# The Sourcing Game: Managing Inventory and Price

Overview

Welcome to the Sourcing Game. Your team will be managing a simulated firm over the internet that manufactures and sells two wearable medical devices. The first product, named "Hormone View" tracks the concentration of several hormones. It is a generic product that any team can make. Your other product is a proprietary design that only your team can make. You may log into your firm at any time while the game is suspended, running, or done. After logging into the game you will see a screen that looks like the following:
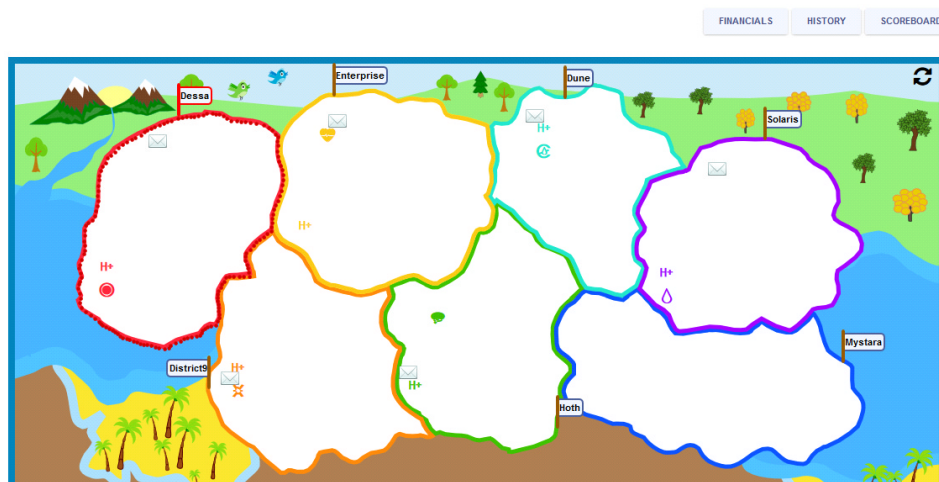
Your home region is outlined in red dots and contains three icons: an envelope icon that opens a panel to exchange messages with members of your team; an "H+" icon that opens a panel to manage inventory and price of your "Hormone Plus" product; and a unique icon that opens a panel to manage inventory and price of your proprietary product. You will see similar icons in other teams' home regions. Clicking on another team's envelope icon allows you to exchange messages with members of that other team. Other teams' inventory icons are not clickable.

Background

Your firm was founded six months ago by an angel investor and a single engineer. The investor purchased half the firm with cash. The proceeds were then used to purchase a facility to manufacture and distribute the monitors.

Monitors are produced in batches of 100. The materials cost for each monitor is $100, so production of a batch begins by incurring a cost of 100×100 units = $10,000. The batch takes 60 hours to manufacture and the facility can only produce one batch at a time. Once the batch is completed another batch can begin production while the finished batch goes into "transit" for 24 hours where

each monitor is packaged and prepared for shipping. Once the monitors are ready to ship they go into finished goods inventory. Customers only purchase monitors from finished goods inventory. The facility operates 24 hours a day.

You control production by setting a reorder point. Production of a new batch is triggered when the sum of in-transit and finished inventory is equal to or less than your reorder point.

Customers arrive at a constant rate throughout each day. The amount of money a customer is willing to pay for a monitor is random. You set the retail price of the monitors. If a customer arrives and the price is higher than what the customer is willing to pay the customer is lost forever without any effect on the arrival of future customers. Higher prices result in less customer purchases over time. If a customer arrives and there is no finished inventory, the customer is also lost forever regardless of price, again without any effect on future arrivals.

At the end of the game the monitor technology will be replaced by a new generation of technology. As result the facility shuts down and all inventory becomes worthless.

Managing your inventory

After logging in, you can click on either of your inventory icons to open an inventory panel. The panel uses the following icons:

- ↗ next to a number opens a panel with more details;
- ✏ next to a number allows you to change that number;
- 📊 next to a number opens a plot of showing how that metric changed during the game.

If the game is running, you will see a ✏ icon next to price to change the price. You will also see a 📊 to plot your price settings during the game.

The panel also shows the net cash generated by the product. The cash reflects inventory-level activities like purchasing raw materials and selling finished goods but not firm-level activities like selling stock and purchasing equipment. Click the ↗ icon next to generated cash to open a new window showing the cash used to produce the inventory and generated by selling the inventory. You can view the sources and uses of cash by day, week, quarter, or year. In this game, there are 7 days in a week, 91 days in a quarter and 364 days in a year.

The inventory panel also includes a table showing your inventory in process, in transit, finished, and total. Click the 📊 icon next to the values to see how they changed over time.

Finally, at the bottom of the panel is a table to manage production. If the game is running, click the ✏ next to the reorder point to change the reorder point. The table shows the number of batches started during the game.

Communications

After logging in, you can click on the envelope icon in your own region to open an archived chat with your team members. You can use that chat, for example, to record notes during the game. The chat is not erased until your instructor resets the simulation.

You can also click on envelopes in other teams' regions to open an archived chat between members of your team and members of the other team. There isn't much of a good reason to exchange messages with other teams in this assignment. Other assignments involve more interaction between teams where communication becomes more important.

Finally, you can post messages that everyone in your simulated world can see using the "industry news" icon above the map.

An envelope or the industry news icon will turn gold if it contains a message that you haven't seen yet. You can refresh the map by clicking the refresh icon in the upper right corner of the map.

Other controls and debt

You will see three buttons above the map:

- The "Reports" drop-down opens a list of reports and charts that aggregate the game data in useful ways.
- The "History" button opens a table showing all the actions taken by your team.
- The "Scoreboard" button shows all the teams ranked by cash position, defined as cash on hand minus debt.

If your firm runs out of cash it will receive emergency loans to continue operations. Emergency loans are automatically repaid as cash becomes available.

Timing

When the game begins, you will already have one quarter of history. Over the next seven days, the game will run for another seven simulated quarters. At that rate, 91 simulated days will elapse each real day and just over one simulated day will elapse every 16 minutes. When the game ends all remaining inventory will be obsolete and therefore worthless.