Business Problem: What is the problem?

The business problem is optimizing Swire Coca-Cola's logistics by determining the right threshold for transitioning low-volume customers to ARTM. While this reduces costs, there's a risk of moving high-growth potential customers too soon, which could limit future revenue. The challenge is identifying which low-volume customers should stay on direct delivery routes to maximize growth opportunities.

Benefits of a solution. How will the business benefit from a solution?

Leveraging analytics to determine the optimal volume threshold and uncover growth indicators helps SCCU make smarter routing decisions that balance efficiency and revenue growth. For example:

- **High-growth customers**: Identify customers likely to exceed the threshold and transfer them to direct delivery routes (red trucks). This strategy fosters stronger relationships, builds customer loyalty, and drives long-term revenue growth by supporting their potential.
- **Low-growth customers**: Transitioning customers below the threshold to ARTM ensures significant cost savings in delivery logistics without risking customer satisfaction.

Success Metrics. How will stakeholders judge whether the project was a success?

Stakeholders will evaluate our success based on how effectively we use the resources provided, address the core problem, and propose actionable, business-focused solutions.

Success will also be measured by our ability to back up recommendations with data, clearly explain our reasoning, and provide realistic steps for implementation.

Analytics Approach. What is the general character of the analytics approach to solving the problem?

- **Data Collection and Preprocessing:** We will collect and preprocess key datasets, including customer sales volumes (in gallons or cases), delivery routes, product mix (fountain drinks, CO2, cans, bottles), ARTM usage, and customer attributes such as location, market type, business type, and purchase frequency. By ensuring clean, consistent data, we lay a solid foundation for accurate analysis and decision-making.
- **Descriptive Analytics:** Descriptive analytics will provide a clear picture of historical sales trends, customer purchasing behavior, and delivery patterns. Customers will be segmented into groups (Local Market Partners and others)

based on product mix and sales volume. Advanced visualization techniques will help uncover relationships between customer attributes, sales performance, and logistics costs, offering actionable insights into customer behaviors and potential growth opportunities.

- **Threshold Optimization:** The focus will be on assessing the effectiveness of the current 400-gallon annual sales volume threshold. Through statistical and optimization techniques, we will identify an ideal threshold that reduces delivery costs while retaining high-growth customers. This analysis ensures that decisions to transition customers to ARTM or retain them on direct delivery routes are data-driven, balancing cost savings with growth potential.
- **Predictive Modeling for Growth Potential:** To avoid prematurely moving high-potential customers to ARTM, we will develop predictive models to identify key indicators of growth potential, such as changes in purchase frequency or product mix diversification. These models will guide decisions about which customers should remain on direct delivery routes to foster long-term revenue growth.

Scope: What will be delivered, and what will be out of scope? What might be added later?

In Scope (Deliverables):

- **Data-Driven Customer Segmentation:** Identification of customer segments based on sales volume, product mix, purchase frequency, and business attributes.
- **Threshold Optimization Analysis:** Evaluation of the current 400-gallon annual sales threshold and determination of an optimal threshold using statistical and optimization techniques.
- **Growth Potential Prediction Models:** Develop predictive models to assess customer growth potential and prevent premature transitions to ARTM.
- **Cost-Benefit Analysis:** Quantification of potential savings from ARTM transitions versus lost revenue opportunities from misclassified high-growth customers.
- **Actionable Recommendations:** A strategic plan outlining which customers should remain on direct delivery and which should be transitioned, with clear justification backed by data.
- **Visualization and Reporting:** Dashboards or reports summarizing key findings, model outputs, and recommended next steps for stakeholders.

Out of Scope:

- **Operational Implementation:** While recommendations will be provided, the actual execution of customer transitions or adjustments to logistics operations will not be included.
- **Real-Time Decision Systems:** The development of automated real-time decision-making tools for logistics will not be implemented at this time.
- **External Market Factors:** The analysis will not account for broader economic trends or external disruptions that may impact customer demand beyond the available data given.

Potential Future Additions to the Analysis:

- **Live Model Integration:** Deploying predictive models into SCCU's logistics system for continuous decision-making.
- **Ongoing Model Refinement:** Periodic updates to customer growth predictions based on new data and business performance metrics.
- **Experimentation & A/B Testing:** Implementing controlled tests to measure the real-world impact of different threshold policies before full deployment.

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

The project will be executed by our team:

- Anais – Project management, milestone tracking, and presentation preparation.
- Estefany – Business impact analysis and cost-benefit evaluation.
- Wayne – Success metrics development and validation.
- Jocelyn – Data preprocessing, descriptive analytics, and visualization.
- Nick – Threshold optimization and predictive modeling.

Each team member will collaborate to ensure the project meets analytical and business objectives.

Milestone	Task	Responsible	Deadline
Phase 1: Business Problem Statement	Define the problem and align on project goals.	All Members	Feb 2
Phase 2: Exploratory Data	Clean datasets and conduct descriptive	Jocelyn & Nick	Feb 16

Analysis (EDA)	analytics.		
Phase 3: Modeling & Threshold Optimization	Evaluate the 400-gallon threshold and test predictive models.	Nick & Jocelyn	Mar 9
Phase 4: Practice Presentation	Initial presentation draft and review.	All Members	Apr 6
Phase 5: Final Presentation Development	Refine insights, finalize recommendations, and prepare slides.	Wayne & Anais	Apr 10
Phase 6: Team Rehearsal & Feedback	Practice and incorporate feedback.	All Members	Apr 14
Final Presentation	Deliver findings and recommendations.	All Members	Apr 16