

# CREDIT CARD CUSTOMERS ANALYSIS CHURN PREDICTION

By Katia Diallo

data analysis bootcamp final project

# ABOUT ME:

I'm Katia Diallo. After working in recruitment for a long time, I decided to switch to data this year. Despite facing some challenges, I found a strong interest in data and technology. I'm excited about this new path and the chances it brings.



# DATASET:

<https://www.kaggle.com/datasets/sakshigoyal7/credit-card-customers>

I got this dataset from Kaggle.

this dataset comprises information from 10,000 customers, including details such as their age, marital status, income, credit card limit, credit card category, and a total of approximately 18 distinct features.

A banking manager has expressed concern over a growing trend of customers discontinuing their credit card services. They are interested in the development of a predictive model that can identify potential instances of customer churn. This would enable the bank to adopt a proactive approach by engaging with identified customers, offering enhanced services, and thereby influencing their decisions in a favorable manner.

# OBJECTIVES:

- 1 How many customers have churned?
- 2 How does churn differs across the different demographics?
- 3 Who are the costumers that are likely to churn?

# EXCEL FINDINGS:



**Churn Count**

**1627**

```
=COUNTIF(B2:B10128,"Attrited Customer")
```

Existing Customer	8500
Attrited Customer	1627
Total/SUM	10127

```
=SUM(AA4:AA5)
```

I used COUNT IF in order to understand how many customers have churned and also to see the differences in the amount between Existing and Attrited Customers

I also used SUM to calculate the total amount of customers

# EXCEL FINDINGS:



=IF(C2>55,"Old",IF(C2>=31,"Middle Age",IF(C2<31,"Young Adult","Invalid")))

C	D
Customer_Age	Customer_Age_Brackets
45	Middle Age
49	Middle Age
51	Middle Age
40	Middle Age
40	Middle Age
44	Middle Age
51	Middle Age
32	Middle Age
37	Middle Age
48	Middle Age
42	Middle Age
65	Old
56	Old

Count of Attrition_Flag	Column Labels		
Row Labels	Attrited Customer	Existing Cust	Grand Total
Female	930	4428	5358
Male	697	4072	4769
Grand Total	1627	8500	10127

I used the IF statement to group the age into brackets

I used a Pivot Table in order to see the attrition across the different demographics.



# SQL ANALYSIS:

## Customer Utilisation Ratio



Row	Avg_Utilisation_Ratio
1	0.27

Average utilisation ratio

Row	Gender	Avg_Utilisation_by_G
1	F	0.34
2	M	0.2

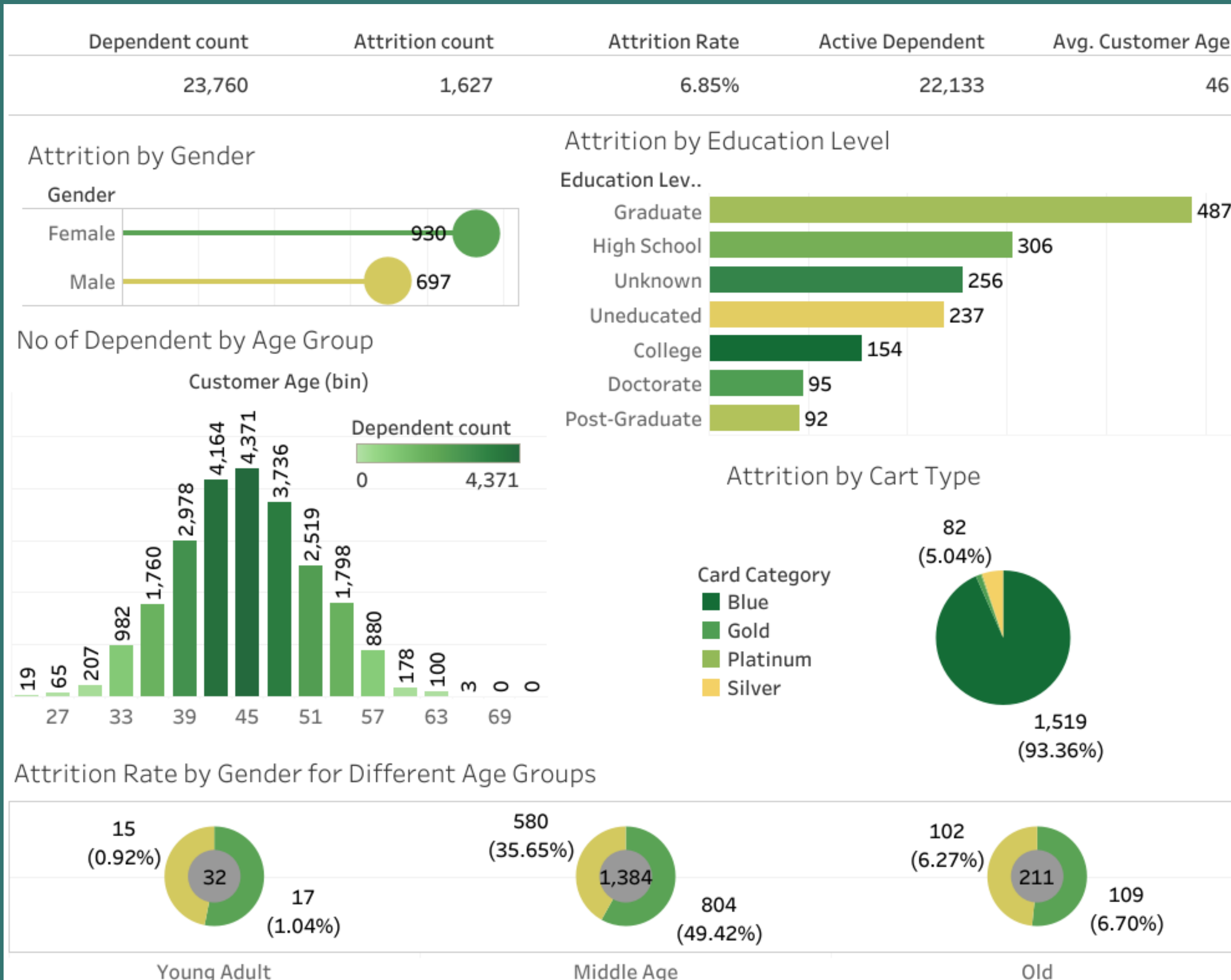
Average utilisation ratio by gender. On average, females have a higher utilization ratio.

Row	Card_Category	Avg_Utilisation_by_G
1	Blue	0.29
2	Silver	0.06
3	Platinum	0.04
4	Gold	0.06

Average utilisation by card type



# CREDIT CARD CUSTOMERS ATTRITION







# RECOMMENDATIONS/ INSIGHTS

- **Enhanced Engagement:** Increase customer contact frequency for updates, feedback, and early issue identification, fostering proactive communication and satisfaction.
- **Demographic Focus:** Target demographics like females, middle-aged, married/single customers with blue cards and 2-3 dependents to understand and address churn trends.
- **Incentives and Monitoring:** Introduce rewards for retention, monitor competitors' offerings, and leverage utilization ratios and card types for effective strategy.

# CONCLUSION

Completing this bootcamp stands as a significant achievement in my journey.

Throughout this process, I've not only gained newfound confidence but also learned to believe in my own abilities and cultivate patience with myself.



# KEY LEARNINGS

Niyo bootcamp, taught me how to:

- collect
- clean
- analyze

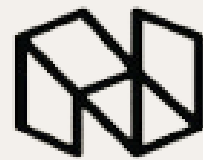
data using tools like **Excel** **Sql** and **Python**.

I gained skills in creating visualizations to convey insights effectively. The bootcamp also covered statistical techniques for making informed decisions and gave me hands-on experience with real-world datasets.

# THANK YOU!

<https://github.com/katiadiallo>

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