

CHAPTER 20

CREATING SUPERIOR VALUE BY MANAGING THE MARKETING-OPERATIONS MANAGEMENT INTERFACE

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INTRODUCTION

Consider a house whose walls are each designed by a different architect, each with his or her different vision for the house. The consequences could be disastrous: the roofer may spend countless additional hours piecing together the different visions. The house may miss out on its true potential. Worse yet, the house may crumble.

Operations and marketing strategies and actions are like the walls of this house; both are crucial in building a strong foundation for market success. As an operations manager builds the house, his eye is on efficiency and cost-minimization.¹ As the marketing manager builds the house, his eye is on target customers and meeting their needs better than competitors. Left to their own devices, they can pull a company in different directions, causing it to miss out on the most profitable opportunities. However, if they work together or with aligned visions, managers can take advantage of the synergies between marketing and operations.

Indeed, actions taken on the marketing side of the business that ignore the operations side of the business (and vice versa) create profit leakages for the overall business. Successful companies recognize and manage positive and negative externalities between marketing and operations departments. This allows the go-to-market team to capitalize on synergies and/or avoid working at cross-purposes in order to improve profitability.

In this chapter, we first present four motivating examples that show the importance of the interaction between marketing and operational decisions. We then discuss how management of each of the marketing mix “four Ps” (price, product, promotion, place) can be enhanced by taking account of operations factors, and conversely, how operations decisions can be improved by recognizing the marketing factors in play in the form of the four Ps. We close with some recommendations about how to put into practice the ideas presented here.

OPERATIONS AND MARKETING: BOTH SIDES OF THE EQUATION

In many industries, viewing specific issues through both the marketing lens and the operations lens can often bring fresh management insights. Following are examples of issues that frequently confront companies and how they can be viewed from both sides of the equation.

Product Returns Management

It is estimated that 19 percent of all electronics purchases are returned even though they have no defects. It is also estimated to cost \$13.8 billion to repack, restock, and resell returned electronics products in the United States annually.² Similarly, catalog retailers’ return rates are as high as 35 percent.³ And across all industries, the annual value of returned goods is estimated to be \$60 billion, with another \$40 billion in costs of managing the associated reverse logistics processes.⁴ It’s clear that managing product returns is important to a company’s bottom line.

However, consumer product returns are triggered for multiple reasons. One common cause is product malfunction (an operational issue). But even if the product is in perfect working condition, it may be returned because the buyer realizes only after purchase that the product does not fit his preferences (a marketing issue).

From a purely operational perspective, one way to improve profitability in the face of product returns is to take the return rate as a given and seek to minimize the cost of managing the returns process. This is an apparently sensible strategy if the previous \$40 billion figure is even approximately correct. This approach leads manufacturers to think about how to handle the physical products being returned, whether to handle returns itself or force its retailer to handle them, and whether to charge consumers a restocking fee for returning products (which could lead to customer dissatisfaction with the company). Restocking fees vary across products but are commonly charged by many

companies (e.g., the Apple Store charges a 10 percent restocking fee on opened products; Best Buy charges a 15 percent restocking fee on opened digital cameras; and the USA Wallpaper company charges a 30 percent restocking fee on returned wallpaper, even for unopened rolls).⁵

It has been shown that consumers will alter their initial purchase decisions depending on their perceived likelihood of having to return the product, the hassle cost of doing so, and the monetary loss of having to pay a restocking fee. Implementing a restocking fee might appear to lower the firm's costs of handling returns (because it both defrays the actual costs and because returns decrease). However, this approach ignores the possibility that some consumers never actually buy the firm's product because of the risk that they will want to return it and therefore incur the restocking fee cost.⁶

This example shows that an operations-focused product returns strategy would seek to minimize the cost of returns by minimizing returns themselves. But this lessens the ability of the marketing side of the business to attract customers who might in the end be profitable enough to merit the extra costs of running returns to begin with. Thus, a purely operational-efficiency approach ignores the marketing and consumer side of the process and the important demand-side questions regarding returns: *Why do consumers return no-defects products, and what are the effects on consumers of penalizing returns?*

For this reason, companies should consider a comprehensive, combined marketing and operational attack not only to manage the costs of returns, but also to manage consumers' incentives to return products in the first place.

Restaurant Dining

A restaurateur faces the operational challenge of ordering the right amount (and assortment) of food to feed diners each day. This would be a straightforward problem if the restaurateur knew the number of diners in advance of the evening dinner period. Chez Panisse in Berkeley, California, has solved this problem by requiring reservations to eat in its main dining room and by offering a fixed menu each evening that does not allow diners to choose from an assortment of dishes.

Because of Chez Panisse's fame (and that of its founder, Alice Waters) and the strong positioning the restaurant enjoys in the "slow food, local food" movement, reservations fill up weeks in advance. In effect, the *operational challenge* (how much of what assortment of ingredients to have on hand each evening; how much wait staff to hire) is solved by restricting the variety of food offered and requiring reservations. However, this operationally efficient solution would not be possible if not for the restaurant's superb *marketing*

execution. Chez Panisse has effectively created a brand position that enables the restaurant's reputation to ensure an almost-always-full restaurant.

Most restaurants do not enjoy the position of a Chez Panisse. Other restaurants may also offer reservations—for example, to appeal to a segment of consumers with high time costs and thus a high value for certainty in the timing of their dining experience—but they face periods of high and low demand nevertheless. Taking reservations also comes with its own costs: diners may not show up (leaving the restaurant with an unfilled table during peak dining hours), and personnel must be on hand to answer the phone throughout the day to take the reservations. Alternatively, the restaurant can fail to offer reservations, thus avoiding the cost of no-shows and of reservation personnel. But this strategy carries its own costs, both operational and marketing in nature.

On the operational side, a no-reservations policy increases the uncertainty in demand and thus the required levels of “safety stocks” of food to have on hand in case of a busy evening. The restaurateur may also have to juggle tables for large and small parties as they arrive (without prior notice) throughout the evening, creating inefficiencies in capacity management. On the marketing side, consumers with high time costs may not patronize a restaurant that does not offer reservations, because of the possibility of a long waiting time to be seated; this leads to lost sales opportunities.

All of these effects, meanwhile, are moderated by the overall attractiveness and popularity of the restaurant—in effect, how “hot” it is (which is a function of both marketing efforts and the operational quality of food and service).⁷ The restaurant's operational decisions (restaurant capacity, staff on hand, amount and variety of food on hand, reservations policy) are thus closely interlinked with its marketing decisions. Focusing on one to the exclusion of the other would lead to suboptimal outcomes.

Online Grocery Shopping

Webvan, founded by Louis Borders (the former founder of Borders Bookstores), opened its doors in 1996, promising to provide time-efficient Internet shopping for groceries. The groceries would be delivered the same day to the shopper's home, within a 30-minute time window of the shopper's choosing (including late evening delivery).

Webvan planned to serve its consumers with a Web shopping interface, backed up by a hub-and-spoke delivery system. At each hub would be a 300,000- to 400,000-square-foot distribution center, holding up to 50,000 SKUs of grocery products (comparable to a large supermarket's selection), which could pick and pack consumers' orders in an automated way. The

assembled orders would be delivered to a human packer in the distribution center, who would load each order into a truck for delivery to the appropriate spoke in the distribution network. A smaller truck would complete the delivery to the consumer's doorstep. At full capacity, a hub distribution center would fill 2.92 million orders per year (8,000 orders per day), with an average order value of \$103, for an annual revenue throughput of \$300 million through each hub.

Webvan's first launch was in the San Francisco Bay Area in June 1999, with a hub distribution center in Oakland, California. The hub's 8,000-orders-per-day capacity translated to more than 3 percent of the grocery business in the Bay Area. Webvan originally budgeted 3,300 orders per day to break even, but the average order size and average profit margin in the San Francisco market were higher than forecast (although it turned out that the *number of orders* was not); Webvan needed only 3,000 orders per day in order to break even over the 15-month planned horizon.

On the demand side, response was enthusiastic by Webvan adopters; on Epinions.com (an online ratings site), Webvan had an 89 percent approval rating from the 109 customers submitting reviews. The service was particularly attractive to segments like parents of small children, who were time-starved and who experienced above-average hassle levels in visiting a bricks-and-mortar grocery store.

However, not enough consumers bought—and repeat-purchased—from Webvan to bring the warehouse model to break-even levels. By September 1999, three months after launch in San Francisco, cumulative sales had reached only \$4.2 million, with an average order size of only \$71. There were about 60,000 orders over the three-month period, versus a break-even level of about 270,000 orders (3,000 orders per day for 90 days or three months). This represented less than a 20 percent capacity utilization rate of the warehouse system.

But this was, after all, the initial three months of operation; it was still possible that demand would build toward (and beyond) break-even over the ensuing months. However, by February 2001, Webvan had reached a sales level of only two-thirds that were necessary to break even. Although 6.5 percent of the Bay Area's households had ordered from Webvan, less than half repeat-purchased.

To increase revenue inflows, Webvan instituted a \$4.95 delivery fee on orders of less than \$75 and widened its delivery window to one hour. However, although these initiatives might have helped on the cost side, they could only hurt on the demand side, and customer volume never built to break-even levels. Webvan eventually declared bankruptcy in 2001 and dissolved its operations.

In this case, an overestimation of the ability of marketing to generate sales, combined with underperformance of marketing research activities, led to an

overly optimistic forecast of market demand. This led the operations side of the business to invest in an unduly large scale of operations, which (along with overly aggressive market expansion) eventually killed the business. Note that the demise of Webvan was not due to obvious consumer dissatisfaction in the target market; rather, it was due to a lack of understanding of the nature and size of the true target market.⁸

The iPhone: Cool Technology, Bad Consumer Experience

When the Apple iPhone was released in 2007, Apple entered into an exclusive agreement with AT&T to market it by using the AT&T mobile network. AT&T in turn required subscribers to buy an unlimited data plan, at a uniform price per month, with a two-year time commitment. Subscribers' uses of AT&T's network bandwidth increased as the iPhone increased in popularity, partly because of the phone's many bandwidth-intensive applications and partly because the marginal price to the consumer of using the bandwidth was effectively zero (given the unlimited data plan pricing). The iPhone's data plan pricing thus gave no unilateral incentive for any individual subscriber to use less bandwidth.

By January 2009, bandwidth usage had increased so much (without commensurate investment by AT&T in bandwidth expansion) that AT&T's network was viewed by consumers as having the worst problems in speed and network availability among mobile network providers, as reported in a Gartner group study. The average iPhone subscriber was using 10 times the network capacity used by the average non-iPhone smartphone user, and the result was dropped calls, delayed delivery of voice and text messages, very slow download speeds, and angry customers.

AT&T's role as the exclusive carrier for the iPhone in the United States generated high revenues, with each iPhone subscriber paying AT&T \$2,000 on average during his two-year contract (about twice as much as the average mobile phone user). But with such poor service, AT&T's \$18 billion in network investment in 2009 was mostly targeted at upgrading the 3G network used by the iPhone. In December 2009, AT&T announced it was considering ways to urge subscribers to use "less wireless data." One industry analyst said that even with these moves on the consumer end, AT&T still needed to "improve things on the back end so they can deal with the issues of multiple users on the network at the same time."

AT&T's experience with the iPhone suggests that a "cool" technology, even when marketed well to consumers and supported by third-party applications that increase its attractiveness, is not enough for market success; the operational

realities of providing the network backbone to literally produce the services subscribers want is also crucial. In effect, consumers do not want to consume the iPhone itself; they want timely access to the services (including completion of a simple phone call) that the iPhone provides. This timely access in turn is a function of the quality of management of the network's operations, and without high quality on this dimension, sales of the iPhone are less than they otherwise would be.⁹ Both customer satisfaction and the AT&T/Apple relationship are threatened by these operational problems. This creates an opportunity for new competitive offerings, such as Google's Nexus One, which allows customers to purchase the phone in "unlocked" mode, allowing them to shop for the service provider of their choice.

THE VALUE OF INTEGRATING MARKETING AND OPERATIONS IN DECISION MAKING

As indicated earlier, ignoring the interaction between marketing and operations factors can lessen the effectiveness of a firm's overall strategy. Conversely, focusing on the marketing-operations interface can improve customer satisfaction and profitability. In fact, operations managers can benefit from marketers' demand-side insights that give guidance on issues such as how much to produce, how much safety stock to order, or how much capacity to provide. Meanwhile, marketing researchers benefit from understanding the operating constraints and costs facing the company. Without such knowledge, marketing researchers might otherwise mistakenly assume that product can be produced and supplied in the right quantity and at the right time, without undue production, storage, or shipping costs.

This highlights the central point of this chapter: *actions taken on the marketing side of the business, in ignorance of the operations side of the business (and vice versa), create profit leakages for the overall business. The failure to reach full profit potential can be either due to the failure to realize the full cost of an action (negative externalities) or due to unrealized synergies between business departments (positive externalities).*

A *negative externality* is a cost imposed by one entity (the "perpetrator") on another entity (the "victim"), rather than being borne by the perpetrator itself. The classic example of a negative externality arises from the operation of a polluting manufacturing facility. The manufacturer enjoys sales and profits from its production but does not bear the cost of the pollution it inflicts on neighbors in the process; thus, the cost is borne by an entity *external* to the process. Gains are enjoyed without bearing the concomitant costs. If incentives are not corrected, the perpetrator will persistently engage in *too much of the*

“bad” behavior (e.g., polluting the environment), simply because it does not bear the full cost of its actions.

Conversely, a *positive externality* is a benefit enjoyed by a party who does not have to bear the full concomitant cost of creating that benefit. We often talk of “free riding” in this context: a free rider enjoys a positive externality without bearing its fair share of the cost of creating that benefit. Again, without appropriate adjustment of incentives, *too few positive externalities* will be created, and thus benefits that could have been enjoyed by the system are foregone.

In our context, actions taken on the operations side of a business affect the ability of marketers to optimize their market outcomes. Conversely, actions taken on the marketing side of the business affect the costs of running operations. Ignorance of these interactions can lead to lower profits or even business disaster, as our examples earlier illustrate:

- An operations-focused product returns strategy would seek to minimize the cost of returns by minimizing returns themselves; but this lessens the ability of the marketing side of the business to attract customers who might in the end be profitable enough to merit the extra costs of running returns to begin with.
- Controlling the costs of handling reservations can lead to lower-than-optimal revenue generation at a restaurant, because it fails to give diners the opportunity to lower their risk of a long wait at the restaurant by making a reservation for a specific dining time. It also leads to a higher need for food “safety stocks” and thus the possibility of greater food wastage and improper staffing levels.
- In the case of Webvan, overestimation of the ability of marketing to generate sales, and underperformance of marketing research activities, led to an overly optimistic forecast of market demand. This led the operations side of the business to invest in an unduly large scale of operations, which (along with overly aggressive market expansion) eventually killed the business. Note that the demise of Webvan was not due to obvious consumer dissatisfaction in the target market; rather, it was due to a lack of understanding of the nature and size of the true target market.
- The investments made by Apple in increasing the “cool factor” of the iPhone led to overuse of the network managed by Apple’s partner, AT&T. This in turn led to negative brand equity for AT&T and the need for AT&T to incur high costs of investment in increased bandwidth (i.e., Apple’s marketing investments generated negative externalities for AT&T). Conversely, the greater the investments AT&T makes in bandwidth, the more Apple benefits, as the “cool factor” of the iPhone is

dependent not only on the number and types of available applications for it, but also the reliable and quick execution of operations (i.e., AT&T's investments generate a positive externality for Apple).

Given the potential for both negative and positive externalities in the operations-marketing interface, it becomes important to contemplate how to *internalize these externalities*—that is, how to create the right incentives for each party to engage in behaviors that benefit the whole system (or company), not just itself. In this context, the benefit of thinking about marketing and operations decisions jointly is that the marketing researcher now views more elements as *choice variables* rather than as *parameters of the problem*. By simultaneously taking account of marketing and operations decisions, the appropriate incentives can be set for joint maximization in the system.

One important benefit of this approach is the avoidance of duplication in investment. For example, if the operations function is investing in optimizing reverse logistics by minimizing the cost of processing returns, while the marketing function is investing in reducing consumers' uncertainty prior to purchase—thus lowering the very incidence of returns—the two investments may be redundant and thus wasteful of resources inside the firm. Recognizing the substitutability of these investments can improve overall corporate profit by jointly managing the cost and the incidence of returns.

FOR MARKETERS: WEAVING OPERATIONS INTO YOUR DECISIONS

How can taking account of the marketing-operations interface concretely change the marketing decisions a firm makes? In this section, we consider each of the marketing mix elements—product, price, promotion, and place (or distribution)—in light of the examples developed above, in order to show how an awareness of operational considerations affects the marketing mix.

Product

Our example of *restaurant reservations* previously illustrates how operational decisions can augment (or fail to augment) a basic product or service sold to the consumer. Here, the basic “product” is a meal at the restaurant. However, the consumer is not buying simply a meal; rather, he is buying the meal at a certain time, with a particular level of predictability in timing and service.

Depending on the consumer's valuation for service predictability, providing reservations can increase the valuation the consumer places on this restaurant's

offering, all other things being equal. The marketer who focuses solely on these consumer-level issues may choose to offer reservations to provide a better composite product to the consumer, but in doing so may ignore the operational costs of offering reservations: increased staff time to manage reservations, and the opportunity cost of no-show consumers on busy nights. Alexandrov and Lariviere highlight these tradeoffs and describe how firms can decide when it is (or is not) optimal to offer reservations: reservations can increase sales by shifting demand from the peak demand time to a less desirable off-peak time, and can be attractive in more competitive markets because they lower demand uncertainty for the restaurant.¹⁰

Our iPhone example also highlights how operational decisions (such as AT&T's decision about how aggressively to expand its network's bandwidth) change the "full product" offered to the consumer. Apple markets the iPhone 3G as offering a whole suite of functionality, including web browsing, video and music streaming downloads, and voice phone service and text messaging, among many other services. This suite of applications, along with the iPhone device itself, may be considered to be the "product" for sale. However, the consumer does not actually consume the iPhone or its applications; it consumes the value from having consistent and reliable access to them. When network capacity is insufficient, it is not particularly relevant how small and light the iPhone is, or how many applications it (supposedly) supports; what is salient to the consumer is how poor the service is. This apparently opaque investment decision, by a go-to-market partner of Apple's, has a profound effect on the perceived value of the iPhone and could affect Apple's decision about continued exclusivity with AT&T. Apple may choose to broaden the availability of the iPhone to multiple carriers as a result, when its exclusive contract with AT&T runs out—at least in part to solve the operational challenges to its overall marketing strategy.

These examples drive home the idea that operations activities help produce the "full product" consumed by the buyer. Ignoring the quality and efficiency of the operations side of the business can therefore imperil the overall product the manufacturer believes it is offering to the market; conversely, taking account of operational factors can not only safeguard overall product quality perceptions, but significantly enhance them.

Price

The research on optimal product returns policies highlighted above finds that the best product price to charge varies, depending on whether the marketer takes into account the effect of restocking fees and hassle costs on consumer

behavior—including whether the consumer will buy the firm's product in the first place. In general, the higher the restocking fee, the lower the optimal product price (for example, deep-discount sale products are often offered with the caution that they cannot be returned for any refund, effectively charging a 100 percent restocking fee). This is because the "full cost" the consumer is willing to pay takes the expected value of both of these expenditures into account, and also because the probability of having to pay a restocking fee reduces overall willingness to pay for an initial purchase of a product of whose attractiveness the consumer is uncertain. Thus, both revenue per unit on initial purchase as well as the total number of units the firm can expect to sell are influenced by considering the jointly optimal product price and restocking fee to charge.

Further, in a channel context, choosing which channel member should handle returns influences not only the restocking fee charged, but both the retail and wholesale prices. Under many conditions, allocating the returns handling function (and the setting of the restocking fee) to the channel member who can handle returns most efficiently is optimal. However, there are situations where the manufacturer should handle returns, even when it is not as efficient at doing so as is the retailer. For example, PetSafe, a manufacturer of invisible dog fences, took returns from retailers and then shipped them to the third-party returns liquidator Channel Velocity to dispose of them. Presumably it would have been less costly to instruct the retailer to ship returns directly to Channel Velocity, yet PetSafe did not follow this path. One reason this product returns channel strategy could be sensible is that it gives the retailer the incentive to sell at a lower retail price, thus increasing market demand, which can more than compensate for the cost of handling product returns.

Our example of restaurant reservations illustrates the pricing implications of a joint focus on operations and marketing factors. The curious fact is that most restaurants offer reservations for free, rather than charging for this value-added service; thus, reservations are priced at zero. This generally causes consumers to overuse the reservation service, inflicting a negative externality on the restaurant system by generating no-shows that lower a popular restaurant's revenue on a busy night. The negative externality arises because consumers who would have liked to dine at that restaurant, but who called and could not get a reservation, proceed to make a reservation at a different restaurant; their dining revenue is lost to the restaurant that night. Meanwhile, someone who *did* make a reservation, but who does not show up, fails to pay the opportunity cost of that seating, leaving the restaurant with lower revenue for the evening, unless there is sufficient walk-in traffic at just that time slot to take up the unexpected slack capacity at the restaurant. This problem is costly enough

to some very high-end restaurants (such as Tru in Chicago) that they charge for no-shows (Tru charges \$75 per plate), in a bid to internalize the negative externality that no-shows create.¹¹

The iPhone example provides a further insight into the interrelatedness of pricing and operational decisions. The required flat-rate, unlimited data plan pricing that AT&T used for the iPhone ignored the incentive it would create for subscribers to overuse the network's bandwidth. Although it might have seemed a lucrative way to garner high revenue per subscriber, as the example above documents, it also created an unfortunate incentive for subscribers to overburden the data network. Alternatively, viewing consumer behavior in response to the pricing incentive as normal and expected, the insight for the combined management of pricing and operations practice is that AT&T's flat-rate, unlimited data access pricing structure *should have been* accompanied by a much more aggressive investment in network capacity, in order to safeguard consumers' overall perceptions of the quality of the iPhone offering.

Promotion

The best illustration of the interaction of operational and promotion decisions comes from the product returns example. Recall that a consumer usually returns a well-working product because he realizes (after initial purchase of the product) that the product does not fit his preferences well enough to merit keeping it. Thus, consumer uncertainty at the point of initial purchase is a crucial input to the very phenomenon of returns. Recognizing this, some sellers engage in promotional activities that serve to increase the consumer's *a priori* knowledge about the fit between the product and the consumer's own preferences.

For example, some running shoe retailers allow customers not only to try on shoes, but also to wear them either on a treadmill or even outdoors for a run around the block, to make sure the shoe is right for them. Along with the "test run," the consumer gets advice from a trained salesperson in the store on the right running technique, foot position, and so forth, all offered in the spirit of excellent customer service—but with the ancillary benefit of reducing product returns after purchase. The operational benefit is fewer returns and thus a lower total cost of returns. Manufacturers that bear return costs and recognize this positive externality can create incentives for independent retailers to provide these "test run" services, in order to align the retailer's incentives with those of the manufacturer.

Place (Distribution)

In the product returns example, a purely operational point of view would suggest placing responsibility for product returns where it is most efficiently performed (i.e., in its lowest-cost position in the channel). In other words, if salvage value is maximized and/or reverse logistics costs are minimized by allocating product returns responsibility to the retailer, then that is where it should be allocated. However, this logic omits an important strategic factor. If instead the manufacturer takes responsibility for handling product returns, it can manipulate the retailer's incentives to set retail price and the retail-level restocking fee in order to increase initial quantity demanded for the product. When the profitability of this higher demand outweighs the incremental cost of taking on product returns processing, it is in the manufacturer's interest to move returns upstream. This strategic channel-management insight augments a purely operational point of view.

Similarly, in the iPhone example, the channel management problem appears to be that AT&T did not have the same incentive as Apple to invest aggressively in mobile network expansion, because it would cost too much (AT&T eventually spent \$18 billion in 2009 to enhance its network for iPhone service provision). It is possible that the threat of losing its exclusivity could provide Apple with more leverage over AT&T, or conversely the promise of new access to iPhones will induce new providers to invest in network expansion. In either case, the distribution imperative is to offer the right rewards to the network partner to give them an incentive to invest heavily in bandwidth to enhance the usefulness of the iPhone's applications.

SUMMARY

These examples illustrate that taking account of operational factors, incentives, and costs can improve marketing decision-making across the entire marketing mix. Conversely, taking account of marketing realities can also improve operations decision-making. The two work synergistically.

Because the best way to take advantage of interactions between marketing and operations decision making is likely to be context-specific, it is difficult to offer a "one-size-fits-all" process to help companies recognize and benefit from these synergies. However, a three-step approach can help build a stronger foundation for profitability: (1) *gather relevant information*; (2) *choose the best alternative*; and (3) *implement the plan*.

The first job is to *gather all the relevant information* on both the operations management and the marketing sides of the business. On the *operations management side*, questions of interest include:

- What kinds of service augmentation takes place in your selling markets? What is the difference between the basic product you sell and the “full product” that is or can be made available to the consumer?
- How much does it really cost to provide various service options?
- Who performs the functions that generate service augmentation for the products you sell?
- Is that entity (department in your company, or channel partner) being compensated adequately for the performance of these functions? If not, they are generating a *positive externality* and likely do not have the incentive to perform it sufficiently intensively.

Similarly, *marketing managers* might consider the following:

- What value do consumers place on various feasible bundles of product-plus-service options?
- How does this value vary across consumer groups? This is a useful dimension for segmenting the market when seeking to jointly optimize marketing and operational investments.
- What is the opportunity cost, in terms of lost sales and/or worsened reputation, of failure to provide desired service that the operations side of the business produces?
- What is the effect on consumers’ willingness to pay for your product of various levels of service that the operations side of the business produces?

Once operations and marketing information has been gathered, the data need to be evaluated to estimate the cost and revenue implications of different strategies. On the marketing side, standard research techniques like conjoint analysis can be used to quantitatively measure the incremental value consumers place on various service bundles. On the operations management side, the equivalent of an “activity-based costing” analysis may be necessary to measure the costs to various departments of the firm, or various channel members, of engaging in various combinations of marketing and operational investments (with an eye to minimizing redundancies, as discussed earlier).

Upon gathering all relevant information, the profitability of each possible “full product” can be ascertained, making it possible to undertake the second step: *choose the best alternative*. The highest revenue-generating option may require high costs. The cost-minimizing option may dampen revenue

substantially. Due to positive and negative externalities between operations and marketing decisions, it may be necessary to forgo revenue or accept greater costs in order to achieve maximum profit.

Finally, with a desired strategy for the combined marketing/operations efforts behind the product, the third step—*implementation of the plan*—requires either a top-down, monitoring-focused process, or a bottom-up, incentives-focused process, to maximize the chances that the desired behaviors are in fact pursued by all parties.¹² Monitoring and incentives are substitutes for one another in influencing the behaviors of any agents, although the right balance between the two should recognize the value of direct observation and management (the monitoring option) when it is feasible and not overly expensive.

Once again, successful companies recognize and manage positive and negative externalities between marketing and operations departments in order to avoid working at cross-purposes and thereby improve profitability—a concrete result every company is looking for.

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NOTES

1. The male pronoun is used throughout this chapter for ease of exposition only.
2. Lawton, C. (2008), "The War on Returns," *Wall Street Journal*, (May 8), D1.
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4. Enright, Tony (2003), "Post-Holiday Logistics," *Traffic World* (January 6), 1.
5. Restocking fee information is taken from <http://store.apple.com>, www.bestbuy.com, and www.usawallpaper.com, all on October 12, 2009.
6. See Shulman, Jeffrey D., Anne T. Coughlan, and R. Canan Savaskan (2009), "Optimal Restocking Fees and Information Provision in an Integrated Demand-Supply Model of Product Returns," *Manufacturing & Service Operations Management*, 11 (4), (Fall), 577–594; Shulman, Jeffrey D., Anne T. Coughlan, and R. Canan Savaskan (2009), "Optimal Reverse Channel Structure for Consumer