Analysis of Educational Attainment And Employee Variables Relation

Term Project Proposal

2023 年 11 月 20 日

1 Introduction

This analysis delves into the impact and relationships between educational attainment and various employee-related variables. The dataset encompasses a range of factors, including age, job roles, work-related satisfaction, and personal details. The primary focus is on understanding how education levels influence these aspects, contributing valuable insights to organizational dynamics and employee satisfaction.

2 Methods

To unravel the intricate connections, we employ a multifaceted approach involving statistical analyses and machine learning techniques.

2.1 Educational Attainment Distribution

Visualize the distribution of educational attainment using histograms or bar charts, providing a clear overview of the prevalence of different education levels.

2.2 Correlation Analysis

Explore relationships between educational attainment and numerical variables (e.g., Age, DailyRate, MonthlyIncome) using correlation coefficients.

2.3 Categorical Data Analysis

Investigate the relationship between educational attainment and categorical variables (e.g., Department, JobRole, MaritalStatus) through cross-tabulations or chi-square tests.

2.4 Machine Learning Models

Implement machine learning models, such as regression models, to predict or analyze the impact of educational attainment on job-related factors.

2.5 Visualization

Create compelling visualizations such as box plots, violin plots, or scatter plots to illustrate relationships between educational attainment and relevant variables.

3 dataset

https://www.kaggle.com/datasets/pavansubhasht/ibm-hr-analytics-attrition-dataset

4 Team members

1. 110590003 黃政 programmer
2. 110590005 蕭耕宏 team leader, programmer
3. 110590028 黃冠鈞 programmer
4. 110590034 楊榮鈞 programmer

5 Preferred time slots

Dec. 19 13:00 as early as possible

参考文献