

ABC Corporation Power BI Analysis Documentation

Project Objectives:

1. **Identify Key Drivers of Attrition:** Determine the primary factors influencing employee attrition within the organization.
2. **Segmentation Analysis:** Analyze attrition rates across different segments such as departments, job roles, genders, education levels, etc., to identify high-risk groups.
3. **Design an Interactive Dashboard and Reporting:** Develop an interactive dashboard to present insights and recommendations effectively to stakeholders.

Data Sources:

1. **Employee Survey:** Responses from employees regarding their satisfaction, work-life balance, etc.
2. **Manager Survey:** Responses from managers regarding employee performance, etc.
3. **EmployeeInfo:** Demographic information, job roles, etc.
4. **IN/OUT Times (2015):** Sheets extracted from the Clock-In-Machine for the year 2015, including in/out times for all employees.

Methodology:

1. **Data Collection:**
 - **Collection:** Data was collected from sources including databases and CSV files.
 - **Sources:** The data sources encompassed the Employee Survey, Manager Survey, EmployeeInfo, and IN/OUT Times (2015).
 - **Procedure:** The data was imported into the Power BI environment to initiate the analysis process.
2. **Data Preparation:**
 - **Reshaping:** The data was reshaped to ensure it was in a suitable format for analysis.
 - **Transformation:** Necessary transformations such as pivoting, aggregating, and filtering were performed to prepare the data for analysis.
 - **Cleaning:** Data cleaning procedures were implemented to handle missing values.
3. **Data Model:**
 - **Dimensional Model:** A dimensional model was constructed to integrate the data sources and facilitate analysis.
 - **Integration:** Data from the Employee Survey, Manager Survey, EmployeeInfo, and IN/OUT Times (2015) were integrated into the Power BI data model.
 - **Relationships:** Relationships between the different data tables were established to enable seamless analysis across multiple dimensions.
4. **Visualization and Dashboarding:**
 - **Design:** An interactive dashboard was designed using Power BI to effectively present insights.
 - **Visualization:** Various visualizations including charts, graphs, and tables were created to convey key findings and trends.
 - **Interactivity:** The dashboard was made interactive, allowing stakeholders to explore the data and gain deeper insights.
 - **Insights:** Key insights and recommendations derived from the analysis were summarized in the dashboard.

Key Findings:

1. Attrition Drivers:

- Employees that have higher overtime rate and less absent days have higher attrition rates than the others.
- Job satisfaction, work-life balance, and environmental satisfaction emerged as significant factors influencing attrition rates.
- Employees in certain age groups exhibited higher attrition rates compared to others.

2. Employee Satisfaction Analysis:

- Employees with lower job satisfaction levels and poorer work-life balance tended to have higher attrition rates.
- Employees with lower job Involvement levels and lower Environmental Satisfaction levels tended to have higher attrition rates.

3. Departmental Analysis:

- Certain departments experienced higher attrition rates compared to others.
- Attrition rates varied across education fields and job roles in each department, with some fields showing higher attrition rates than others.

4. Demographic Analysis:

- Attrition rates differed based on age groups, gender, and marital status, suggesting the need for tailored retention strategies for different demographic groups.

Suggestions:

1. Reduce Overtime and Absenteeism:

- Balance workloads to reduce overtime and provide support for employees struggling with absenteeism.
- Offer flexible schedules and wellness programs to improve work-life balance.

2. Improve Job Satisfaction:

- Conduct surveys to understand employee satisfaction levels and make changes accordingly.
- Focus on creating a positive work environment and offering opportunities for career growth.

3. Target Departmental Needs:

- Identify departments with high attrition rates and provide tailored support to address their specific challenges.
- Offer additional resources or training to improve retention in these areas.

4. Customize Retention Strategies:

- Develop retention plans that consider the needs of different age groups, genders, and marital statuses.
- Promote diversity and inclusion to ensure all employees feel valued and supported.

5. Regular Feedback and Monitoring:

- Establish feedback systems to regularly check in with employees and adjust strategies as needed.
- Monitor attrition rates and satisfaction levels over time to track progress and make improvements.