## Introduction & use case (Lucie & Julie)

Since the covid pandemic, advertisements have invaded our physical and virtual space while customers’ attention span has decreased. In this race for attention, the media happens to play a critical role. Our chain of convenience stores suffered from this crisis and fierce competition. To recover from it, our new CEO wants to open 300 new locations and extend media coverage. Although we have historically been based out of the US we want to expand into Canada. We will assume the markets are similar enough that the US data is directly applicable to the Canadian market.

As the data team, we will work to identify growth drivers and better approaches to address our audience with respect to media campaign efficiency. Therefore, our mission will be three-pronged: identify profitable customers’ segments to target, minimize the cost of acquisition of customers (CAC), and analyze the results of our loyalty program.

## Why do we do it? Business Value [Objectives]

The advertising landscape has exploded over the last 20 years, leading to an infinite number of media options. However, not all these options will give an equal return on investment (ROI). The data team will help reduce risks by laying a foundation of customer acquisition cost as a function of media. Predicting the ROI and number of customers, the data team is positioned to optimize our costs and supply chain. After successfully predicting we can implement business strategies to go after the segments that build a strong customer base, reduce costs to successfully launch our stores in Canada.

## How do we do it? [Solutions] (one paragraph – Data Sci Team @Raman)

DRAFT

1- Prediction model(s) to predict CAC through all features/feature selection processes.

>Understand how each feature effects the CAC. Does the type of store or other feature effect the expected CAC

2- Determine the lowest CAC through causal inference

>Will inform the company as to what media adds to run based on expected CAC

3- Market segmentation. Consumer income and gender are target variables, all other features are predictors.

>Understand how to attract different types of customers. Useful for expanding their reach and consumer base

## Results & Interpretation (to be included in the notebook – Business Ana Team converts into business insights)

## Conclusion (depending on results and visualizations)

## Attachments

Appendix/Unused

As an internal data team in the convenient store business, our primary goal is to help grow sustainably. We grow sustainably through two primary means. First, we grow our footprint or number of stores. This then allows us to gain additional market share and gain customers. Second, we increase our profit by reinvesting in the business or increasing shareholder equity. Both routes have various costs and risks. Our mandate is to open 300 new stores to increase business. The challenges of opening a new store are finding customers and ensuring profitability. Since the new stores are in a new geography, we have unique risks and challenges.

The convince store industry has become saturated, leaving little room to grow. For instance, the National Association of Convenience Stores (NACS) demonstrates through their fact sheet that the US is a highly competitive and challenging market to compete in. Therefore, to continue our growth and profitability we must expand internationally.

Our CEO is risk-averse and wants to invest in new stores slowly over time. Therefore, we can analyze the data in ways to develop and build a baseline customer base. We will investigate the customers and promotions to examine the key effect of media advertising on customer acquisition costs. The data science models we develop will give indications and the factors needed to go after low CAC customers. A The key risk is balancing the costs and the revenue to maximize profitability.