

# WAKING THE GIANT: BUSINESS MODEL INNOVATION IN THE DRUG INDUSTRY

*Pharma's business model is dying. Companies need to understand more than which models to change to—they need to know how to effect such change.*

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- Pharma companies need to adopt new business models—not merely operate their current models more efficiently.
- Radical change is difficult and vanishingly rare in Pharma, but case studies from other industries show it's possible as well as offering glimpses of possible new business models.
- It's likely that companies will eventually have to operate multiple business models, including a starting period where the old and new business models operate in parallel.
- To change business models requires appropriately resourced processes including one for scaling up the models.

After decades of strong growth and high margins, the pharma industry is confronting the limits of its traditional business model. Since 2000, the industry collectively has destroyed shareholder value. Pharma net earnings multiples have collapsed, languishing at almost half of what they were at the beginning of the decade.

The decline of pharma's traditional model isn't imminent; in fact it already happened. While medical device companies gained 98 points in total shareholder return (TSR) from 2000 to 2007 (from 100 as a base), pharma companies lost three points, underperforming the S&P 500 and other mature industries such as financial services and consumer goods. (See Exhibit 1.) The pressure on pharma's traditional business model is also apparent in declining R&D productivity, deteriorating returns on its resource-intensive, share-of-voice-based selling model, and growing adoption of price and volume restrictions globally.

In response to these setbacks, the major pharma corporations have embarked on programs to reduce costs, rationalize portfolios, enhance productivity, accelerate pipelines, and strengthen their acquisition and licensing activities. Although these traditional strategy levers are necessary to bolster today's performance, they will not be sufficient to help the business to thrive sustainably in the years to come. Major restructurings and mega-mergers can improve one- to three-year TSR performance. However, they won't halt the

fundamental slowdown in top-line growth afflicting the industry, and they'll need to be repeated every two to three years.

It is not enough to simply do business more efficiently; what's needed is to do business differently. In other words, pharmaceutical companies need to rethink their business models. Examples from Wal-Mart to Southwest Airlines show that companies that succeeded in business model innovation were able to outperform their respective industries for a decade of more, even in mature or declining industries.

But reinventing business models isn't easy. Pharma companies are only just beginning to experiment with new models that tackle the key issues health care systems are facing: funding limitations, opacity of treatment outcomes, and misaligned incentives of health care systems stakeholders. For the most part, however, these experiments have been modest and tentative, and they have done little to substantially complement or replace the traditional model or transform the way the industry operates. Pharma has not yet seen a Google-type innovator emerge to change the industry's rules of the game.

Pharmas often conflate the fate of their industry with that of the individual companies within it. However, competitive performance within industries actually dwarfs differences in returns across industries. Average TSR differed by only 17% points from 2000 to 2005 between sectors, whereas the TSR gap between winners and losers within industries was as

high as 118% points. (See Exhibit 2.) There is virtually no such thing as a bad industry—a winner can almost always substantially outperform its peers. And we believe that in the pharmaceutical industry the winners will be those companies that take decisive moves in business model innovation.

Taking a risk with a business that still yields high revenues and margins, in the context of an uncertain future, is daunting. But other industries such as aviation equipment and consumer goods have done it before under similarly challenging circumstances. This article focuses on lessons learned by business model innovators in other industries.

**RECONFIGURING PHARMA'S ASSETS**

Business model innovation requires companies to fundamentally revisit how they orchestrate their assets, resources, and capabilities to create value for their customers and to capture a portion of this value for the company. It isn't about mere restructuring, or some targeted functional initiative, such as a customized contract with a payor for one drug, or outsourcing some part of drug development. It's a cross-functional redesign of how the company does business, a fundamental change in what is sold and to whom; how the company gets paid; and how the value gets delivered. Successful business model innovation can generate significant new growth, create new bases for competition, break down barriers to consumption, or change the cost structure of an industry.

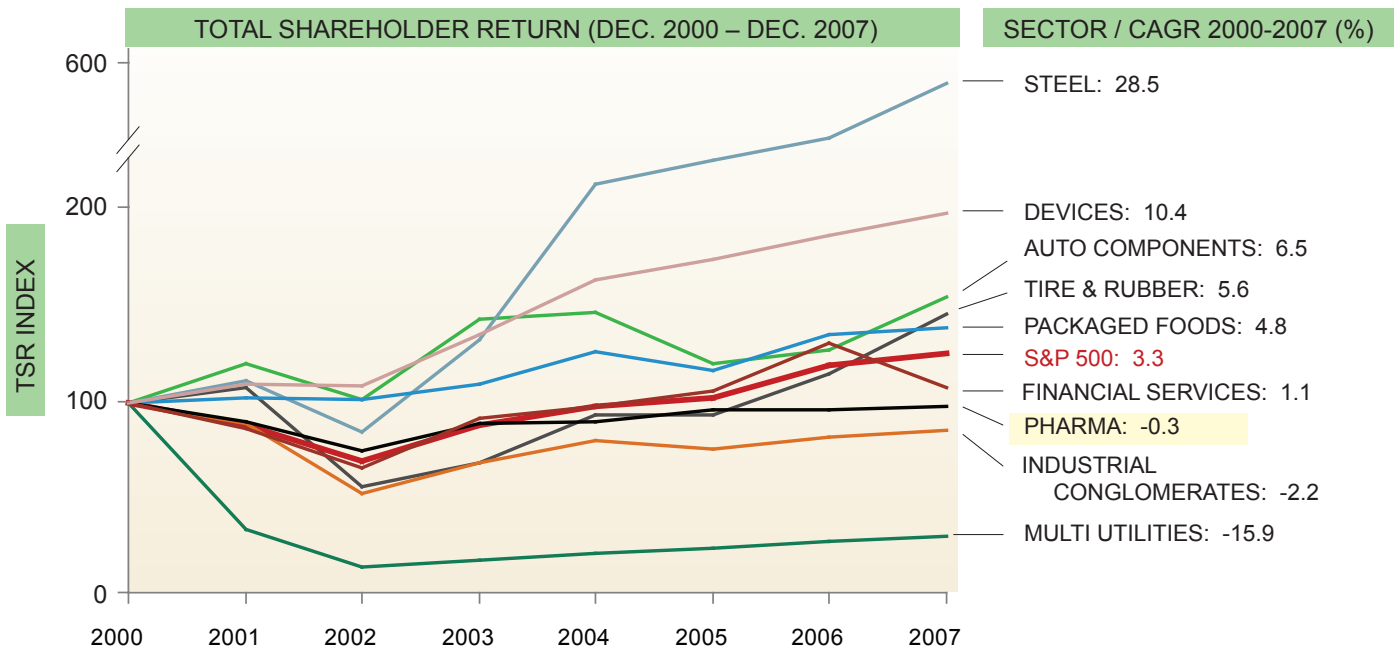
When thinking about business model innovation, pharma companies often restrict their focus to *selling* model innovation, notably, restructuring of their field forces or rep-physician interactions. However, to achieve sufficient results, it is critical to tackle *commercial* model innovation (including marketing, corporate affairs and medical activities); and *business* model innovation, which will require companies to recraft the business across many steps of the pharmaceutical value chain, including R&D, manufacturing, and distribution.

No large pharma company has seriously reinvented its business model to date. Pharma companies launched a multitude of initiatives, some involving relatively radical departures such as outcomes guarantees, but most of these are still at the "pilot" stage or only apply to a small portion of the business. (See Exhibit 3.) **Novartis AG's** German drug unit, for example, guarantees that no bone fractures will occur under its zoledronic acid (*Aclasta* ex-US; *Reclast* in the US) treatment for osteoporosis, or the entire cost of medical treatment will be paid back to the insurer. Also, several companies have deployed key account management to provide more customized services to top-tier office and hospital-based physicians and regional health care providers. However, such efforts function as enhancements to the current business model, are restricted in scope, and rarely designed to be viable on a larger scale.

What is still missing is a wholesale redesign of the business, with innovations scaled to be a significant proportion of the enterprise, in

Exhibit 1

**Bad News on Returns: The Pharma Industry vs. Its Peers**



Note: Market cap weighted

SOURCE: Compustat; BCG analysis

a way that creates competitive advantage and superior returns.

Given the risk involved in radically redesigning the way value is delivered to the customer, and considering all the structural change this requires, it is not surprising that today, initiatives often remain stuck as pilots, limited in time and scale, making very little impact on the core business.

It is difficult to walk away from a historically successful business model that is still producing high margins today. The last time companies tried to radically change their business models—the mid-1990s experiments in outcomes-based disease-management models built around acquired PBMs and other managed care groups—they failed spectacularly because their new initiatives conflicted with, and had little positive impact on, their core business, with those problems exacerbated by, among other issues, overpriced acquisitions.

The ideal timing for leaving the old model behind is uncertain. And managing this uncertainty requires pharmaceutical companies to pursue the old and the new models in parallel—a complicated cultural and organizational challenge. Employees and shareholders have long-term investments in the old model; new ones feel threatening—justifiably. Perhaps most importantly, most companies, in and out of the pharma world, lack the specific skills, experience, and processes required for implementing radical innovation.

### A VARIETY OF BUSINESS MODELS

But companies can change business models—sometimes by replacing a failing, dominant, single business model with multiple models with economics and offerings adapted to distinct market segments. Dutch-based ING Group, for example, offered a traditional retail banking business model to its customers in its home market. But to manage geographic expansion through ING Direct, it opted to enter the US and European markets branchless, offering only savings accounts first and targeting fee-averse savers.

Or the segmentation may be based on customer tiers, served with specific offerings. Morgan Stanley created a low-cost IT electronic trading system for lower value, price sensitive customers, while moving into high touch, hedge fund brokerage at the other end of its customer segmentation.

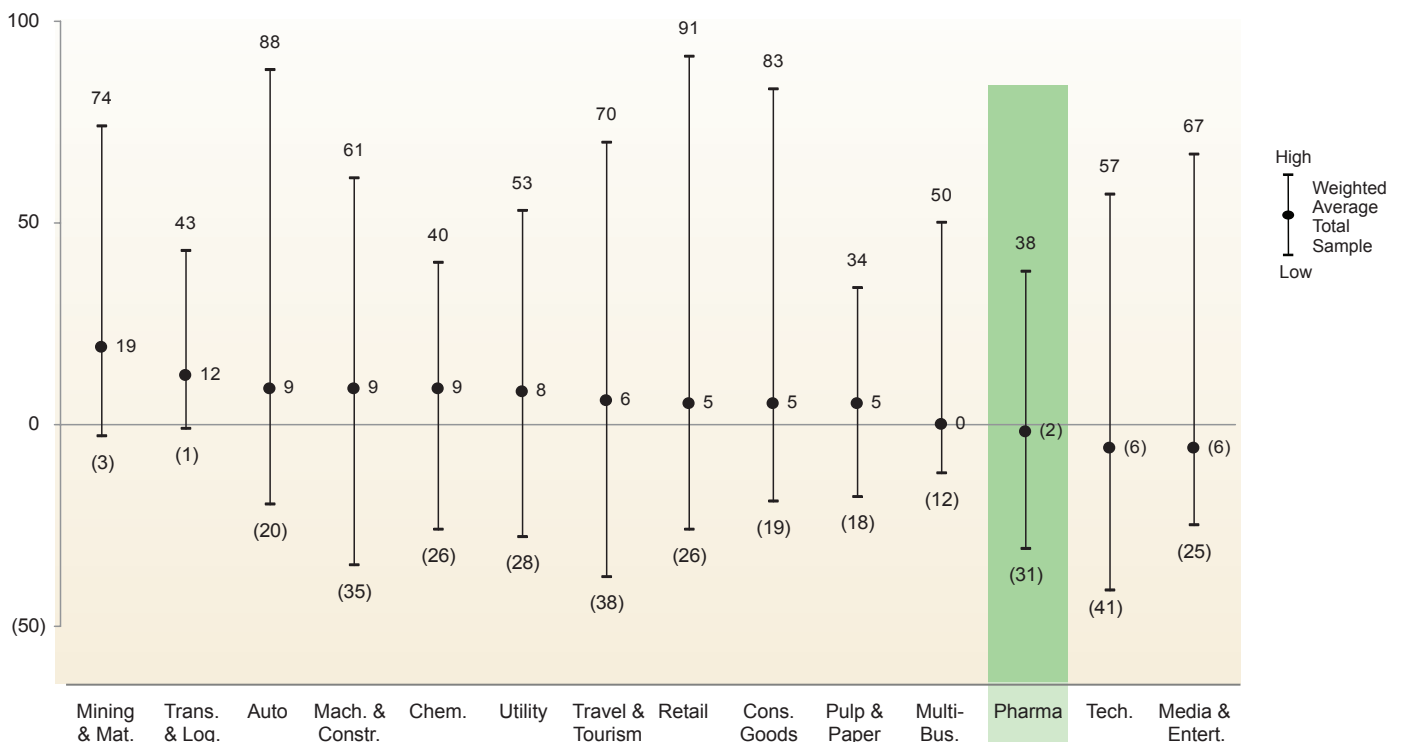
In pharma, too, it is likely that several business models will need to co-exist in the future, depending on the geography, disease area, and customer segment. The classic marketing and sales approach may continue to be viable for years in fields of high unmet medical need such as oncology, Alzheimer's, or HIV, while in other areas new models will be required to succeed. The portfolio of winning solutions may include models emphasizing variously low cost, high medical content, consumer communica-

Exhibit 2

### Big Opportunities Even in Declining Sectors

This chart shows high, low and average total shareholder return within each industry segment. There is far more variation in performance within each industry than between different industries. Even in industries with negative average returns, the best companies can bring outsized rewards to shareholders.

TSR p.a.'01 – '05 (%)



SOURCE: Thomson Financial Datastream; BCG analysis

tion, institutional selling, or financial guarantees.

Successful new business models have also often focused on creating a new set of de facto standards for an entire industry to secure economic viability as well as individual company dominance. When Apple launched its iTunes Music Store in 2003, based on the software introduced together with the first *iPod* in 2001, it set the standard for pricing, format, and distribution. It thereby transformed an unprofitable industry, based on illegal, free mp3 distribution, into a highly profitable one, capturing the biggest share of the new market.

## OUTCOMES-BASED MODELS

As Apple set standards to re-charge the music industry, drug companies have an opportunity to develop a broadly accepted framework for outcomes guarantees, with metrics used by pharma companies, health care authorities, payors, and HMOs alike. With no universally accepted referee established yet (neither public health care authorities nor payors, scientific institutions nor the pharmaceutical industry), there is room for a player to shape a credible standard and profit from its adoption.

New models have also been created around customer outcomes themselves. **General Electric Co.**'s scanner business redesigned its value proposition from selling scanners to selling tailored contracts for each customer, wrapping a financing, parts provision, and maintenance business around the imaging equipment. This allowed GE to meet varied needs of individual hospitals that were variously targeted on minimizing cost, maximizing scanner uptime, etc. Thus, a unique contract could be used to differentiate a competitively contested product.

Consider GE Aircraft Engines. When the airline industry was deregulated starting in 1979, the needs of GE's key customers, the airlines, changed. With their own margins under pressure, airlines grew more cost-conscious and when purchasing aircraft engines sought more certainty over total lifecycle costs, considering parts and service costs and engine uptime.

GE fundamentally redesigned its business model—and succeeded. It switched from simply supplying turbines to guaranteeing an outcome—a plane's uptime in the air and lifecycle costs. GE took another competitor's idea—Rolls Royce's "Power by the Hour" concept—and put it at the center of a radically new business design, building a pricing, financing, and service model around it. Today, in addition to manufacturing turbines and selling them in its outcomes scheme, GE also covers overhaul services, provides spare parts, and finances the turbine purchase through its financial services unit that has grown into one of the top US financing institutions.

The concept of coherently orchestrating all the elements of a business model around a new value proposition is equally applicable to pharma. Thinking of outcome guarantees, instead of selling drugs, may require investments in data and information

businesses and services and then arranging these elements in a mutually reinforcing configuration. When guaranteeing the outcome of a smoking-cessation product, for example, pharma companies might need to offer payors pricing on a smoke-free patient basis, and support this value proposition with a disease management program ensuring patient compliance and motivation, and also deliver the data to document desired behavioral and financial outcomes.

## PITFALLS IN BUSINESS MODEL INNOVATION

### PROJECT PORTFOLIO BLINDNESS

Pharma companies often do not know what they know about their often numerous ongoing selling, commercial, and business model innovation initiatives. They need systematic mapping, assessment, filtering, and prioritization of the portfolio of ideas, applied with the same level of discipline as for product development. In the absence of business model portfolio management, an organization risks running hundreds of irrelevant activities that may be underresourced or economically unattractive, or that can't be scaled up.

### SCALE-UP CHALLENGE

Today, initiatives often are limited in time and scope—and ultimately fail to become quantitatively relevant to the core business. New business model ideas are piloted on a scale too small to generate reliable indications for success or failure when they're ultimately rolled out. Often, efficient scale-up mechanisms aren't developed and built into the pilot design.

### INCREMENTALISM

In many pharma companies, the discussion on new business models revolves around old concepts that are limited in risk, close to today's ways of doing business, with minimal potential impact. For example, new forms of physician interaction such as video detailing, although tactically important, shouldn't dominate the innovation portfolio. Companies need to focus on ideas that can transform the fundamental economics of the industry and the value delivered to their customers.

### INNOVATION SKUNK WORKS

The responsibility for business model innovation is often either too remote from the line—located within staff functions separate from the operational business—or too close—embedded in operating units whose incentives to adopt them are low. What is needed is a subtle modulation of distance, in which ideas can be nurtured in safe havens, but with defined reentry paths or separate vehicles for realization.

### IDEATION TRAP

Business model innovation is not only about ideation. Running a few creative brainstorming sessions to breed new ideas isn't sufficient. Solutions are likely to require intensive efforts to probe customer needs, consistent experimentation, assessment, scale-up, and rollout. Hence business model innovation also requires operational excellence in a disciplined, end-to-end process.

### SHORT TERMISM

Developing new business models is not a one-off effort, but one that will become an integral part of pharma's business in the years to come. Business model innovation needs to be a permanent capability, embedded in the organization and its processes.

### CREATING THE BASIS FOR BUSINESS MODELS

Creating successful new business models requires diving deep to discover the needs of key customers. Despite constant interaction with stakeholders, most pharmaceutical companies tend to look at their customers from the perspective of their own business model. Rarely have they tried to gain a full understanding of the fundamental economics, constraints, and dynamics of their key customers' business models. What generates value in their businesses? What keeps them up at night? What are their key business priorities for the coming year? How does the pharma business model force them to compromise? What is their cost of doing business with pharma companies—and how could it be decreased?

Such knowledge can provide the basis for developing offerings that optimally meet specific customer needs, and can help to create value for customers. One proven approach is to deploy the top 20 leaders of the organization, irrespective of function, against its top 20 customers, with the objective of discovering such unmet needs and compromises, and then launching collaborative efforts where appropriate and possible to address these.

But even companies with deep knowledge of their customers can't create and adopt a new business model in a one-off exercise, nor will it be successful overnight—changing models is usually a continuing endeavor. **Procter & Gamble Co.**, for example, fundamentally changed its value-delivery model over a decade, responding to increasing cost pressure from Wal-Mart and P&G sales reps' diminishing access to Wal-Mart stores.

Knowing that the Wal-Mart model was here to stay, P&G turned around its own business model, moving from a perspective of individual transactions to a more holistic, business-to-business model. P&G re-segmented its customers and introduced separate

business units for big accounts, with separate P&L responsibility. P&G went as far as partially integrating its own value chain with its customers', such as linking P&G systems with Wal-Mart's databases for category and competitive intelligence. However, not all elements of this advanced key account management model were in place on day one—it took nearly 10 years to redesign and implement the entire business model.

In pharma, the challenge will be to manage the old model alongside the new one for a period because gradual change is more likely than a sudden dramatic shift in the marketplace. It will require a continuous effort to develop, pilot, and roll out new business models. Companies will need to manage a whole portfolio of new business ideas in different stages of development, with clearly defined metrics to measure success or failure, and to create organizational business model innovation capabilities.

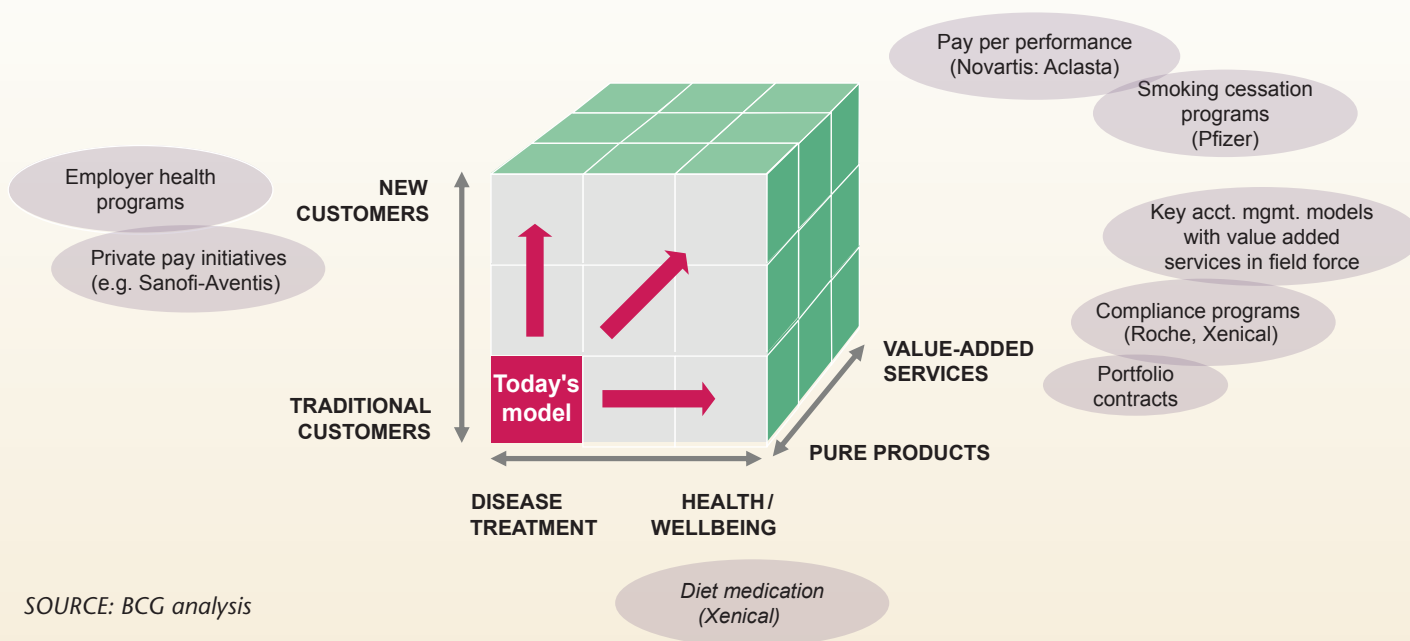
### SUPPORTING ONGOING BUSINESS MODEL INNOVATION

The fact is that drug companies have to build models for an unknown future. And that means they need to gear up to manage the journey, not drive deterministically toward a single, pre-defined goal.

Few companies have the support systems necessary for such a journey, like clear metrics on how they invest in business model innovation. Google, anxious not to sacrifice long-term business opportunities to short-term operational needs, introduced its 70-20-10 rule to manage engineers' time. Employees dedicate 70% of their time to enhance the current core business. In 20% of their time, they are free to experiment and develop ideas that significantly expand the core. The remaining 10% is allocated to

Exhibit 3

### Business Model Opportunity Space Largely Unexploited



SOURCE: BCG analysis

“fringe ideas” of their choosing.

Platforms for efficiently organizing business model innovation can take multiple shapes and forms. Google employs three- to five-person teams as core units for developing new ideas, to allow close collaboration, maximize accountability, and minimize approval levels. Moreover, Google’s Founders Award and incentive scheme provide significant rewards for employees who develop the most business-relevant ideas.

The process of business model innovation will need to be as disciplined and structured as product innovation. Like R&D, business model development will need sufficient and dedicated resources—it will need a separate budget to avoid dilution by short-term pressures (which the looming generic cliff will only exacerbate). It will also need the right talent deployed against the right topics and tasks, and a system incentivizing employees to take risks, accepting—as drug companies do with product R&D—a certain degree of failure. New business models will need to be systematically managed as a streamlined portfolio: not hundreds of bottom-up, single-function projects but rather fewer, more integrated programs. None of this will be meaningful unless the pilots and the programs ultimately created from them have a significant impact on the business with effects that can be measured. Pilots thus need to be designed on an appropriate scale to provide clear indications for rollout, with clear metrics allowing companies to assess if an idea has succeeded or failed. If these pilots do succeed, companies need to have processes ready to scale them up so they can be quickly integrated into the ongoing business.

## WHAT NEW BUSINESS MODELS COULD LOOK LIKE

Although the winning new business models in pharma are yet to be implemented, and perhaps yet to be invented, we already know some of the characteristics of winning ideas. They will address the most prominent pressures on pharma’s business model as well as the challenges of health care systems: funding shortages, opacity of drug treatment outcomes, inability to optimize or measure value, and misaligned incentives.

But companies also need a vision of a potential end state—the strategic goal and basis of the model—so that the firm’s innovation activities together form a coherent evolution path for the company, which is understood by employees. (See *Sidebar: Elements of End-State Models*.) These end states will materialize in different ways in specific market segments. For example, among established treatments such as hospital anti-infectives, companies will perhaps create total-treatment-cost-per-patient packages, providing budget security to hospitals even when using innovative and expensive new drugs. In undertreated areas such as Alzheimer’s, disease management models are likely to emerge, bundling drug treatment with health services. Disease areas with intense generic competition, such as hypertension or high cholesterol, will likely prompt drug companies to guarantee drug outcomes and reduce costs to serve their customers to sustain profitability.

None of these ideas are new. Most pharma companies have experimented with one or another in selected fields of their business. The key to success will be in applying these principles consistently to the entire business, and executing them on a meaningful scale. Google’s success in jumping from garage busi-

ness to worldwide industry leader demonstrates that scaling at the right moment is critical to success. Pharma needs to do the same: scaling decisively and effectively when success has been demonstrated on a small scale.

But whether the idea is to guarantee outcomes or to build a business around cost-per-treatment or any of a variety of other bases for business models, drug companies should immediately get to “know what they know” and gain control over their, often implicit, portfolio of business model innovation ideas. They can start a rigorous scan of ongoing initiatives in the company and take a systematic approach to streamlining their efforts to focus on those that are relevant and promising. Could the idea have attractive economics? Can it create competitive advantage? Can it be scaled?

## ELEMENTS OF END-STATE BUSINESS MODELS

*Cost competitive*, for example, through radical redesign of pharma’s promotional model, zero field force approaches, or generics strategies.

*Differentiated from competition*, e.g., different companies with different models and conceptions of competitive advantage.

*Demonstrating superior value*, for example, through designing for standardized and accepted outcomes metrics.

*Customizing offerings to individual customer’s problems*, e.g., through managing entire drug budgets of hospital intensive care units at a fixed price.

*Accessing new customer spaces* e.g., in the areas of wellness/well-being, or through offering health programs to employers.

*Managing multiple business models* at the same time, instead of focusing on a single, traditional model.

We’ve already discussed prerequisites of any business model: scalability and measurability, in particular. And we’ve discussed at least two prerequisites for getting starting on business model innovation—getting to know your customers’ businesses deeply and creating an organization with enough resources, and the right people, to turn this customer understanding into relevant business models.

But it’s clearly time to get moving. No pharma company has taken a convincing and powerful stance on business model innovation yet, which means there’s significant opportunity for one or more players to take the lead. The general demise of today’s business model may look threatening. But examples from other industries show that there are some well-beaten and successful tracks to succeeding in deteriorating industry environments. Moreover, it is likely that in the future different models will be successful in different submarkets—there will be multiple ways of winning and multiple winners. It’s time to wake the giant.

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