

Pharmaceutical Industry: How to become lean and fit after merger and acquisition

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Major pharmaceutical companies face a paradox. The potential for medical breakthroughs has never been more exciting, yet the operating environment has never been more difficult. Cost-reduction programmes announced in the wake of mergers and acquisitions will address only some of the challenges facing the industry. Pharmaceutical companies need to find some new remedies and operating strategies to restore growth.

Pharmaceuticals used to be a safe investment: shareholders could rely on steady earnings and a 30% to 40% premium to fair value. However, since 2000, the industry has consistently disappointed, losing around 40% of market capitalisation between the end of 2000 and the middle of 2002 (see Figure 1). Even though it has clawed back half of that fall since 2002, the sector has destroyed nearly \$400 billion of value over the past four years.

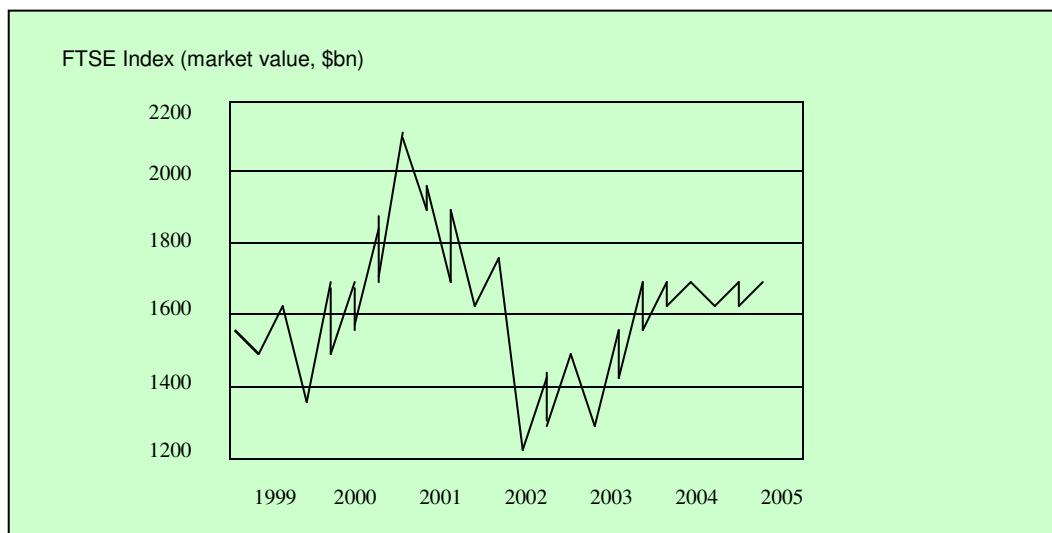


Figure 1: World Pharmaceuticals & Biotechnology [source: Thomson Datastream]

That poor performance is the result of a number of factors. Big pharmaceutical companies were lulled into complacency by their reliance on a handful of best-selling “blockbuster” drugs, with at least \$1 billion in annual sales, whose patents are now expiring. Safety concerns have led to the worldwide withdrawal of several drugs, notably Merck’s \$2.5bn-a-year painkiller Vioxx in October 2004, while assertive patients are more willing to take legal action against “big pharmaceuticals”. The reputation of the “ethical pharmaceutical industry” has suffered still further as a result of its own activities. It has raised prices to the maximum in the USA and Western Europe, used every legal means at its disposal to defend patents and been reluctant to provide cheaper medicines to developing countries. From a purely commercial standpoint, these may have been sensible actions. But, taken together, they have destroyed the public’s regard for pharmaceutical companies.

The extent to which pharmaceutical companies bankroll doctors and hospitals by funding trials, research and conferences is another area where they are vulnerable to accusations of improper practices. And pharmaceutical companies are spending too heavily on marketing: around half of their marketing costs are accounted for by free samples handed out to doctors to persuade them and their patients to use new medicines and most of the remainder is spent on the salaries and commissions of medical sales representatives.

Mergers & acquisitions hide crisis in innovation

Moreover, nearly every top-tier drugs company has resorted to acquisition to sustain its growth. This has created bloated companies carrying too much fat, whilst hiding a crisis of productivity in innovation. There is overwhelming antipathy to M&A among researchers and widespread fear among executives about the disruptive effect of consolidation on drug discovery. The biggest threat to the industry's profitability is a slump in output by research departments responsible for creating new medicines.

In any pharmaceutical company, successful products can probably be traced to a small number of brilliant scientists and constant M&A activity muddies the water for these individuals. They lose control of projects and the ability to spot winners and champion them through the organisation and on to market. AstraZeneca, for example, now has 50% more drugs in the early stages of development than a year ago as a result of re-organising Astra and Zeneca's research units. But that rise comes five years after the merger, which saw 6000 people move jobs. There's a productivity problem at the most basic level and the industry is not getting output consistent with the increased R&D spending it's providing.

Yet, in theory, the industry's long-term prospects seem attractive. Demand for drugs should grow steeply for several reasons:

- Economic and demographic changes. Developing nations become richer as life expectancy rises and are able to increase spending on healthcare. In developed nations, the population is ageing, driving demand for drugs to treat the chronic diseases of old age, while the younger population is increasingly suffering from chronic "lifestyle" diseases such as hypertension.
- There is a strong economic case for greater spending on medicines rather than on more expensive hospital treatments.
- The evolution of medical understanding, including the mapping of human genome, has raised the prospect of important further advances in treatment through pharmacology.

How can the pharmaceutical industry handle the gap between these excellent long-term prospects and the current crisis?

Royalties or tiered pricing?

It is necessary for pharmaceutical companies to address the complex subject - how to provide broader access to their intellectual property. Keeping prices high in poor developing countries limits sales and inflicts public relations backlash. The matter is thornier in middle-income countries, where pharmaceutical companies have more at stake. However, lower prices in these middle-income countries could be used as benchmarks by rich countries to negotiate better prices - that would put even more pressure on prices.

On the other hand, sporadic pickings of relatively small royalties are less attractive than the tiered pricing since license a patent to rivals under pressure is not a sensible thing to do. In addition, governments can invoke their rights to "compulsory license" a medicine when their citizens are threatened by a public health crisis (such as an avian flu pandemic). And, it is not easy to drive a hard bargain with multiple governments while many international organisations are watching and giving friendly but unwanted advice.

The principle of tiered pricing has already been established with HIV/Aids anti-retroviral. Therefore, this method of pricing to both developing and developed countries makes business sense.

R&D – small is beautiful

There is consensus within the pharmaceutical industry that small is beautiful: large size in research organisations is an impediment to good inter-disciplinary team effort, especially in discovery and the early stages of development. We also believe that research strategy for drug discovery and development matters just as much. Companies must re-assess their mix of biologic and small molecule approaches to known and novel targets. While small molecule or chemical drugs that target novel mechanisms are much less successful than those designed to work against known targets (6% success rate for novel targets

compared with 19% for known), the difference in success rates for biologics is much smaller (21% success rate for novel targets compared with 27% for known).

Companies must also re-assess their technology mix in specific disease areas like cancer. For example, broad-acting cancer therapies are less successful than targeted therapies (5% compared with 30%), and yet companies continue to invest almost half their budget in researching broad-acting therapies. Pharmaceutical companies need to take a hard look at detailed data on success rates before making investment decisions, and to manage their portfolio risk more effectively to take account of these figures.

Right prescription needed for sustainable cost reduction

At the same time, companies need to re-evaluate their business strategies. Among the leading pharmaceutical companies (see Figure 2), there is very little consensus about the best way to compete. For example, as understanding of human genetic variation influences the choice of drugs, Roche has chosen to focus on specialty medicines and a diagnostic business designed to put it at the forefront of "personalised medicine". Novartis now operates the world's largest generic business, after paying €6 billion to merge Hexel with its Sandoz subsidiary. Johnson & Johnson has placed its faith in decentralising its various businesses, diversifying into the fast growing market for medical devices as well as pharmaceuticals. Johnson & Johnson also achieved its target of cutting costs by \$1 billion in 2004, while a fourth consecutive year of flat or falling profits prompted Merck to pledge deep cost reductions across the company, including \$300 million of savings planned for 2005 and a further 5100 job cuts by end of 2004 on top of 4400 job cuts which had previously been announced. Merck also expects changes to the company's supply chain and procurement processes to save up to \$1.2 billion and to achieve another \$600 million in savings in capital expenditure by end of 2008.

Company	Market cap \$bn	Sales \$bn	Pre-tax profit \$bn
Pfizer	190.5	52.3	20.4
Johnson & Johnson	187.1	49.9	13.8
GlaxoSmithKline	132.3	39.7	12.1
Novartis	128.9	30.2	7.8
Sanofi-Aventis	106.7	35.3	10.3
Roche	95.4	27.8	6.8
Abbott Laboratories	71.7	21.5	5.2
Aventis	71.1	23.6	5.8
Merck & Co	69.4	21.6	7.4
Eli Lilly	65.1	14.9	4.4
Wyeth	59.6	18.6	5.0
AstraZeneca	58.4	22.8	5.3
Bristol-Myers Squibb	47.5	21.0	4.3
Schering Plough	29.9	9.0	0.6
Novo Nordisk	17.9	5.5	1.3

Figure 2: Large Capitalised Pharmaceutical Companies (source: Kaupthing) *2005 forecast

Yet the \$6 billion cost reduction programme announced by Pfizer after combining with Pharmacia in 2003 indicates just how much fat remains in the sector. We believe that pragmatic and sustainable cost reduction requires pharmaceutical companies to undertake an integrated cost reduction programme across three levels: *business*, *service*, and *technology* (see Figure 3). The main reason most pharmaceutical companies fail to achieve sustainable cost reduction is that they initiate *ad hoc*, discrete and uncoordinated cost-reduction projects.

First level: Business

There is a clear need for large pharmaceutical companies to restructure distribution and sales networks to tackle high spending on free samples for doctors and salaries and commissions for medical sales representatives. There are also opportunities to rationalise manufacturing, since pharmaceutical factories typically operate at only 30% of capacity. In addition, around 25% of R&D costs could be saved through moving work, including clinical trials, to India and other low-cost but high-skill locations outside North

America and Western Europe (see *Offshoring: Saviour or Value Destroyer* by Pal and Hammond). We believe these changes offer scope to reduce costs by between 15% and 20%.

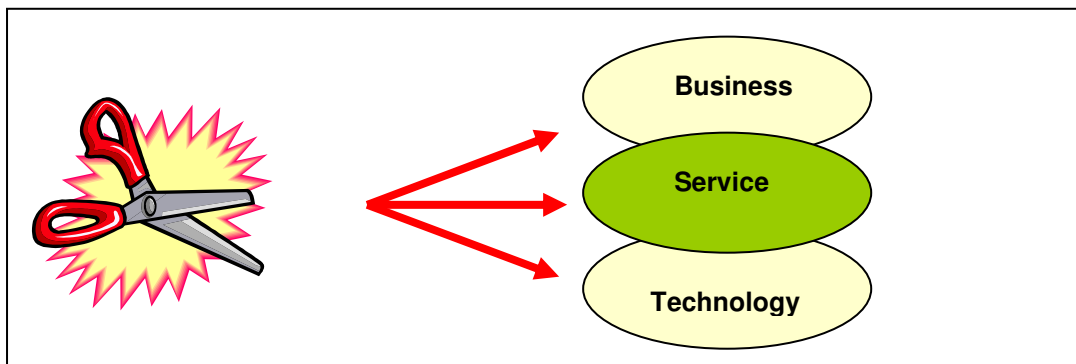


Figure 3: Cost Reduction at three Levels

Second level: Service

Conventional approaches to technology cost containment often concentrate on cost reduction inside the IT organisation.

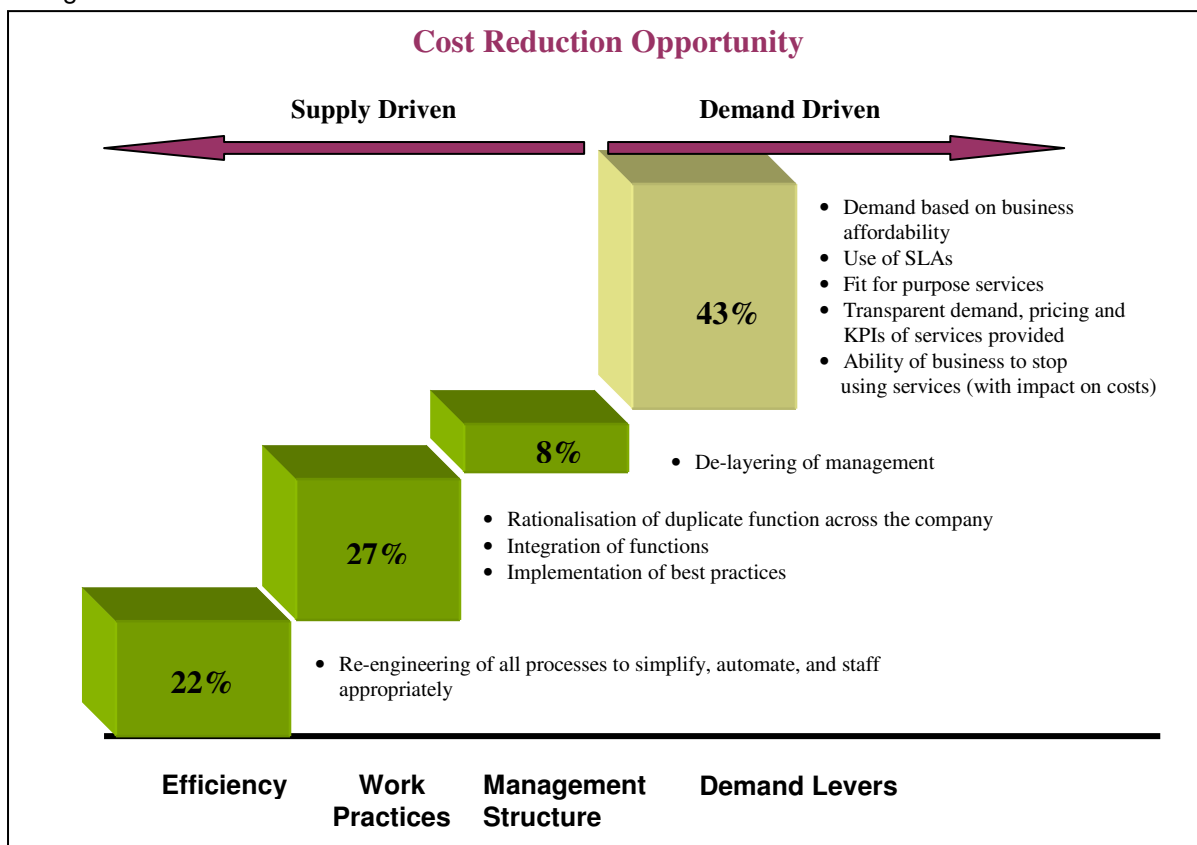


Figure 4: Technology Supply and Demand Savings Drivers

These initiatives focus on managing the supply of IT services. However, managing the demand for IT services can yield as much benefit as conventional supply-side-focused cost-reduction initiatives (see Figure 4). While supply-side approaches to savings focus on operational efficiencies, we estimate a company can almost double its savings through managing the demand side as well.

To understand how this approach results in greater cost and services efficiencies, companies need to translate their basic business drivers – such as the need for a fast, efficient and globally distributed R&D

capability – into operational requirements: collaboration solutions enabled through 24/7 communication. Only then can IT spend be segmented effectively to manage it for maximum return on investment.

Third level: Technology

It is not uncommon in post-merger pharmaceutical companies to still find unsuccessful or outdated systems, redundant data and duplicate processes – and the people needed to support all that – many years after the last merger. Companies need to carry out a thorough assessment of their current state to identify areas where cost savings would be possible without affecting the services presently being provided to users. Companies also need to redraw their IT architecture if they hope to get a stream of new products to market quickly and cost effectively. Many companies renew their IT infrastructures through sporadic CAPEX or project-based initiatives. This approach produces a fragmented, complex and ageing infrastructure, with complex and often inefficient interconnections between systems. All of those results in a high total cost of ownership (TCO).

However, in the current difficult operating climate, CIOs cannot be assured of the necessary capital to undertake a refresh which would drive down running costs – and can't find the funds for such a program in an operating budget completely devoted to simply "keeping the lights on." (see [Taming the beast: containing spiralling IT infrastructure costs](#) by Pal and Fuller).

Instead, CIOs have to start a demand dialogue that helps the business enter into a whole new conversation about IT support: understanding the economic impact of business service choices, and including that analysis when prioritising work. In addition, the IT organisation needs to segment its customers to understand how to tailor its services from the customer perspective and manage the problem from both a cost-to-serve and an ability-to-serve perspective.

The first step is to define distinct segments in the user community, according to key service and economic drivers such as access methods, support levels, reliability and so on (see [Why integrate, when you can aggregate](#) by Pal and Hammond). The resulting clusters tell the CIO which users have similar needs and where there are meaningful differences that must be served differently. This allows the IT organisation to:

- Create distinct service bundles, priced and sized according to the segment.
- Tailor the delivery model of services for each segment.

Pharmaceutical companies that rationalise and overhaul their IT architecture in this way will reduce costs, ensure they are offering the appropriate level of service to users – neither under- nor over-serving them – and gain the flexibility to change their business processes quickly.

New mindset needed for future success

When the Financial Times (FT) listed the 50 largest businesses by market capitalisation in May 2004, nine pharmaceutical companies were included. When it listed the 50 most respected businesses in November 2004, only one of them - Johnson & Johnson - made it on to the list. This crisis in public trust must be faced.

There has always been an implicit understanding between the pharmaceutical industry and the public that medicine is for the people and not purely for profits. Yet when the industry serves the people, profits follow. But these sentiments were out of fashion in the 1990s. Companies raised the market prices of successful drugs. They hired representatives to promote their products. They focused on imitative versions of established therapies at the expense of genuine innovation. And they grew through acquisition rather than by nurturing a continuing stream of new developments.

The old business model worked best for traditional blockbusters, products that relieved but did not cure the chronic illnesses of the affluent, such as hypertension, depression and flagging virility. Future drugs will be targeted at individuals and rarer conditions and cocktails of treatments will take the place of single therapies. And the pharmaceutical industry, more than most relies on exceptional talent, but these gifted

people are in laboratories not boardrooms. While they were once content to work in large drug companies for modest salaries, they are now able to attract venture capital for their own show.

Pharmaceutical companies need to develop a new mindset and take a new integrated approach to business, service and technology development if they are to not only meet the current crisis in the industry but thrive.

About the authors

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