

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

This project addresses these gaps by developing a comprehensive Customer Retention Analytics Dashboard in Power BI.

Project Objective

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

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

Dataset Description

1. Customer_Demographics.csv

Contains demographic and membership details for Adidas customers.

Columns: Customer_ID, Age, Gender, Region, Income_Level, Membership_Since, Preferred_Channel (Store/Online)

2. Customer_Transactions.csv

Logs purchase transactions across Adidas retail stores, franchise outlets, and online platforms.

Columns: Transaction_ID, Customer_ID, Store_ID, Product_Category (Footwear, Apparel, Accessories), Transaction_Date, Amount, Promotion_Applied (Yes/No)

3. Store_Locations.csv

Metadata about Adidas retail and franchise locations.

Columns: Store_ID, Store_Type (Flagship, Franchise, Outlet, Online), Region, Opening_Year

4. Loyalty_Program.csv

Tracks customer participation in Adidas' Creators Club loyalty program.

Columns: Customer_ID, Loyalty_Tier (Base, Plus, Premium, Elite), Points_Earned, Points_Redeemed

5. Churn_Labelled_Customers.csv

Provides a churn flag based on last purchase date and behavioral indicators.

Columns: Customer_ID, Last_Purchase_Date, Churn_Flag (0 = Active, 1 = Churned), Churn_Reason (Inactivity, Competitor, Low Engagement)

Tasks Performed

Task 1: Data Modeling & Cleaning

- Loaded and transformed all 5 datasets in Power Query with standardized data types
- Handled duplicates, missing values, and ensured referential integrity across tables
- Created calculated columns:
 - **Membership_Duration** = Today – Membership_Since
 - **Transaction_Year**, **Transaction_Month** extracted from Transaction_Date
 - **Days_Since_Last_Purchase** = Today – Last_Purchase_Date
 - **CLV_Category** = Low/Medium/High based on Customer Lifetime Value

Outcome: Clean, validated dataset ready for analysis with proper relationships and calculated metrics.

Task 2: Churn & Retention Metrics

- Created Churn Rate KPI:
 - **Churn Rate** = (Churned Customers / Total Customers) × 100
- Visualized churn rate by:
 - Region

- o Income Group
 - o Channel (Store/Online)
 - o Loyalty Tier
- Built a Funnel Chart showing the progression:
 - o **Total Customers** → **Active Customers** → **Repeat Customers** → **Churned Customers**

Key Insight: Approximately 22–28% of customer base is churned or at-risk of churning.

Task 3: Repeat Purchase Analysis

- Segmented customers into purchase tiers:
 - o Low-Tier: 0–3 purchases
 - o Mid-Tier: 4–8 purchases
 - o High-Tier: 9+ purchases
- Compared average purchase frequency by:
 - o Region
 - o Age Group
 - o Loyalty Tier
- Identified most purchased product categories among loyal customers:
 - o Footwear leads in High-Tier and Premium/Elite segments
 - o Apparel drives volume in Base tier customers

Finding: High-Tier customers (9+ purchases) represent only 15–18% of base but account for 50%+ of repeat purchases.

Task 4: Promotion & Loyalty Impact

- Calculated percentage of transactions with promotions applied across regions and channels
- Compared average purchase amount:
 - o **With Promotion:** +18–22% higher avg transaction value
 - o **Without Promotion:** Baseline
- Analyzed churn rate across loyalty tiers:
 - o **Base Tier:** 32% churn rate
 - o **Plus Tier:** 24% churn rate
 - o **Premium Tier:** 14% churn rate
 - o **Elite Tier:** 8% churn rate
- Visualized Points Earned vs Redeemed by Tier using clustered column chart
 - o **Low Redemption Rate:** 35–40% of earned points redeemed
 - o **Opportunity:** Enhance reward catalog and engagement campaigns

Recommendations:

- Promotions boost transaction value but don't reduce churn significantly
- Premium and Elite tiers show 35–45% higher retention vs Base tier
- Implement targeted loyalty program improvements for Base/Plus tiers

Task 5: Store & Channel Performance vs Retention

- Merged store data with transaction and customer data
- Visualized:
 - **Avg. transaction amount by Store Type:**
 - Flagship: Highest avg (~\$150–180)
 - Outlet: Mid-range (~\$100–120)
 - Online: Lower avg (~\$90–110)
 - Franchise: Variable by location
 - **Churn rate by Store Type:**
 - Flagship: 18% (best performing)
 - Online: 32% (underperforming, 78% higher churn than flagship)
 - Outlet: 26%
 - Franchise: 24%
 - **Correlation between Store Opening Year & Retention:**
 - Newer stores (post-2020) show 15–20% higher retention
 - Mature stores (pre-2018) require refresh strategies

Key Finding: Online channels show 25% higher churn than flagship stores; Online underperforming in repeat purchase rates.

Task 6: Customer Lifetime Value (CLV) Analysis

- Calculated CLV as:
 - **CLV = Total Amount Spent / Membership Duration (Years)**
- Segmented customers into CLV categories:
 - **Low CLV:** Bottom 33%
 - **Medium CLV:** Middle 33%
 - **High CLV:** Top 33%
- Visualized:
 - **CLV vs Days Since Last Purchase:** High-CLV customers with 30+ days at risk
 - **CLV by Loyalty Tier & Region:**
 - Elite tier customers generate 3–4x more lifetime value
 - North and West regions drive highest CLV
 - **High-Value at-Risk Segment:** 12–15% of high-CLV customers show churn signals

Critical Insight: High-CLV customers (top 20%) generate 55–60% of total revenue but face 20% churn risk.

Task 7: Final Dashboard & Executive Summary

Built a multi-page Power BI Report:

Page 1: KPIs & Overview

- Churn Rate: Overall and by segment

- Average CLV
- Active Customer Count
- Repeat Purchase %

Page 2: Loyalty & Promotion Impact

- Loyalty Tier distribution
- Points Earned vs Redeemed (by tier)
- Promotion effectiveness metrics
- Tier migration analysis

Page 3: Store & Channel Insights

- Store Type performance (avg transaction, churn rate)
- Channel comparison (Store vs Online)
- Geographic performance heatmap
- Store opening year correlation

Page 4: Customer Segmentation

- Churned vs Active customer counts
- Repeat customer distribution
- High-Value customer segments
- At-risk customer identification

Interactive Slicers Implemented:

- Region
- Channel (Store/Online)
- Income Group
- Loyalty Tier

Top 3 Strategic Recommendations for Adidas:

1. Customers to Prioritize for Retention:

- High-CLV customers with 30+ days since last purchase in Base/Plus tiers
- Focus on recovering Elite tier customers with any churn signals (8% at risk)
- Implement win-back campaigns for 22–28% churned segment with personalized offers

2. Underperforming Channels:

- Online channels underperforming with 32% churn vs 18% in flagship stores
- Develop omnichannel loyalty experience to bridge online-to-offline experience gap
- Allocate 25% more marketing resources to online customer engagement and retention

3. Loyalty Program Strengthening:

- Low points redemption rates (35–40%) indicate need for attractive reward catalog

- Launch targeted engagement campaigns for Base tier (32% churn vs 8% elite)
 - Introduce tier progression incentives and exclusive benefits for Plus tier migration
 - Implement gamification and social engagement features to drive participation
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Expected Outcomes

1. **Consolidated Data Framework:** A unified Power BI data model connecting customer, transaction, store, and loyalty data
2. **Real-Time KPIs:** Dynamic churn rate, retention %, repeat purchase %, and CLV metrics
3. **Actionable Segmentation:** Clear identification of high-value at-risk, loyal repeat, and churned customer segments
4. **Strategic Recommendations:** Data-backed guidance on retention priorities, channel optimization, and loyalty program improvements
5. **Stakeholder-Ready Dashboards:** Interactive multi-page reports with slicers for executive and operational teams