to help employees enhance their skills.
- **Tailored Training Programs:** Develop tailored training programs for different departments and job roles to ensure relevance and effectiveness.

8. Improve Employee Engagement and Satisfaction

- **Engagement Initiatives:** Implement initiatives to boost employee engagement, such as team-building activities, wellness programs, and open communication channels.

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- **Recognition and Rewards:** Develop a comprehensive recognition and rewards program that acknowledges both individual and team achievements regularly.

Conclusion

The analysis of Altera's HR data provides a comprehensive view of the workforce's composition, recruitment channels, educational background, departmental performance, and other key metrics. Key insights indicate that the organization has a substantial workforce primarily composed of full-time employees, with effective recruitment through social networking sites, and a relatively young workforce. However, there are notable areas for improvement, particularly in gender diversity. The performance and recognition disparities among departments also highlight the need for targeted development and support programs.

Suggested areas for further analysis

- Conduct a deeper analysis of gender distribution across various levels of the organization, including leadership positions. Examine the impact of diversity initiatives on recruitment, retention, and performance over time.
- Conduct a detailed analysis of the recruitment channels, focusing on the quality of hires and long-term retention rates from each channel. Assess the cost-effectiveness and ROI of different recruitment strategies.
- Compare the performance metrics of different departments to identify best practices and areas for improvement. Focus on departments with exceptional performance to understand their success factors.

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