'Teaches entrepreneurs and business owners how to avoid mistakes that many make.'
START YOUR BUSINESS MAGAZINE

FIFTH EDITION

THE NEW BUSINESS ROAD TEST

What entrepreneurs and investors should do *before* launching a lean start-up

JOHN MULLINS

Reader and media praise for earlier editions

It is a great framework to distinguish between nutcase ideas and solid possibilities, and in some cases to turn the mad ideas into something that could work.

Max Aitken, serial entrepreneur

Teaches entrepreneurs and business owners how to avoid mistakes that many make.

Start Your Business *magazine, June 2010*

The New Business Road Test has been the most valuable piece of advisory material I have come across. Whatever else I recommend to my clients, owning and reading your excellent book is highest on the list.

Ian J R Wilson, Principal, Ian Wilson Associates, Edinburgh

We combine creativity/idea generation workshops with a feasibility analysis course – based on John Mullins' *The New Business Road Test* - and it's just wonderful for critical thinking, embracing ambiguity, encouraging fast failures, and mixing imagination with formal technique. Indeed, this is a capstone class for our Professional MBA. It's also a joy to teach, if rather chaotic at times, and the students adore it, too.

Professor Sarah Dodd, Hunter Centre for Entrepreneurship, University of Strathclyde

Some entrepreneurs might wonder why such a codified framework is needed to replace instinct and they won't find this book has a great deal to offer. But for most of those considering a new venture, thinking such as this offers a smart way to quickly assess what might and might not work.

Director *magazine, July/August 2010*

Provide[s] a reality check for anyone poised to jump into a new venture without thinking. Readers will enjoy discovering the nuggets of wisdom embedded in the case studies.

Financial Times, *July 2003*

We've never met but I love your book *The New Business Road Test* – I can honestly say it has done more for my businesses than 10 years of hard graft did.

Matthew Slight, Founder, Love Tea

I want to take this opportunity to express my appreciation and admiration for your approach to analysing new business opportunities using the seven domains you so eloquently describe in your book. While there have been a number of books written on this subject, it is rare when this subject is treated in such a practical manner.

Gerry Lemberg, Chairman, Silver Fox TeroVentures

biotech segment of the industry has remained unprofitable as a whole.[20] Saddled with the enormous costs of developing new drugs and the lengthy and uncertain processes required to test new drugs for safety and efficacy, and lacking the cash flow that the older drug companies enjoy from their earlier blockbuster drugs, most biotechs' roads have been much more difficult. But for Amgen, Genentech and a few others whose early discoveries hit the charts, the high entry barriers were worth tackling.

Thus, for entrepreneurs who can marshal the resources to overcome high barriers to entry – and who have something to sell that customers want to buy – attractive industries like pharmaceuticals can be rewarding places to play.

The pharmaceutical industry in the twenty-first century

Alas for the drug makers, industries are not static places. Like the rest of the business world, industries are dynamic, subject to ever-changing environments. The pharmaceutical industry has not remained quite as cushy as it once was. Let's look at what has changed.

Threat of entry

Starting in the mid-1980s, the barriers to enter the pharmaceutical industry began to show cracks. New legislation made it easier for generic drug companies to enter the market. In the USA, the 1984 Hatch-Waxman Act, which changed the rules for generic drug manufacturers, reduced the barriers to generic entry. Instead of having to prove the generic drug's safety and efficacy, the Act required companies only to prove their formulas were equivalent to that of the brand-name drug. The subsequent growth in generic drugs was profound. By 1996, generic drugs accounted for more than 40 per cent of pharmaceutical prescriptions.[21] In 2003, the Food and Drug Administration (FDA) introduced further regulations limiting the ability of patent-holders to delay the onset of generic competition, so the market share held by generics began to grow even more.[22]

“in the mid-1980s, the barriers to enter the pharmaceutical industry began to show cracks”

Aside from the influx of generics, the pharmaceutical companies also saw a wave of biotechnology competitors enter their industry – Genentech and Amgen had been good role models – suggesting that economies of scale meant less than they used to, and that barriers to entry, while still high in absolute

terms, were dropping, thanks in part to the availability of venture capital.[23] Further, the biotech companies' new science-focused research model, known as rational drug design, stood the traditional approach to drug discovery on its head. These drug companies worked backwards from known disease biochemistry to identify or design chemical 'keys' to fit the biochemical 'locks' of that disease.[24]

The result of these changes? Barriers to entry crept lower, increasing the threat of entry and making the industry somewhat less attractive.

Buyer power

Beginning in the mid-1980s, three developments gradually began to increase the power of the pharmaceutical industry's buyers:

- the growing strength of managed care in the USA, the industry's largest market;
- increased pressure from governments, especially in Europe;
- a better-informed patient population.

The American transition from an insurance-based healthcare system to one of managed care changed the dynamics of the pharmaceutical industry dramatically. By 1993, 80 per cent of the US population was covered by managed care organisations (MCOs), compared with 5 per cent of the US population covered in 1980. These MCOs typically provided full coverage for prescription drugs. But, because of their sheer mass, these institutions had considerable bargaining power with drug companies, and exerted downward pressure on drug prices.[25] Thus, while patients maintained their price insensitivity for drugs, their healthcare payers were far more price-sensitive.

To further increase drug-price awareness in the American medical community, health maintenance organisations (HMOs) set up formularies (lists comparing the prices and benefits of various drugs). HMOs regularly updated these formularies, deciding which drugs to endorse. If the HMOs did not approve a certain drug, then doctors affiliated with the HMO could not prescribe it. Of course, it is not surprising that HMOs favoured the less expensive generic drugs over brand-name drugs. In 1995, a *Medical Marketing & Media* article claimed: 'Pharmaceuticals appear headed for commodity status, pushed by generics, formularies, and other cost pressures.'[26]

The American HMOs were not the only ones putting downward pressure on drug pricing. European governments established price controls, limiting prices at which prescription drugs could be sold.[27] In the UK, a new government

agency, the National Institute for Clinical Excellence (NICE), was established to determine the cost-effectiveness of drugs before the National Health Service (NHS) would pay for them, and the Drug Tariff capped prices at which the NHS would reimburse dispensing pharmacists for individual medications.

In addition, by the turn of the century, the coming of age of the internet generated approximately 100,000 health-related websites and online pharmacies. Empowered with more information, patients became more knowledgeable and, consequently, more powerful. And, with new legislation that now permitted prescription drug advertising in the USA, patients there began taking a more active and knowledgeable role in their medical decision-making.[28] Similarly, in the UK it was estimated that by 2011, one in seven people was buying prescription medication online, severely reducing the influence of the doctor, who had been the established sales channel of pharmaceutical firms.[29]

"buyer power had increased"

Other sources of buyer power also emerged. In 2009, 'comparative effectiveness' studies proposed by the Obama administration mandated drug comparison trials that would reveal whether a specific name brand drug truly had a better effect than a cheaper generic drug: a welcome test for consumers and HMOs, but not for drug makers.[30] In 2016, CEO Heather Bresch of Mylan, a specialty pharmaceutical company, was called before the US government to explain a 500 per cent price increase for its EpiPen, and in the UK, Pfizer was fined £84.2m for overcharging the NHS.[31] Taken together, these events suggested that governments were beginning to take drug pricing seriously. As a result of these and other pressures, buyer power increased considerably. The result of this increase in buyer power was additional downward price pressure on prescription drugs.

Threat of substitutes

Not only were direct competition from generic drugs and better access to information impacting the industry, but trends towards more natural therapies also led consumers to try substitutes for prescription drugs. Exercise, nutrition and herbal remedies all began to take market share from the prescription drug makers.

Competitive rivalry

Throughout the late 1980s and the early 1990s, rivalry in the pharmaceutical industry increased. Given the new pressures described above, traditional drug companies felt the pressure to consolidate to take advantage of economies of

scale.[32] By choosing to merge, rivalry among the top firms increased, as their areas of expertise began to overlap.

Additional rivalry stemmed from the flood of more science-focused drug discovery firms. While some biotechs were purchased by the large drug companies, others such as Amgen became strong competitors in their own right.[33] Unlike the drug companies, biotechs were not burdened with high overheads, and some possessed superior product and disease knowledge in their chosen segments.[34] Rational drug design enabled them to discover new therapeutic compounds more quickly and more efficiently than before.[35] While traditionally these biotechs had discovered new drugs and then sold their discoveries to established drug companies, this pattern seemed to be changing. Some began not only to discover but also to develop and market their own drugs.[36]

The reduced barriers to entry of generic drugs also exacerbated the industry's competitive rivalry, with the global generics market predicted to reach $35 billion by 2020.[37] Making matters worse, the pharma industry overall was expected to lose $215 billion in sales due to patent expirations between 2015 and 2020.[38] Thus, the pharmaceutical industry found itself with a whole new set of competitors, some of which were more agile and science-focused, some lower-priced.

“the pharmaceutical industry found itself with a whole new set of competitors”

Summary of industry attractiveness in the early twenty-first century

How has the industry fared in light of these developments? A study by the US Congressional Budget Office concluded that, 'since 1984, the expected returns from marketing a new drug have declined by about 12 per cent, or $27 million in 1990 dollars. That decline has not made drug development unprofitable on average, but it may have made some specific projects unprofitable.'[39]

The changing industry environment has had a clearly measurable impact on industry profitability. In 2000, the pharmaceutical industry ranked as the most profitable industry in the USA, with a return on assets of 17.7 per cent.[40] But by 2005, the industry had fallen to ninth position on the *Fortune* magazine list of most profitable industries, with a return on assets of 10.3 per cent, down more than 40 per cent in just five years.[41]

From 2006 through to 2009, the industry's average return on assets ranged between 10.5 and 11.5 per cent.[42] Despite its challenges, however, the pharmaceutical industry has held up remarkably well. In 2016, the return on assets

for the biotechnology and drugs industry was 13.47 per cent, second only to tobacco, according to CSI Market, a provider of financial information and analysis.[43]

"while not consistently as attractive a place to compete as it had been earlier, the pharmaceutical industry remained more attractive than most"

While not consistently as attractive a place to compete as it had been earlier, the pharmaceutical industry remained more attractive than most. Why?

- Threat of entry remained comparatively low, despite the incursion of generic drug makers and biotech firms. Starting a pharmaceutical company isn't nearly so simple as, say, starting a restaurant or an airline.
- Buyer power had increased – a genuine problem.
- But suppliers to the industry still lacked power – good news.
- Substitutes such as exercise, nutrition and herbal medicines were no match for many prescription therapies for cancer and other life-threatening illnesses.
- Competitive rivalry, despite some challenging factors, remained relatively modest, as the drug companies, having common interests, sought to protect their traditionally high profit margins.

Thus, the pharmaceutical industry remained an attractive place to play, far more so than most industries, including the daily deals industry which we examine next. Will this continue to be the case, or will the pressure of these trends erode the industry's attractiveness further? Only time will tell.

The daily deals industry

In late 2008, when many recession-pressed small businesses were struggling and many consumers were watching their pennies, a new way of shopping was launched. Groupon, the first daily deals website, used the buying power of its groups of customers as an incentive for small businesses to create time-bound special offers. Groupon founder Andrew Mason took the company from a tiny start-up to a multi-billion-dollar valuation in less than three years, raising six rounds of venture capital along the way.[44] Groupon became the fastest company to be valued at $1 billion (it was among the earliest 'unicorns'),[45] raised some $700 million on NASDAQ in November 2011, and earned a $17.8 billion market capitalisation in the eyes of eager investors in its post-IPO bounce.[46] It was the largest IPO by an American internet company since Google's IPO in 2004.

It appeared to consumers and investors alike that Groupon had uncovered a vast new *market* for sending 'daily deals' to consumers' email inboxes. Indeed, it had. But was the daily deals *industry* robust enough to prosper in the long run? Let's examine the industry's five forces and see what we can learn.

"But was the daily deals *industry* robust enough to prosper in the long-run?"

Threat of entry

Groupon executed its business model exceedingly well. It hired armies of salespeople to knock on small businesses' doors, offering them an opportunity to bring in (supposedly) new customers at a one-time discount price – 50 per cent off lunch, next week only, if you pay now! Groupon was paid by the consumer's credit card when the deal was purchased online, remitting payment to the merchant (less Groupon's cut, of course) in a series of installments over as many as 60 days, once the deals had been redeemed. Alas, the model was too good to be true and too easy to copy.

A huge number of similar sites followed globally, most notably LivingSocial in the USA in 2009 and the Chinese site Meituan in 2010. It was easy to do. Any entrepreneur could knock on doors in their own geographic area, write some code, and, 'Voila!' they're in business. And with Groupon's astonishing growth, investors were all too eager to back them in hopes of duplicating Groupon's apparent success elsewhere. LivingSocial managed to raise a total of $928m over nine rounds between July 2008 and February 2013.[47] With this kind of funding available for copycat players, the threat of entry proved to be exceedingly high – bad news for the industry!

Supplier power

One strong daily deal could make the difference between failure and success to a struggling small business, or so the owners of such businesses thought, especially a new one looking to make its mark; merchants were queuing up to join in. The visibility that a promotion gave was seductive. Even though a business typically had to give 50 per cent of the selling price back to Groupon or any other daily deals website, the no-cash-up-front method of gaining new customers made it seem worth it. The merchants, the key suppliers to Groupon and its copycats, weren't going to quarrel with the terms. And, as small businesses, they had little power to argue anyway. Supplier power was not a problem.