THE CONSTRUCTION DEPARTMENT AT CROQ'PAIN

Introduction

PARIS, FRIDAY, JULY 7, 1995-Michel Boutillon was having a bad day. He had just called his wife to tell her that their week-long trip to the Riviera would have to wait a little while longer. His company's president, Jean Gerard, had just asked him to make a presentation to top management the following Monday. Michel, a graduate of the Marseilles Institute of Trade, had been hired two years earlier to be a "transition man-ager" at Crog Pain, a chain of quality fast-food restaurants. He was responsible for getting new restaurants ready to open after construction was completed. He also had been asked to develop a better system for the selection of locations for new stores. The new system was to be based on a statistical model. Michel was originally given two months to come up with a proposal but, apparently, Gerard did not have the patience to wait that long. Michel was not surprised because the mid-year revenue figures for all the

Croq'Pain stores had arrived earlier in the week. These figures showed that the performance of seven of the ten stores that opened in the first half of last year were less than satisfactory.

The Company

Jean Gerard founded Crog'Pain in 1981 and opened his first "restaurant rapide" on the "Parvis" de la Defense, the main business center on the outskirts of Paris. This first store was extremely popular among the business clientèle there as well as with the shoppers and visitors to the CNET (a large exhibition hall in the middle of the center). Going after the student clientele, he opened his second restaurant six months later on the Boulevard St. Michel in the middle of the Latin Quarter, the students' section of town. Other restaurants, located in different parts of the capital, were opened during the next five years. In a 1986 interview with a local business magazine, he said that he saw his stores as the French answer to the American fast food invasion. In-deed, in the early eighties, many fast food chains had set up shop in Paris and other French cities, and most were based on American models. McDonald's and Burger King had already opened in Paris, and a number of French look-alikes had mushroomed as well. His goal, he said, was to offer quality food . .. fast, not fast food. By 1987, Croq'Pain had 15 stores in Paris, Toulouse, and Marseilles.

In 1987, poor financial results at some of the stores prompted Gerard to conduct a large marketing survey among his customers. The results forced him to re-assess the company's marketing strategy. The survey (shown in Table 6.24) revealed that the bulk of the customer base was made up of professionals and baby boomers (now in their late thirties and early forties). He concentrated new stores in areas that would serve this clientèle and moved away from the student neighborhoods, in effect withdrawing from the competition with other fast food chains. CroqPain stores were opened in more cities, but were concentrated in the downtown areas and the business centers. This strategy paid off, and Crog'Pain's expansion continued at a steady pace. In January 1994, the company owned 50 stores throughout France. The expansion continued particularly strongly in the first half of 1994; ten new stores were opened during this period alone.

All store openings were controlled by the Construction Department of Croq Pain.

It was responsible for selecting the location of new stores and coordinating their con-struction. It was also responsible for supplying and installing all of the equipment necessary to run the restaurant. Management of the store was passed to the store manager "clef en main"-the day of the opening, the store manager was literally given the keys by the transition manager. The store was ready to do business the same day.

The Croq'Pain Concept

The very idea of fast food goes against everything the French culinary culture stands for. Not too long ago, it was common for most workers to take a two-hour lunch and go home to eat what is still regarded as the main meal of the day. But Gerard recognized that more and more workers, especially around Paris, were commuting from towns too far away to get home in the middle of the day. Increasingly, they were eating lunch on or around the job.

Croq'Pain took advantage of this change and offered a range of sandwiches, salads and pies. Among other items, it serves baguette sandwiches. Among the main baguette items, one finds the campagnarde (paté), the tout-jambon (ham with but-ter), and the complète (eggs, tomatoes, lettuce, and mayo) baguettes. It offers a selection of quiches (mushroom, ham, three-cheese, onion pie among others), salads (niçoise, tuna, or lettuce), yogurts, and cheeses. Drinks include bottled water, soft drinks, red and white wine as well as ten different kinds of beer. Gerard did not aim to offer the lowest prices but rather a good mix of quality food, based on French tra-ditions, and price.

In addition to providing good quality food and convenience, the stores quickly developed a unique look: black-and-white checkered tile floors; red and white coun-ters; "French cafe" style tables and wood chairs; and black sidewalk tables with red umbrellas.

The Construction Department

The Construction Department, in charge of opening new restaurants, employs 40 people, including architects, lawyers, designers, accountants, and teams of workers involved in different stages of the actual store construction. The process of launching a new restaurant begins approximately one year before the restaurant's scheduled opening date. It includes the following steps:

1. ﻿﻿﻿Choice of location: The city and location of the new store is selected. At this stage, the company also determines the investment needed to open the store. The investment includes building and land as well as equipment.
2. ﻿﻿﻿Property acquisition: The building or land is purchased (or possibly leased, in some cases), and all necessary permits and licenses are obtained.

﻿﻿﻿Design: The architects design the new store, a step that is begun during the property acquisition stage but is finalized at this stage.

1. ﻿﻿﻿Remodeling and/or building: The actual construction of the store, by hired con-tractors, takes place.
2. ﻿﻿﻿Logistics: Prior to the restaurant opening, the transition manager steps in to oversee logistical problems, such as installing the proper equipment, setting up a local supply chain, and hiring staff.
3. ﻿﻿﻿Opening day: In a morning ceremony, the transition manager passes the key to the store manager Jean Gerard has never missed a store opening), and the restaurant opens the same day.

After opening day, the store is in the hands of the store manager and the transition manager moves on to his/her next assignment as soon as the store is opened.

The store managers have complete control over their store thenceforth. In particular, they frequently adjust the workforce during the year in response to the store's variable workload and financial results. They can also, to a much lesser extent, adjust the store's operating hours.

The location selection step is critical. The decision made at this point, to a large extent, determines the company's future earnings. So far, determining the store's location (as well as its size) has been an imperfect art, and several attempts have been failures. At its current high rate of expansion, the company has a growing need to standardize the location selection process and minimize the risk of failure.

The usual procedure for choosing a location has involved sending a "location ex-pert" to choose several possible options. The expert would then make an estimate of the earnings potential of each location followed by a recommendation to the company's president and the director of construction, Didier Marchand. A location was chosen by this panel based on the expert's estimates and management's opinion.

Developing a Model for the Selection of Store Locations

Soon after he was given responsibility for developing a model to help select new locations for stores, Michel gathered a team that included the location selection experts and asked everyone to devise ideas for the structure of the model. The independent variables of the model were to be those variables that they thought would influence the profitability of a new store. The list established by the team is presented in Table 6.25.

Following the team's recommendations for the model parameters, Michel collected the data for all stores, up to and including the ten stores opened in the first half of 1994.

(Data for stores opened afterwards is not complete and thus could not be included.)

This data is shown in Table 6.26. Also included are the operating earnings figures for the period July, 1994-June, 1995. He proceeded to run a regression of the earnings figures using all of the parameters of the model (results are shown in Table 6.27).

He was not pleased with this first result and needed to improve on the initial model. To begin with, he did not like the choice of certain parameters. They had little value for predicting financial results because they could not be known in advance.

Second, he thought that some of the "homemade" parameters had been recommended because they were used by the experts but, in fact, they were of little use.

Overall, he was beginning to have serious doubts about the feasibility of such a model-based approach for selecting store locations.

Once he looked at the results from his regression model, he felt quite uncomfortable with what he saw: some of the regression coefficients did not make sense, and many were not statistically significant. Clearly, this regression model needed improvement.

Second, he thought that a good way of testing the applicability of the regression model was to consider what would have happened last year had the model been used

to evaluate and select the 1994 store locations. In order to do that, of course, he would have to amend the model by using only the data obtained for the first 50 stores. Then he would use this regression model to evaluate the ten stores that were opened in 1994.

Croq'Pain's goal is to have a 16% return on invested capital after taxes. As it turns out (after some laborious computations using a method called discounted cash flow analysis), this is equivalent for our purposes to a ratio of Operating Earnings (EARN) to invested capital (K) of 0.26. Therefore, Croq'ain defines their "perfor-mance ratio" for a store as:

Sales - Variable Costs

Performance Ratio =

=

Invested Capital

Operating Earnings

Invested Capital

The target performance ratio is 0.26, i.e., 26%.

Michel wondered which of the ten stores would have been opened had the model been used to predict the performance ratio of these stores.

Third, he needed to consider his recommendations for new stores for 1996. The experts had so far made a list of ten potential locations (see the list in Table 6.28). He wanted to use the model to help him select the potential locations of stores to be opened in 1996.

He also contemplated if his analysis could be parlayed into a different way to think strategically about the way Croq'Pain plans to grow its business.

Finally, after all this, he needed to prepare his presentation to the executives using very definitive arguments. Jean Gerard did not like "maybes." If Michel decided to recommend against using a regression model for selecting locations, he would

have to defend this decision and offer possible improvements to the existing methodol-ogy. If he decided to recommend using the regression model, he also would have to offer strong arguments because the company would be far worse off with a bad model and no experts than it is now, with no model and experts who are sometimes wrong. In ad-dition, he would have to point out possible shortcomings of the model methodology.

Michel felt a little better having spelled out his approach, but he knew that it was going to be a long weekend. He closed the door to his office, unplugged the phone, and went to work.

Assignment:

Using the data for this case, provided in the spreadsheet file entitled CROQPAIN.xls, do the following:

1. Examine the operating earnings regression model output obtained from the 60 stores, as shown in Table 6.27. Try to improve the model by eliminating certain independent variables or by making any other changes that you think make good sense. You should strive for a model that is simple (i.e., has few independent variables), and that does not violate any of the basic assumptions of multiple regression (e.g., multicollinearity, heteroscedasticity), but nevertheless has good predictive power.
2. ﻿﻿﻿﻿Michel thinks that a good way to validate the model obtained with data from the 60 stores is to see how a similar model, obtained from the 50 stores opened before 1994, would have performed in predicting the performance of the last ten stores opened. Step back one year prior to the opening of the last ten restaurants. Amend the model you have developed using only the data from the first fifty stores. Using Croq 'Pain's performance ratio target of 26%, which of the ten stores would you have opened in 1994?
3. ﻿﻿﻿﻿Crog'Pain's strategic planning group has developed a list of ten potential store locations for 1996 shown in Table 6.28. Which of these locations would you se-lect, i.e., which locations meet or exceed the performance ratio? Use the most complete model (60 restaurants) for your analysis.

﻿﻿﻿﻿Prepare a memorandum containing your recommendations as to whether, and how, regression models can be used in the process of location selection. Defend your recommendations with a discussion of the relative strengths and weaknesses of regression models in this setting.