Cannlytics

Cannabis Data Science

Cannabis Data Science #59

March 30th, 2022

Congestion Model

Given

- Cannabis producers, $i = 1, ..., N$,
- Cannabis products, $m = 1, ..., M$,
- A time horizon, $t = 1, ..., T$.

Under the following assumptions:

- Any producer can produce any product.
- The *cost* to produce an item of any type is $c = 0$.
- A producer can change the type of product it produces at a set *interval*, t_i.

Strategy: Every time, t_i, a producer can choose it's product type:

1. The producer looks at the number of producers of each type, n_m,
2. The producer calculates the average profits for the producer of each product type, $E[\pi]_m$, for t_i,
3. The producer chooses the most profitable product to produce, $m*$, for t_i, taking into consideration that each other producer, $j = 1, ..., J$, will produce the product that is most profitable for them at each t_j.

Question and Hypothesis

Question of the day.

- What is the **Nash Equilibrium** of the game?

Thank you for coming.

Insights of the Day

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What would you like to talk about next week?