# E-commerce Customer Churn Analysis
# Building Data-Driven Buyer Personas for Retention

**Objective:** Use customer behavior and engagement data to explain why churn happens and how to reduce it.

[Github Project link](Github Project link)

# Dataset & Problem

- 50,000 customers from a global e-commerce + subscription platform

- 25 features: behavior, engagement, purchases, support, value

- Binary churn indicator (Churned vs Loyal)

- Retention matters more than acquisition cost

**Key question:**
Why do customers with **real spending power** still churn?

# Why Buyer Personas (Retention Lens)

- Numbers alone don't explain churn

- Personas turn metrics into **clear customer stories**

- Help teams spot **early churn signals**

- Support **targeted retention actions**, not assumptions

**Goal:**
Move from *"what happened"* → *"what to do next"*

# Methodology (How This Was Built)

- Analysis done in **Excel** using pivot tables

- Customers segmented by **Churn_Status**

- Compared **averages, counts, and percentages**

**Four persona layers used together:**

- Behavioral (logins, sessions, purchases)

- Engagement (email, support, social, app)

- Value (AOV, LTV, purchases)

- Categorical (gender, country, signup quarter)

*Missing values were left untouched to avoid assumptions.*

# Churned Buyer Persona (Who Leaves)

## Behavior

- 9.12 logins / month
- 23.69 min per session
- 7.37 pages per visit
- Purchases every **36.94 days**

## Engagement

- Email open rate: **15.89%**
- Support calls: **6.90**
- Low social + app usage

## Value

- AOV: **$134.76**
- LTV: **$1,425.42**

# What the Churned Persona Tells Us

- Customers **do buy**, but not often

- They engage lightly, then disappear

- High support calls signal **confusion or friction**

- Churn is driven by **low clarity**, not low value

**Insight:**
This customer doesn't leave because of price.
She leaves because the platform feels hard to use.

# Loyal Buyer Persona (Who Stays)

**Behavior**

- 12.64 logins / month
- 29.21 min per session
- 9.30 pages per visit
- Purchases every **26.89 days**

**Engagement**

- Email open rate: **22.93%**
- Support calls: **5.19**
- Strong social + app usage

**Value**

- AOV: **$118.38**
- LTV: **$1,446.81**

# Key Comparison (Churn vs Loyal)

Loyal users

- Log in more
- Explore more
- Buy more often
- Need less support

Churned users

- Spend **more per order**
- But feel unsure and disengaged

**Core churn driver:**
Low engagement + high friction, not low spending.

# Content Strategy (Retention, Not Marketing)

## Why content matters

- Churned users still show purchase intent
- They need **guidance**, not promotions

## Content goals

- Reduce confusion
- Increase confidence
- Shorten time between purchases
- Lower support dependency

# Where Content Is Used (What & Why)

## Blog (Mid–Bottom Funnel)

- Product usage clarity
- Common issues & fixes
- Purchase decision support

## Email

- Short, educational, value-based
- Feature reminders
- "Before you contact support" guidance

## In-App

- Tooltips and walkthroughs
- Inactivity prompts after long gaps
- Real-time friction removal

# Reducing Support Calls Through Content

- Churned users make **6.90 calls**
- Loyal users make **5.19 calls**

**Content replaces support by**

- Answering repeat questions early
- Preventing confusion in-app
- Offering self-serve help

**Result**

Lower frustration → lower churn risk

# Cross-Department Impact

## Marketing

- Trigger retention campaigns before churn
- Segment by engagement decline, not discounts

## Customer Success

- Identify high-risk users early
- Shift from reactive to proactive support

## Sales

- Upsell loyal, high-LTV users
- Avoid pushing churn-risk users

## Product

- Fix usability gaps
- Improve onboarding and feature clarity

## Final Takeaway

- Churned users are **valuable but disengaged**

- Personas explain **why churn happens**

- Content becomes a **retention tool**, not noise

- Data → Personas → Actions → Business impact

This project shows how analytics supports real decisions, not just dashboards.