**Actual Business Problem Statement**

**Business Problem:** What is the problem? ------ I made more details on the problem the SCCU is facing

Swire Coca-Cola faces challenges in optimizing its logistics strategy across its Western USA market. Specifically, the issue lies in determining which customers should be allocated to cost-efficient White Truck (third-party) services versus Red Truck (direct delivery by Swire's fleet). The current ad-hoc approach to customer allocation risks misclassification, leading to inefficient resource use, higher logistics costs, and missed revenue opportunities.

Additionally, some customers currently whitelisted for White Truck services may have high growth potential that requires direct delivery to foster strong relationships and maximize revenue. Without a systematic, data-driven approach, Swire Coca-Cola risks losing long-term business opportunities by prematurely transitioning such customers to White Truck services.

**Business Objectives --------** I think it is important to add objectives

1. Identify key factors and customer characteristics that differentiate high-potential customers from low-potential ones.
2. Develop a predictive model to classify customers accurately into White Truck or Red Truck services.
3. Provide actionable insights to balance cost-efficiency with revenue growth and long-term customer retention.

**Benefits of a solution**

Currently Swire Coca-Cola has run this on an ad-hoc level, meaning just whenever there is a request or need to offboard a business into White Truck services it would happen. Thus, this would provide Swire Coca-Cola with a proactive approach to predictive analytics to cut losses and costs with businesses within specific customer categories.

Here are a few ways Swire Coca-Cola would benefit as a whole:

1. **Cost Reduction:** Reduce logistics costs by efficiently allocating customers to appropriate delivery routes.
2. **Revenue Growth:** Improve customer retention and revenue by ensuring high-potential customers receive the appropriate level of service.
3. **Logistics Efficiency:** Avoid spreading resources too thin across the customer base and optimize operational capacity.

**Success Metrics**. The success of the project will be evaluated by: ---- I made this section more concise

1. Achieving **80-95% accuracy** in predicting customer classifications.
2. High performance of the predictive model as measured by AUC and other relevant metrics.
3. Increased cost savings and revenue growth through optimized delivery strategies.

**Analytics Approach**

This predictive model will utilize a supervised approach, in which past financial data that includes the target variable (gallons ordered and successfully delivered) will be used to train the model.

* This initiates with a classification-based model as the target variable is a binary outcome of whitelisting for Red/White Truck services for a business.

**Scope**

To completely understand, analyze and deliver end-results or suggestions to our stakeholders, Swire Coca-Cola, we require the following scopes to be completed:

1. Clearly understanding the problem at hand and meeting with the stakeholders to verify, quantify and qualify the issue at hand.
2. Create an EDA to share our personal outlook on the data and the problem the company is facing.
3. Run supervised modeling to consider predictive analytic solutions, properly qualify the problem and determine key characteristics which identify customers with higher cost estimates in delivery and White Truck whitelisting opportunities.
4. Compiling a summary report and presentation to Swire Coca-Cola to showcase insights, findings and solutions.

**Details**: Who is going to execute the project? When will the project be finished? Are there important project milestones?

This project is mainly executed by our team of contractors: Andy Pan, Elham Mirza, Chris Joyce and Joseph Pushnam.

Milestones: The first 1-2 weeks will be used to run an EDA, and leaving the upcoming months to be utilized for research, data modeling, and reporting to Swire Coca-Cola. (*Estimated time for completion is* ***3 months****.*)

**Summary ---------** I added summary

This project combines Swire Coca-Cola's operational goals with data-driven insights to create a proactive strategy for optimizing delivery logistics. By identifying high-growth potential customers and accurately classifying delivery methods, the project ensures cost savings, revenue growth, and a foundation for sustainable business success.