

HR Dashboard - Excel & Power BI

1. Project Overview

This project focuses on analyzing **bank customer attrition** using a dataset containing **10,000 records**. The goal is to identify key trends in customer behavior, financial engagement, and complaint rates to help optimize banking services and retention strategies.

Tools Used:

- **Data Cleaning & Analysis:** Excel
 - **Data Visualization & Dashboarding:** Power BI
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2. Key Business Questions & Insights

1. Customer Breakdown by Card Type

Gender Customers with Credit Card Customers without Credit Card

Male	3,900	1,600
Female	3,200	1,400

Insights:

- **71% of customers** own a credit card (**7,100 out of 10,000**).
- More **male customers own credit cards (3,900 vs. 3,200 females)**.
- The trend suggests that **males may be more inclined to credit-based transactions**.

2. Card Type Breakdown by Percentage of Total Revenue

Card Type	Revenue Percentage (%)
DIAMOND	25.93%
GOLD	25.09%
PLATINUM	24.69%
SILVER	24.29%

Insights:

- **DIAMOND cardholders generate the highest revenue (25.93%).**
- **Minimal variation across card types** (only **1.64% difference** between the highest and lowest revenue generators).

3. Salary Breakdown by Age

Age Group Avg Salary (\$)

18-24	47,165.18
25-34	322,471.05
35-44	396,054.18
45-54	150,878.20
55-64	56,029.49
65+	28,304.30

Insights:

- **Peak salary occurs at ages 35-44 (\$396K).**
- **Sharp decline in income after 45+**, suggesting a shift in financial stability.

4. Card Type Breakdown by Salary

Card Type Total Salary (\$)

SILVER	252,326,935
GOLD	251,578,501
PLATINUM	249,992,874
DIAMOND	247,004,089

Insights:

- **SILVER cardholders earn the most collectively (\$252M).**
- **DIAMOND cardholders have the lowest total salary**, yet generate the highest revenue.

5. Credit Score Breakdown by Age

Age Group Credit Score

18-24	457
25-34	3,222
35-44	3,981
45-54	1,458
55-64	600
65+	282

Insights:

- Customers aged 35-44 have the highest credit scores.
- Older customers (55+) and young adults (18-24) struggle with creditworthiness.

6. Complaint Rate by Gender

Gender Complaining Customers (%) Non-Complaining Customers (%)

Male	16.53%	83.47%
Female	25.14%	74.86%

Insights:

- More female customers report complaints (25.14%) compared to males (16.53%).
- The majority of customers do not complain (74-83% satisfaction levels).

3. Key DAX Measures

**Active = CALCULATE(COUNTROWS(HR_Banking_Analytics),
HR_Banking_Analytics[IsActiveMember] = 1)**

Active Member Percentage = DIVIDE([Active], COUNTROWS(HR_Banking_Analytics), 0)

**Attribute = CALCULATE(COUNTROWS(HR_Banking_Analytics),
HR_Banking_Analytics[IsActiveMember] = 0)**

Average Credit Score = AVERAGE(HR_Banking_Analytics[CreditScore])

Avg Salary = VAR a = CALCULATE(AVERAGE(HR_Banking_Analytics[EstimatedSalary])) RETURN
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Complain Customer = CALCULATE(COUNTROWS(HR_Banking_Analytics),
HR_Banking_Analytics[Complain] = 1)

Customer with Credit Card = CALCULATE(COUNTROWS(HR_Banking_Analytics),
HR_Banking_Analytics[HasCrCard] = 1)

Customer without Credit Card = CALCULATE(COUNTROWS(HR_Banking_Analytics),
HR_Banking_Analytics[HasCrCard] = 0)

Headcount = DISTINCTCOUNT(HR_Banking_Analytics[CustomerId])

Not Complain Customer = CALCULATE(COUNTROWS(HR_Banking_Analytics),
HR_Banking_Analytics[Complain] = 0)

Total Balance = SUM(HR_Banking_Analytics[Balance])

Total Customer Salary = SUM(HR_Banking_Analytics[EstimatedSalary])

Total Points Earned = SUM(HR_Banking_Analytics[Point Earned])

4. Recommendations

1. **Increase Credit Card Adoption:**

- Target female customers with promotions to boost credit card usage.

2. **Revenue Optimization:**

- Offer incentives on **SILVER & PLATINUM** cards to increase spending.

3. **Age-Based Financial Strategies:**

- Provide tailored financial products based on salary trends.

4. **Credit Education & Support:**

- Launch credit-building programs for younger and older customers.

5. **Enhance Customer Satisfaction:**

- Improve service quality to reduce **female customer complaints**.
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5. Conclusion

This analysis provides critical insights into **customer behavior, financial trends, and attrition risks**. By leveraging these findings, banks can refine their strategies to **boost engagement, optimize revenue, and enhance customer retention**.