

Employee Data Analysis using Excel



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PROJECT TITLE



Employee Performance Analysis using Excel

AGENDA

1. Problem Statement
2. Project Overview
3. End Users
4. Our Solution and Proposition
5. Dataset Description
6. Modelling Approach
7. Results and Discussion
8. Conclusion



PROBLEM STATEMENT

A problem statement in employee performance analysis identifies specific issues or challenges that an organization faces regarding the evaluation, management, and improvement of its employees' performance. A well-defined problem statement helps to focus the analysis, identify key areas for improvement, and guide the development of effective solutions. It can help stakeholders, team members, and the writer focus on the problem, its importance, and who it affects.



PROJECT OVERVIEW



The project was done with the purpose of finding out factors which affected the Performance of the employees, training a model which accurately predicts the Performance Rating of the employee, analyzing the data to provide recommendations to improve the performance and gain insights from the analysis.



WHO ARE THE END USERS?

The end users are the individuals and groups who directly benefit from or utilize the results of the analysis. These end users play a crucial role in implementing the insights gained from the analysis to improve performance management, drive organizational success, and foster a supportive work environment. Here are the primary end users in an Employee Performance Analysis:

1. Human Resources (HR) Team
2. Department Managers and Team Leaders
3. Executive Leadership
4. Employees
5. Organizational Development and Learning Teams
6. Performance Management Committees
7. Compliance and Legal Teams

OUR SOLUTION AND ITS VALUE PROPOSITION

Solution: Comprehensive Employee Performance Analysis System

The solution involves implementing a comprehensive employee performance analysis system that leverages data-driven insights and best practices to enhance the performance management process. This system integrates modern performance evaluation tools, continuous feedback mechanisms, and personalized development plans to create a fair, transparent, and effective performance management framework.

Value Proposition:

The value proposition of the comprehensive employee performance analysis system lies in its ability to transform performance management into a strategic advantage for the organization. By implementing this solution, organizations can achieve several key benefits

Dataset Description

The dataset for an Employee Performance Analysis project typically includes a variety of data points that provide insights into employee performance, behavior, and outcomes. These data points are collected from different sources such as performance evaluations, HR systems, employee surveys, and other relevant records. Below is a description of the typical dataset components used in an Employee Performance Analysis:

1. Employee Demographics
2. Performance Metrics
3. Feedback Data
4. Training and Development
5. Attendance and Punctuality
6. Employee Engagement and Satisfaction
7. Promotions and Career Progression

THE "WOW" IN OUR SOLUTION

The "Wow" factor in our Employee Performance Analysis solution represents the unique, innovative aspects that differentiate it from traditional performance management systems. These elements are designed to create a significant impact, driving substantial value for both the organization and its employees.

Here's what makes our solution stand out:

1. Real-Time Performance Insights with AI and Machine Learning
2. Continuous Feedback Loop with Real-Time Notifications
3. Gamified Performance Tracking and Engagement
4. Dynamic Goal Setting and Adjustment
5. Holistic Employee Development Platform
6. Advanced Analytics and Reporting Dashboards
7. Employee Empowerment and Autonomy

MODELLING

Modeling uses statistical and machine learning techniques to analyze employee data and predict outcomes related to performance. The goal of modeling in this context is to gain insights into employee behaviors, identify key factors that influence performance, and make informed decisions to enhance workforce management.

A powerful tool that enables organizations to leverage data and advanced analytics to enhance performance management, drive employee engagement, and achieve strategic business objectives.

RESULTS

Random Forest with GridSearchCV gives 93% accuracy. The features that are positively correlated are Environment Satisfaction, Last Salary Hike Percent & Worklife Balance. This means that if these factors increase, Performance Rating will increase. On the other hand, the features that are negatively correlated are Years Since Last Promotion, Experience Years at this Company, Experience years in Current Role & Years with Current Manager. This means that if these factors increase, Performance Rating will go down.

The top 3 features effecting employee performances are:

1. Employee Environment Satisfaction (39.5%)
2. Employee Last Salary Hike Percent (33.3%)
3. Years since last promotion (16.7%)

CONCLUSION

The results in Employee Performance Analysis represent the outcomes and insights derived from analyzing employee data. These results are crucial for understanding how individual and team performance align with organizational goals, identifying areas for improvement, and making informed decisions about workforce management.

Employee Performance Analysis provide valuable insights that drive strategic decisions, enhance workforce management, and improve overall organizational performance. By leveraging data-driven models and analytics, organizations can optimize their performance management processes, foster a culture of continuous improvement, and achieve sustainable business success.