

## Retail Customer Retention Analytics – ADIDAS

### Project Overview:

**Adidas**, a global leader in sportswear and lifestyle products, operates across multiple countries through retail stores, franchise outlets, and e-commerce platforms. With intense competition from brands like Nike and Puma, along with rising customer expectations in digital shopping experiences, retaining customers has become a critical challenge. Although Adidas collects vast data on customer purchases, online interactions, and loyalty programs, their current reporting lacks the analytical depth to:

- Understand why customers are churning?
- Identify loyal vs. at-risk customers
- Measure the impact of loyalty tiers, promotions, and influencer-driven campaigns
- Guide region- and channel-specific retention strategies

You are hired as a Power BI Analyst to design a Customer Retention Dashboard that consolidates fragmented data and delivers real-time, actionable insights for Adidas.

### Project Objective:

Develop a robust, interactive Customer Retention Analytics Dashboard in Power BI using Adidas data that will:

- Consolidate customer demographics, purchase history, store/e-commerce performance, and loyalty data
- Enable dynamic segmentation of high-value, repeat, and churned customers
- Provide actionable insights to improve customer retention, loyalty engagement, and regional strategies

# Task 1: Data Modelling & Cleaning

- Load and transform datasets in Power Query
- Handle duplicates, missing values, and ensure correct data types

**Customer\_Demographics**

Customer_ID	Age	Gender	Region	Income_Level	Membership_Status	Preferred_Currency
CUST0001	24	Female	North America	Medium	24-01-2019	Online
CUST0037	34	Male	Asia-Pacific	Low	29-06-2018	Online
CUST0002	32	Other	Middle East	High	12-07-2017	Online
CUST0003	39	Male	South America	Premium	08-09-2021	Store
CUST0004	22	Other	Asia-Pacific	High	25-09-2021	Online
CUST0035	40	Other	North America	High	25-11-2024	Online
CUST0005	51	Female	South America	Premium	01-11-2021	Online
CUST0014	39	Female	Asia-Pacific	Medium	23-07-2021	Store
CUST0006	21	Male	Asia-Pacific	High	28-01-2018	Online
CUST0047	49	Other	Asia Pacific	High	11-07-2018	Online
CUST0008	62	Male	Middle East	Medium	29-08-2021	Online
CUST0048	51	Other	Europe	Medium	09-12-2020	Store
CUST0007	23	Male	North America	Medium	25-01-2022	Online
CUST0099	46	Female	Europe	High	10-05-2019	Online
CUST0008	49	Male	South America	Medium	22-01-2023	Online
CUST0026	21	Male	Europe	Low	24-02-2020	Store
CUST0009	24	Other	Middle East	Medium	14-05-2018	Online
CUST0089	44	Female	Europe	Premium	16-07-2017	Store
CUST0010	29	Other	Middle East	Premium	27-12-2024	Online
CUST0071	53	Other	Asia-Pacific	Medium	26-06-2022	Online
CUST0011	34	Female	South America	High	11-10-2020	Store
CUST0239	57	Other	North America	Low	08-06-2018	Store
CUST0012	62	Female	North America	Low	27-05-2023	Online
CUST0084	29	Male	South America	Premium	18-04-2019	Store
CUST0013	51	Male	Middle East	Medium	15-04-2019	Store

**Customer\_Transactions**

Transaction_ID	Customer_ID	Store_ID	Product_Category	Transaction_Date	Amount	Promotion
TNN000001	CUST0037	STORE0015	Footwear	27-06-2023	372.57	Yes
TNN000014	CUST0023	STORE0015	Accessories	14-07-2024	33.87	Yes
TNN000003	CUST0037	STORE0038	Accessories	28-07-2023	216.02	No
TNN000000	CUST0037	STORE0038	Apparel	24-08-2023	433.22	Yes
TNN000019	CUST0037	STORE002	Footwear	26-10-2023	172.81	No
TNN000024	CUST0033	STORE0003	Accessories	13-08-2023	381.77	Yes
TNN000095	CUST0037	STORE0029	Apparel	24-02-2024	343.22	Yes
TNN000071	CUST0048	STORE0029	Footwear	17-08-2023	303.69	No
TNN000008	CUST0026	STORE0004	Footwear	23-06-2024	246.53	No
TNN000004	CUST0014	STORE0008	Apparel	06-08-2023	142.29	Yes
TNN000005	CUST0039	STORE0008	Footwear	18-08-2023	235.00	No
TNN000042	CUST0084	STORE0008	Accessories	13-04-2023	406.01	No
TNN000038	CUST0024	STORE0017	Footwear	03-04-2023	175.17	Yes
TNN000018	CUST0030	STORE0007	Apparel	25-09-2023	295.55	Yes
TNN000044	CUST0026	STORE0007	Accessories	11-05-2023	73.29	Yes
TNN000066	CUST0035	STORE0007	Footwear	08-02-2023	199.66	Yes
TNN000000	CUST0047	STORE0048	Footwear	28-10-2022	181.87	Yes
TNN000007	CUST0099	STORE0048	Accessories	11-01-2023	63.7	No
TNN000089	CUST0047	STORE0047	Accessories	31-07-2024	87.99	Yes
TNN000008	CUST0048	STORE0010	Apparel	04-11-2022	89.69	No
TNN000074	CUST0026	STORE0011	Apparel	12-03-2024	244.75	No
TNN000027	CUST0060	STORE0011	Accessories	10-08-2025	277.07	No
TNN000014	CUST0162	STORE0012	Apparel	03-04-2025	87.92	Yes
TNN000037	CUST0099	STORE0014	Accessories	15-05-2025	452.21	Yes
TNN000010	CUST0071	STORE0033	Accessories	13-01-2023	28.79	No

**Store\_Locations**

Store_ID	Store_Type	Region	Opening_Year
STORE0001	Online	South America	2017
STORE0002	Franchise	Asia-Pacific	2011
STORE0003	Franchise	South America	2014
STORE0004	Franchise	Europe	2013
STORE0005	Online	Europe	2014
STORE0006	Outlet	Europe	2015
STORE0007	Online	North America	2017
STORE0008	Outlet	Middle East	2000
STORE0009	Outlet	Middle East	2015
STORE0010	Franchise	Europe	2001
STORE0011	Franchise	North America	2001
STORE0012	Outlet	Middle East	2018
STORE0013	Flagship	South America	2007
STORE0014	Flagship	Europe	2011
STORE0015	Outlet	Asia-Pacific	2013
STORE0016	Outlet	Europe	2008
STORE0017	Flagship	Middle East	2001
STORE0018	Outlet	South America	2019
STORE0019	Flagship	North America	2007
STORE0020	Franchise	Europe	2020
STORE0021	Outlet	North America	2003
STORE0022	Franchise	North America	2024
STORE0023	Franchise	Asia-Pacific	2014
STORE0024	Online	North America	2001

Loyalty\_Program (1)

	Customer_ID	Loyalty_Tier	Points_Earned	Points_Redemmed
1	CUST0001	Base	7202	3190
2	CUST0002	Elite	7412	4491
3	CUST0003	Premium	5420	1555
4	CUST0004	Plus	6232	6232
5	CUST0005	Base	7991	804
6	CUST0006	Base	2879	2879
7	CUST0007	Base	1024	1024
8	CUST0008	Premium	1681	1681
9	CUST0009	Plus	7814	5000
10	CUST0010	Premium	3424	3424
11	CUST0011	Base	5813	5172
12	CUST0012	Elite	7126	7083
13	CUST0013	Premium	355	355
14	CUST0014	Base	4904	4904
15	CUST0015	Base	1938	1938
16	CUST0016	Base	109	109
17	CUST0017	Base	2971	1387
18	CUST0018	Plus	9089	5399
19	CUST0019	Plus	7509	4688
20	CUST0020	Base	7518	2761
21	CUST0021	Plus	5224	5224
22	CUST0022	Base	1115	1115
23	CUST0023	Base	2293	2106
24	CUST0024	Base	8515	7894
25	CUST0025	Plus	7549	4223

Churn\_Labelled\_Cus...

	Customer_ID	Last_Purchase_Date	Churn_Flag	Churn_Reason
1	CUST0001	08-01-2024	1	Inactivity
2	CUST0002	04-12-2022	0	N/A
3	CUST0003	13-03-2024	1	Low Engagement
4	CUST0004	28-10-2024	0	N/A
5	CUST0005	31-12-2022	1	Low Engagement
6	CUST0006	07-01-2025	0	N/A
7	CUST0007	12-03-2024	0	N/A
8	CUST0008	04-07-2025	0	N/A
9	CUST0009	22-10-2023	0	N/A
10	CUST0010	28-04-2023	0	N/A
11	CUST0011	29-12-2024	0	N/A
12	CUST0012	02-08-2025	0	N/A
13	CUST0013	24-08-2024	1	Inactivity
14	CUST0014	08-01-2025	0	N/A
15	CUST0015	06-04-2023	0	N/A
16	CUST0016	19-09-2023	1	Competitor
17	CUST0017	28-05-2024	0	N/A
18	CUST0018	16-04-2023	0	N/A
19	CUST0019	19-08-2024	0	N/A
20	CUST0020	14-10-2023	1	Low Engagement
21	CUST0021	27-09-2024	0	N/A
22	CUST0022	09-05-2024	0	N/A
23	CUST0023	01-07-2024	1	Inactivity
24	CUST0024	21-05-2024	1	Competitor
25	CUST0025	11-01-2024	0	N/A

Handled all the duplicates, null values and corrected data types for each data sets in power query in power BI.

### • Create calculated columns:

#### 1. Membership Duration = Today – Membership Since

To calculate Membership Duration Created a Custom Column in power query editor for Today column and Created another column for membership duration which was calculated using the (Formula=Today-Membership since)

The screenshot shows the Power BI Data Editor interface. A query named "Customer\_Demographics (1)" is selected. The "APPLIED STEPS" pane on the right lists several steps, including "Reordered Columns1". The main area displays a table with columns: Region, Income\_Level, Membership\_Since, Membership\_Duration, and Preferred\_Channel. The table contains 25 rows of data, such as North America (Medium) with a membership since 24-03-2019 and duration 08-10-2025.

## 2. Extract Transaction\_Year, Transaction\_Month

Used Transaction Dataset to extract the transaction year and transaction month using Transaction Date column using extract feature in power query data.

The screenshot shows the Power BI Data Editor interface. A query named "Customer\_Transactions (2)" is selected. The "APPLIED STEPS" pane on the right lists several steps, including "Removed Columns4". The main area displays a table with columns: Product\_Catagory, Transaction\_Date, Amount, Promotion\_Apply, Transaction\_Year, Transaction\_Month, and More\_Type. The table contains 25 rows of data, such as Footwear with a transaction date of 27-06-2023 and year 2023.

## Task 2: Churn & Retention Metrics

- Create Churn Rate KPI = (Churned Customers / Total Customers) \* 100

Created new measure in the Churned data set first calculated churned customers with the formula **(Churned \_Customers = CALCULATE(DISTINCTCOUNT('Customer\_Demographics (1)'[Customer\_ID]),'Churn\_Labelled\_Customers (1)'[Churn\_Flag]=1)**

Then calculated another new measure for total customers using the formula (**Total Customers = DISTINCTCOUNT('Customer\_Demographics (1)'[Customer\_ID])**)

The screenshot shows the Power BI desktop application interface. The ribbon at the top has 'Measure tools' selected. A card visualization titled 'Churned rate KPI' displays the value '27.33'. The data source is 'Churn\_Labelled\_Customers (1)'. The Power BI data model pane on the right shows various tables and measures, including 'Churn\_Labelled\_Customers', 'Customer\_Transaction...', 'Loyalty\_Program (1)', and 'Store\_Locations (1)'. The 'Measure tools' ribbon also includes options for 'Format', 'Data category', 'New measure', and 'Quick measure'.

Inserted Cart to show the Churned rate KPI which shows that Churn Rate of 27.33% indicates that customers have stopped purchasing during the period .

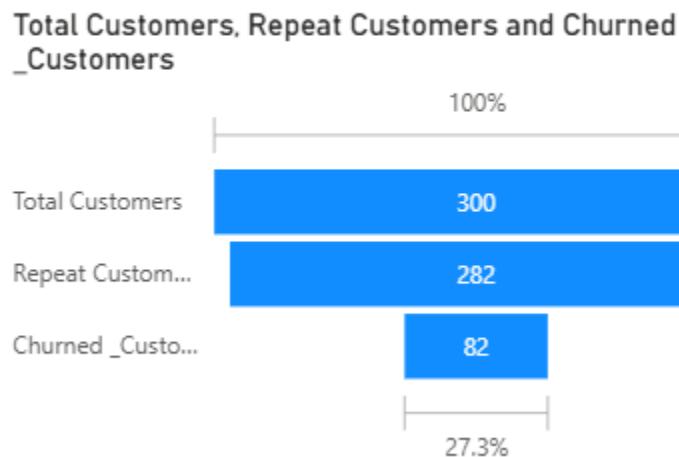
- **Visualize churn rate by: Region, Preferred channel, Income Level, Loyalty Tier**



Created a Clustered column Bar to visualize churn rate by region, preferred channel , income level and loyalty tier. Which Indicates Churn is highest among high-income and elite loyalty members, which is a red flag. Online shoppers are slightly more likely to churn than in-store. Regional churn varies, but Asia-Pacific stands out for needing retention focus.

- **Funnel Chart: Total Customers → Repeat Customers → Churned**  
Created a funnel chart

### Funnel Chart: Total Customers → Repeat Customers → Churned



Out of 300 total customers, 282 came back, but 82 still churned, meaning over 1 in 4 customers stopped engaging. This shows that while retention is fairly strong (94% repeat rate), there's still a notable churn issue (27.3%) worth addressing.

### Task 3: Repeat Purchase Analysis

- Segment customers:

Low-Tier: 0–3 purchases

Mid-Tier: 4–8 purchases

High-Tier: 9+ purchases

First calculated the no of purchases for each customer by using a group by feature in power query editor .

Customer_ID	Count of Transactions	Segmentation Based on Customers Purchase
CUST0157	2	Low Tier
CUST0187	5	Mid Tier
CUST0175	2	Low Tier
CUST0214	5	Mid Tier
CUST0047	4	Mid Tier
CUST0048	2	Low Tier
CUST0099	2	Low Tier
CUST0026	3	Low Tier
CUST0089	8	Mid Tier
CUST0071	1	Low Tier
CUST0239	2	Low Tier
CUST0184	6	Mid Tier
CUST0140	3	Low Tier
CUST0162	6	Mid Tier
CUST0152	5	Mid Tier
CUST0074	4	Mid Tier
CUST0237	5	Mid Tier
CUST0120	4	Mid Tier
CUST0277	4	Mid Tier
CUST0059	5	Mid Tier
CUST0034	4	Mid Tier
CUST0266	5	Mid Tier
CUST0169	2	Low Tier
CUST0038	4	Mid Tier
CUST0023	5	Mid Tier
CUST0060	8	Low Tier

Based on no. of purchases the segmentation formula has been created using a conditional column feature

**Dax Function CustomerSegment = Table.AddColumn#"Renamed Columns2", "Custom", each if [Count of Customer ID] <=3 then "Low Tier" else if [Count of Customer ID] <=8 then "Mid Tier"**

**else "High Tier")**

The screenshot shows the Power BI Data Editor interface. A conditional column named 'Loyalty\_Program (1)' is being modified. The formula is set to `=if('Loyalty_Program (1)'[Loyalty_Tier] <= 1, "Low Tier", "Mid Tier")`. The table preview shows the original Loyalty\_Tier values and the new 'Tier' values. The 'APPLIED STEPS' pane on the right lists the transformation.

Customer_ID	Loyalty_Tier	Tier
CUST0157	1	Low Tier
CUST0187	2	Mid Tier
CUST0175	2	Low Tier
CUST0214	5	Mid Tier
CUST0047	4	Mid Tier
CUST0048	2	Low Tier
CUST0099	2	Low Tier
CUST0026	3	Low Tier
CUST0089	8	Mid Tier
CUST0071	1	Low Tier
CUST0239	2	Low Tier
CUST0184	6	Mid Tier
CUST0140	3	Low Tier
CUST0162	6	Mid Tier
CUST0153	5	Mid Tier
CUST0074	4	Mid Tier
CUST0237	5	Mid Tier
CUST0120	4	Mid Tier
CUST0277	4	Mid Tier
CUST0059	5	Mid Tier
CUST0034	4	Mid Tier
CUST0266	5	Mid Tier
CUST0163	2	Low Tier
CUST0038	4	Mid Tier
CUST0023	5	Mid Tier
CHURNED	9	Low Tier

- **Compare avg. purchase frequency by Region, Age Group, Loyalty Tier**  
Created using Clustered Column Visualize for each parameters



Among regions, Europe has the highest average number of purchases (3.46), indicating stronger customer engagement or better market penetration there. The age group 0-18 has the highest average purchases (4.50), suggesting younger customers are more active buyers; while purchases decline with age. Loyalty tiers show minor differences, but interestingly the Base tier has a slightly higher average purchase (3.44) than Plus (3.09), possibly indicating high loyalty does not always directly translate to more purchases.

- **Identify most purchased product categories by loyal customers**  
First I segementated the loyal customers based on there no of purchases (No.of transactions)  
**DAX function used Loyal Segment = IF('Customer\_Demographics (1)'[No. of Purchases] >=3,"Loyal Customers","Others")**

Screenshot of Power BI Data Editor showing a table named "Loyal Segment". The table has columns: Level, Membership\_Since, Preferred\_Channel, Age\_Group, No\_of\_Purchases, Segmentation\_Based\_on\_Customers\_Purchase, Loyal\_Segment, CLV, CLV\_Segment, Today, and Membership. A DAX formula is applied to the Loyal\_Segment column: `Loyal Segment = IF('Customer_Demographics (1)'[No. of Purchases]>=3,"Loyal Customers","Others")`. The right side of the screen shows the Power BI Model view with various tables and their relationships.

### Identify most purchased product categories by loyal customers

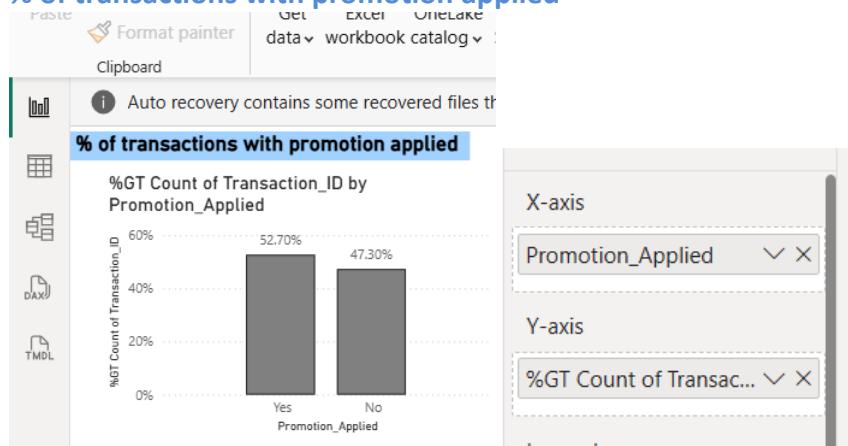
Product_Category	Sum of No. of Purchases	Count of Loyal Segment
Accessories	764	193
Apparel	789	203
Footwear	754	194
<b>Total</b>	<b>1000</b>	<b>300</b>

The table shows that among loyal customers , "Apparel" Category this tells most of the customers prefer to buy apparel products.

DAX function used `Loyal Segment = IF('Customer Demographics (1)'[No. of Purchases]>=3,"Loyal Customers","Others")`

## Task 4: Promotion & Loyalty Impact

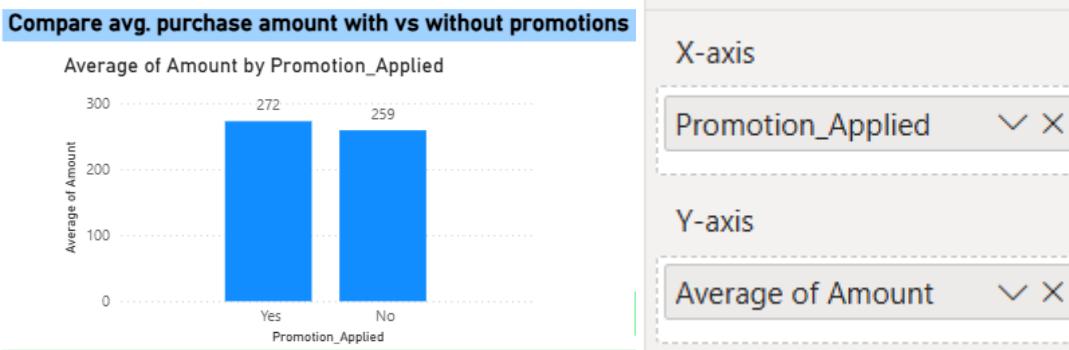
- % of transactions with promotion applied



**Created Visualization using Clustered column (converted into percentage to understand better).**

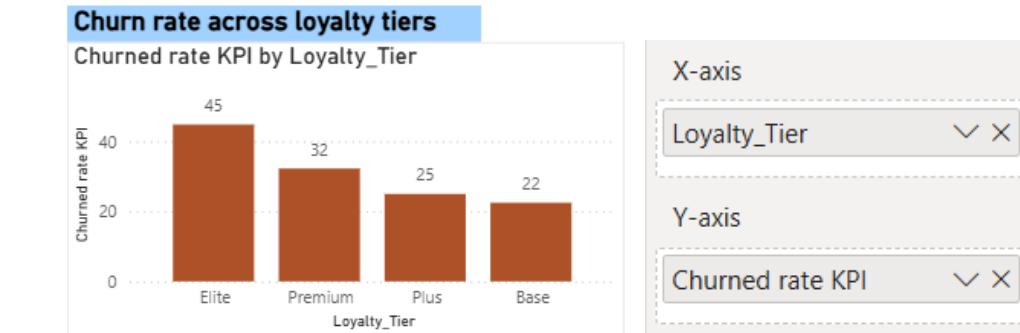
The graph shows that 52.7% of transactions had promotions applied, while 47.3% did not. This means that a slight majority of transactions benefited from promotions. The key insight is that promotional offers are being used in more than half the transactions, indicating their potential influence on customer purchasing behavior and possibly driving sales volume.

- **Compare avg. purchase amount with vs without promotions**



The average purchase amount is higher when promotions are applied (272k) compared to when promotions are not applied (259k). This suggests that promotions lead to a slight increase in the average spending per purchase. The difference indicates that promotional offers may successfully encourage customers to spend more per transaction.

- **Churn rate across loyalty tiers**

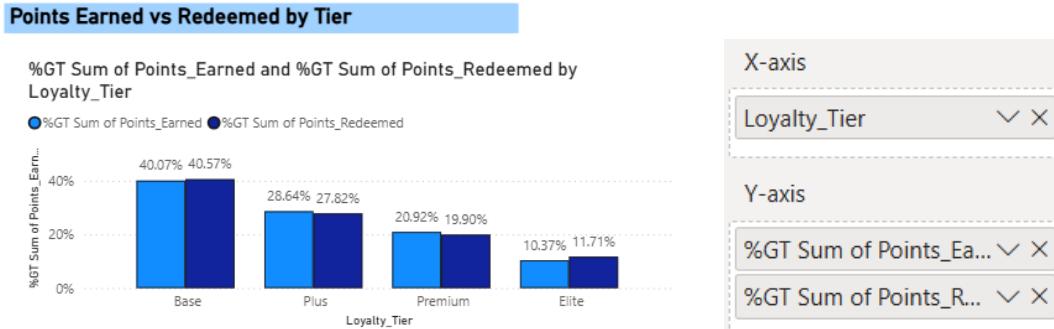


**Created Visualization using Clustered column ,**

Higher loyalty tiers (like Elite and Premium) have a greater churn rate compared to the lower tiers (Plus and Base). This suggests that, contrary to common expectations, the

most "loyal" tiers have more customers leaving, which may indicate issues with satisfaction or mismatched expectations at higher spending levels.

- **Points Earned vs Redeemed by Tier (clustered column chart)**



#### **Created Visualization using Clustered column .**

The graph shows that the Base tier dominates both earning and redeeming, accounting for over 40% of total activity in each case—indicating that most customer engagement happens at this level. The close match between earned and redeemed percentages in all tiers suggests efficient redemption, with few unredeemed points left idle across customer segments. This pattern may reflect better engagement and benefits for lower-tier members, while higher tiers participate less actively or have fewer members.

#### **Recommendations to improve redemption & retention**

- **Make it easy to use points both online and in-store with minimal steps.**
- **Show available rewards and points balance clearly at checkout.**
- **Create urgency with limited-time redemption offers or bonus point events.**
- **Include exclusive products or experiences to drive excitement.**
- **Target inactive users with personalized reactivation campaigns (for example- Your points are expiring soon – don't miss out!).**
- **Offer small bonus rewards for their next purchase.**

#### **Task 5: Store & Channel Performance vs Retention**

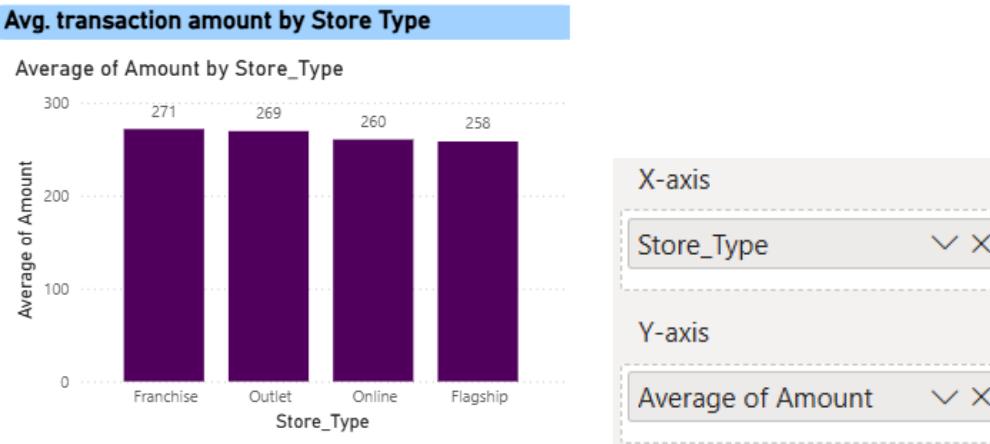
- **Merge store data with transactions**

Merge store data and transaction data in power query editor using merge queries.

The screenshot shows the Power BI Data Editor interface. A query named "Customer\_Transactions" is selected. The table has columns: Store\_ID, Store\_Type, Region, and Opening\_Y. The "APPLIED STEPS" pane on the right lists several steps taken to process the data, including "Expanded Customer\_Transact..".

- **Visualize:**
- **Avg. transaction amount by Store Type**

**Created Visualization using Clustered column**



Franchise and Outlet stores are driving higher-value transactions possibly due to better customer service, localized promotions, or upselling strategies. Online and Flagship stores may need improved cross-selling, bundling, or targeted promotions to boost average transaction value.

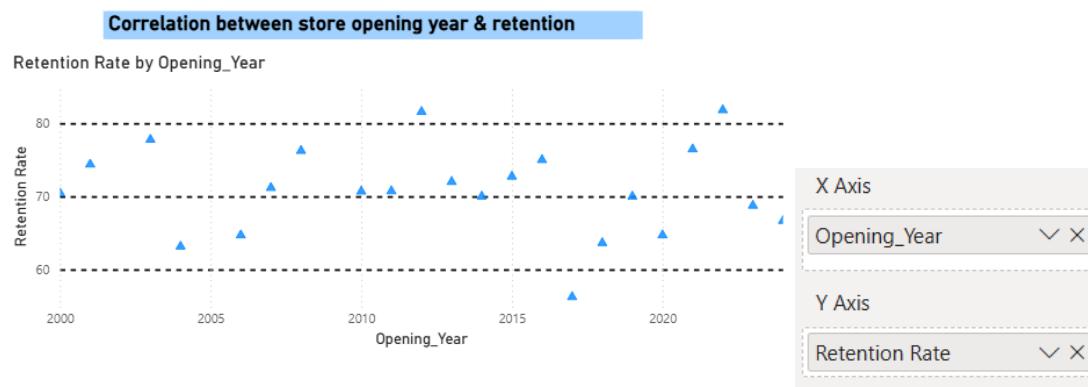
- **Churn rate by store type**
- Created Visualization using Clustered column**



The graph compares churn rates by store type. It shows that the Flagship store type has the highest churn rate at 31%, while Outlet, Franchise, and Online store types all have identical churn rates of 27%. This indicates that customers are more likely to stop using services at Flagship stores compared to the other store types shown.

- **Correlation between store opening year & retention**

**Created a Scatter plot visualization**

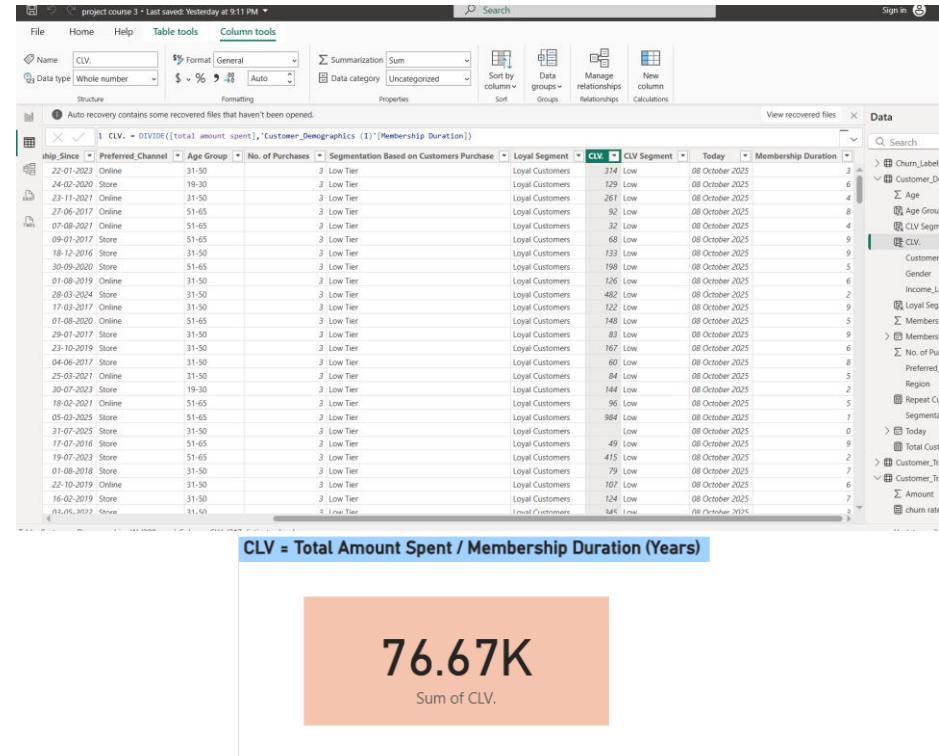


**Created Visualization using Scatter plot.**

The scatter plot shows retention rate by store opening year. No strong trend is observed; retention fluctuates across years. Stores opened in recent years (2020–2023) and around 2010 tend to have higher retention (above 75%). Stores opened between 2015–2019 and 2003–2006 show more variability, with some dropping below 60% retention. Store age does not directly predict retention; other factors like location, management, or customer experience may have a stronger impact. Some older stores (pre-2010) still retain customers well, suggesting effective long-term strategies.

## Task 6: Customer Lifetime Value (CLV) Analysis

- CLV = Total Amount Spent / Membership Duration (Years)



Created a new calculated column to calculate the CLV for each customer ID using CLV formula is

**DAX FUNCTION USED CLV. = DIVIDE([total amount spent],'Customer\_Demographics (1)'[Membership Duration]) and used Cart Visualization to show the CLV**

The main value shown is 76.67K, which represents the total CLV (Customer Lifetime Value). This means, on average, customers have contributed a total value of 76,670 over their membership duration, based on the highlighted calculation. This metric helps businesses evaluate how much revenue is generated from a customer during their association with the company and can guide decisions on marketing, retention strategies, and resource allocation.

- **Segment customers into Low, Medium, High CLV**

Created a new calculated column to calculate the Segment CLV for each customer ID using formula is

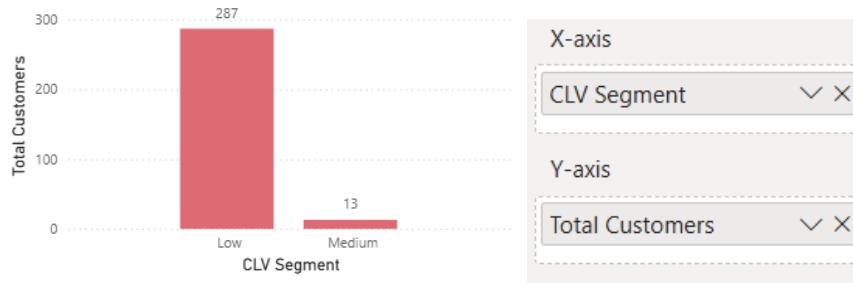
**CLV Segment = SWITCH(TRUE(),'Customer\_Demographics (1)'[CLV.]<1000,"Low",'Customer\_Demographics (1)'[CLV.]>= 1000 && 'Customer\_Demographics (1)'[CLV.] < 5000,"Medium",'Customer\_Demographics (1)'[CLV.]>= 5000,"High","Unclassified")**

Screenshot of a data analysis tool interface showing a table of customer data. The table has columns for Date, Preferred\_Channel, Age\_Group, No\_of\_Purchases, Segmentation\_Based\_on\_Customers\_Purchase, Loyalty\_Segment, Membership\_Duration, and various demographic and transactional metrics.

Table: Customer\_Demographics (1) (800 rows). Columns: CLV\_Segment (2 distinct values)

### Segment customers into Low, Medium, High CLV

Total Customers by CLV Segment



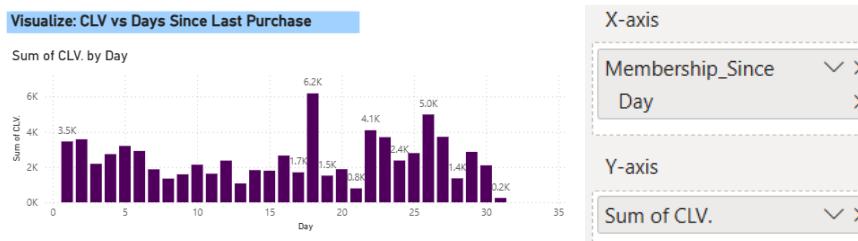
### Created Visualization using Clustered column

The customer base is heavily concentrated in the Low CLV segment, indicating that most customers have a lower lifetime value.

There is a significant dropoff in the number of customers in the Medium CLV segment, suggesting challenges in customer retention or value growth beyond the lowest tier.

The absence of High CLV customers highlights a potential opportunity to improve customer engagement, loyalty, or sales strategies to grow more customers into higher value segments.

- **Visualize:**
- **CLV vs Days Since Last Purchase**



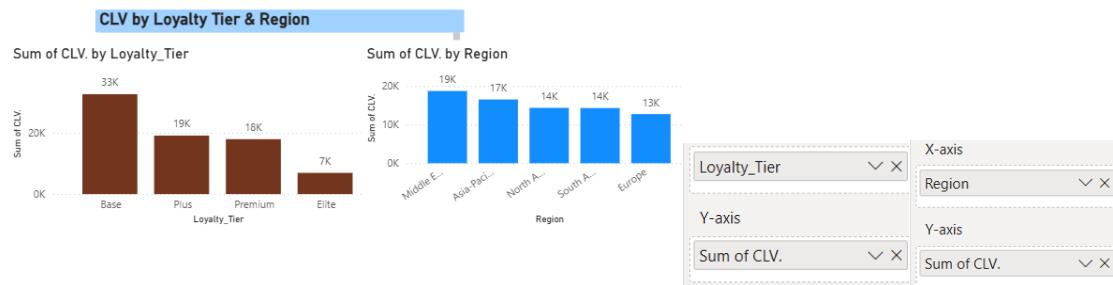
## Created Clustered Column for Visualization

The graph shows that customer value (CLV) peaks on days 1, 18, 21, and 25 since last purchase, suggesting these are ideal points for reengagement to maximize sales value.

Lower CLV on some days indicates fewer or less valuable transactions during those intervals.

- **CLV by Loyalty Tier & Region**

### Created Visualization using Clustered column



### Based on Loyalty tier

The "Base" loyalty tier contributes the highest CLV, totaling around 33K. The "Plus" and "Premium" tiers follow, with 19K and 18K respectively, which are closely matched.

The "Elite" tier has the lowest CLV at 7K. This distribution indicates that the majority of customer value is generated by lower-tier (Base) customers, which may suggest a larger population in the base tier or less effective up-selling to higher loyalty tiers.

### Based on Region

The "Middle East" region has the highest CLV, at 19K. "Asia-Pacific" is next with 17K, followed by "North America" and "South America," each contributing 14K.

"Europe" has the lowest CLV among the listed regions, at 13K. The relatively close values for regions other than the Middle East and Asia-Pacific suggest more balanced or distributed customer value across those markets.

## Task 7: Final Dashboard & Executive Summary

Attached the below document created in power bi and also final dashboard

## Task 8: Video explanation: Expressing the finding and actionable insights

<https://drive.google.com/drive/u/1/folders/1cMrifYLMJaJ58c70mYbC9WGy19QGHZOO>



## Retail Customer Retention Analytics – ADIDAS

Churn Rate KPI = (Churned Customers / Total Customers) \* 100

**27.33**

Churned rate KPI

Churn Rate of 27.33% indicates that customers have stopped purchasing during the period.

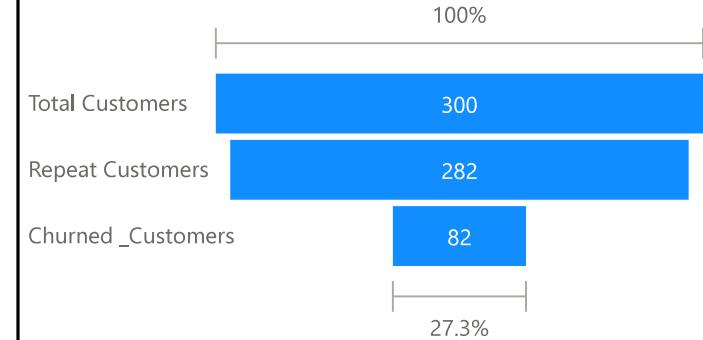
DAX FUNCTION USED Churned rate KPI = ('Churn\_Labelled\_Customers'(1)[Churned \_Customers]/[Total Customers])\*100

TO CALCULATE CHURNED CUSTOMERS DAX FUNCTION USED Churned \_Customers = CALCULATE(DISTINCTCOUNT('Customer\_Demographics'(1)[Customer\_ID])/Churn\_Labelled\_Customers(1)[Churn\_Flag]=1)

TO CALCULATE TOTAL CUSTOMERS DAX FUNCTION USED Total Customers = DISTINCTCOUNT('Customer\_Demographics'(1)[Customer\_ID])

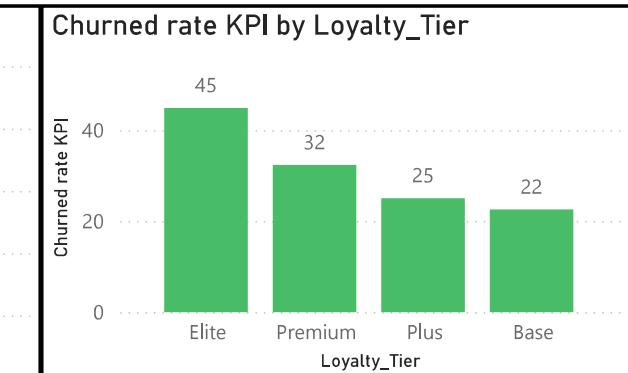
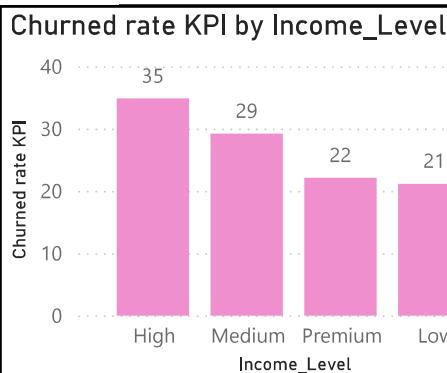
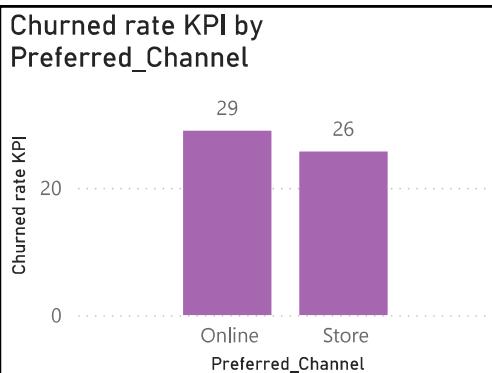
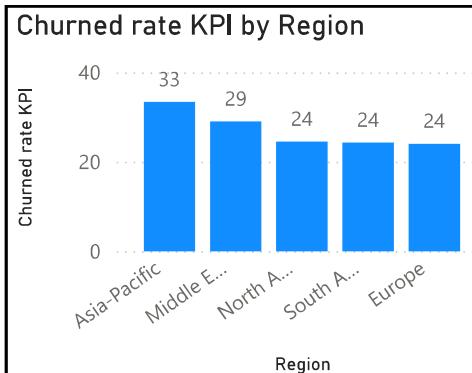
### Funnel Chart: Total Customers → Repeat Customers → Churned

Total Customers, Repeat Customers and Churned \_Customers



Out of 300 total customers, 282 came back, but 82 still churned, meaning over 1 in 4 customers stopped engaging. This shows that while retention is fairly strong (94% repeat rate), there's still a notable churn issue (27.3%) worth addressing.

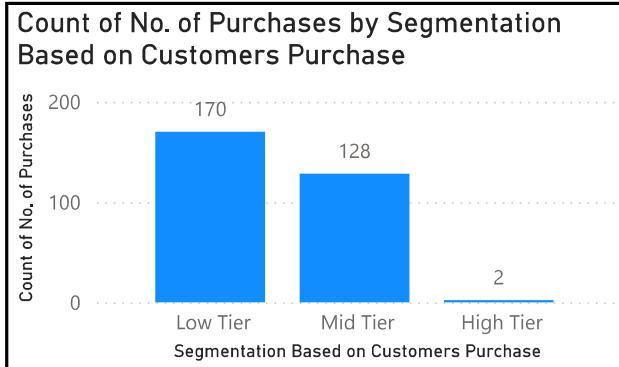
### Visualize churn rate by Region, Preferred Channel, Income Level, Loyalty Tier



Churn is highest among high-income and elite loyalty members, which is a red flag. Online shoppers are slightly more likely to churn than in-store. Regional churn varies, but Asia-Pacific stands out for needing retention focus.

### Task 2-Churn & Retention Metrics

**Segment customers:** Low-Tier: 0–3 purchases  
Mid-Tier: 4–8 purchases High-Tier: 9+ purchases



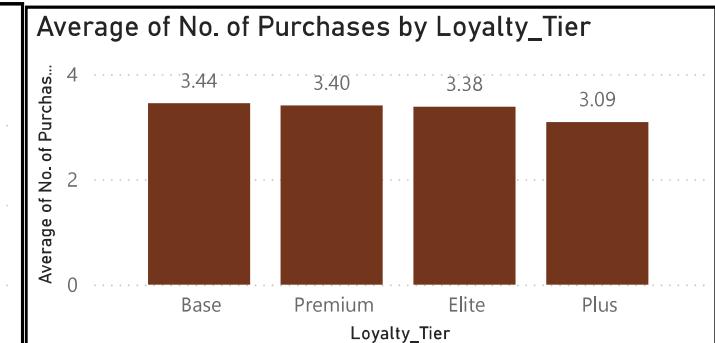
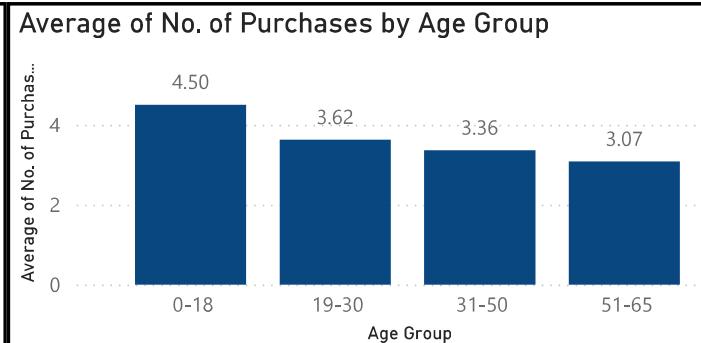
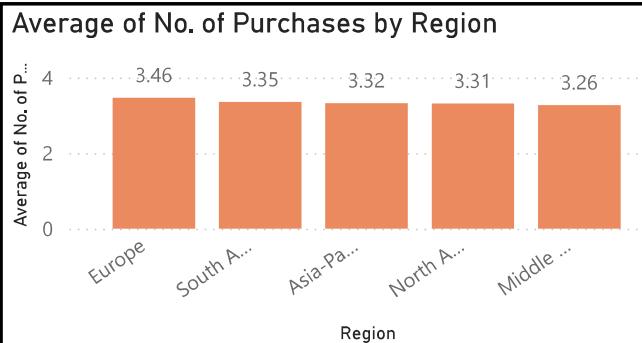
The vast majority of purchases come from Low and Mid Tier customers. High Tier customers are barely engaging this could indicate, lack of attention to top spenders, or poor retention.

Identify most purchased product categories by loyal customers

Product_Category	Sum of No. of Purchases	Count of Loyal Segment
Accessories	764	193
Apparel	789	203
Footwear	754	194
<b>Total</b>	<b>1000</b>	<b>300</b>

The table shows that among loyal customers , "Apparel" Category this tells most of the customers prefer to buy apparel products.  
DAX function used Loyal Segment = IF('Customer\_Demographics (1)'[No. of Purchases]>=3,"Loyal Customers","Others")

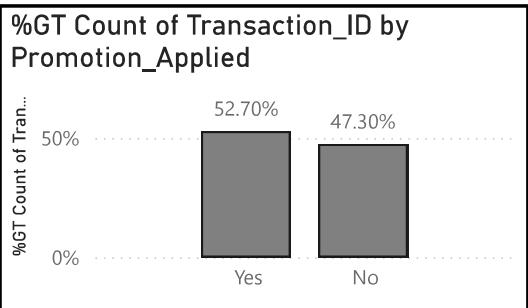
Compare avg. purchase frequency by Region, Age Group, Loyalty Tier



Among regions, Europe has the highest average number of purchases (3.46), indicating stronger customer engagement or better market penetration there. The age group 0-18 has the highest average purchases (4.50), suggesting younger customers are more active buyers; while purchases decline with age. Loyalty tiers show minor differences, but interestingly the Base tier has a slightly higher average purchase (3.44) than Plus (3.09), possibly indicating high loyalty does not always directly translate to more purchases.

Task 3: Repeat Purchase Analysis

## % of transactions with promotion applied



The graph shows that 52.7% of transactions had promotions applied, while 47.3% did not. This means that a slight majority of transactions benefited from promotions. The key insight is that promotional offers are being used in more than half the transactions, indicating their potential influence on customer purchasing behavior and possibly driving sales volume.

## Churn rate across loyalty tiers



Higher loyalty tiers (like Elite and Premium) have a greater churn rate compared to the lower tiers (Plus and Base). This suggests that, contrary to common expectations, the most "loyal" tiers have more customers leaving, which may indicate issues with satisfaction or mismatched expectations at higher spending levels.

## Recommendations to improve redemption & retention

Make it easy to use points both online and in-store with minimal steps.

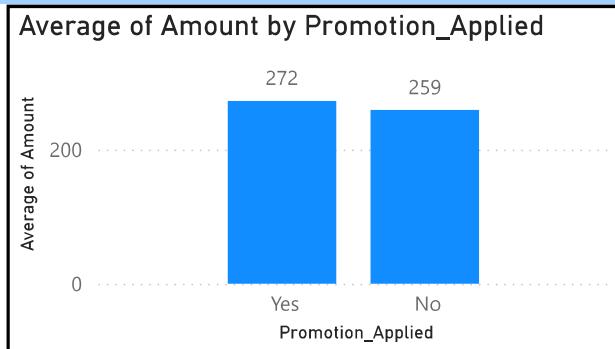
Show available rewards and points balance clearly at checkout.

Create urgency with limited-time redemption offers or bonus point events.

Include exclusive products or experiences to drive excitement.

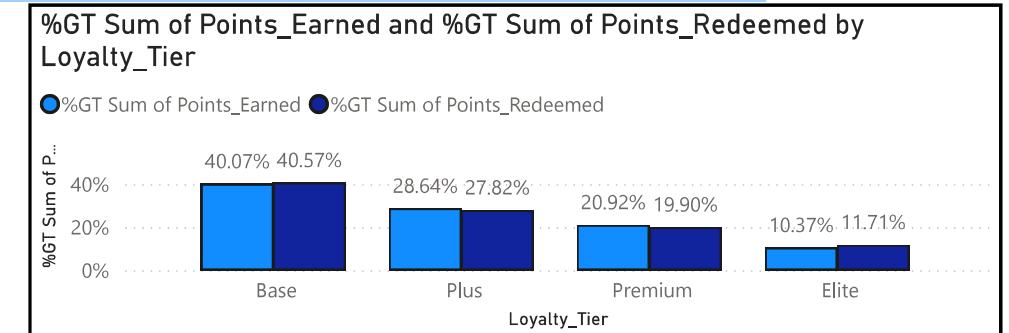
Target inactive users with personalized reactivation campaigns (for example-Your points are expiring soon – don't miss out!). Offer small bonus rewards for their next purchase.

## Compare avg. purchase amount with vs without promotions



The average purchase amount is higher when promotions are applied (272) compared to when promotions are not applied (259). This suggests that promotions lead to a slight increase in the average spending per purchase. The difference indicates that promotional offers may successfully encourage customers to spend more per transaction.

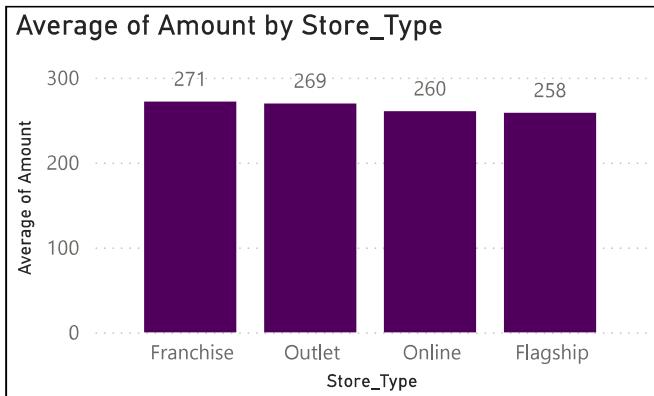
## Points Earned vs Redeemed by Tier



The graph shows that the Base tier dominates both earning and redeeming, accounting for over 40% of total activity in each case indicating that most customer engagement happens at this level. The close match between earned and redeemed percentages in all tiers suggests efficient redemption, with few unredeemed points left idle across customer segments. This pattern may reflect better engagement and benefits for lower-tier members, while higher tiers participate less actively or have fewer members.

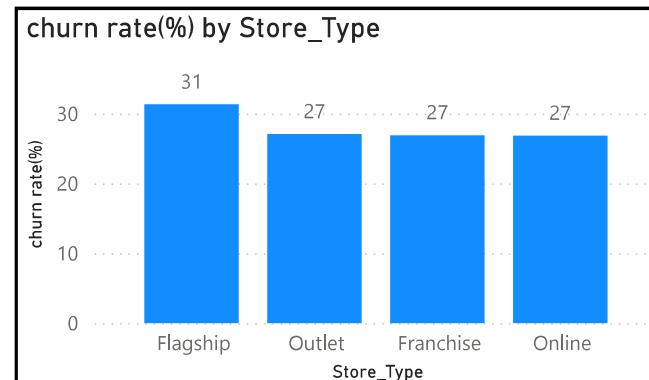
## Task 4: Promotion & Loyalty Impact

## Avg. transaction amount by Store Type



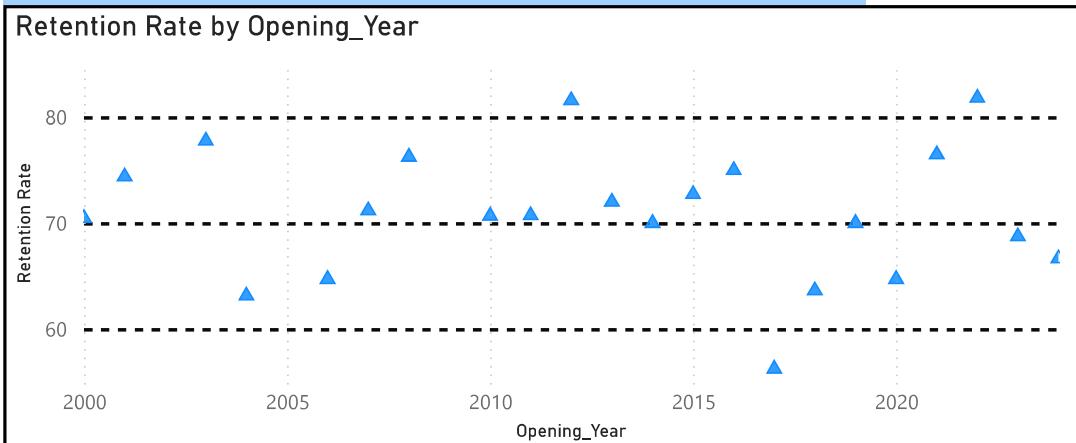
Franchise and Outlet stores are driving higher-value transactions, possibly due to better customer service, localized promotions, or upselling strategies. Online and Flagship stores may need improved cross-selling, bundling, or targeted promotions to boost average transaction value.

## Churn rate by store type



The graph shows that flagship stores have the highest churn rate at 31%, while outlet, franchise, and online store types each have a lower churn rate of 27%. This suggests flagship locations may face greater customer loss compared to other store types.

## Correlation between store opening year & retention



The scatter plot shows retention rate by store opening year. No strong trend is observed; retention fluctuates across years. Stores opened in recent years (2020–2023) and around 2010 tend to have higher retention (above 75%). Stores opened between 2015–2019 and 2003–2006 show more variability, with some dropping below 60% retention. Store age does not directly predict retention; other factors like location, management, or customer experience may have a stronger impact. Some older stores (pre-2010) still retain customers well, suggesting effective long-term strategies.

## Task 5: Store & Channel Performance vs Retention

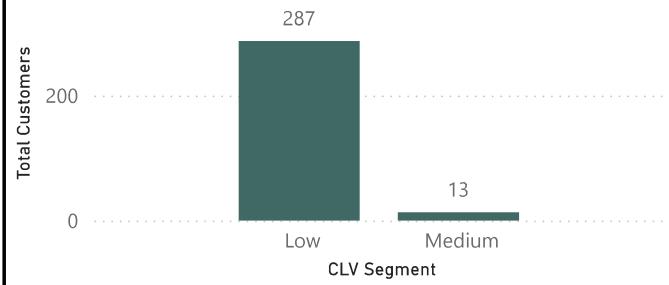
## CLV = Total Amount Spent / Membership Duration (Years)

**76.67K**  
Sum of CLV.

The main value shown is 76.67K, which represents the total CLV (Customer Lifetime Value). This means, on average, customers have contributed a total value of 76,670 over their membership duration, based on the highlighted calculation. This metric helps businesses evaluate how much revenue is generated from a customer during their association with the company and can guide decisions on marketing, retention strategies, and resource allocation.

## Segment customers into Low, Medium, High CLV

### Total Customers by CLV Segment



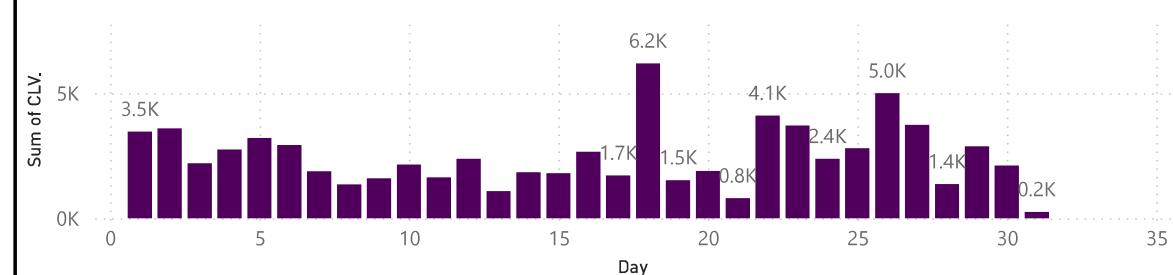
The customer base is heavily concentrated in the Low CLV segment, indicating that most customers have a lower lifetime value.

There is a significant drop-off in the number of customers in the Medium CLV segment, suggesting challenges in customer retention or value growth beyond the lowest tier.

The absence of High CLV customers highlights a potential opportunity to improve customer engagement, loyalty, or sales strategies to grow more customers into higher value segments.

## Visualize: CLV vs Days Since Last Purchase

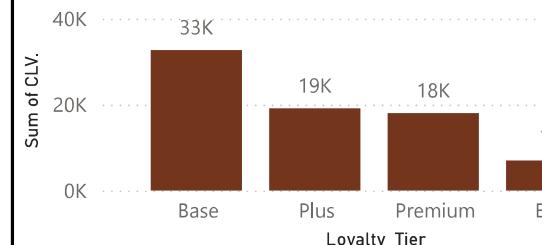
### Sum of CLV. by Day



The graph shows that customer value (CLV) peaks on days 1, 18, 21, and 25 since last purchase, suggesting these are ideal points for re-engagement to maximize sales value. Lower CLV on some days indicates fewer or less valuable transactions during those intervals.

## CLV by Loyalty Tier & Region

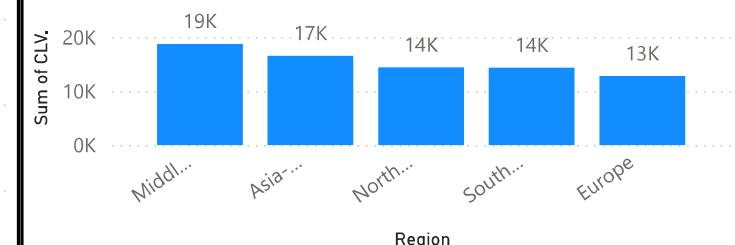
### Sum of CLV. by Loyalty\_Tier



The "Base" loyalty tier contributes the highest CLV, totaling around 33K. The "Plus" and "Premium" tiers follow, with 19K and 18K respectively, which are closely matched.

The "Elite" tier has the lowest CLV at 7K. This distribution indicates that the majority of customer value is generated by lower-tier (Base) customers, which may suggest a larger population in the base tier or less effective upselling to higher loyalty tiers.

### Sum of CLV. by Region



The "Middle East" region has the highest CLV, at 19K. "Asia-Pacific" is next with 17K, followed by "North America" and "South America," each contributing 14K.

"Europe" has the lowest CLV among the listed regions, at 13K. The relatively close values for regions other than the Middle East and Asia-Pacific suggest more balanced or distributed customer value across those markets.

## Task 6: Customer Lifetime Value (CLV) Analysis

## KPIs (Churn, CLV, Repeat Rate)



### Region

- Asia-Pacific
- Europe
- Middle East
- North America
- South America

### Preferred\_Channel

- (Blank)
- Online
- Store

### Income\_Level

- (Blank)
- High
- Low
- Medium
- Premium

### Loyalty\_Tier

- (Blank)
- Base
- Elite
- Plus
- Premium

1000  
Sum of No. of Purchases

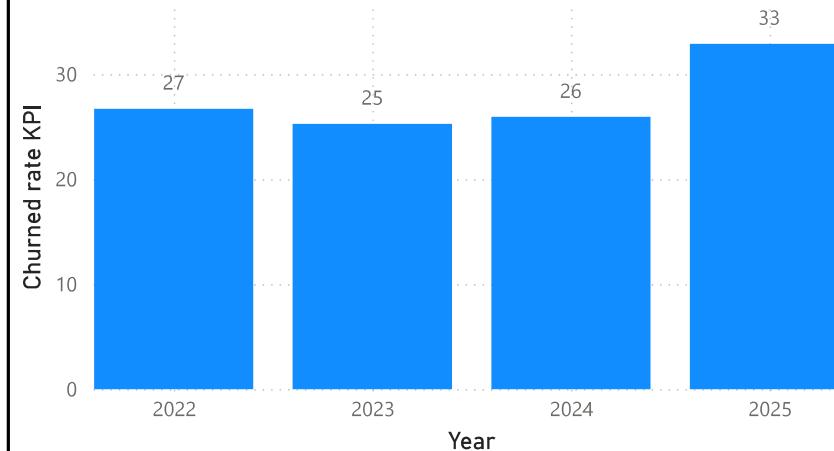
300  
Total Customers

281.86  
Average of CLV.

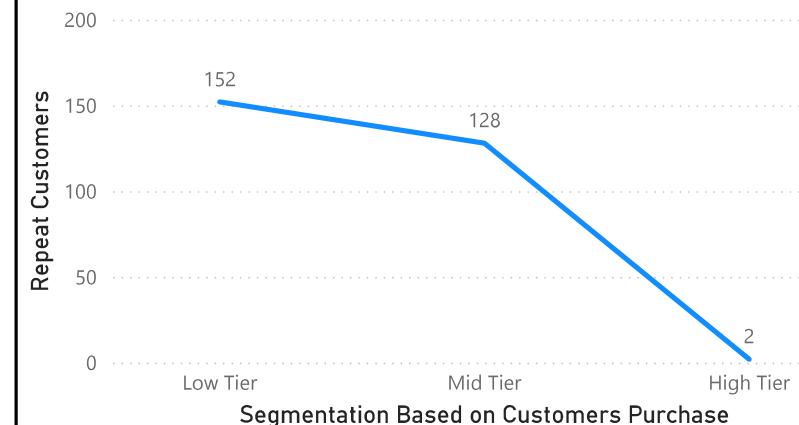
94.00  
Repeated rate(%)

27.33  
Churned rate KPI

Churned rate KPI by Year



Repeat Customers by Segmentation Based on Customers Purchase



## Task 7: Final Dashboard & Executive Summary

## Loyalty & Promotion Impact

### Region

- Asia-Pacific
- Europe
- Middle East
- North America
- South America

### Preferred\_Channel

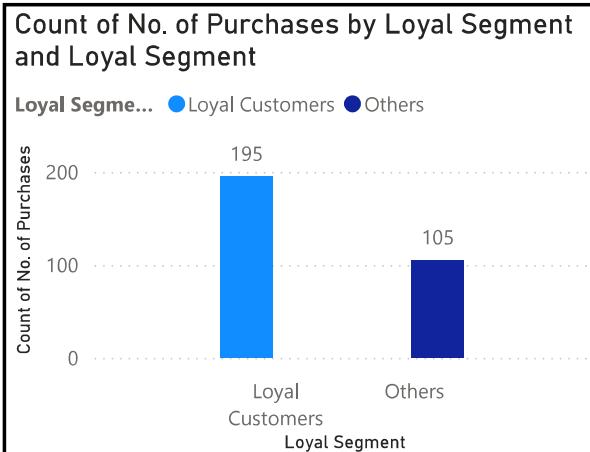
- (Blank)
- Online
- Store

### Income\_Level

- (Blank)
- High
- Low
- Medium
- Premium

### Loyalty\_Tier

- (Blank)
- Base
- Elite
- Plus
- Premium

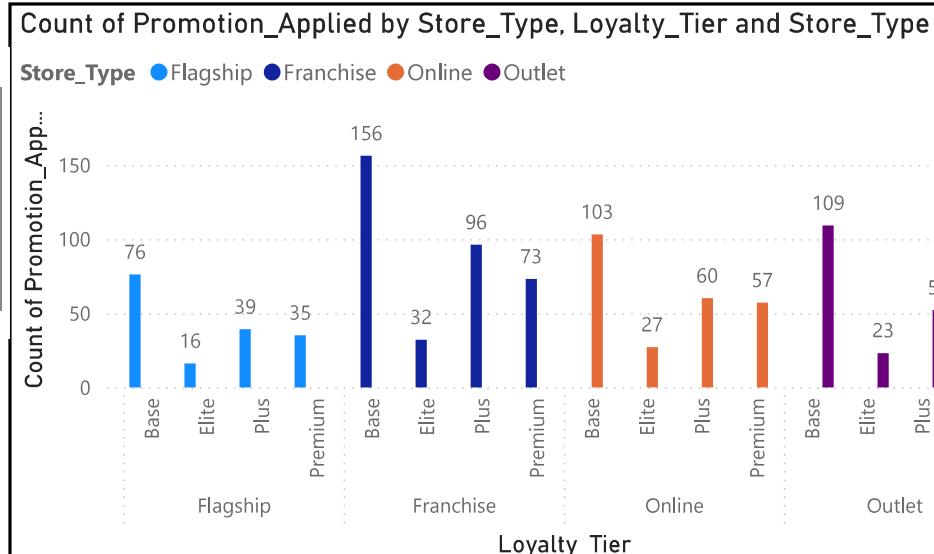


Loyal Customers made 256 purchases. Others (non-loyal) made only 44 purchases. Loyalty customers are driving the majority of purchases, strong indicator that loyalty programs are effective in boosting buying behavior.

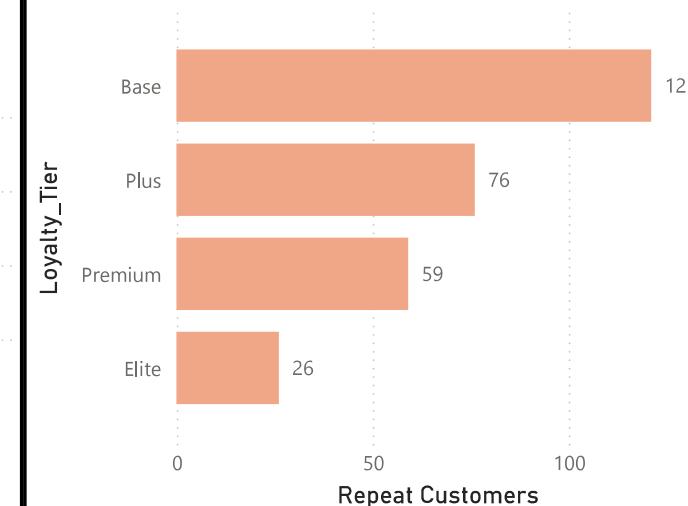
Promotion usage is highly region-dependent, especially concentrated in Asia Pacific and Europe. Franchise model stores are leveraging promotions more actively, possibly more flexible or aggressive in customer acquisition strategies.

While the loyalty program drives purchase volume, higher-tier customers are not retained well. The drop from Base to Elite indicates potential engagement or benefit gaps at the upper levels.

Loyalty programs significantly boost purchases. Promotions are most active in Franchise stores and Europe. Urgent focus needed on retaining high-tier loyalty members, who may not see enough value to stay engaged or repeat purchases.



### Repeat Customers by Loyalty\_Tier



Task 7: Final Dashboard & Executive Summary-Loyalty & Promotion Impact

## Store/Channel Insights

### Region

- Asia-Pacific
- Europe
- Middle East
- North America
- South America

### Preferred\_Channel

- (Blank)
- Online
- Store

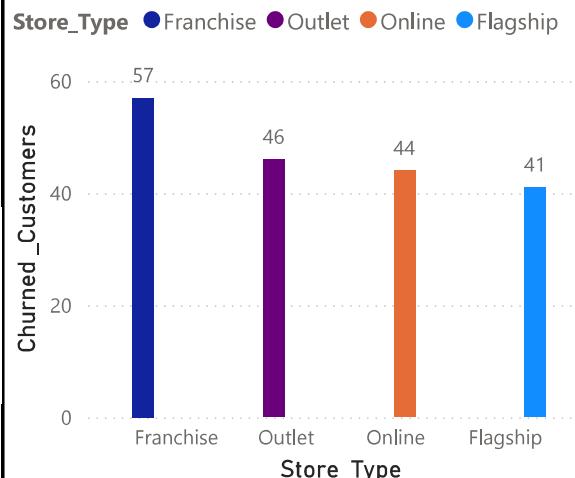
### Income\_Level

- (Blank)
- High
- Low
- Medium
- Premium

### Loyalty\_Tier

- (Blank)
- Base
- Elite
- Plus
- Premium

### Churned\_Customers by Store\_Type and Store\_Type

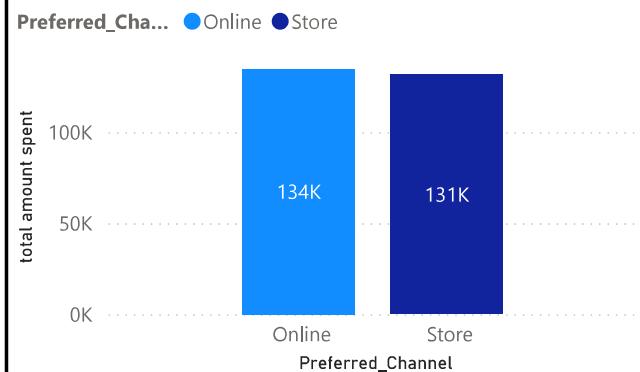


### Retention Customer by Store\_Type



Store_Type	Churned rate KPI	Sum of CLV.	Repeat Customers
Flagship	31.30	34191	131
Outlet	27.06	47778	170
Franchise	26.89	62270	212
Online	26.83	53176	164
<b>Total</b>	<b>27.33</b>	<b>76666</b>	<b>282</b>

### total amount spent by Preferred\_Channel and Preferred\_Channel



Franchise stores are losing the most customers, despite being active in promotions

Franchise stores retain the most customers, even though they have the highest churn they handle a larger volume of customers overall. Flagship stores have the lowest retention, yet highest churn rate at 31.3%, indicating poor retention efficiency.

Customers are spending slightly more online than in physical stores a shift toward digital channels.

Franchise stores perform best overall high CLV, most repeat customers. Flagship stores are underperforming highest churn, lowest CLV. Online channel shows solid performance low churn, high spend.

Recommendation can be that Investigate Flagship stores: training, service quality, or location issues may be causing poor retention. Double down on Online & Franchise channels they bring strong CLV and retention. Consider shifting more promotions and loyalty efforts toward underperforming Outlet and Flagship stores.

Task 7: Final Dashboard & Executive Summary-Store/Channel Insights

## Segmentation (Churned, Repeat, High-Value)

### Region

- Asia-Pacific
- Europe
- Middle East
- North America
- South America

### Preferred\_Channel

- (Blank)
- Online

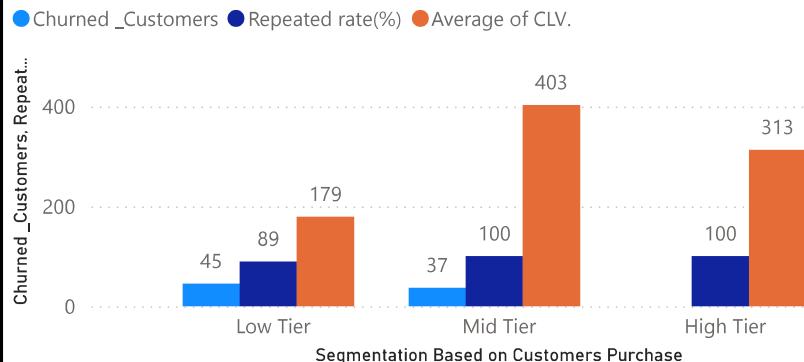
### Income\_Level

- (Blank)
- High
- Low
- Medium
- Premium

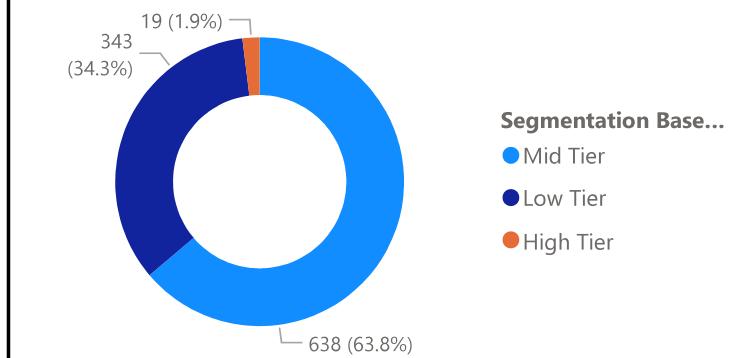
### Loyalty\_Tier

- (Blank)
- Base
- Elite
- Plus
- Premium

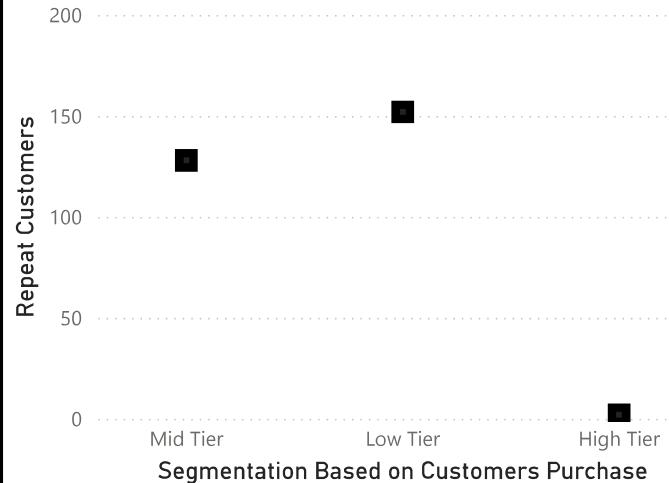
Churned\_Customers, Repeated rate(%) and Average of CLV. by Segmentation Based on Customers Purchase



Sum of No. of Purchases by Segmentation Based on Customers Purchase



Repeat Customers by Segmentation Based on Customers Purchase



Store_Type	Sum of Membership Duration	Average of No. of Purchases
Flagship	736	4.10
Franchise	1113	3.93
Online	848	4.11
Outlet	904	3.98
<b>Total</b>	<b>1538</b>	<b>3.33</b>

Online & Flagship stores have the highest average number of purchases (4.1). Franchise stores have the longest customer membership duration (1113 days). Overall average purchases per customer: 3.33.

Mid Tier customers are the most valuable overall - focus on retention and upselling. High Tier customers are few but valuable - consider targeted acquisition strategies. Online and Flagship stores drive more purchases - leverage them for customer engagement.

Task 7: Final Dashboard & Executive Summary-Segmentation (Churned, Repeat, High-Value)

## Top 3 recommendations for Adidas:

### Which customers to prioritize for retention?

#### • Prioritize Retention of Mid Tier Customers

They make up 63.8% of total purchases. Have high repeat rates (100%) and highest average CLV (403).

Recommendation Can be Invest in loyalty programs, personalized offers, and early-access perks. Consider upgrading them to high-tier through targeted cross-sells.

#### • Nurture High Tier Customers Despite Small Size

Very high individual CLV (313) and perfect repeat rate (100%), but only 1.9% of purchases.

Recommendation can be Create exclusive VIP programs or early product access. Use referral programs to grow this segment with like-minded high-value customers.

#### • Convert Loyal Low Tier Customers to Mid Tier

Low Tier customers have decent repeat rates (89%) but low CLV (179).

Recommendation can be Use targeted product bundles, upselling tactics, or membership incentives. Educate them about premium products to increase purchase value.

### Which channels are underperforming?

1. Franchise Stores Lowest avg. purchases per customer (3.93) Highest membership duration customers stay long but don't buy often .

2. Outlet Stores Low avg. purchases (3.98) .

3.No standout performance in either loyalty or value .

4. Overall Benchmark Average across all channels is 3.33, so anything near or below that underperforms.

Recommendations can be

1. Franchise Stores: Boost Engagement Introduce in-store loyalty incentives or exclusive events to drive more frequent purchases.

2. Outlet Stores: Upsell & Cross-Sell Use targeted promotions to increase basket size and product variety per visit.

3. Optimize Channel Strategy Analyze what's working in Online & Flagship (highest purchases per customer) and replicate successful tactics in weaker channels.

### How to strengthen loyalty program engagement?

• Show users how close they are to the next tier to motivate purchases.

• Use purchase history and behavior to send targeted discounts or early access to relevant products. Makes rewards feel exclusive and valuable.

• Add challenges (e.g., "Buy 3 times this month, get bonus points") or limited-time missions. Include badges or leaderboards to make it fun and engaging.