

MayaWest Pizza To-Go

Project Brief *MayaWest Enterprises*

You have just been hired as a consultant by *MayaWest Enterprises*. Although this company has been in the food business for many years, with a large chain of small restaurants and supermarkets. Over several years, *MayaWest Enterprises* has refined its pizza business design to a standard concept in all of its stores—currently numbering over 200. But currently, they are about to undertake a major expansion program to focus on *to-go orders*, to be called **MayaWest Pizza To-Go**. Although the store design concept is firmly established, the staffing and operational aspects are still a problem.

These pizza stores will be of the Delivery and Carry-Out modes only. They are designed to be small and cover only a limited delivery area to provide a high-quality product in a reasonable time. It also helps to limit the store hours, which is a distinct advantage to manage and run each store ideally to confine our sales to the dinnertime crowd. An informal survey found that customers are happy if we can have carry-out orders ready in 35 minutes or less and have our delivered orders in the customers' hands in 45 minutes or less. Exceeding these times resulted in customer complaints and a decrease in sales.

Our store operation is quite simple. It consists of five operations: *order taking*, *pizza making*, *oven*, *cut & box*, and *delivery or carry-out*. It starts with a high-tech phone system that allows us to take the customers' orders automatically and display the order at the pizza-making operation. The pizza-making process is performed in a line at a standard make table with positions for up to three people. Our pizza-making process is divided into three operational tasks. The first task is the selection of the correct size pizza dough (pre-made) and the saucing of that dough. The second task adds the primary ingredients, and the third task adds the final ingredients. Although there are three logical positions, we do not always allocate three individuals to the pizza-making process because the staffing cost.

The assembled pizza is then sent to the oven through a slide that buffers the area between the make table and the oven. A deluxe line of ovens is used in all stores, as these are fairly standard for the industry. They are a simple conveyor with an enclosure of the central part of the unit, which contains the oven. The pizzas are placed on the load area of the conveyor at the left, then proceed to the oven if there is capacity available, and lastly to the unload area. Pizzas travel through the oven tunnel and emerge at the right completely cooked. There are currently three different load-area sizes of ovens available (Series I, II, or III), and the number of square inches required inside each oven is dependent on the type of pizza.

At the unload area, the pizza is removed by a single worker, cut, and placed in a box. This worker also accumulates the pizzas into the original customer order. The worker is also required to assemble additional pizza boxes if the supply is low and time permits. If the supply gets extremely low, drivers will often assemble boxes during their idle time. When an order is complete, it is sent to the delivery area or the carry-out area. The orders sent to the carry-out area are immediately available for customer pickup. The delivery orders wait for an available driver; our drivers take only one order at a time, as it lessens the probability of a late delivery.

Your consulting firm has been asked to recommend an economical staffing plan for the make table and delivery operations, including a recommended oven size, that will meet *MayaWest Enterprises'* requirements.

Before requesting your services, *MayaWest Enterprises* hired a group of IE students from a local university to collect data, which can be available upon request, as well as other information that is within the scope of the project.

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