HR Analytics

Project Objectives:

The core objective of my project was to design and implement a Power BI dashboard that would enable HR managers to efficiently monitor, analyze, and make informed decisions regarding employee presence. This was achieved by:

- Identifying seasonal and health-related attendance patterns to inform health and safety measures.
- Enhancing workforce management through insights into work-from-home trends and attendance.
- Facilitating more accurate release planning by incorporating employee availability data.

Data Collection and Preparation:

The project utilized real employee presence data, shared by our industry collaborators. I undertook a rigorous data preparation process, employing Power Query in Power BI for data cleaning and transformation. Key steps included:

- Discarding irrelevant data to sharpen the focus on pertinent tables and columns.
- Standardizing column names and date formats to streamline data appending and analysis.
- Adapting to diverse sheet structures by employing dynamic data transformation strategies, avoiding direct column name references.

Analysis and Insights:

Through comprehensive data analysis, I unearthed several critical insights:

- Seasonal health patterns were identified, enabling the proactive planning of health and safety initiatives.
- Data revealed a notable trend towards work-from-home, with significant implications for workforce management.
- Cultural and seasonal factors, such as community-specific events, were found to significantly impact employee availability.

Dashboard Development:

The Power BI dashboard I developed offered several innovative features:

- Dynamic data handling and automated error management for enhanced data accuracy.
- Advanced DAX measures to calculate key metrics such as presence percentage and total working days.
- Intuitive visualizations, including trend lines and charts, to facilitate easy analysis of attendance patterns and work-from-home trends.

- Comprehensive filters and data quality controls to ensure the reliability of insights derived from the dashboard.

Challenges Overcome:

I encountered and overcame various challenges, including:

- The diversity of sheet structures and column names across the dataset, which I addressed by employing flexible data transformation techniques.
- Data quality issues, such as incorrect weekend data notation, were resolved through meticulous data cleaning and preparation efforts.

Impact and Business Value:

The dashboard has significantly empowered HR managers with the ability to make informed decisions based on robust data analysis, leading to:

- Improved health and safety planning based on identified seasonal health trends.
- More informed policies on work-from-home arrangements and office attendance.
- Optimized project and release planning by leveraging detailed insights into employee availability.

Future Directions:

Moving forward, I plan to enhance the dashboard by:

- Incorporating deeper data granularity for individual performance and absence pattern analysis.
- Automating data updates to ensure the dashboard reflects the most current data without manual intervention.
- Implementing access controls to customize dashboard visibility for different user groups.

Conclusion:

This project underscored the transformative potential of data analytics in the HR domain. By converting raw data into actionable intelligence, I have enabled HR managers to enhance organizational efficiency and foster a healthier, more productive workplace. The successful deployment of the Power BI dashboard marks a significant step forward in the application of data-driven strategies within human resources management.