PROJECT REPORT

HUMAN RESOURCE ANALYTICS DASHBOARD

FOR ALTERA EMPLOYEE DATA

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Introduction

- **Project Objective:** The objective of this project is to develop a simple HR Analytics Dashboard that provides insightful reporting on the workforce of the **ALTERA**. The dashboard serves as a decision-support tool highlighting key metrics and performance indicators.
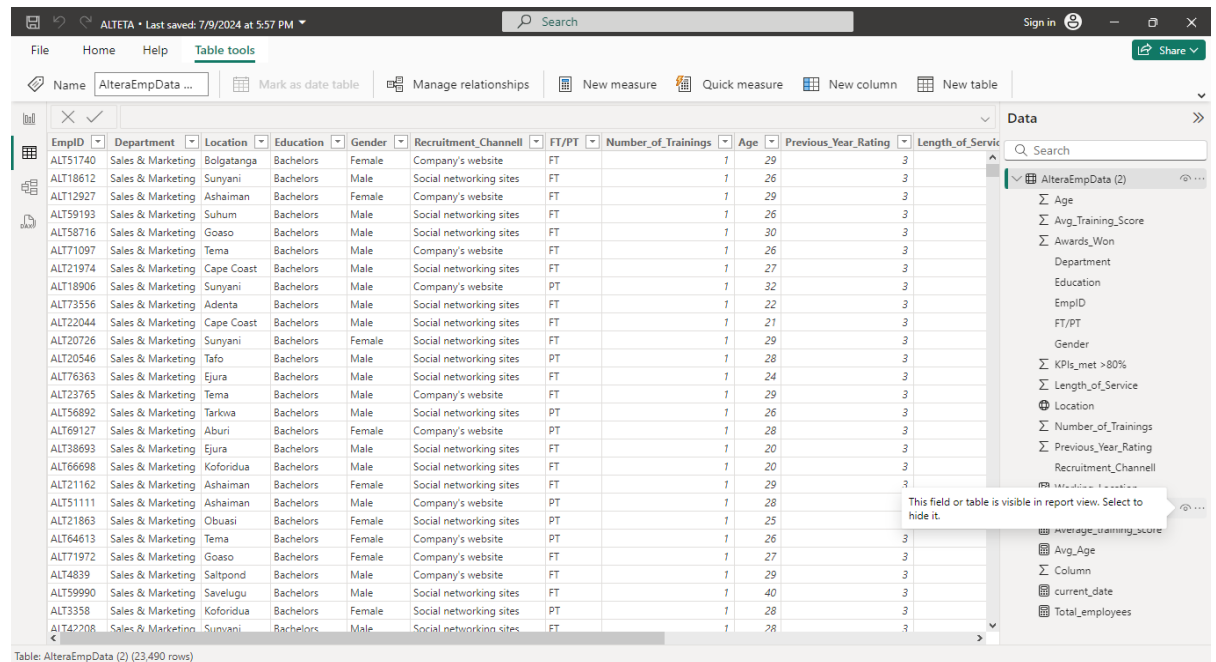
· Scope

1. **Employee Demographics**: Analyzing the composition of the workforce by gender, age, education level, and location.
2. **Employment Types**: Assessing the distribution of full-time and part-time employees across different departments.
3. **Recruitment Channels**: Evaluating the effectiveness of various recruitment channels in attracting successful candidates.
4. **Training and Development**: Measuring the completion rates and effectiveness of training programs across departments.
5. **Performance Metrics**: Analyzing key performance indicators, including KPIs met, average training scores, and employee ratings.
6. **Awards and Recognition**: Tracking the distribution of awards and recognition across departments and genders.
7. **Employee Tenure**: Examining the length of service of employees within the organization.

Data Preparation

Data Source: The data consists of employee information from Altera, encompassing various aspects such as department, location, education, gender, recruitment channel, employment type, number of trainings attended, age, previous year rating, length of service, KPIs met, awards won, and average training score. The dataset was provided by Altera.

Data Cleaning

Missing values in the columns were identified. These were handled by excluding records with missing values, depending on the analysis requirement.

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- **Ensuring Data Accuracy:** The data was checked for inconsistencies such as incorrect department names, invalid ages, and other anomalies. No significant inconsistencies were found. A new column Region was

created by categorizing locations into broader regions for regional analysis.

Dashboard Design and Features

Overview:

I implemented interactive elements that allowed me to filter by department, location, gender, and education levels and I also ensured the dashboard was intuitive and user-friendly, catering to non-technical stakeholders. Lastly I used consistent design principles to enhance clarity and aesthetics of visualizations.

Key Features:

1. Total Employees: Widget displaying the current total number of employees.

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2. Employment Type Breakdown: Chart comparing full-time to part-time employees.
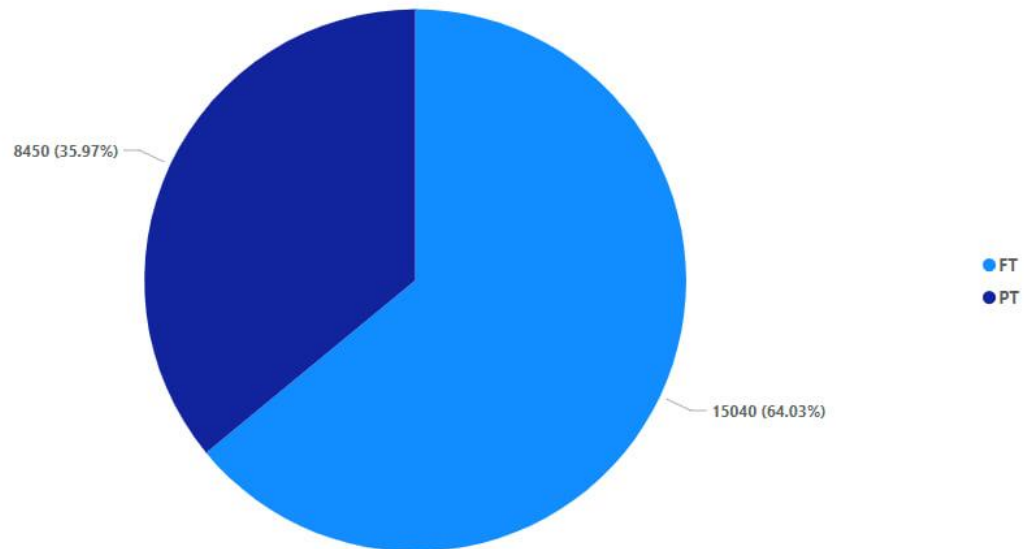
3. Employee Recruitment Channels: Assessment of which recruitment channels bring in the highest number of successful candidates.
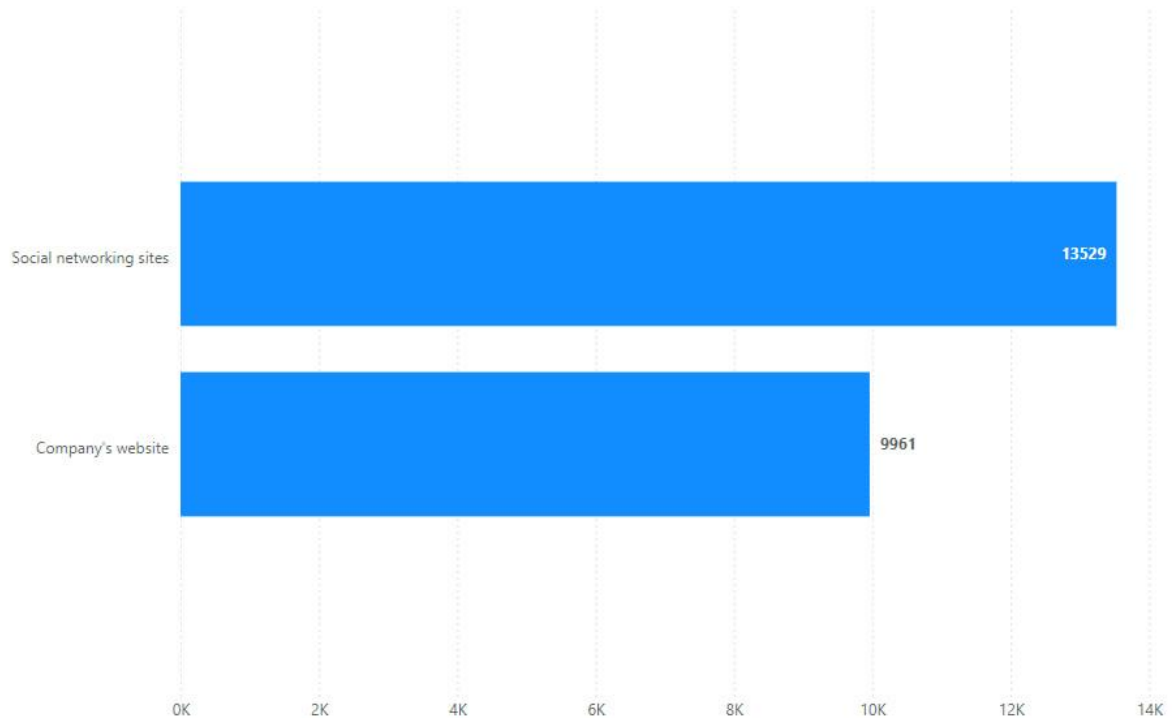
4. Gender Distribution: Visual representation of the distribution of employees by gender.
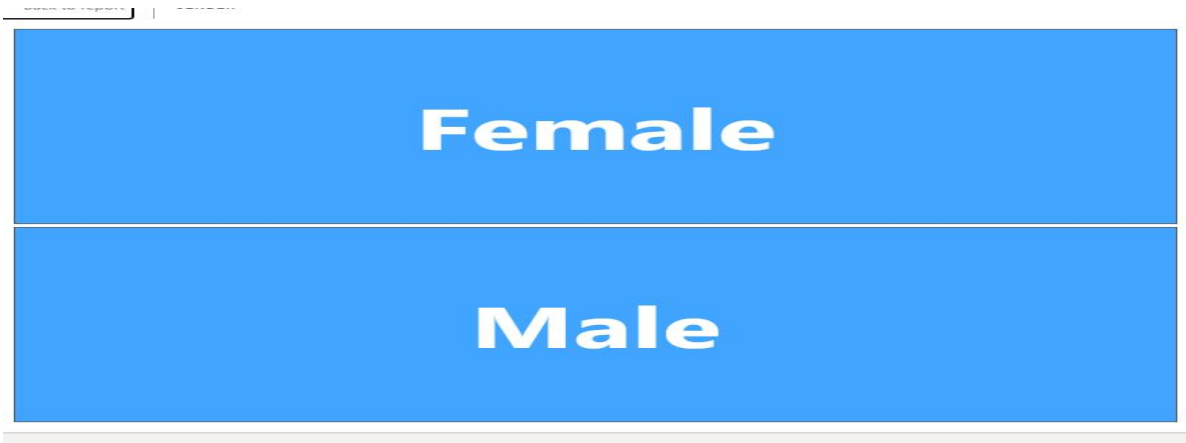
5. Department Overview: Charts visualizing the number of employees within each department.

6. Location Distribution: Breakdown of the number of employees by geographic location.
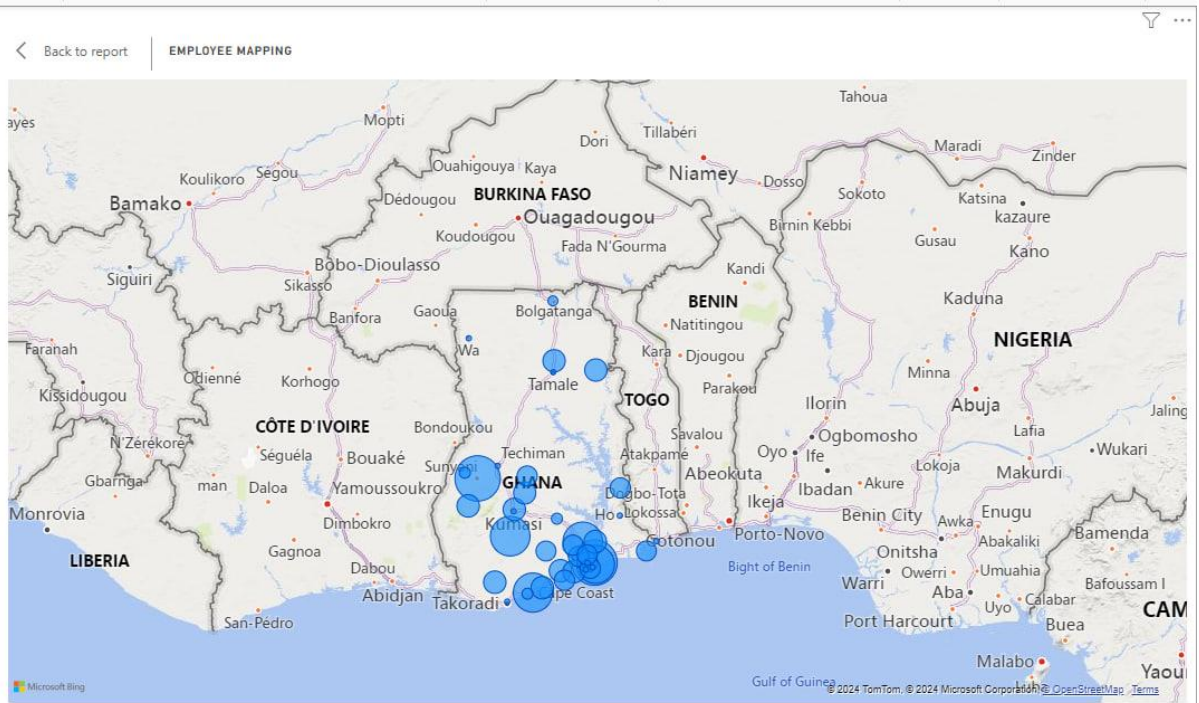
7. Training Metrics: Total number of trainings completed and breakdown by department.

8. Awards and Recognition: Visuals highlighting the number of awards won, segmented by department and gender.

9. Employee Age Distribution: Age distribution histogram.

10. Gender-Based Ratings and Experience: Visualizations correlating gender with performance ratings and levels of experience.

11. Education Level: Chart categorizing employees by their highest level of education completed.
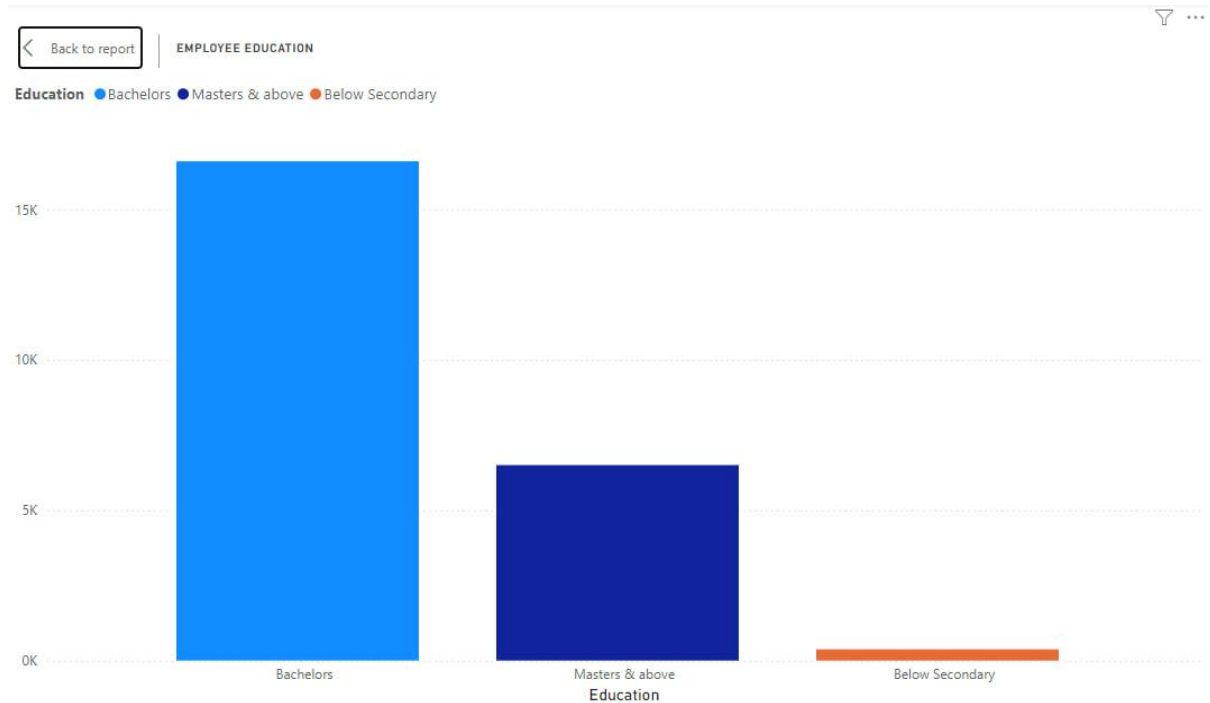
12. Performance Metrics: Key performance indicators such as 'KPIs met', 'average training scores', and 'ratings'.

13. Length of Service: Duration of employees' tenure in the organization.

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Key Insights

1. Total Employees: The organization has a total of 23490 employees.

2. Employment Type Breakdown: The distribution of full-time to part-time employees is 64.03% Full Time and 35.97% part time, suggesting a potential area to explore for balancing workforce flexibility and stability.

3. Employee Recruitment Channels: Social Networking Sites(13529) brought in the highest number of successful candidates, followed by the company's website.(9961)

4. Gender Distribution: The company maintains a gender distribution with 70.65% male and 29.35% female employees.

5. Location Distribution: The majority of employees are based in Ashaiman with significant numbers in Sunayani, Obuasi and Cape Coast.

6. Awards and Recognition: Sales and Marketing Department and Male have received the most awards, highlighting areas of excellence.

7. Employee Age Distribution: The majority of employees fall within the 25-40 age range, indicating a young workforce.

8. Education Level: Most employees have a bachelor's degree, with a significant number holding advanced degrees.

Recommendations

Strategies: Based on the insights, I would suggest that we:

1. **Enhance Recruitment Channels**: Focus on the most successful recruitment channels to optimize hiring processes.

2. **Balance Employment Types**: Explore opportunities to balance the ratio of full-time to part-time employees for increased workforce flexibility.

3. **Targeted Training Programs**: Implement targeted training programs in departments with lower training completion rates.

4. **Recognize Excellence**: Continue to recognize and reward high-performing departments and employees to maintain motivation and performance levels.

5. **Support Career Development**: Provide career development opportunities to retain young and educated employees.

Conclusion

The HR Analytics Dashboard provides a comprehensive view of the organization's workforce, offering valuable insights to support strategic decision-making. The interactive design and clear visualizations ensure that stakeholders can easily understand and act on the data presented.