

# **CRITICAL REFLECTION TABLEAU VS POWER BI**

## **1) INTRODUCTION**

In this CA, we worked with an Employee churn dataset called “ChurnPrediction.csv”. It contains 1.470 rows and 27 columns. The dataset includes employee data such as departments, job roles, overtime status and also some demographic variables and if they left the company or not (churn). The main goal was to create interactive dashboards using Tableau and Power BI. These dashboards help us see patterns in employee churn. They are made for HR managers and other executive stakeholders who need to make decisions.

## **2) EXPERIENCE WITH TABLEAU**

Tableau presented an easier user-interface. Drag-and-drop was used for chart creations. Calculated fields was created like Churn Flag Rate and Hire Year using simple formulas parameters and filters (like job role or gender) were added, so users can explore the data in other ways. In this way the dashboard we made the dashboard more useful and interactive. The best part of Tableau was how fast we could make nice and clean dashboards. But sometimes it was hard to change things like the legend position or use advanced colours. Still, arranging all charts into one good-looking dashboard was simple. Tableau is very well for quick design and clean visuals.

## **3) EXPERIENCE WITH POWER BI**

Power BI usage was more complex to master at first. We needed more time to understand DAX formulas and calculated columns. But once we learned it, Power BI felt powerful. We made the same calculated fields as in Tableau, but in Power BI, we used more technical steps. We also used measures, which gave us better control. Adding filters with slicers was easy. We also created a What-If Parameter for minimum working years, which gave users more options. Power BI's conditional formatting was better. We could use color gradients and rules more efficiently. From our experience, Tableau offers better visualisation.

## **4) COMPARISONS AND EXAMPLES**

We made the same five charts in both tools:

- 1) What is the overall churn rate, and how has it changed over the years?
- 2) Which departments are losing the most employees?
- 3) Which job roles have the highest churn?
- 4) Are employees who work overtime more likely to leave the company?
- 5) Do experienced employees leave the company less often?

In tableau, we created the charts faster than Power BI. Using filters and parameters together was very smooth. The charts looked good from the beginning. In Power BI, it took more time, but we had more control. For example, it was easier to set color scales based on churn rate. Also, DAX formulas allowed us to do more complex calculations. Tableau felt easier and more focused on design. On the other hand Power BI, felt more technical but gave us more options.

## **5) CONCLUSION**

Both of the tools are have strong sides. Tableau is good for simple, fast dashboards with nice and design. Tableau visualisations look more fancier and attractive. Power BI is better for detailed analysis and more control. From, this project, we learned how to use both tools. We also learned when to choose one over the other. If someone needs a quick and easy summary, we would recommend Tableau. If they need advanced features and more control, Power BI is better choice. This project provided us understand not only the tools, but also how to choose the right one for the user's needs.