



Salary Prediction Using Business Intelligence Tools

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Introduction

In this project, we apply Business Intelligence techniques using Microsoft Power BI to analyze a real-world dataset related to salaries. Our goal is to explore the relationship between years of experience and the salary that individuals earn. With data visualization and simple analysis, we aim to create an interactive dashboard that presents clear insights about salary trends based on

.experience



Goal of our project

The main goal of our project is to discover useful patterns between experience and salary. We want to understand if there is a strong link between the number of years a person has worked and the amount they are paid. Using this information, our goal is to build a dashboard that helps decision-makers make better choices about salaries.



What type of problem are we targeting?

We are targeting the problem of salary planning and fairness. Our main business question is: Does having more experience always mean getting a higher salary? We also want to know if we can predict salaries for people .based on how many years they've worked



Why did we choose this data?

We chose this dataset because it's clean, simple, and easy to understand. It focuses on two important variables—Years of Experience and Salary—which are very common in real-life HR scenarios. This makes it a great dataset to practice business intelligence skills using Power BI.



What the metrices and indicators did we measure ?

The key indicators we will focus on are :

Years of
Experience

Salary

Average
Salary

Predicted
Salary using a
trend line

Expected outcomes and impacts?

We expect to create a clear and useful dashboard that shows how salary increases as experience increases. This can help companies with salary planning and allow job seekers to have better expectations. It also shows how BI tools like Power BI can turn simple data into meaningful insights.

The Scope of application of the dashboard

Providing insights for students who want to know which job titles or careers in-demand facing worker shortages often reflected by a higher annual salary for these job titles and to know the market trend and direction, which can be beneficial not only for students but also for educational institutions and companies.



The indicators that were measured



A screenshot of the dashboard and a link to download the panel

1-Dashboard:

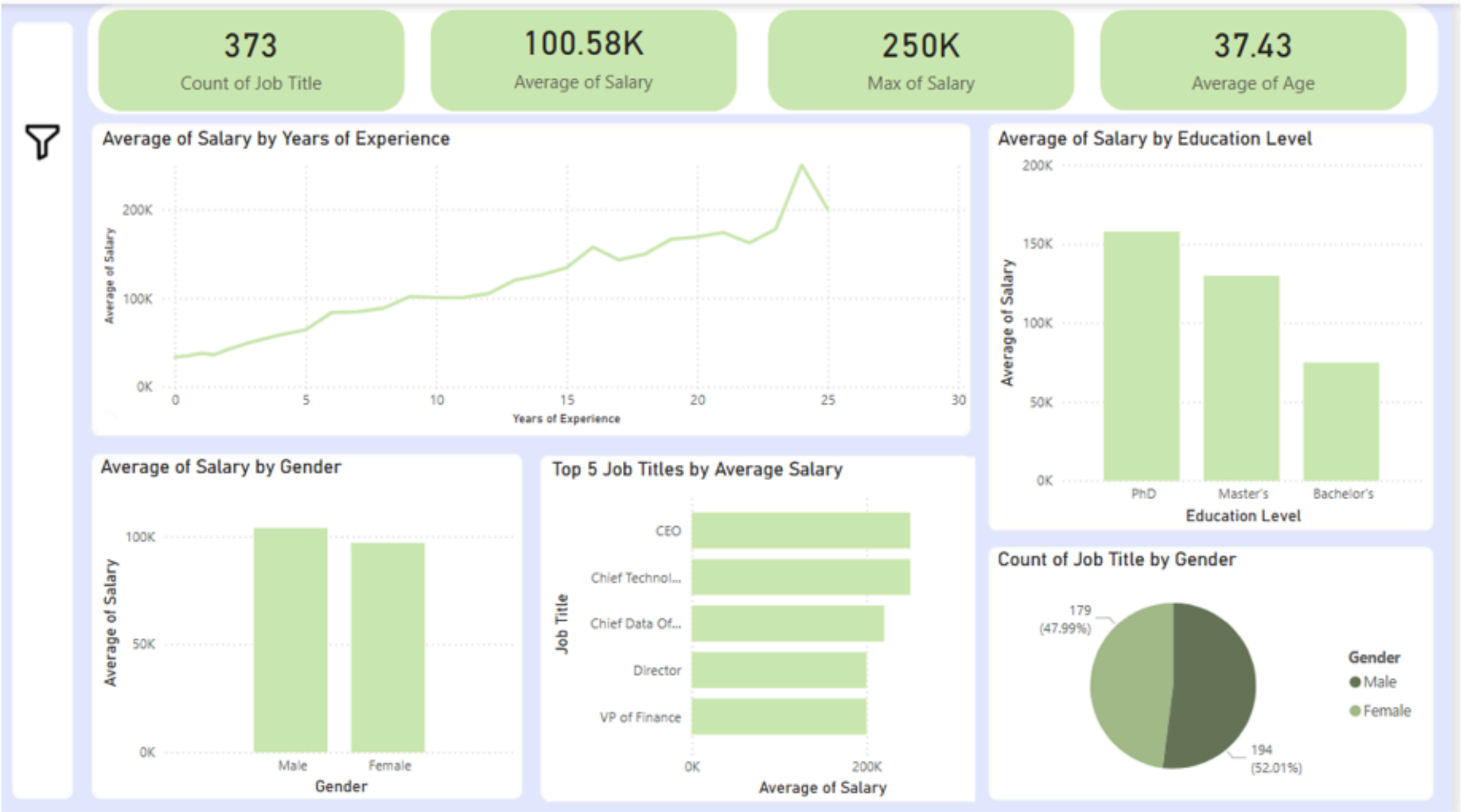


Figure 1: Dashboard

2-Key Workforce Metrics:



A screenshot of the dashboard and a link to download the panel

3-Average Salary by Years of Experience :



A screenshot of the dashboard and a link to download the panel

4-Average Salary by Education Level

5-Job Title Count by Gender

6-Top 5 Job Titles by Average Salary

7-Average Salary by Gender

The link to download the Dashboard:
[Click here](#)

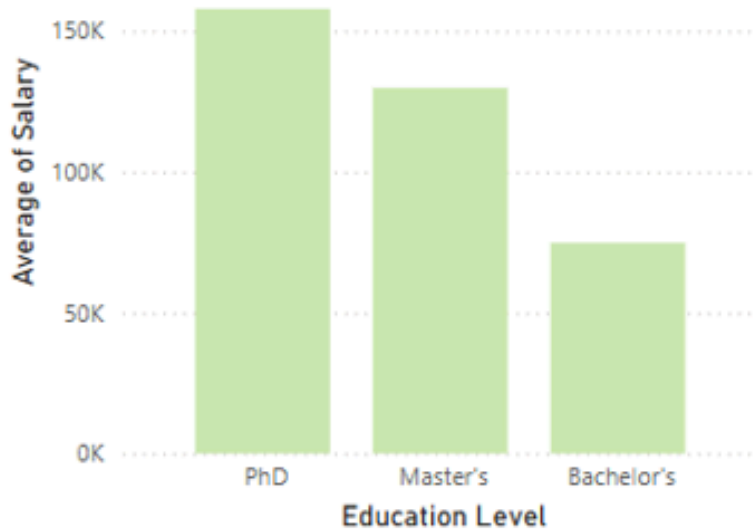


Figure 4: Average Salary by Education Level

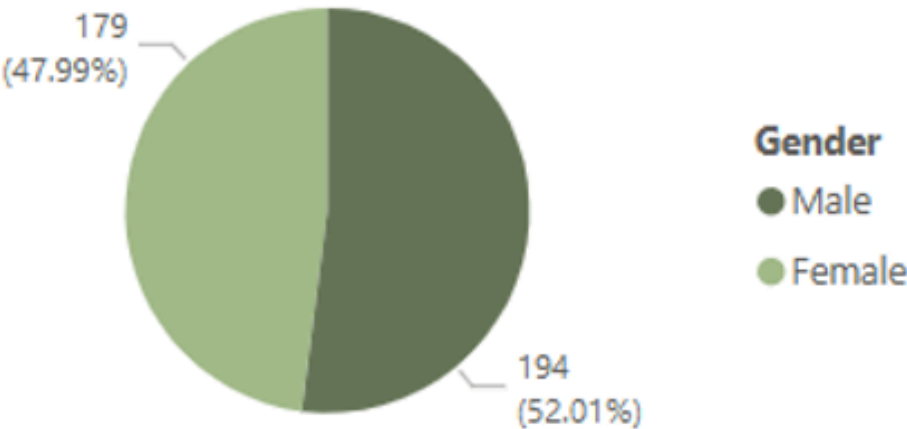


Figure 5 Job Title Count by Gender

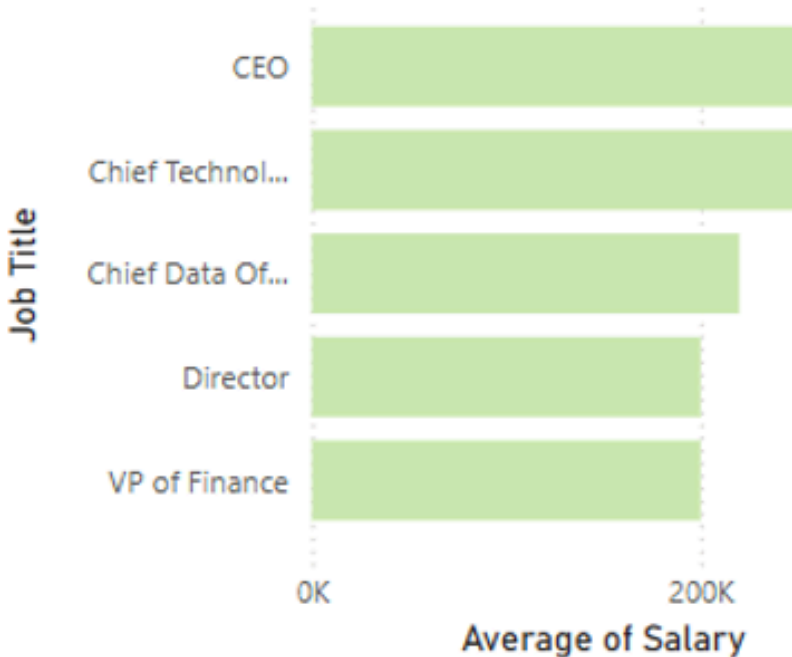


Figure 6: Top 5 Job Titles by Average Salary

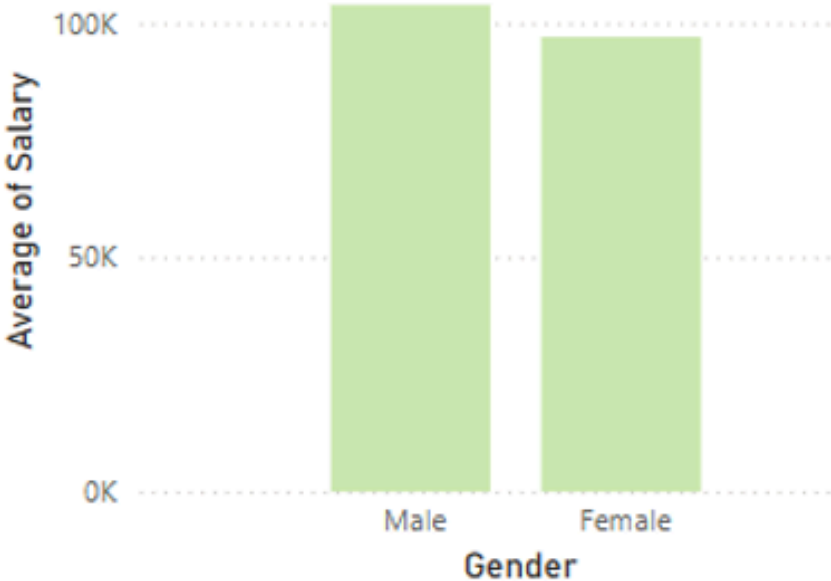


Figure 7: Average Salary by Gender

Results

After finishing our work on the dashboard, we noticed some interesting things :

- Experience Matters: We clearly saw that the more years of experience someone has, the higher their salary usually is.
- Some Surprises: While most people with more experience earned more, there were a few cases where people with less experience earned higher salaries.
- Education Makes a Difference: We also found that people with higher education tend to get better salaries, though it wasn't a huge difference in our case.
- Salary and Gender: There was a small gap between male and female salaries. It wasn't very big, but it's something worth looking into more seriously.

