Lindsey Ahlander, Ashley Goldstein, Kyle Aagard, Eliza Baier
September 14, 2025
IS 6813 MSBA Capstone

Swire Coca-Cola Cart Abandonment Project

Business Problem Statement

Business Problem

Swire Coca-Cola currently faces a problem with cart abandonment. Industry research from the Baymard Institute shows online retailers face average abandonment rates of 70%, causing the business to miss out on significant revenue.[1] Our purpose will be to understand what behaviors or external factors drive cart abandonment, measure it's impact on Swire Coca-Cola, and identify what factors may influence customers to return and complete purchases.

Benefit of a Solution

By identifying behaviors and external factors associated with cart abandonment, we will give Swire Coca-Cola the opportunity to intervene and prevent cart abandonment on a systemic level. Information and associated interventions uncovered during this analysis will allow Swire Coca-Cola to better understand their customer base. Ultimately, our project aims to prevent revenue loss due to cart abandonment, leading to improved profitability for Swire Coca-Cola.

Analytics Approach

We have broken our analytic approach into three phases to become familiar with the data, understand the problem, and determine key features that influence cart abandonment.

The phases are as follows:

1. Determine a baseline
    a. Calculate current cart abandonment rate, recovery rate, and revenue loss
    b. Segment customer data by platform type, cart contents, customer tier, and delivery period
2. Create a predictive model that
    a. Identify key factors that lead to abandonment
    b. Predict cart abandonment
    c. Forecast whether an abandoned cart will be recovered on another platform
3. Simulate Impact
    a. Test methods to improve recovery rates
    b. Estimate revenue gains from reducing cart abandonment by a determined percentage

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Project Scope

By the end of our analysis, we will have a clear understanding of the profile of customers who are most likely to abandon their carts. In our descriptive approach, we will identify the characteristics and variables that are most commonly associated with cart abandonment. We will then build a predictive model that enables Swire Coca-Cola to detect these patterns early in the ordering process and anticipate the likelihood of abandonment. Based on modeling results, we will then provide a set of recommendations for how Swire can proactively identify and engage at-risk customers to reduce cart abandonment and increase revenue.

While our scope ends with delivering customer profiles, predictive models, and recommendations, Swire will have the opportunity to apply marketing techniques or other interventions they consider appropriate to act on our findings. Swire-specific interventions based on our recommendations will be considered outside the scope of this project. However, Swire may wish to continue iterating on this analysis in the future, particularly to capture potential seasonality trends that may influence cart abandonment behavior.

Success Metrics

Since we only have a single snapshot in time of purchasing data, traditional success metrics like monitoring reduction or improvement in abandonment and conversion rates will be insufficient. Instead, we will work on building a robust baseline of descriptive and predictive segments, and then use simulated data to test our modeling and experimental hypotheses.

To measure success of our project, we will look at the following metrics:

- Predictive models that achieve at least 70% accuracy in identifying cart abandonment
- Simulated experiments that project potential revenue lift from reduced abandonment

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Projected Timeline

Date	Deliverable / Milestone	Owner
Weekly	Team huddles, Thur 6:00 – 7:00 PM, until completion	DataLAKE
9/14/25	Business Problem Statement submitted	Kyle Aagard
9/25/25	Individual EDA notebooks due (at team huddle)	DataLAKE
10/2/25	Rough draft of group EDA notebook due (at team huddle)	DataLAKE
10/5/25	Final group EDA notebook submitted	Eliza Bair
10/9/25	Modeling notebook assignments finalized (at team huddle)	DataLAKE
10/16/25	Individual modeling notebooks due (at team huddle)	DataLAKE
10/23/25	Rough draft of group modeling due (at team huddle)	DataLAKE
10/26/25	Final modeling notebook submitted	Lindsey Ahlander
11/6/25	Presentation rough draft due (at team huddle)	DataLAKE
11/16/25	Practice presentation submitted	Ashley Goldstein
11/19/2025	Final presentation to Swire Coca-Cola	DataLAKE
12/7/2028	GitHub Group Portfolio due	Kyle Aagard

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References

1. *Baymard Institute*. “49 Cart Abandonment Rate Statistics.” *Baymard Institute*, 2025, https://baymard.com/lists/cart-abandonment-rate