

FEATURE ARTICLE

Creating a New Playbook for Pharmaceutical Companies

Pharma is confronting a classic innovator's dilemma and the principles of disruptive innovation offer new routes for growth

BY STEPHEN WUNKER

How can one of the world's most innovative industries face an innovation problem? Given that pharmaceutical firms derive most of their profits from on-patent drugs, they excel at creating new-to-the-world compounds that address challenging medical conditions. However, they have proven to be poor at adapting to new market realities. Many companies still find themselves adhering to a business model that many industry observers believe will become obsolete. Ironically, while pharmaceutical companies are good at finding innovative drugs, they are bad at innovating their business model.

There are signs of trouble in many directions. The cost of developing new drugs keeps increasing, yet output of approved compounds is static, and approved drugs face a market more competitive than ever before. Payers are forcing prices downward. Generic drugs and me-too competition are eroding the handsome margins and large, addressable markets

that many companies relied on for years. Sales and marketing continue to layer on costs while producing diminishing returns. Pharma is confronting dilemmas that have occurred in countless other industries. By understanding patterns in how these problems emerge and are resolved, pharma companies can chart a course toward a more successful future.

The pattern of growth dilemmas

As companies get bigger, they need to hit ever more ambitious revenue targets simply to sustain their growth rate. This is a big challenge, as forces continually alter the competitive landscape. In fact, Innosight's Dick Foster has shown that, had an investor bought shares of *any* company in the original S&P 90 index at its formation in 1926 and held them until today, the investment would have underperformed the index as a whole. In the long run, the market is just more adaptable than any one company.

Rather than seek to emulate the market's quest for constant innovation, most firms seek to grow by selling improved products at higher price points to existing customers. Innosight's founder, Harvard Business School professor Clayton Christensen, calls this *sustaining innovation* because it sustains existing ways of making money. This is a good thing to do, but over time this strategy hits a dead end.

Because sustaining innovation requires delivering what the market demands, over time existing products become *very* good. Eventually, products begin to "overshoot" the needs

of customers, who become unwilling to pay a price premium for new incremental innovations—leading formerly premium products to become commoditized.

This phenomenon has occurred in industry after industry. Intel found it could no longer attain high margins on new microprocessors once their fast speed stopped solving a major pain point of most computer users. Department stores found that most shoppers did not care about the latest designer boutique added to the store layout. Telephone networks discovered that most people were not bothered if they failed to hear a pin drop on the other end of the line.

When an industry reaches this point of overshoot, conditions are ripe for *disruptive innovations* to take root. Customers overshoot by existing offerings look for something that has acceptable performance, but provides new advantages along other dimensions, such as price or convenience.

Hence, AMD rapidly captured share in the microprocessor market, discounters generated nearly all the shareholder value growth in the retail industry, and Voice over Internet Protocol companies like Vonage and Skype created large franchises in telephony.

Alternatively, firms may create new markets that use innovative approaches to satisfy the core jobs that people are trying to get done but find frustrating. The digital camera did not just cannibalize film, but also vastly increased the number of photos taken due to its different business model and ease-of-use. Similarly, the photo-

copier attacked the mimeograph, but also greatly expanded the market for copying. The mobile phone tackled nonconsumption more than it hurt the landline headset.

Pharma's innovator's dilemma

In pharmaceuticals, firms have focused on billion-dollar blockbusters to create the kind of growth that excites investors. To achieve the demanding performance targets needed in these markets—with their plethora of me-too competitors—they have had to undertake high-risk projects that require demanding clinical trials. Failure rates are high and so discovery, development, and clinical costs inexorably rise. Sometimes the performance of new drugs is not self-evidently better than that of competitors, so companies invest in massive sales campaigns. Yet these tactics have led to an arms-race in which pharmaceutical detailers and advertisers barrage physicians and consumers with hard-to-absorb messages.

It is a vicious cycle. The cost of introducing a new drug continues to rise, so firms target big conditions where the returns can still be attractive. Ironically, it is in these conditions that competition is fiercest, driving costs still higher.

Many industry observers have foreseen the eventual end of this blockbuster model. There will still be blockbuster drugs, but it will become increasingly hard to base a large corporation's business upon them. The challenge then becomes adopting a new business model. Company after company—from Sears to Zenith—has shown how difficult this transition can be. They face an "Innovator's Dilemma" of investing in new growth areas that have lower immediate returns than established businesses, but are the growth platforms of the future.

Meanwhile, newer competitors are offering generic drugs. These drugs may be less efficacious than newer ri-

vals, but they are perfectly adequate for many patients. For instance, Nexium, the newest drug for Gastroesophageal Reflux Disease (GERD) sufferers, has been unable to command a price premium from many patients who have stuck with the off-patent Prilosec.

External forces, such as payers and pharmacy benefit managers, are encouraging consumption of generics, mooting the huge sales efforts of pharma firms. At the same time, new competitors such as biotech companies are creating competencies in specialized areas, generating entirely new growth. Other new markets have also blossomed alongside drugs sales, such as disease management and monitoring.

Pursuing sustaining innovation

Faced with all these disruptive forces, what is a pharmaceutical company to do? First, it needs to keep its core business healthy by continuing to pursue sustaining innovations for treatments that have not yet reached the point of overshooting most customer needs. In these situations, patients and payors will pay price premiums for improved performance. There are a great many conditions where this is so, particularly when one considers "need" broadly to encompass side effects, safety, convenience, and the necessity of adjunctive regimens.

Genomics and proteomics offer tremendous potential in this regard and carry forward a long-term trend. Decades ago, fever was considered to be a disease; researchers did not understand it was actually the symptom of underlying conditions. Such ignorance exists today. Only recently have researchers begun to recognize that Type II diabetes may be a symptom of as many as 20 underlying conditions.

Similarly, the amyloid-beta protein plaques and neurofibrillary tangles that today define the diagnosis of Alzheimer's Disease may be symptoms of the condition rather than causes of

dementia. While the technology of genomics and proteomics still has a way to go, the long-term potential is clear.

Unfortunately, there is a downside in this for pharma companies. When a firm is targeting one of 20 conditions that cause insulin resistance, rather than all of Type II diabetes, the market is considerably smaller, compounding the difficulty of creating blockbuster drugs. To compensate, the drug must be particularly effective, which raises the bar for sustaining innovations.

Launching disruptive offerings

Pharma needs to look concurrently at a second route forward: Embracing disruptive trends. In industry after industry, disruption has grown the overall market while dislocating some players. VCRs and DVDs grew the overall entertainment market, but hurt theater owners. Low-cost airlines grew the air travel market, but harmed mainline carriers. PCs grew the computing market, but threatened mainframes and minicomputers. Some companies, like IBM, learn to prosper from these changes, while others are wrecked by them, as was Digital Equipment Corp.

How a company can profit from disruption depends greatly upon its unique circumstances—its strategic position, external relationships, and internal capabilities. However, it is possible to lay out a handful of plays that hold promise:

Consumer-driven healthcare

Consumer-directed healthcare plans have been much-hyped, but are gaining traction. The trend may become more pronounced as employers, driven by increasing costs, abandon their role as the healthcare sponsor. Consumers will have more incentives to influence their care and firms must find new ways to create brand relevance.

With consumer products, a purchase decision typically occurs in less

than 10 seconds—the brand has to have a powerful, differentiated, and succinct message. Too few companies have mastered this skill. As the role of blockbusters narrows, firms must find new ways to attract consumers, such as launching user communities and direct-marketing dialogues like those employed by media companies.

Moving from pill to solution

From a patient's viewpoint, treating a condition is only one important job. There is room for innovation in areas such as adjunctive devices, compliance aids, and other kinds of patient assistance. Moreover, diseases must be diagnosed and monitored, and the consumer must deal with the consequences of treatment.

Frequently, physicians and consumers have put up with substantial inconvenience in undertaking these activities. Yet technologies are rapidly advancing in this space. New approaches to reagent chemistry, as well as “lab-on-a-chip” capabilities, are enabling point-of-care and even home diagnostics to become exciting avenues for growth. Historically, these have earned unattractive profits, but it is not unusual for profit points to migrate in an industry.

Just as Intel seized profits from computer makers by putting the most difficult design work inside its microprocessors, diagnostics can create substantial value by improving the accuracy and speed of diagnosis, while reducing invasiveness and discomfort. This promise is particularly strong when diagnostics can be linked to highly-targeted therapies, meaning the diagnostic actually delivers much of the value.

Empowering non-specialists

There is a distinct, long-term trend toward less specialized physicians assuming more responsibilities. For instance, angioplasty enabled cardiologists to takeover many treatments, a

development that led to the declining number of cardiac surgeries. Primary care physicians have taken a leading role in treating many conditions, even going so far as to become leading prescribers of potent psychiatric drugs. Nurse practitioners are becoming increasingly critical in delivering everyday care.

In combination, these trends are reshaping the healthcare industry. Yet few pharma companies are investing in platforms that empower these non-specialists. Worse, many smaller specialty players are not developing new marketing techniques to reach this vastly expanded pool of influencers.

Emerging markets

Growth in emerging markets is set to surge. Some industry observers expect growth of reimbursable patients to increase six-fold in the next 10 years in countries such as China. Quite often, patients in these groups opt for low-cost generics. Will Western companies simply cede this market—one of the biggest frontiers in healthcare—or will they have a coherent approach to contest the space? They will certainly need a new approach. For instance, India alone has over 10,000 hospitals—tough territory to cover with traditional marketing tactics.

Executing on opportunities

It is challenging for firms to move outside their comfort zones and do new things in new ways. Disruptive innovations may have markets of indeterminate size and unknown risk. How can companies break through internal bottlenecks to achieve needed growth?

The answer depends on where innovation starts. If executives seize the opportunity, they can create a dedicated process for evaluating disruptive innovations, so that the uncertain and risky does not have to fight funding battles with the familiar and

straightforward.

A dedicated process can be fueled by a small group in the company that is responsible for looking systematically—not parochially—for opportunities. It is critical that such an approach have clear goals and boundaries, and that the process is able to resist the political impetus toward pet projects.

What if senior executives show little interest? Those lower down can still foster disruptive innovation by seeking quick wins that prove the merits of a new approach. These wins may come from how drugs are marketed, alliances with non-pharmaceutical partners, or the resurrection of dying drugs with new positionings.

Many new-growth initiatives look a bit like a moon rocket: a huge investment to get to a distant destination. In business, this tends not to be a formula for success because markets are filled with uncertainties.

If a market is truly new, there is much that is unknown and unknowable. Mistakes will be made. By investing a little to learn a lot, firms can rapidly progress toward success. The end result is faster innovation, done more cheaply. This approach is the one followed by the world's experts in fostering innovation: venture capitalists. They rapidly identify ideas, invest a small amount in those that have some kind of promise, learn quickly, and then double down on those that have proven their potential.

It is difficult to thrive in the midst of change. Yet, while disruptive trends create danger for incumbents, they also open the door to vast new markets. By recognizing their challenges in the context of broader patterns and acting in ways that both reinforce and disrupt their core business, pharma companies stand a good chance of making today's dislocations the keystone of tomorrow's profits. ♦

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