OPERATIONS MANAGEMENT: A CRITICAL RESPONSIBILITY OF EVERY MANAGER

If you have an interest in becoming a great manager, the topics in this book are important for your achieving this goal. Whether the economy is booming or in a recession, delivering a firm's goods and services in the most effective manner is critical to its survival. And if you think this book is just about manufacturing and relevant only for people working in a factory, you are in for some surprises about this fascinating field.

At the most fundamental level, operations management is about getting the day-to-day work done quickly, efficiently, without errors, and at low cost. Actually, at the level of day-to-day processes, we are all experts already. Think of how quickly you can get ready for the day when the pressure is really on. You have your morning routine of showering, brushing your teeth, and so on down to a science. You know exactly how long it will take and can execute that routine without much thought.

The day-to-day processes that make up a firm's activities should be done in the same efficient manner. Alas, as you know, this is not always true. How many times have you had to wait at a checkout counter because an error in pricing of an item is discovered when you try to check out? The cause of the problem may not be as straightforward as you initially think. Perhaps the item was not marked when it was stocked in the store, or the proper label was not applied when the product was manufactured. With today's integrated information systems, it is even possible that the item was not properly entered in the system to begin with. The disruption this mistake causes can be extensive, with delays occurring every time someone attempts to purchase the item at this store and possibly at all the other stores run by the company. How would you approach fixing the problem? What would you do to minimize the chance that it will recur?

In addition to making processes work right, an essential feature of operations management is helping companies create dramatic improvements in customer service and reductions in cost. Whether you are a marketing, accounting, finance, or operations specialist, being the innovator who spearheads such changes is where you can have a real impact. This book is about the concepts and tools you need to craft innovative ways to deliver a firm's goods and services.

Consider Progressive Insurance, an automobile insurer based in Mayfield Village, Ohio. In 1991, the company had approximately $1.3 billion in sales. By 2002, that figure had grown to $9.5 billion. What trendy strategies did Progressive employ to achieve sevenfold growth in just over a decade? Was it positioned in a high-growth industry? Did it come up with a new insurance product? Did it diversify into new businesses? Did it go global? Did it hire a new, aggressive sales force? Did it grow through acquisitions or clever marketing schemes? It did none of these things. For years Progressive did little advertising, and some of its campaigns were notably unsuccessful. It did not unveil a slew of new products, nor did it grow at the expense of its profit margins, even when it set low prices.

A key measure that sheds light on what Progressive did is the combined ratio (expenses plus claims payouts, divided by insurance premiums), the measure of financial performance in the insurance industry. Most auto insurers have a combined ratio that fluctuates around 102 percent; that is, they run a 2 percent loss on their underwriting activities and recover the loss with investment income. By contrast, Progressive's combined ratio fluctuates around 96 percent. The company has not only seen dramatic growth but it is now the country's third largest auto insurer—and it also has been profitable.

The secret of Progressive's success is simple: It out-operated its competitors. By offering lower prices and better service than its rivals, it simply took their customers away. What enabled Progressive to have better prices and service was innovations in operations, new and better ways of doing the day-to-day work of providing automobile insurance.

Progressive realized that possibly the only way to compete with much larger companies was to actually change the rules for how to play the insurance game. The company introduced what it calls Immediate Response claims handling: A claimant can reach a Progressive representative by phone 24 hours a day, and the representative then schedules a time when an adjuster will inspect the vehicle. Adjusters no longer work out of offices from 9 to 5 but out of mobile claims vans. Instead of taking between 7 and 10 days for an adjuster to see the vehicle, Progressive's target is now just 9 hours. The adjuster not only examines the vehicle but also prepares an on-site estimate of the damage and, if possible, writes a check on the spot.

The approach has many benefits. Claimants get faster service with less hassle, which means they are less likely to abandon Progressive because of an unsatisfactory claims experience. The shortened cycle time has reduced Progressive's costs dramatically. The cost of storing a damaged vehicle or renting a replacement car for one day, around $28, is roughly equal to the expected underwriting profit on a six-month policy. It's not hard to calculate the saving this translates into for a company that handles more than 10,000 claims each day. Other benefits for Progressive are an improved ability to detect fraud (because it is easier to conduct an accident investigation before skid marks wash away and witnesses leave the scene), lower operating costs (because fewer people are involved in handling claims), and a reduction in claim payouts (because claimants often accept less money if it's given sooner and with less hassle).

No single innovation conveys a lasting advantage, however. In addition to Immediate Response, Progressive has introduced a system that allows customers to call an 800 number or visit its Web site and, by providing a small amount of information, compare Progressive's rates with those of three competitors. Because insurance is a regulated industry, rates are on file with state insurance commissioners. The company also has devised even better ways to assess an applicant's risk profile to calculate the right rate to quote. When Progressive realized that an applicant's credit rating was a good proxy for responsible driving behavior, it changed its application process. Now its computer systems automatically contact a credit agency, and the applicant's credit score is factored into its pricing calculation. More accurate pricing translates into increased underwriting profit. Put all these improvements together and Progressive's remarkable growth becomes comprehensible.

Compared with most of the other ways managers try to stimulate growth—technology investments, acquisitions, and major market campaigns, for example—innovations in operations are relatively reliable and low cost. As a business student, you are perfectly positioned to come up with innovative operations-related ideas. You understand the big picture of all the processes that generate the costs and support the cash flow essential to the firm's long-term viability.

Through this book, you will become aware of the concepts and tools now being employed by companies around the world as they craft efficient and effective operations. **Efficiency** means doing something at the lowest possible cost. Later in the book we define this more thoroughly, but roughly speaking the goal of an efficient process is to produce a good or provide a service by using the smallest input of resources. **Effectiveness** means doing the right things to create the most value for the company. Often maximizing effectiveness and efficiency at the same time creates conflict between the two goals. We see this trade-off every day in our lives. At the customer service counter at a local store or bank, being efficient means using the fewest people possible at the counter. Being effective, though, means minimizing the amount of time customers need to wait in line. Related to efficiency and effectiveness is the concept of **value**, which can be metaphorically defined as quality divided by price. If you can provide the customer with a better car without changing price, value has gone up. If you can give the customer a better car at a *lower* price, value goes way up. A major objective of this book is to show how smart management can achieve high levels of value.

Besides its importance to corporate competitiveness, reasons for studying OM are as follows:

1. **A business education is incomplete without an understanding of modern approaches to managing operations.** Every organization produces some product

or service, so students must be exposed to modern approaches for doing this effectively. Moreover, hiring organizations now expect business graduates to speak knowledgeably about many issues in the field. While this has long been true in manufacturing, it is becoming equally important in services, both public and private. For example, "reinventing government" initiatives draw heavily on supply chain management, total quality management, business process reengineering, and just-in-time delivery—concepts that fall under the OM umbrella.

2. **Operations management provides a systematic way of looking at organizational processes.** OM uses analytical thinking to deal with real-world problems. It sharpens our understanding of the world around us, whether we are talking about how to expand globally or how many lines to have at the bank teller's window.
3. **Operations management presents interesting career opportunities.** These can be in direct supervision of operations or in staff positions in OM specialties such as supply chain management, purchasing, and quality assurance. In addition, consulting firms regularly recruit individuals with strong OM capabilities to work in such areas as process reengineering and enterprise resource planning systems.
4. **The concepts and tools of OM are widely used in managing other functions of a business.** All managers have to plan work, control quality, and ensure productivity of individuals under their supervision. Other employees must know how operations work to effectively perform their jobs.

Source: R.B. Chase et al., Operations Management, 2007, pages 7-9 [CJA]