HR Analytics Dashboard

A data driven overview of employee trends, engagements and attrition insights using Power BI

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Agenda

Project Overview

This project focuses on building an HR analytics dashboard using Power BI to analyze employee attrition and engagement trends. The goal was to uncover key insights by combining operational HR data with survey results.

- Developed an interactive HR dashboard using Power BI Desktop

- Combined data from HRIS and engagement surveys

- Analyzed employee attrition patterns and engagement trends

- Identified key drivers of turnover using AI-based Key Influencer visuals

- Visualized KPIs such as attrition rate, satisfaction, performance, gender split, and income by department

Data Sources and Tools

The dashboard was built using sample HR and engagement data to ensure practical relevance. Power BI Desktop was used for data modeling, visualization, and AI-based insights.

- Tools Used: Power BI Desktop

- HRIS Data: Employee demographics, department, salary, performance

- Engagement Survey Data: Job satisfaction, work-life balance, overtime status

- Created data relationships using Employee Number as the key

- Applied one-to-one relationships and used slicers for dynamic filtering

Key Metrics & KPIs

The dashboard presents core HR metrics that highlight trends in employee demographics, satisfaction, performance, and attrition. These KPIs provide a quick overview of workforce health and behavior.

- Total Employees: 1,470

- Attrition (Yes): 237 employees

- Gender Distribution: 60% Male, 40% Female

- Job Satisfaction (Avg.): 2.73 / 5

- Performance Rating (Avg.): 3.15 / 5

- Average Monthly Income by Department:

    a) Sales: €14,489

    b) R&D: €14,284

    c) HR: €13,493
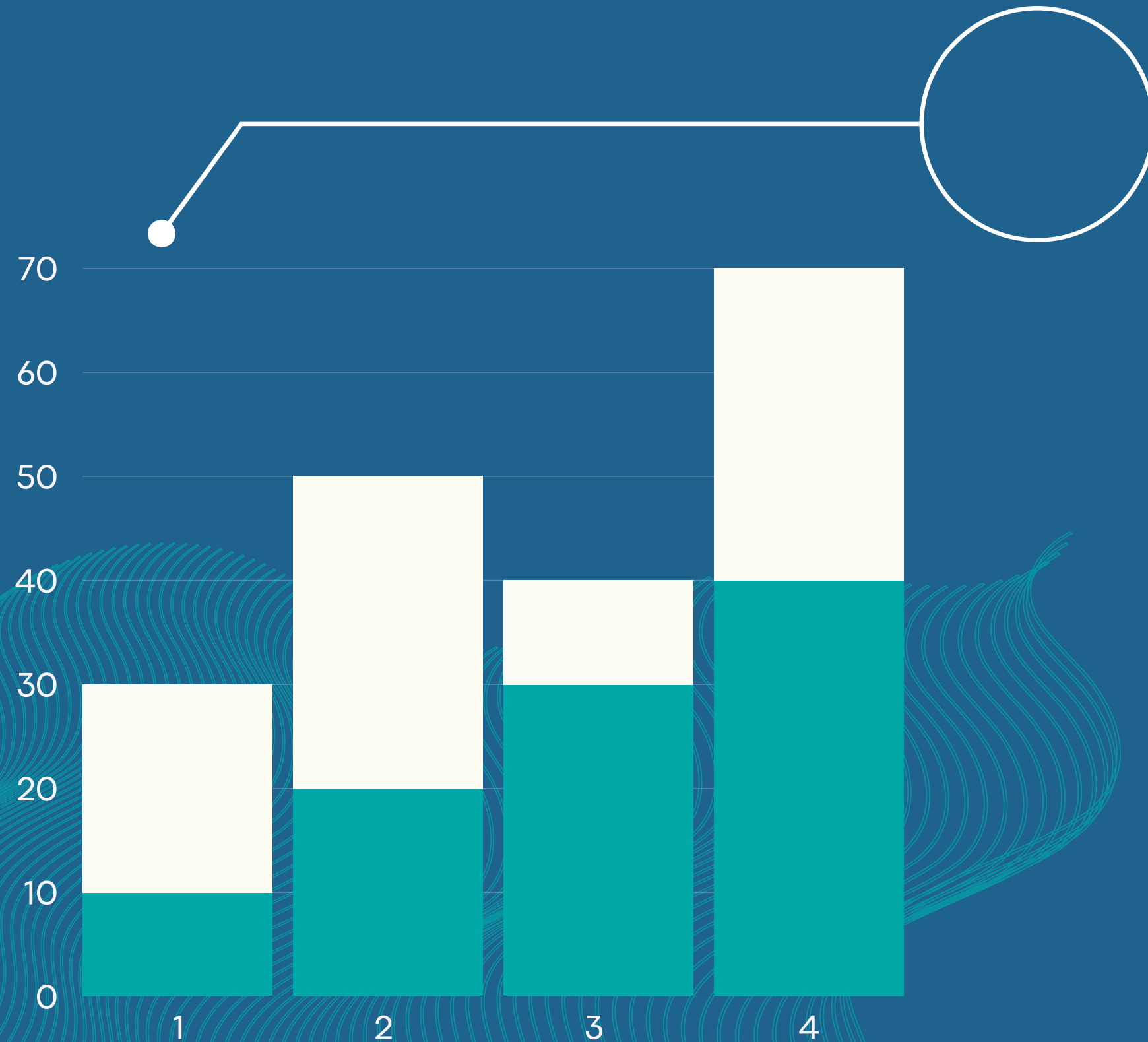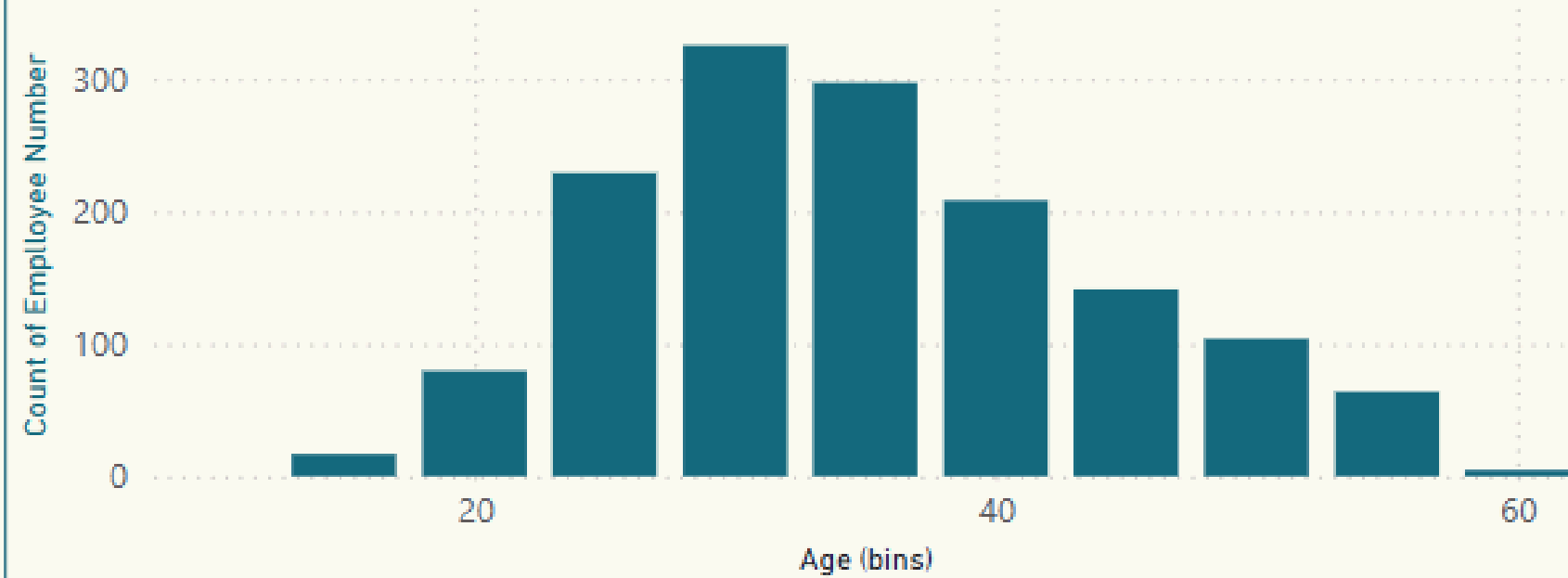
Insights & Influencing factors

Using Power BI's Key Influencer visual and comparative analysis, the dashboard reveals patterns behind employee attrition and highlights the most impactful factors.

- Employees working overtime are significantly more likely to leave

- Low work-life balance increases attrition risk

- Lower job satisfaction is strongly linked to higher turnover

- Employees with ≤ 1 year at the company leave more often

- Single employees and frequent travelers show higher attrition rates

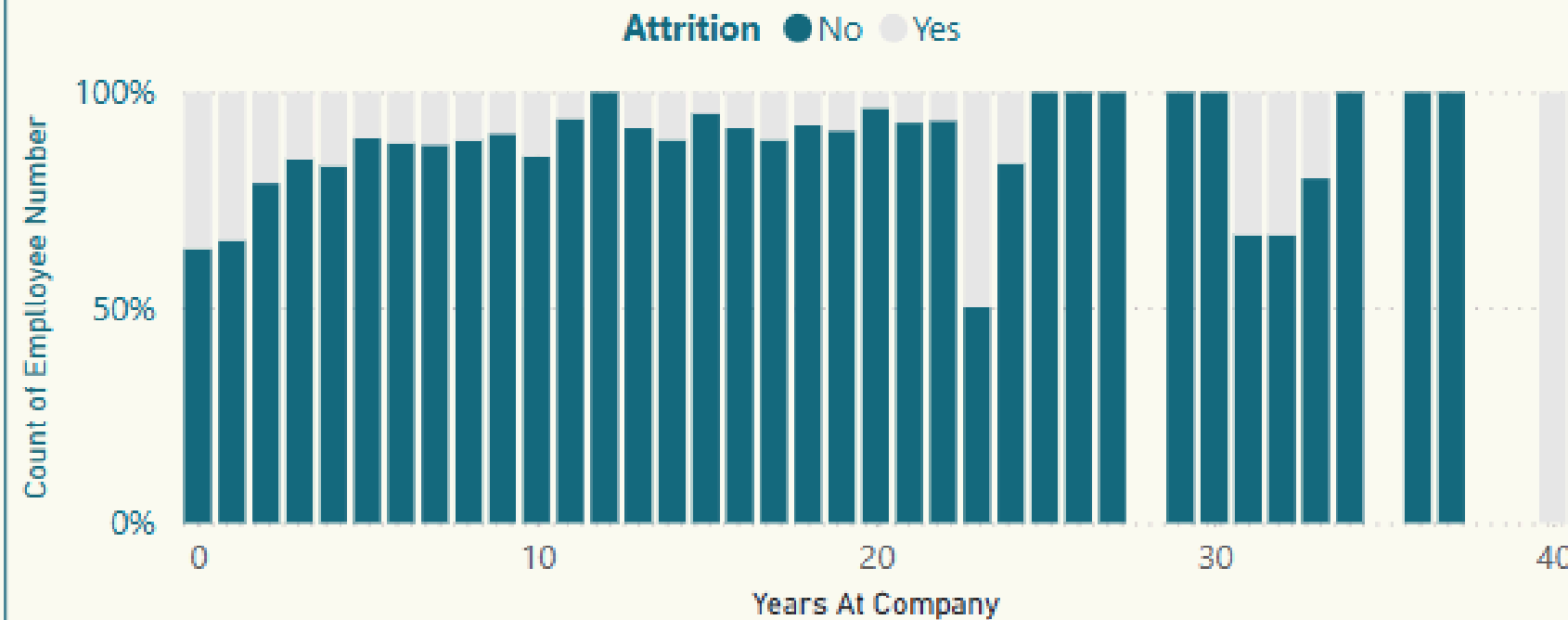- Higher satisfaction and no overtime are associated with better retention

HR Dashboard

Count of Emplloyee Number by Age (bins)

Count of Emplloyee Number by Years At Company and Attrition

Attrition ● No ● Yes

Department	Average of Monthly Income
Sales	14.489,7937 €
Research & Development	14.284,8658 €
Human Resources	13.492,9841 €
Total	**14.313,1034 €**

Key influencers   Top segments   👍 👎

What influences Attrition to be   [Yes ▾] ?

When…   ....the likelihood of Attrition being Yes increases by

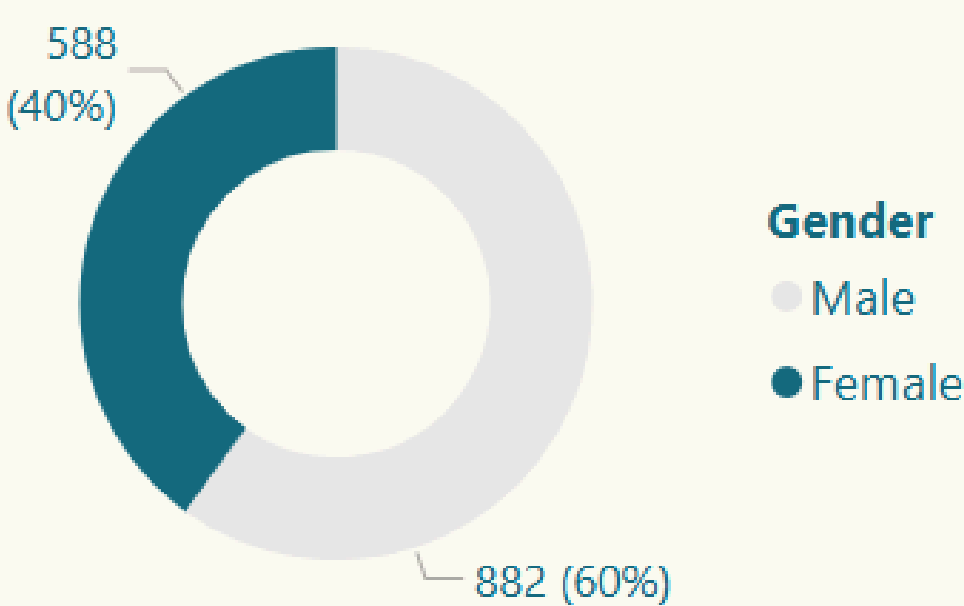| When	
Over Time is Yes	2.93x
Years At Company is 1 or less	2.70x
Marital Status is Single	2.18x
Sum of WorkLife Balance is 1 or less	2.05x
Business Travel is Travel_Frequently	1.77x
Sum of Job Satisfaction is 1 or less	1.58x

Count of Emplloyee Number by Gender

588 (40%)

882 (60%)

Gender
- Male
- ● Female

Q & A

💬 [what is the total count of employee number?]

1470

Count of Employee Number

Average of Performance Rating

1,00   3.15   5,00
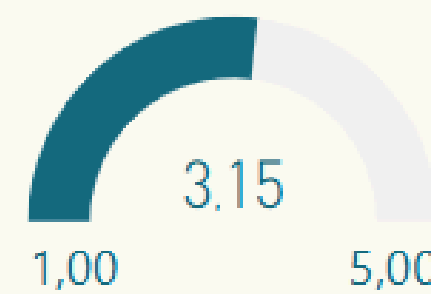
Average of Job Satisfaction

1,00   2.73   5,00

Skills Demonstrated

This project showcases practical HR analytics skills, from data modeling to insight communication. The dashboard reflects the ability to turn raw data into meaningful, action-oriented visuals.

- Power BI Dashboard Design: Visual layout, slicers, cards, and charts

- Data Cleaning & Relationship Modeling: Merging HRIS and survey data

- HR Analytics & KPI Design: Relevant, goal-focused metrics

- Insight Communication: Highlighting key trends and causes of attrition

- Visual Storytelling: Clear, interactive, and business-relevant dashboard

Coclusion

The project demonstrates how HR data can be used to identify trends, support decision-making, and improve employee retention through visual analysis