

Swire Coca-Cola Analysis

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Contents

- Business Problem
- Key Takeaways
- Modeling & Analysis
- Limitations
- Next Steps
- Q&A

01

Business Problem

- ✗ Customers abandoning carts
- ✗ Various factors influence abandonment
- ✓ Pinpoint at-risk customers for intervention
- ✓ Identify patterns that drive abandonment

02

Key Takeaways

Why does abandonment occur?

- Abandonment results from behavior loops
- Purchased carts show linear, predictable paths
- Cart editing, item searching, and repeated navigation are strongest predictors

Who is most likely to abandon?

- Restaurant and Distributor accounts show strongest patterns
- Smaller segments show simpler, occasional ordering behavior

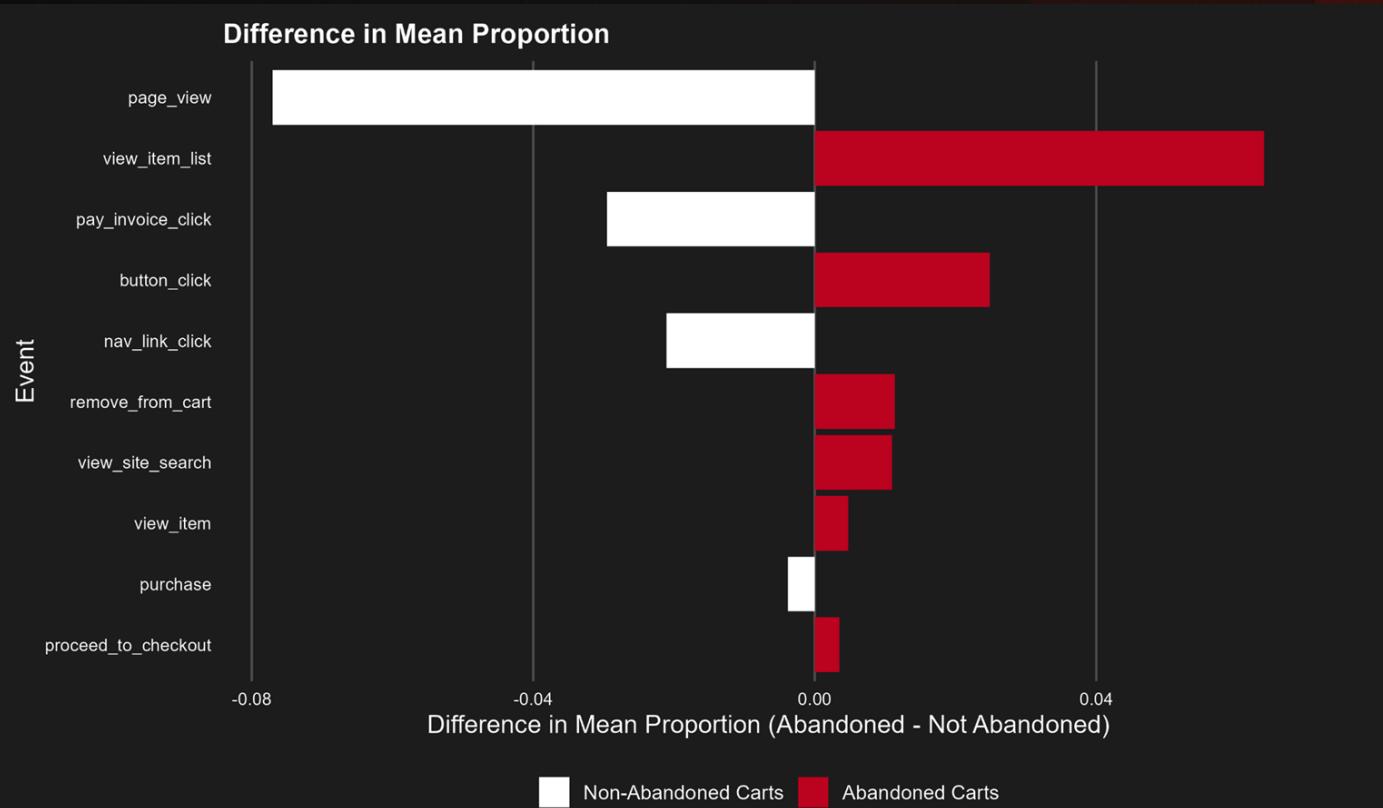
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Modeling & Analysis

What is an abandoned
cart?

- 50,910 unique purchase windows
- 7,539 abandoned carts
- Abandonment rate: 14.8%

Event Based Analysis



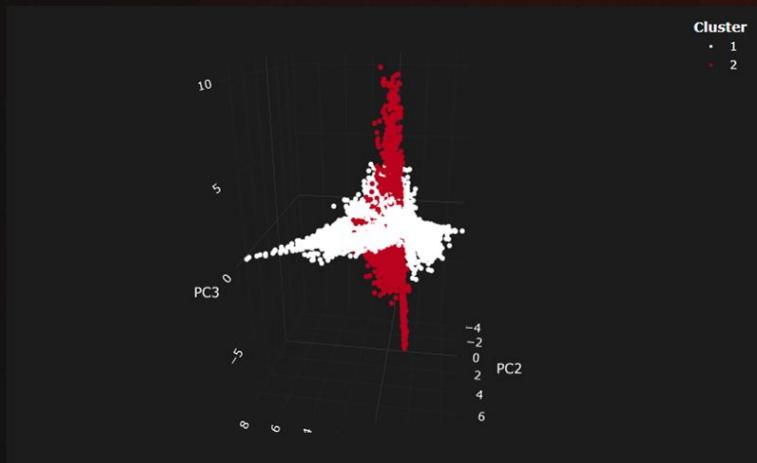
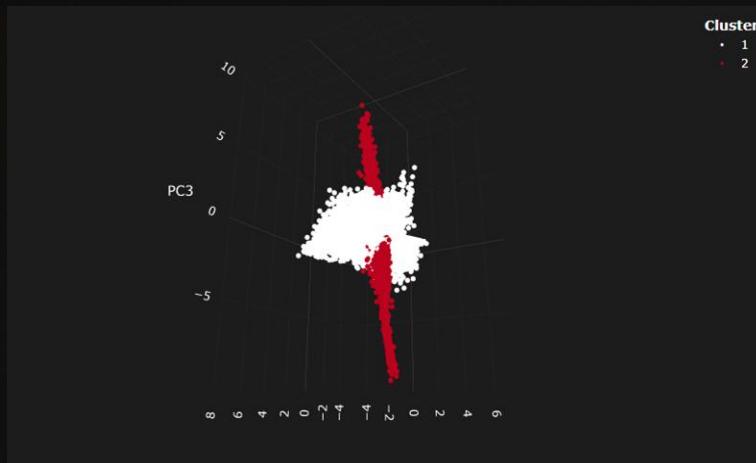
Abandoned carts had a larger proportion of events related to viewing items, searching and cart related activities.

Clustering by Events

Abandonment Rate by Cluster

Cluster 1: 14.3% (White)

Cluster 2: 17.1% (Red)

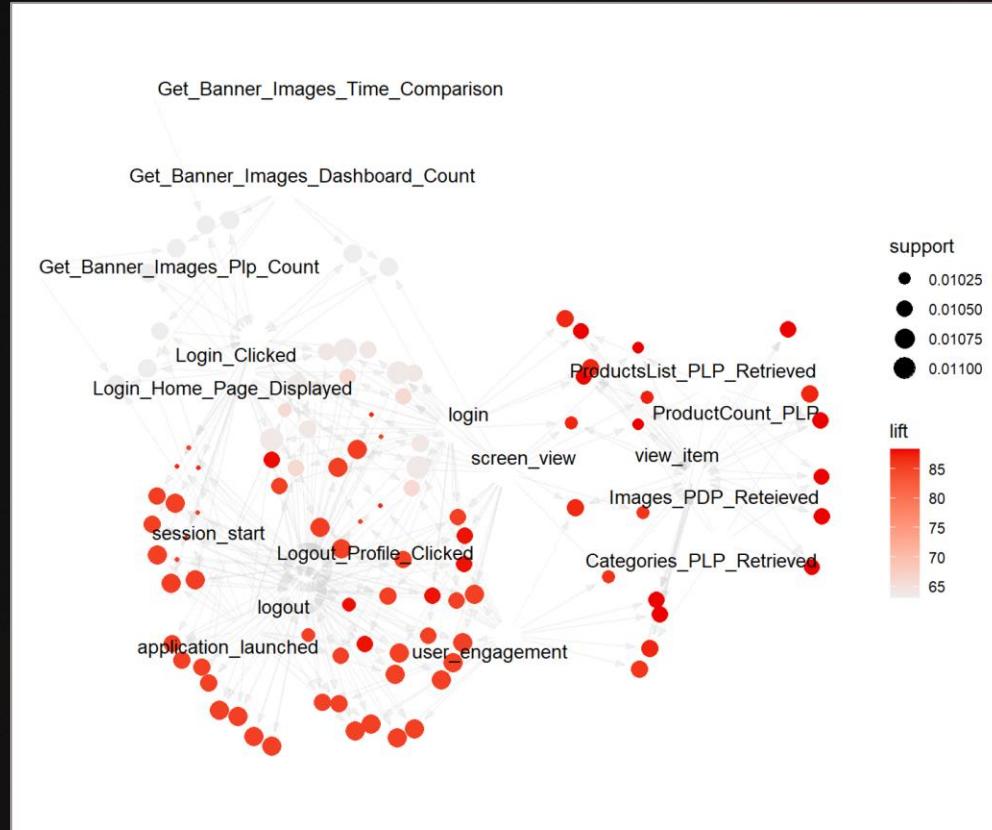


These events appear to be impacting cart abandonment
but how exactly is not clear.

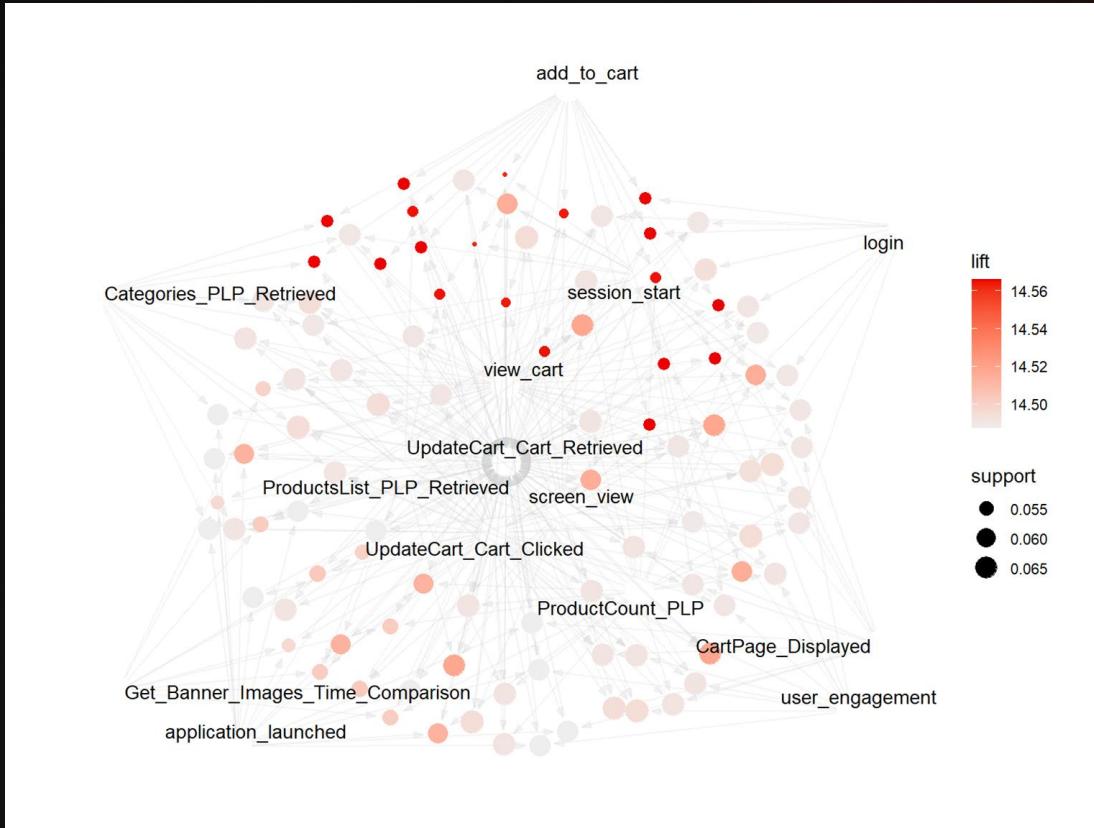
Could sequences of these events provide more insight?

Association Rule Mining

Purchase Cart Behavior



Abandoned Cart Behavior



Top 5 Rules

Group	rules	support	confidence	lift
Abandoned	add_to_cart,UpdateCart_Cart_Clicked => UpdateCart_Cart_Retrieved	0.05305743	0.9950249	14.56600
Abandoned	add_to_cart,view_cart => UpdateCart_Cart_Retrieved	0.05305743	0.9950249	14.56600
Abandoned	add_to_cart,UpdateCart_Cart_Clicked,view_cart => UpdateCart_Cart_Retrieved	0.05305743	0.9950249	14.56600
Abandoned	add_to_cart,CartPage_Displayed,UpdateCart_Cart_Clicked => UpdateCart_Cart_Retrieved	0.05305743	0.9950249	14.56600
Abandoned	add_to_cart,UpdateCart_Cart_Clicked,user_engagement => UpdateCart_Cart_Retrieved	0.05305743	0.9950249	14.56600
Purchased	ProductCount_PLP,screen_view,view_item => Images_PDP_Retrieved	0.01021420	0.9326316	88.31695
Purchased	ProductsList_PLP_Retrieved,screen_view,view_item => Images_PDP_Retrieved	0.01021420	0.9326316	88.31695
Purchased	ProductCount_PLP,view_item => Images_PDP_Retrieved	0.01046782	0.9322382	88.27970
Purchased	ProductsList_PLP_Retrieved,view_item => Images_PDP_Retrieved	0.01046782	0.9322382	88.27970
Purchased	ProductCount_PLP,ProductsList_PLP_Retrieved,view_item => Images_PDP_Retrieved	0.01046782	0.9322382	88.27970

Association Rule Lift – Top 2 Segments (Restaurant & Distributor)

Higher lift indicates stronger, recurring behavioral patterns in high-volume channels

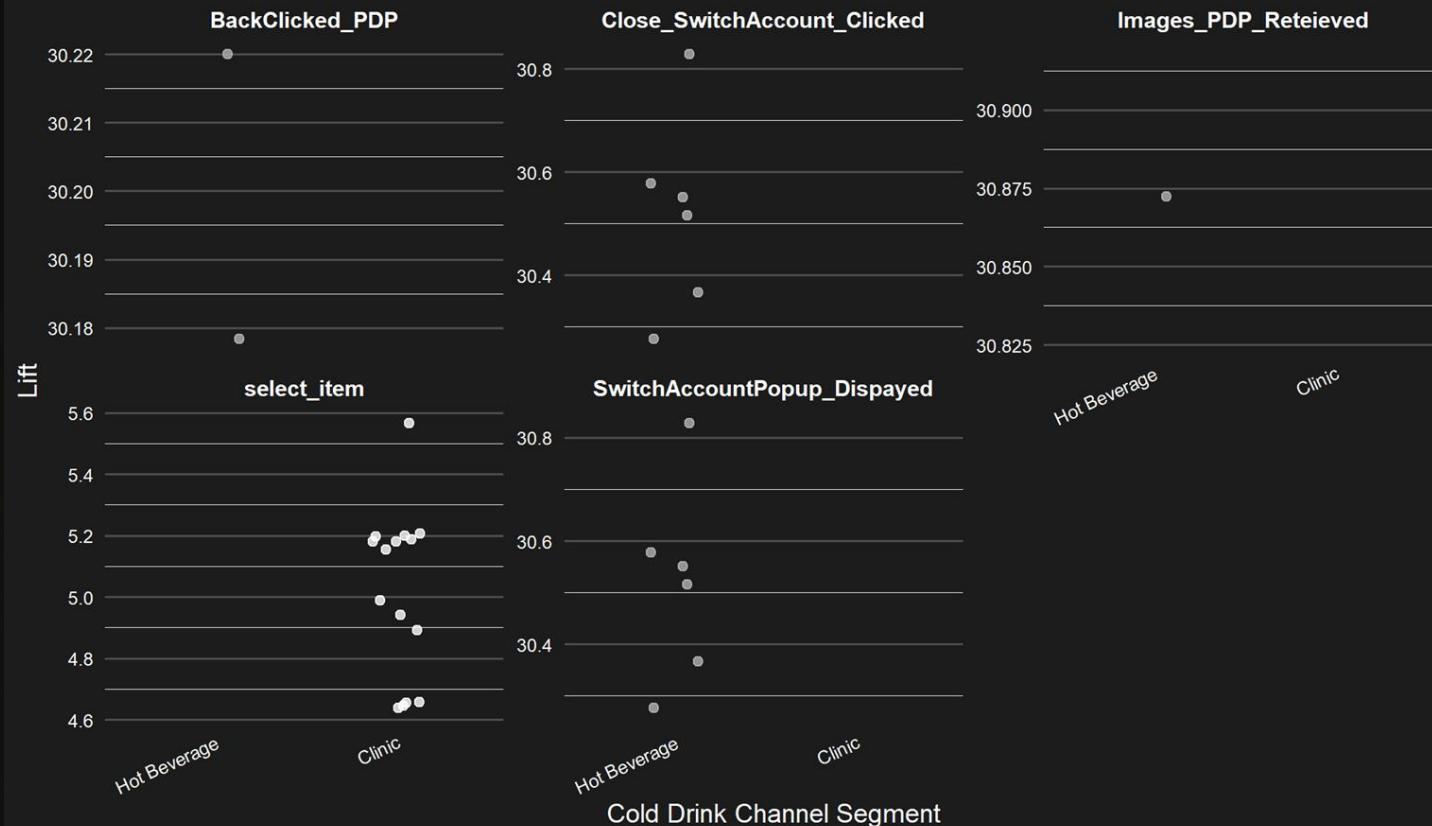
● Restaurant ● Distributor



Association Rule Lift – Bottom 2 Segments (Hot Beverage & Clinic)

Lower lift values indicate weaker or less consistent behavioral co-occurrence patterns

● Hot Beverage ● Clinic



What does it mean?

Abandonment is a complex, multi-step journey

Key friction points:

Difficulty finding the right SKU

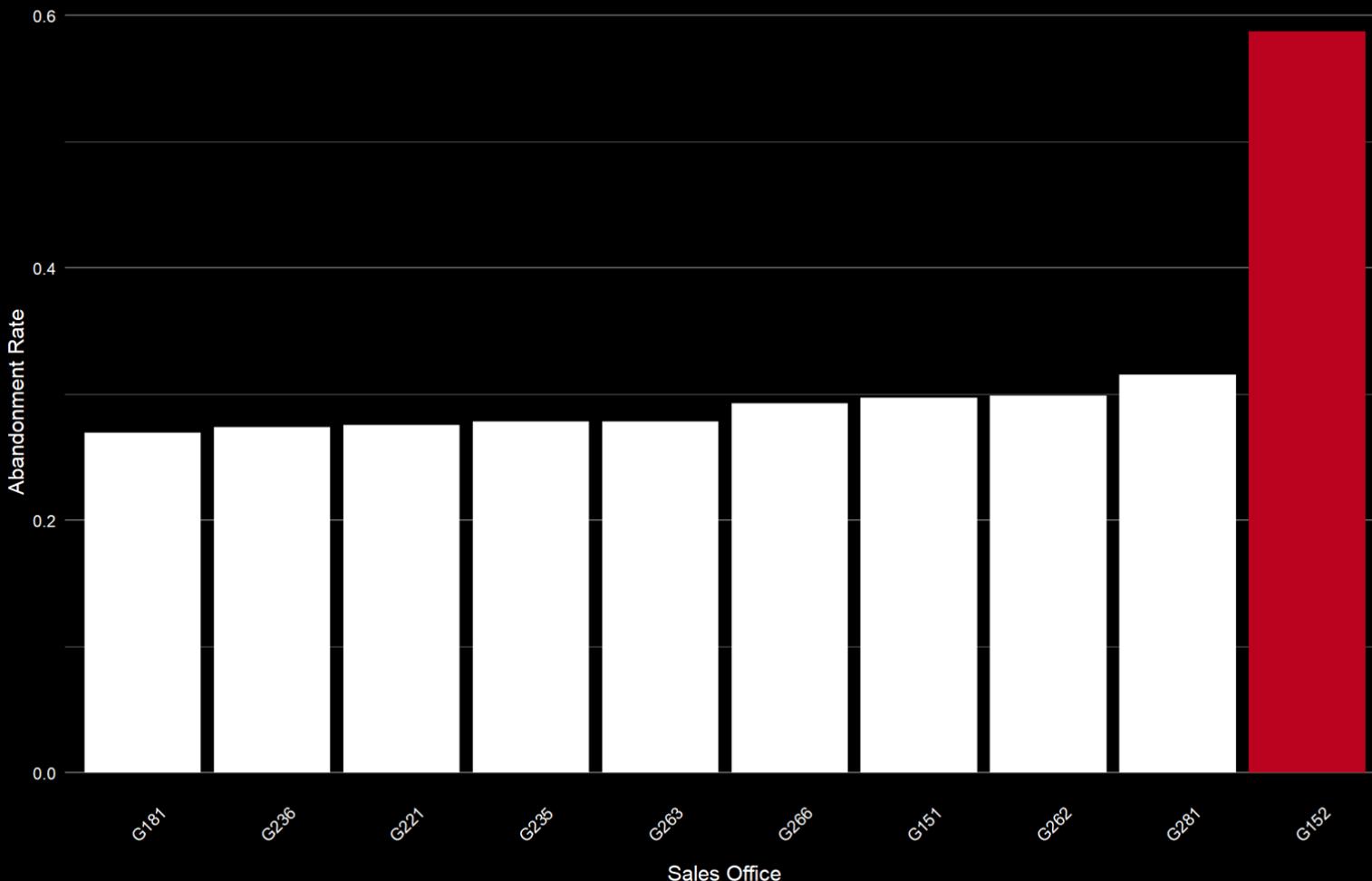
Uncertainty about size or pack type

Possible unavailable or inconsistent product information

Logistic Regression & Differential Analysis

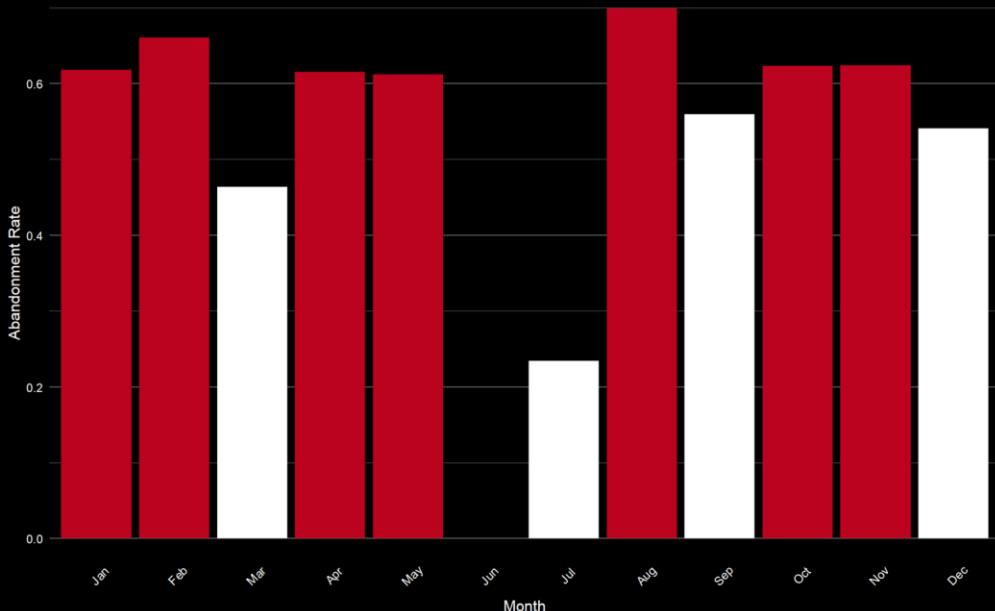
Abandonment by Sales Office

Top 10



Abandonment Rate for Sales Office G152

Monthly Abandonment Rate (Jan–Dec)



Potential Causes:

- Seasonal spikes in demand
- Weather events affecting delivery
- Inventory shortages following holidays

04

Limitations

- No pre-treatment period
- 75 missing anchor dates
- 23k missing critical data

Final = 3.6 million

05

Next Steps

- ✓ Identify uncertain customers
(Restaurants & Distributors)
- ✓ Further analyze Cheyenne, WY
- ✓ Targeted interventions
 - Frictionless checkout experience
 - Real-time support prompts
 - Targeted notifications

THANK YOU!

Any questions?