POWER BI

Financial Analysis

USING DAX QUERIES

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Introduction

You are a Financial Data Analyst tasked with analyzing credit card usage and financial metrics for a banking institution. Using the provided data, you will create reports in Power BI by applying DAX functions.

Your goal is to calculate financial metrics like running totals, moving averages, and growth rates, and generate KPIs that assess customer behavior, credit utilization, and delinquency risk. The analysis will provide key insights for improving customer retention and financial performance.

What is

POWER BI

Power BI is a **business intelligence and data visualization tool** developed by **Microsoft.** It is designed to help businesses transform raw data from various sources into meaningful and interactive insights. **Power BI** is a collection of software services, apps, and connectors that work together to turn your unrelated sources of data into coherent, visually immersive, and interactive insights

Data Analysis Expressions (DAX) is a powerful formula language used in **Power BI**, Power Pivot in Excel, and SQL Server Analysis Services (SSAS). DAX is designed to work with relational data and allows users to create custom calculations and aggregations on data models.

Problem statement

- **Running Total** of Credit Card Transactions
- Calculate the 4-week **moving average** of the creditLimit for each client.
- Calculate the **mom% growth and wow% growth** on transaction amount.
- Calculate **Customer Acquisition Cost (CAC)** as a Ratio of Transaction Amount.
- Calculate the **yearly average** of avg_utilization_ratio for all clients.
- Calculate the **percentage of Interest_Earned** compared to **Total_Revolving_Bal** for each client.
- Calculate **Top 5 Clients** by Total Transaction Amount.
- Identify clients whose Avg_Utilization_Ratio **exceeds 80%.**
- **Customer Churn Indicator:** Create a KPI that flags clients who have not made any transactions (Total_Trans_Amt = 0) in the last 6 months.

- **Delinquency Rate:** Calculate the percentage of clients with Delinquent_Acc > 0.
- **Credit Risk Score:** Create a score for each client based on their Avg_Utilization_Ratio, Delinquent_Acc, and Total_Revolving_Bal.
- **Income vs Credit Limit Correlation:** Show the correlation between Income and Credit_Limit for all clients.
- **Average Customer Satisfaction Score by Credit Card Category:** Calculate the average Cust_Satisfaction_Score by Card_Category.
- **Loan Approval vs Credit Limit:** Analyze how Credit_Limit affects Personal_loan approval by calculating the average credit limit for clients with and without loans.
- **High Risk Clients Flag:** Create a flag for clients whose Total_Revolving_Bal exceeds 90% of their Credit_Limit and who have a high Avg_Utilization_Ratio.

Dataset Overview

Dataset Link

This analysis consists **Credit_card** and **Customer** as separate tables in this data-set, which will be used to analyze Credit's Customer behavior , potential risk factors.

Credit_card

Key columns :

- Credit_Limit
- Total_Revolving_Bal
- Avg_Utilization_ratio
- Interest_Earned

Objective :

- Tracking spending habits
- Credit utilization
- To avoid risk factors (Delinquent acc)

Customer

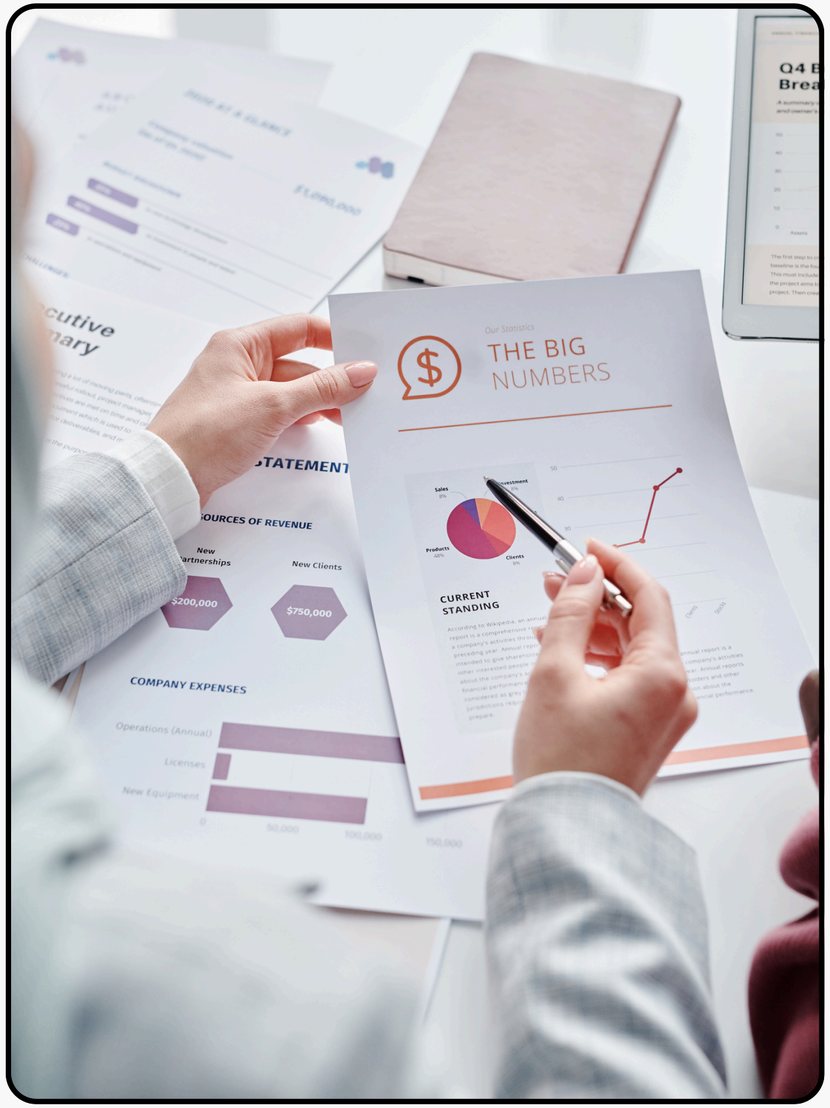
Key columns :

- Personal_loan
- Customer_Job
- Income
- Cus_Satisfaction_Score

Objective :

- Overall Consumer satisfaction
- Potential churn
- Forming better policies

Cleaning Dataset...



Necessary steps :

Although the dataset is cleaned and is ready to use, but there are still some steps that are better to be performed in order to smoothly progress towards the analysis.

Append queries :

- The dataset initially consisted **4 tables**.
- **Credit_card, cc_add** & **Customers, Customers_add**
- Both the additional tables shall be **appended** into their respective tables as they contain additional rows of data, which is better to be appended for much sophisticated way.

Standardizing columns before appending tables:

- All the columns **didn't had same Column title** , as it would have became hurdle while appending tables.
- **Credit_card** contained column named **Total_Trans_Vol** and **cc_add** contained **Total_Trans_Ct** , which was later renamed as **Total_Trans_Vol** to ensure standard columns titling while appending both tables.

Key indications

Financial metrics :

- Running totals
- Moving averages
- Growth rates for transactions.

Risk indicators :

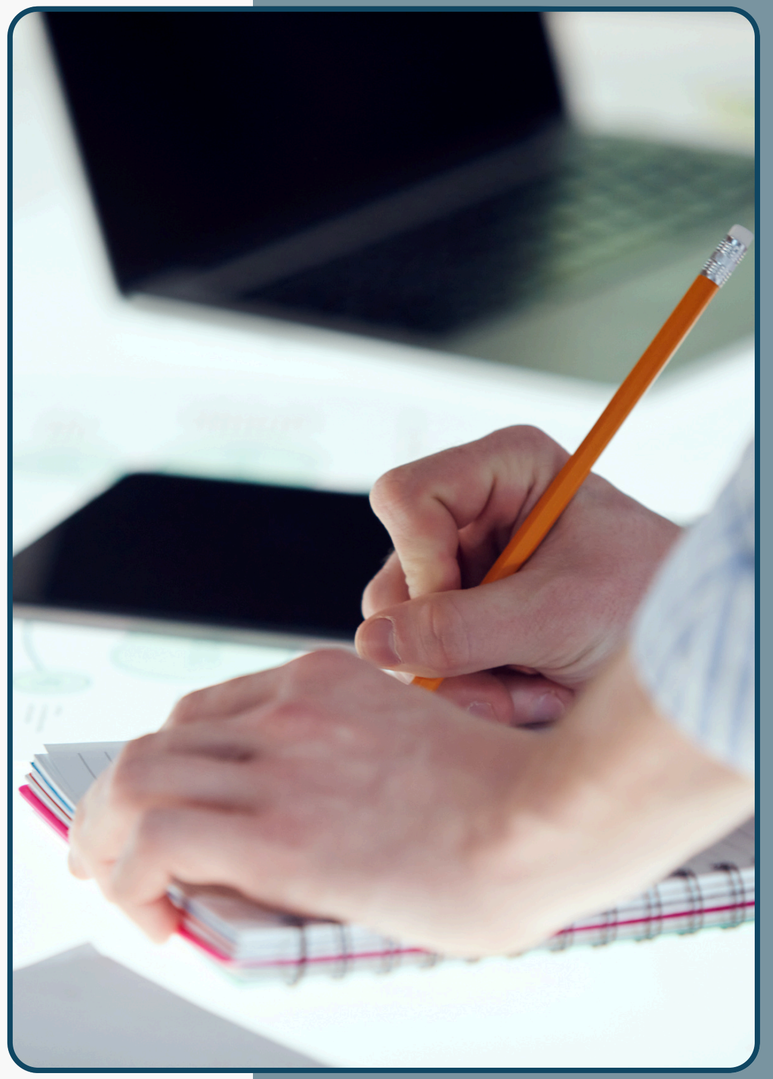
- Delinquency rates,
- Credit risk scores
- High-risk flag clients

Correlations:

- Examined income vs. Credit limit
- Loan approvals vs. Credit limits.

Behavioral Insights:

- Retention
- Churn indicators
- Transaction patterns.



Queries

Running total of Credit_Card Transactions.

```
1 Running_total =
2     CALCULATE([Total transaction amount],
3     FILTER(ALL('Credit card'),
4     'Credit card'[Week_Start_Date] <=
5     MAX('Credit card'[Week_Start_Date])))
```

Why calculate running total?

A **running total** is a **cumulative sum** that keeps track of the ongoing sum of a series of numbers or values.
It allows you to see the total value at each step as you progress through the data.

- A running total helps you see how values add up over time, making it **easier to track trends.**
- **Visualizing running totals** with charts can **provide clearer insights** into your data.

Week_Start_Date	Total transaction amount	Running_total
01 January 2023	$8,35,767	$8,35,767
08 January 2023	$8,44,739	$16,80,506
15 January 2023	$9,23,367	$26,03,873
22 January 2023	$8,69,235	$34,73,108
29 January 2023	$8,49,078	$43,22,186
05 February 2023	$8,98,867	$52,21,053
12 February 2023	$8,90,756	$61,11,809
19 February 2023	$8,68,091	$69,79,900
26 February 2023	$8,81,861	$78,61,761
05 March 2023	$7,93,080	$86,54,841
12 March 2023	$9,15,725	$95,70,566
19 March 2023	$8,90,081	$1,04,60,647
26 March 2023	$7,89,941	$1,12,50,588
02 April 2023	$8,09,413	$1,20,60,001
09 April 2023	$8,50,979	$1,29,10,980
16 April 2023	$8,67,373	$1,37,78,353
23 April 2023	$7,84,927	$1,45,63,280
30 April 2023	$8,62,036	$1,54,25,316
07 May 2023	$8,34,443	$1,62,59,759
14 May 2023	$8,37,155	$1,70,96,914
21 May 2023	$9,31,258	$1,80,28,172
28 May 2023	$8,24,057	$1,88,52,229
04 June 2023	$8,59,507	$1,97,11,736
Total	**$4,55,33,021**	**$4,55,33,021**

4-week moving average of the creditLimit for each client.

```
Moving_average_of_4_weeks =

VAR Week_4 = DATESINPERIOD(Calender[Date],MAX(Calender[Date]), -28, DAY)

VAR Total_amount = CALCULATE([Total transaction amount],Week_4)

VAR week_num = CALCULATE(DISTINCTCOUNT('Credit card'[Week_Num]),Week_4)

RETURN DIVIDE(Total_amount,week_num,0)
```

Week_number	Total transaction amount	Moving_average_of_4_weeks
1	$8,35,767	$8,35,767.00
2	$8,44,739	$8,40,253.00
3	$9,23,367	$8,67,957.67
4	$8,69,235	$8,68,277.00
5	$8,49,078	$8,71,604.75
6	$8,98,867	$8,85,136.75
7	$8,90,756	$8,76,984.00
8	$8,68,091	$8,76,698.00
9	$8,81,861	$8,84,893.75
10	$7,93,080	$8,58,447.00
11	$9,15,725	$8,64,689.25
12	$8,90,081	$8,70,186.75
13	$7,89,941	$8,47,206.75
14	$8,09,413	$8,51,290.00
15	$8,50,979	$8,35,103.50
16	$8,67,373	$8,29,426.50
17	$7,84,927	$8,28,173.00
Total	**$4,55,33,021**	**$8,62,437.75**

Why calculate moving average?

A moving average (MA) is a stock indicator commonly used to help **smooth out price data by creating a constantly updated average price.**
the impacts of random, short-term fluctuations on the price of a stock over a specified time frame are mitigated.

- **A rising moving average indicates that the security is in an uptrend, while declining moving average indicates a downtrend.**

Month Over Month growth in percentage (%).

```
1 MOM%Growth =
2
3 VAR Growth =
4     CALCULATE([Total transaction amount],
5     DATEADD(Calender[Date], -1,MONTH))
6
7 RETURN DIVIDE([Total transaction amount]-Growth,Growth,0)
```

Month	Total transaction amount	MOM%Growth
January	$43,22,186	0%
February	$35,39,575	-18%
March	$33,88,827	-4%
April	$41,74,728	23%
May	$34,26,913	-18%
June	$35,33,660	3%
July	$45,46,958	29%
August	$34,49,868	-24%
September	$34,52,874	0%
October	$40,50,909	17%
November	$34,05,420	-16%
December	$42,41,103	25%
Total	**$4,55,33,021**	**10%**

Why calculate Month over Month growth?

Month-over-month growth is a key metric **used in business analytics** to measure the change in performance over consecutive months. It provides valuable insights into the trends and patterns of a business, allowing professionals to make informed decisions and drive growth.

Month-over-month growth **measures the rate of change in the value of a metric**, such as revenue or active users, on a monthly basis, expressed as a percentage of the prior month's value.

Week Over Week growth in percentage (%).

```
1 WOW%Growth =
2
3 VAR Growth =
4         CALCULATE([Total transaction amount],
5         DATEADD(Calender[Date], -7,DAY))
6
7 RETURN DIVIDE([Total transaction amount]-Growth,Growth,0)
```

Week_number	Total transaction amount	WOW%Growth
1	$8,35,767	0%
2	$8,44,739	1%
3	$9,23,367	9%
4	$8,69,235	-6%
5	$8,49,078	-2%
6	$8,98,867	6%
7	$8,90,756	-1%
8	$8,68,091	-3%
9	$8,81,861	2%
10	$7,93,080	-10%
11	$9,15,725	15%
12	$8,90,081	-3%
13	$7,89,941	-11%
14	$8,09,413	2%
Total	**$4,55,33,021**	**2%**

Why calculate Week over Week growth?

Week over week growth is a powerful function used by business professionals, analysts, and marketers to **track and measure performance trends over consecutive weeks.**

- During weekly performance reviews to **assess the impact of recent strategies.**
- After launching a new product or campaign to **evaluate its immediate effects.**
- To identify and act on **short-term patterns or trends.**
- To compare different weeks to understand **seasonality or external influences.**
- For quickly assessing the impact of **operational changes or market shifts.**

Customer Acquisition Cost (CAC) as a ratio of transaction amount.

```
1 CAC Ratio =
2     DIVIDE(
3     SUM('Credit card'[Customer_Acq_Cost]),
4     [Total transaction amount],0)
```

2.18%

CAC Ratio

Why calculate customer acquisition cost?

Customer Acquisition Cost (CAC) is a metric that allows companies to measure the **cost of acquiring a new customer.**

- The metric involves considering all the **expenses incurred while convincing customers to purchase products or services a business offers.**
- This **includes time and investment made on research, marketing, and advertising.** Ultimately, enabling businesses **to calculate the ROI of customer acquisition.**
- If it's closer to 1:1, that means you're spending just as much money on attaining customers as they're spending on your products or services. If it's higher than 3:1, like 4:1 that means you need to spend more on sales and marketing and could be missing out on opportunities to attract new leads.

0.02

CAC Ratio

Average of avg_utilization_ratio for all clients (Yearly).

```
1 Avg_Utilisation_Ratio =
2     AVERAGE
3     ('Credit card'[Avg_Utilization_Ratio])
```

27.45%

Avg_Utilisation_Ratio

Why calculate Yearly average utilization ratio?

Credit Utilization (AUR) often refers to the **ratio of used credit to the total available credit**. Tracking the yearly average can:

- Assess overall **credit health and usage trends.**
- Help **maintain a good credit score** by ensuring credit usage stays within optimal limits (e.g., below 30% of total credit).
- Aid in budgeting and financial planning by **identifying patterns in borrowing behavior.**
- By summarizing the utilization patterns over a year, stakeholders can make informed, data-driven decisions that optimize performance, reduce costs, and enhance sustainability.

0.27

Avg_Utilisation_Ratio

% of Interest_Earned compared to Total_Revolving_Bal for each client.

```
1 Interest_earned_by_rev_bal =
2   DIVIDE
3       (SUM('Credit card'[Interest_Earned]),
4       SUM('Credit card'[Total_Revolving_Bal]))
```

66.63%

Interest_earned_by_rev_bal

Client_Num

- [ ] (Blank)
- [ ] 708082083
- [ ] 708083283
- [ ] 708084558

Why calculate percentage of interest earned?

The percentage provides a clear insight into how much revenue is being generated from the client relative to their outstanding balance. It's a key metric for profitability analysis, risk management, and strategic planning in financial institutions.

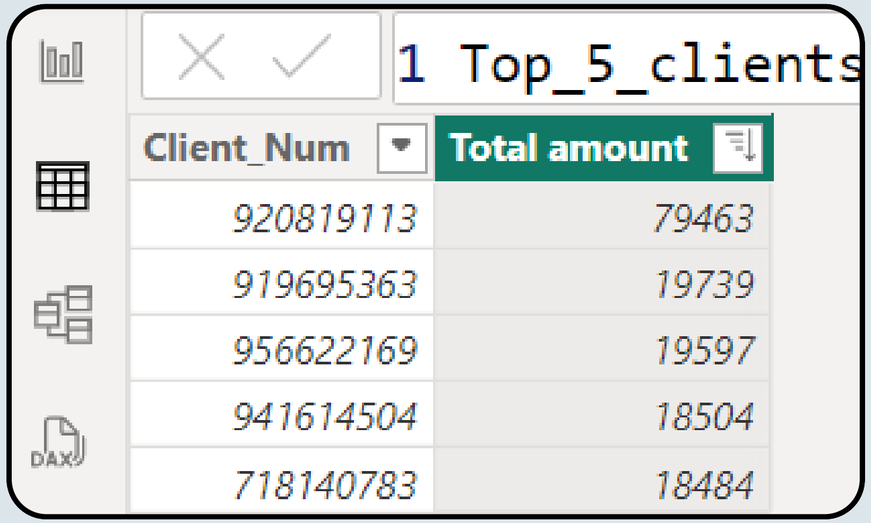
- **Measure Profitability**
- **Assess Client Credit Behavior**
- **Evaluate Risk Levels**
- **Strategic Decision-Making**

0.67

Interest_earned_by_rev_bal

Top 5 Clients by Total Transaction Amount.

```
1 Top_5_clients_by_Amt =
2     TOPN(5,
3      SUMMARIZE('Credit card','Credit card'
      [Client_Num],"Total amount",
4      [Total transaction amount]),
5      [Total amount],DESC)
```



Why calculate Top 5 clients by Total Transaction Amount?

Identifying your top 5 customers based on sales within each region **gives you a clearer, more actionable view of your business's performance.** This allows you to **tailor your approach,** focus on specific markets, and strategically allocate resources where they matter most.

- **Helps to reframing the policies being more effective.**
- **Giving some perks to clients who have spent most amount.**

Clients whose Avg_Utilization_Ratio exceeds 80%.

```
1 Avg_utilisation_above_80 =
2   IF
3   ('Credit card'[Avg_Utilization_Ratio] >=0.8,
4   "Exceeds","Not exceeds")
```

Steps to calculate clients whose avg utilizations ratio exceeds 80% :-

- Firstly, we created a new measure which categorizes “avg_utilization_ratio” into two parts where the ratio is **equal to or above 80% as “Exceeds” and below 80% as “Not exceeds”**

```
1 Avg_utilisation_exceeds_80% =
2     FILTER
3         ('Credit card',
4          'Credit card'[Avg_utilization_Ratio] >= 0.8)
```

- After that, we **created a new table** which filtered down the rows where the “Avg_utilization_ratio” is equal to or more than 80%.
- Calculating the number of clients whose Average Utilization Ratio (AUR) exceeds 80% can **provide valuable insights for strategic decision-making, resource management, and risk assessment.**

ation_Ratio	Use Chip	Exp Type	Interest_Earned	Delinquent_Acc	Avg_utilisation_above_80
0.911	Swipe	Bills	99.68	0	Exceeds
0.825	Online	Entertainment	132.77	1	Exceeds
0.811	Online	Grocery	809.6	0	Exceeds
0.806	Online	Grocery	748.02	0	Exceeds
0.843	Online	Food	1259.76	0	Exceeds
0.802	Online	Fuel	808.64	0	Exceeds
0.877	Online	Bills	223.72	0	Exceeds
0.823	Online	Bills	280.86	0	Exceeds
0.929	Online	Bills	351.68	0	Exceeds
0.806	Online	Bills	287.04	0	Exceeds
0.802	Chip	Fuel	511.56	1	Exceeds
0.862	Chip	Grocery	580.5	1	Exceeds
0.85	Chip	Food	988.6	0	Exceeds
0.955	Chip	Bills	295.33	0	Exceeds
0.863	Chip	Bills	298.06	0	Exceeds
0.857	Chip	Fuel	1120	0	Exceeds
0.843	Chip	Entertainment	287.73	0	Exceeds
0.844	Chip	Food	244.5	0	Exceeds

Customer Churn Indicator

```
Churned customers =

  VAR churned_cust =
    CALCULATE([Total transaction amount],
    DATESINPERIOD(Calender[Date],
    MAX(Calender[Date]),-6,MONTH))

  RETURN IF(ISBLANK(churned_cust),
    "Churned","Not churned")
```

Steps to calculate clients whose avg utilizations ratio exceeds 80% :-

- Firstly, we **created a new column** which categorized where **“Total transaction amount” was blank for last 6 months as “Churned”** which means customers have churned and other as “Not churned”.

```
1 Churned_customer =
2     CALCULATE
3     (COUNTROWS('Credit card'),
4     'Credit card'[Churned_customers] =
      "Churned")
```

5069

Churned_customer

- After that, **created a new measure** which **calculates the number of rows which contains “Churned”** from the new columns which we created earlier.
- we have **used a Card** to portray the number of customers who have Churned.
- The Customer Churn Indicator is a metric used to **identify and predict** the **likelihood of customers discontinuing their relationship with a business.**
- Calculating and analyzing this indicator is critical for organizations focused on retaining customers, improving customer satisfaction, and maximizing revenue.
- Losing customers directly impacts revenue. By monitoring churn indicators, businesses can **take steps to retain customers** and **reduce the financial impact of churn**, which is often more cost-effective than acquiring new customers.

Delinquency Rate

```
1 Deliquency_rate =
2
3 VAR deliquent_acc = CALCULATE(COUNTROWS('Credit
  card'),'Credit card'[Delinquent_Acc] > 0)
4
5 VAR Total_rows = COUNTROWS('Credit card')
6
7 RETURN DIVIDE(deliquent_acc,Total_rows,0)
```

6.06%

Deliquency_rate

0.06

Deliquency_rate

Why calculate “Delinquency Rate?”

Delinquency rate refers to the **percentage of loans within a financial institution's loan portfolio whose payments are delinquent.** When analyzing and investing in loans, the delinquency rate is an important metric to follow

- It's a vital metric for lenders, **offering insights into credit risk and portfolio performance.**

Credit Risk Score

```
Normalised_revolving_balance =
  DIVIDE
      ('Credit card'[Total_Revolving_Bal]
    -MIN('Credit card'[Total_Revolving_Bal]),

      MAX('Credit card'[Total_Revolving_Bal])
    -MIN('Credit card'[Total_Revolving_Bal]),0)
```

	Delinquent_Acc	Avg_utilisation_above_80	Churne	Churned customers	Normalised_revolving_balance
9.6	0	Not exceeds		Churned	0.529598728645213
8.4	0	Not exceeds		Churned	0.661104489471593
.54	0	Not exceeds		Churned	0.886769964243147
.96	0	Not exceeds		Churned	0.634485498609456
.94	0	Not exceeds		Churned	0.23202224870878
.06	0	Exceeds		Churned	0.567739372268574
.36	0	Not exceeds		Churned	0.638458482320223
.78	0	Not exceeds		Churned	0.352006356773937
.33	0	Not exceeds		Churned	0.764004767580453
.75	0	Not exceeds		Churned	0.874056416368693
.36	0	Not exceeds		Churned	0.066746126340882
2.5	0	Not exceeds		Churned	0.88279698053238
20	0	Exceeds		Churned	0.806912991656734
.48	0	Not exceeds		Churned	0.199443782280493
.64	0	Not exceeds		Churned	0.469606674612634
7.4	0	Not exceeds		Churned	0.67938021454112
.38	0	Not exceeds		Churned	0.631307111640842

Steps to calculate “Credit risk score” :-

The Credit Risk Score is a vital metric in financial and lending industries, serving multiple purposes that benefit both lenders and borrowers.

- **Assessing Borrower's Creditworthiness**
- **Determining Loan Terms**

Firstly, we **created a new column** which **contains the Normalized revolving balance** value from Total_Revolving_Bal which was standardized as Avg_Utilization_ratio and Delinquency_ratio values.

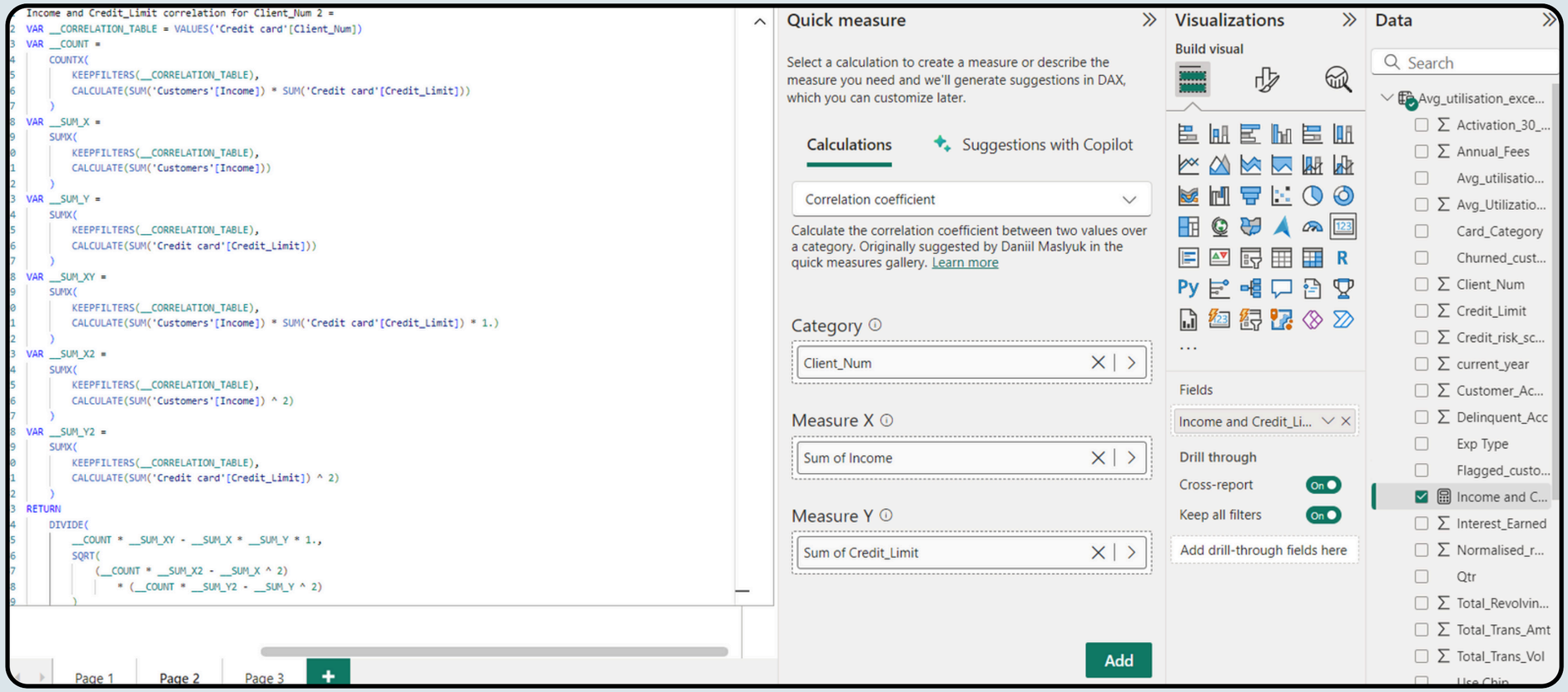
```
1 Credit_risk_score =
2     [Avg_Utilisation_Ratio] * 0.5
3     +
4     'Credit card'[Delinquent_Acc] * 0.3
5     +
6     'Credit card'[Normalised_revolving_balance] * 0.2
```

After that, we created another new column which contain the sum of **“Avg_Utilisation_Ratio”** product by **0.5** , **“Delinquent_Acc”** product by **0.3** and **“Normalised_revolving_balance”** product by **0.2** (All the ratios are decided by organization)

It is necessary to find out risk score for multiple reasons such as **Mitigating Financial Loss, Efficient Resource Allocation, Regulatory Compliance.**

ent_Acc	Avg_utilisation_above_80	Churne	Churned customers	Normalised_revolving_balance	Credit_risk_score
0	Not exceeds		Churned	0.529598728645213	0.166919745729043
0	Not exceeds		Churned	0.661104489471593	0.199720897894319
0	Not exceeds		Churned	0.886769964243147	0.233353992848629
0	Not exceeds		Churned	0.634485498609456	0.207397099721891
0	Not exceeds		Churned	0.23202224870878	0.211404449741756
0	Exceeds		Churned	0.567739372268574	0.545047874453715
0	Not exceeds		Churned	0.638458482320223	0.245191696464045
0	Not exceeds		Churned	0.352006356773937	0.302901271354787
0	Not exceeds		Churned	0.764004767580453	0.509800953516091
0	Not exceeds		Churned	0.874056416368693	0.374811283273739
0	Not exceeds		Churned	0.066746126340882	0.0693492252681764
0	Not exceeds		Churned	0.88279698053238	0.529059396106476
0	Exceeds		Churned	0.806912991656734	0.589882598331347
0	Not exceeds		Churned	0.199443782280493	0.143388756456099
0	Not exceeds		Churned	0.469606674612634	0.302921334922527
0	Not exceeds		Churned	0.67938021454112	0.214376042908224
0	Not exceeds		Churned	0.631307111640842	0.427761422328168
0	Not exceeds		Churned	0.603496225665475	0.252199245133095

Income vs Credit Limit Correlation



0.10

Income and Credit_Limit correlation for Client_Num 2

In this analysis, we **utilized Quick Measures** to calculate the correlation between different metrics.

We calculate correlation to **measure the strength and direction of a linear relationship between two variables**.

Average customer satisfaction score by Credit Card Category

```
1 Customer_satisfaction_by_card_category =
2     SUMMARIZE
3         ('Credit card','Credit card'[Card_Category],
          "avg_satisfaction_score",
4     AVERAGE
5         (Customers[Cust_Satisfaction_Score]))
```

1 Customer_satisfactic

Card_Category	avg_satisfaction_score
Blue	3.19372693726937
Silver	3.21752738654147
Gold	3.04255319148936
Platinum	2.71641791044776

Why calculate Average customer satisfaction score?

Calculating the average customer satisfaction score by credit card category allows businesses to **optimize their product offerings, improve customer experiences, and ultimately increase loyalty and profitability.**

Average Credit Limit (Without LOAN)

```
1 Loan_approval_yes =
2     CALCULATE
3         (AVERAGE
4         ('Credit card'[Credit_Limit]),
5         Customers[Personal_loan] = "Yes")
```

8.53K

Loan_approval_yes

Why calculate Average Credit Limit (With LOAN)?

Calculating the **Average Credit Limit (with Loan)** is useful in various financial contexts, especially for individuals, financial institutions, or businesses, to **assess creditworthiness, evaluate financial stability, and make informed financial decisions.**

Average Credit Limit (Without LOAN)

```
1 Loan_approval_No =
2     CALCULATE
3         (AVERAGE
4         ('Credit card'[Credit_Limit]),
5         Customers[Personal_loan] = "No")
```

8.65K

Loan_approval_No

Why calculate Average Credit Limit (Without LOAN)?

Calculating the **Average Credit Limit (Without Loan)** is particularly useful in **understanding the available revolving credit** of an individual or a business, excluding fixed-term obligations like loans.

High Risk Clients Flag

```
Flagged_customers =
    IF
    ('Credit card'[Normalised_revolving_balance]
      > 0.9
      &&
     'Credit card'[Avg_Utilization_Ratio]
      > 0.8,
    "Flagged","Not flagged")
```

Churned customers	Normalised_revolving_balance	Credit_risk_score	Flagged_customers
Churned	0.601112435439015	0.226722487087803	Not flagged
Churned	0.576877234803337	0.484875446960667	Not flagged
Churned	0.502185141040922	0.420437028208184	Not flagged
Churned	0.980135081446166	0.636527016289233	Flagged
Churned	0.643226062773143	0.435645212554629	Not flagged
Churned	0.588796185935638	0.359259237187128	Not flagged
Churned	0.303535955502582	0.168707191100516	Not flagged
Churned	0.564163686928884	0.435332737385777	Not flagged
Churned	0.737783075089392	0.332556615017878	Not flagged
Churned	0.683353198251887	0.440170639650377	Not flagged
Churned	0.433849821215733	0.175769964243147	Not flagged
Churned	0.181962653953119	0.195392530790624	Not flagged
Churned	0.344060389352404	0.295812077870481	Not flagged
Churned	0.947159316646802	0.61343186332936	Flagged
Churned	0.362336114421931	0.352967222884386	Not flagged
Churned	0.595550258243941	0.258610051648788	Not flagged

Steps to calculate High Risk Clients Flag :-

Firstly, **we created a new column** which categorized **“Normalised_revolving_balance”** above **“0.9”** and **“Avg_Utilization_ratio”** above **“0.8"** as **“Flagged”** and **below those as “Not flagged”**

```
1 Flagged_customer =
2     CALCULATE
3     (COUNTROWS('Credit card'),
4     'Credit card'[Flagged_customers]
5     = "Flagged")
```

189

Flagged_customer

After that **we created a new measure** which **counted rows which contained “Flagged”** customers as value, hence we got our number of Flagged customers.

Benefits of High-Risk Client Flagging

1. **Proactive Loss Mitigation:** Reduces bad debts and fraud.
2. **Improved Decision-Making**: Helps allocate resources efficiently.
3. **Regulatory Compliance:** Avoids fines and legal issues.

By calculating and acting on high-risk client flags, businesses and institutions can improve their financial performance while protecting themselves from potential risks.

Conclusion

The analysis provided deep insights into customer spending, identifying patterns and usage trends that inform better financial management and credit policies.

Key metrics, calculated with DAX in Power BI, highlighted significant factors such as high-risk segments, credit utilization rates, and delinquency risk.

Actionable insights emerged to support strategies for reducing credit defaults, optimizing credit offerings, and improving customer retention. These findings enable the bank to enhance customer satisfaction and loyalty, while aligning with goals for sustainable growth and risk management.

Thanks!

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