



ROGER BOHN

Kristen's Cookie Company (A) (Abridged)

You and your roommate are preparing to launch Kristen's Cookie Company in your on-campus apartment. The company will provide fresh cookies to hungry students late at night. You need to evaluate the preliminary design for the company's production process in order to make key policy decisions, including what prices to charge, what equipment to order and how many orders to accept, and to determine whether the business can be profitable.

Business Concept

Your idea is to bake fresh cookies to order, using any combination of ingredients that the buyer wants. The cookies will be ready for pickup at your apartment within an hour.

Several factors will set you apart from competing products such as store-bought cookies. First, your cookies will be completely fresh. You will not bake any cookies before receiving the order; therefore, the buyer will be getting cookies that are literally hot out of the oven.

Second, like many Boston-based area ice-cream shops, you will have a variety of ingredients available to add to the basic dough, including chocolate chips, M&M's, chopped Heath bars, coconut, walnuts, and raisins. Buyers will email their orders and specify which of these ingredients they want in their cookies. You will guarantee completely fresh cookies. In short, you will have the freshest, most exotic cookies anywhere, available right on campus.

The Production Process

Baking cookies is simple: place all the ingredients in a mixing bowl and mix them; spoon the cookie dough onto a tray; put the cookies into the oven; bake them; take the tray of cookies out of the oven; let the cookies cool; and, finally, take the cookies off the tray and carefully pack them in a box. You and your roommate already own all the necessary capital equipment: a high-capacity professional-grade electric mixer, cookie trays, and spoons. Your apartment has a small oven that will hold one tray at a time. Your landlord pays for all the electricity. The variable costs, therefore, are merely the cost of the ingredients (estimated to be \$0.60/dozen), the cost of the box in which the

Professor Roger Bohn prepared the original version of this case, "Kristen's Cookie Company (A)," HBS No. 686-093, with the assistance of Research Associates K. Somers and G. Greenberg. This version was prepared by Professor Jan Hammond. HBS cases are developed solely as the basis for class discussion. The company mentioned in the case is fictional. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

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cookies are packed (\$0.10 per box; each box holds a dozen cookies), and your time (what value do you place on your time?).

A detailed examination of the production process follows. You and your roommate have timed the necessary operations. The first step is to take an order, which will be fast and accurate, since your roommate has devised a method using the campus e-mail system. When an order arrives, your roommate first reads and prints the email and sends a reply to the customer stating when the order will be ready for pickup and takes the printed order to the kitchen. This order processing step takes your roommate one minute.

When an order arrives in the kitchen, the first production step is to place the specified ingredients in the electric mixer's bowl and turn on the mixer to mix the ingredients. The electric mixer can hold and mix ingredients for up to three dozen cookies. You then spoon the cookies, one dozen at a time, onto a cookie tray. Adding the ingredients to the bowl and mixing takes 6 minutes, regardless of how many cookies are being made in the batch. That is, to mix enough dough and ingredients for three dozen cookies takes the same 6 minutes as for one dozen cookies. However, spooning the cookies onto the tray takes 2 minutes per tray.

The next step, performed by your roommate, is to put the cookies in the oven and set the timer. The time to do this is negligible, and will be ignored in this analysis. The cookies bake for 10 minutes. Because the oven only holds one tray, a second dozen takes an additional 10 minutes to bake.

Your roommate also performs the last steps of the process by first removing the cookies from the oven and putting them aside to cool for 5 minutes, then carefully packing them in a box and accepting payment. Removing the cookies from the oven takes a negligible amount of time, but it must be done promptly. It takes 2 minutes to pack each dozen and about 1 minute to accept payment for the order.

This is the process you plan to use to produce cookies by the dozen at Kristen's Cookie Company. As experienced bakers know, a few simplifications were made in describing the actual cookie production process. For example, the first batch of cookies for the night requires preheating the oven. However, such complexities will be put aside for now. Begin your analysis by developing a process flow diagram of the cookie-making process.

Key Questions to Answer Before You Launch the Business

You and your roommate sit down to brainstorm about the business. How will you compete in the competitive snack market? What are the implications for your operating system? For your product line, pricing and marketing strategies?

To answer these questions, you need to formulate rules for accepting orders. Some issues will be resolved only after you get started and try out different ways of producing the cookies. Before you start, however, you at least want a preliminary plan, with as much as possible specified, so that you can do a careful calculation of how much time you will have to devote to this business each night, and how much money you can expect to make.