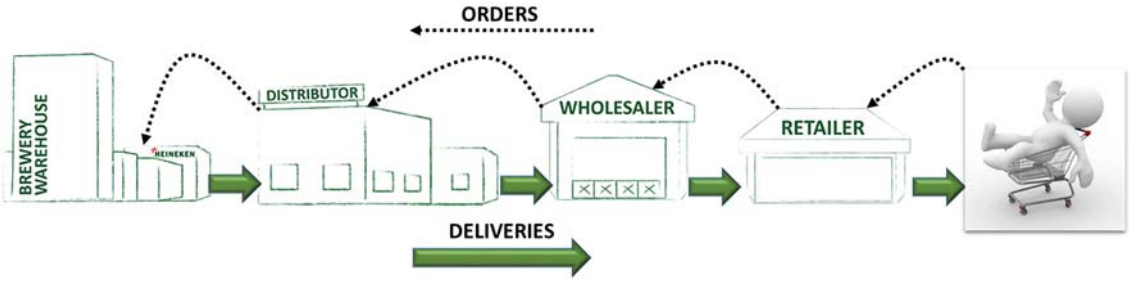
THE HEINEKEN BEER GAME[1]

The Heineken Beer Game is a simulation of one or several supply chains. It is a simplified version of reality because, among other things, only one product is managed and each team serves one client only and buys from a single provider. The basic structure of the chain is comprised of four links that interact with each other to supply an end customer[2].



OPERATION OF THE SUPPLY CHAIN

Before the simulation begins, teams meet to decide on their "procurement policy."

During the simulation, all links in the chain operate in a similar way. Goods are received first thing in the morning, every day. Then we find out the client's demand (i.e. the client of that particular link; the end consumer demand is only known to the retailer) and the shipment is dispatched. If there is enough product in stock to serve the order, the delivery is made automatically. Otherwise, we send what is available and leave the rest pending. Pending orders will be dispatched when we have enough product, without the need for any further request from the client. Transportation to the client takes two days.

Once the shipment has been made, the management team must decide and place the order it deems most appropriate to meet its procurement policy. The time available to decide how much to order is short (approximately one minute per period), so it is

[1] This case has been published by the Research Division of Instituto Internacional San Telmo, Spain. It has been written by Professor Enrique Garrido Martínez, as a basis for class discussion only and is not intended to illustrate any judgment on the effective or ineffective of a specific situation.

[2] The simulator allows changes in the number of links the chains are composed of. The teacher will let you know the number of chains and links during the session.

paramount to have a prior agreement on a clear policy and procurement to enable quick and effective decisions. The order is done throughout the day, and the provider sees it the following morning.

STARTING POINT

At the beginning of the simulation, the system is operating in steady state, meaning it comes from being stable. The demand for the last periods has been four, and in each warehouse, there is an eight-box safety stock. Previous managers have placed orders of four boxes in the past days; boxes are loaded onto trucks and will be received in the next few days.

GOAL AND TEAM MANAGEMENT

Each link in the chain is managed by a group of managers who will try to optimize its performance. The goal is to have the lowest cost in the market. Costs arise from stock maintenance and delays in deliveries. Exhibit 1 includes a control sheet that may be useful to record relevant information.

Typically, the cost of holding the stock is lower than the commercial costs of a bad service. In the simulation, the cost of not serving the client at the requested time will be twice the cost of holding stock. The system checks the stock each team has in the warehouse daily and allocates a cost of one euro for each box in stock. Likewise, if there is no stock, the system allocates a cost of two euros for each pending box.

Each team is free to decide what to order without restriction, but any communication between teams, other than the information that appears on the screen, is not allowed. Exhibit 2 is a user guide, and Exhibit 3 is an image of the simulator’s home screen.

EXHIBIT 1

SIMULATION CONTROL SHEET

PERIOD	DEMAND	FINAL STOCK	ORDER
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