

Subscription Cohort Analysis

This project provides a comprehensive analysis of customer subscription trends using **calculated columns** and **DAX measures** to explore retention rates and subscription behaviors over time.

🌟 Calculated Columns

📅 Month Span:

Calculates the total number of months between the subscription's creation and cancellation dates.

```
=(12 * (Date.Year([canceled_date]) - Date.Year([created_date])))  
+ (Date.Month([canceled_date]) - Date.Month([created_date]))  
+ (if Date.Day([canceled_date]) < Date.Day([created_date]) then -1 else 0)  
+ 1
```

📅 Month List:

Generates a list of sequential months to facilitate cohort tracking.

```
= List.Numbers(1,[Month Span])
```

DAX Measures

Customer Retention Volume:

Calculates the number of customers retained for a specific month within a subscription cohort.




```
= VAR current_month = SELECTEDVALUE('Subscription Cohort Analysis Data'[Month List])
VAR first_order_month = SELECTEDVALUE('Subscription Cohort Analysis Data'[Created Date (SOM)])
VAR customer_retention_volume =
CALCULATE(
    DISTINCTCOUNT('Subscription Cohort Analysis Data'[customer_id]),
    FILTER(
        'Subscription Cohort Analysis Data',
        EOMONTH('Subscription Cohort Analysis Data'[Created Date (SOM)], 0) -
        EOMONTH(first_order_month, current_month)
    )
)
RETURN customer_retention_volume
```

Customer Retention %:

Determines the percentage of customers retained relative to the first month's subscription volume.

```
= VAR first_month_subscription_volume =
CALCULATE(
    DISTINCTCOUNT('Subscription Cohort Analysis Data'[customer_id]),
    ALLEXCEPT(
        'Subscription Cohort Analysis Data',
        'Subscription Cohort Analysis Data'[Created Date (SOM)]
    )
)
VAR ratio = DIVIDE([Customer Retention Volume], first_month_subscription_volume)
RETURN ratio
```

Key Insights and Applications

-  **Customer Retention Trends:** Track and analyze subscription behavior to identify key retention periods.
-  **Percentage Retention:** Measure customer loyalty and identify areas for improvement in customer retention strategies.
-  **Business Applications:** Enhance subscription models, refine customer engagement strategies, and improve lifetime value (LTV) forecasting.