Building Supply Chain Capabilities in the Pharmaceutical Industry

Part 1: Trends impacting the supply chain

UPS Supply Chain Solutions℠

Our Insight.
A UPS Supply Chain Solutions White Paper

Key Trends in the Pharmaceutical Industry

Recent breakthroughs in genomics and proteomics may be mind-boggling to most. And, although news reports remind us regularly of the strides pharmaceutical companies are making in the fight against disease and pain, little is reported about the increasing struggles pharmaceutical companies face in this fight.

In fact, the pharmaceutical industry is experiencing unparalleled change and challenges. All of the usual suspects that impact business today are at play: globalization, treatment and pricing economics, government controls and technology.[1] However, in an era of continuing consolidation, innovation abounds not only in R&D, but also in business models.

The pharmaceutical industry is experiencing unparalleled change and challenge... globalization, treatment and pricing economics, government controls and ever-advancing technology.

Business Innovation is Restructuring the Value Chain

The value chain is restructuring as business innovations are implemented. For example, nearly half of the health-insured population in the United States now receives pharmacy care from pharmaceutical benefits managers (PBMs). As a consequence, the mail order channel has grown dramatically, with supply chain requirements differing from those of the hospital or retail store channel. Additionally, drug manufacturers and health care providers are implementing disease management programs that provide specialized services for a specific disease.[2] These programs allow drug manufacturers to get much closer to the consumer and to better control inventory levels and, subsequently, demand planning.

AS THE MEGA MERGER WAVE CALMS, THE VALUE CHAIN CONTINUES TO EXPERIENCE RESTRUCTURING

- Evolution of new channels as PBMs and disease management programs (e.g., cancer service centers) grow in popularity
- Disintermediation of wholesalers and distributors as 3PLs increase service levels and accommodate pharma regulations
- Growth in outsourcing extends into research and development and sales and marketing in addition to CRM/call center functions
- New genre of niche companies focused in biotech, bio and genetic engineering

Companies that choose to ignore or languish in optimizing their sales and distribution channel strategies may well miss prime opportunities to develop consumer loyalty and lower-cost-to-serve channels.

Market Share and Margins are Declining

Declining market share and margins are being experienced for the first time in many years. The number one culprit is the increased competition from generics. However, price pressures, shortened new drug exclusivity periods, mergers, acquisitions, consolidation and escalating R&D costs also play significant roles.[3] Overall drug utilization continues to be a source for growth. However, as competition increases and companies achieve intended globalization, erosion of market share and margins will have greater and greater impact on profitability.

UPS Consulting anticipates that as the attempts to preserve market share, margin and growth intensify, those companies that address cost and efficiency structures within their supply chain will be best positioned to meet Wall Street expectations.

[1] Agarwal, Sumit et al. "Unlocking the Value in Big Pharma." McKinsey Quarterly, 2001-qtr2.
[2] PhRMA, Pharmaceutical Research and Manufacturers of America. 2001 Industry Profile, PhRMA, Washington, D.C., 2001.
[3] Bastianelli, Enrico et al, "Pharma: Can the Middle Hold?" McKinsey Quarterly, 2001-qtr1.

MARKET SHARE AND MARGIN EROSION
• Shorter periods of exclusivity for new drugs • Increased competition from generics: faster adoption of generics and faster product development • Rising R&D costs due to increased sophistication and complexity of research and collaboration required to generate innovation • Intense price pressure from employers, government entities and consumer advocacy groups (e.g., AARP)

Companies that address cost and efficiency structures within their supply chain will be best positioned to meet Wall Street expectations.

In the coming years, pharmaceutical companies that do not adapt to optimized cost- and business-effective structures will risk survival.

Consumers have Less Access to New Drugs

While it is helpful that consumers are becoming more knowledgeable – due to mass communications (including advertising), consumer Websites and consumer demand for information – knowledge is not turning into power. Managed care use of formularies, HMO use of therapeutic interchange and step-care therapy prevent many consumers from buying drugs of their choice.[2] Once formularies and treatment programs are defined, the power rests primarily with pharmacists, who choose how they will fill prescriptions.

DESPITE INCREASING CONSUMER KNOWLEDGE OF DRUGS, ACCESS TO NEW DRUGS IS SHRINKING
• Increased usage of closed formularies by managed care organizations • Higher HMO adoption of therapeutic interchange and step-care therapy • Potential shift in DUR (drug utilization review) from efficacy to cost efficiency

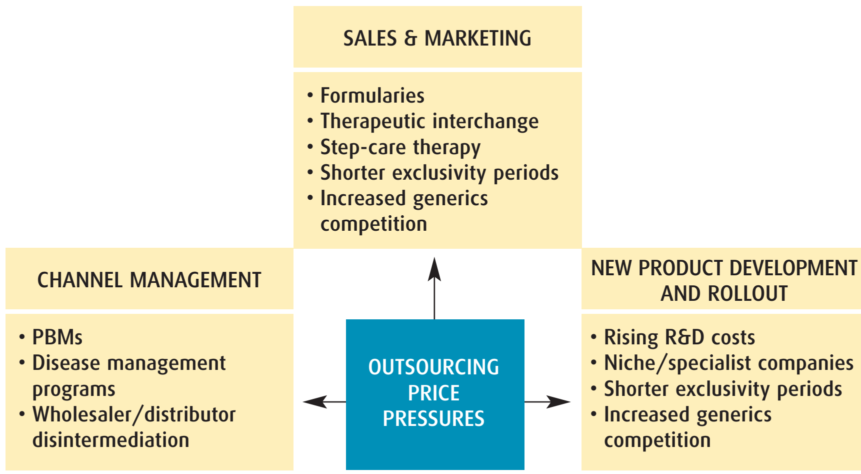
Shifts in treatment and buying decision power will continue to change, requiring more agile, tiered marketing and nonrevenue product fulfillment. Mass communications and sales processes that have traditionally focused on educating and building awareness within the medical provider community will need to anticipate and accommodate power shifts. More recently, large pharmaceutical companies have started mass marketing to U.S. consumers. However, the growing limitations of consumer influence may render such programs profitless in the future. As the focus of control changes, information needs and the needs of various decision makers will need to be addressed to successfully and profitably launch new products.

[2] PhRMA, Pharmaceutical Research and Manufacturers of America. 2001 Industry Profile, PhRMA, Washington D.C., 2001.

Supply Chain Implications

UPS Supply Chain Solutions believes these trends are having the greatest impact on three areas of business:

- Sales and Marketing
- Channel Management
- New Product Development and Roll-out



Sales & Marketing

The increasing use of formularies, therapeutic interchange and step-care therapy by managed care means that sales and marketing efforts should cater to the root of these programs: cost management in treatment programs.[2] Marketing efforts must address the total cost management needs of both managed care and providers.

Moreover, the time in which sales and marketing has to generate and influence demand is shrinking due to increased generics competition and shortening exclusivity periods. These shrinking timeframes and price pressures require that new product marketing and sales methods continuously address evolving sales channels. Pharmaceutical companies and their partners must also be able to quickly build differentiating capability in marketing to such sales channels.

For example, with drug manufacturers now marketing directly to consumers – via television in the United States and via the Internet worldwide – this new sales and marketing channel may only be appropriate for certain products. The *McKinsey Quarterly*, 2002 second quarter, stated that direct-to-consumer (DTC) advertising produced mixed results, and while DTC budgets have significantly increased, efficacy has not.[4] Identifying and evaluating the efficacy of evolving sales channels should become integral to the commercialization process.

Identifying and evaluating the efficacy of evolving sales channels should become integral to the commercialization process.

Lastly, the information needs of the consumer are dramatically different from those of managed care and provider organizations. We believe that retailer and provider direct channels, along with additional evolving sales channels, also

[2] PhRMA, Pharmaceutical Research and Manufacturers of America. 2001 Industry Profile, PhRMA, Washington D.C., 2001.
[4] Aitken, Murray, Holt, Frazier. "A Prescription for Direct Drug Marketing." McKinsey Quarterly, 2000-qtr2.

present a whole new cadre of needs. CRM and customer support will need to be expanded to meet these new categories of need. Although they generate extra cost, these direct channels also present new opportunities to build loyalty and get closer to real-time demand.

Channel Management

As new channels develop, pharmaceutical companies will need to re-evaluate channel strategies. These new channel opportunities paired with the increasing role of PBMs and disease management programs could present a ripe-for-picking time to address channel costs and performance for both nonrevenue and revenue business streams.[2]

Forrester Research calculates that each day delay for a $1 billion drug costs the manufacturer $2.74 million per day in lost sales.

On the nonrevenue side, pharmaceutical companies can investigate the value of alternative distribution for samples and literature. For example, distributing direct to disease management programs or leveraging the role of retail pharmacies may provide opportunities to strengthen retail relationships and gather more accurate demand information.

On the revenue side, shifting to cost- and performance-based channel management can lead to cost savings, more reliable distribution and improved demand visibility. Drug makers can now sell direct to retailers and providers through e-marketplaces such as the Worldwide Retail Exchange and Global Healthcare Exchange.[8] Additionally, as PBMs and disease management programs continue to evolve and mature, drug makers should anticipate their technology and information needs in order to seek ways to integrate their fulfillment, customer management and financial processes.

New Product Development and Rollout

In new product development, highly specialized niche companies are demonstrating that they can bring innovation faster. With escalating R&D costs, we believe drug manufacturers that leverage the intellectual property of such companies, as well as facilitate collaborative efforts through alliances and partnerships, can better manage risk and portfolio profitability. As more parties participate in the race for innovation, integrating research, development and design efforts will become a source for competitive advantage. Technology, information sharing and process integration will become paramount to lowering costs and optimizing intellectual property.

Additionally, once a new product has been developed, the cycle for commercializing that product and rolling it out must become tighter. With exclusivity periods shortening and generics gaining higher market share, the time it takes to get product commercialized and demand generated will directly affect the profitability and life of that product.[5] Forrester Research calculates that the per-day cost in lost sales for a $1 billion drug is $2.74 million.

Regulations and compliance also affect the transition from development to rollout. The FDA allows new drugs to be marketed in the United States immediately following approval, but Europe often experiences delays of up to 12 months between drug approval and market availability.[2] Tighter and more intelligent synchronization between production, fulfillment, marketing and channel networks will enable faster rollouts. Reverse logistics of information and feedback will need to be considered along with fulfillment and demand generation processes.

[2] Radjou, Navi. “The Pharma Apps Prescription” Forrester Report, 2001 February.
[5] Aitken, Murray. Holt, Frazier. “A Prescription for Direct Drug Marketing” McKinsey Quarterly, 2000-qtr2.

Lastly, formula and indication strategy, along with life-cycle management, will need to take place as part of – not after – new product development. Organizations that assume profitability from original patent and license expirations could be severely damaged financially by product innovations from competitors. Pharmaceuticals can no longer depend on patents to guarantee future product revenue streams. Instead, organizations must be prepared by anticipating innovation and competition, by designing alternative and extending formulas, researching alternative indications and obtaining timely regulatory approval for indications and expansion into other global regions.

The winning pharmaceutical companies will be those organizations that can:

- Maintain profitability
- Generate and conserve cash flow
- Merge and integrate supply chains

Positioning to Win

Ultimately, UPS Supply Chain Solutions believes that price pressures – along with these trends – will force margins down so much so that inefficiency in a pharmaceutical company's supply chain could put the organization at risk. These underperforming organizations may in turn create an environment rich in desirable acquisition targets or license arrangements. The winning pharmaceutical companies will be those organizations that can:

1. Maintain profitability despite falling margins
2. Generate and conserve cash flow for future acquisitions and licensing arrangements
3. Resiliently merge and integrate supply chains to enable M&A, licensing and collaborative R&D strategies

What does it take to become a winner? Pharmaceutical companies that want to be well positioned for the future, despite the growing hardships and complexity of the industry, should achieve excellence by focusing on these five supply chain areas:

- Production
- Fulfillment
- Customer Management
- Forecasting & Planning
- Procurement

Part 2 of this paper addresses these five supply chain processes and how to turn them into competitive-edge capabilities.

About the Authors

Larry Koester is a principal at UPS Supply Chain Solutions focused primarily on healthcare/life sciences and pharmaceutical companies. Larry is based in Cleveland, OH and can be reached at lmkoester@ups-scs.com.

Kim Rash is a principal at UPS Supply Chain Solutions focused primarily on healthcare/life sciences and pharmaceutical companies. Kim is based in Atlanta, GA and can be reached at krash@ups-scs.com.

To learn more about how our experience in supply chains and consulting can help your business, please contact us:

1.800.742.5727 U.S.
678.746.4365 International
Visit us at ups-scs.com

About UPS Supply Chain Solutions

By aligning a client's business strategies with its operating processes, UPS Supply Chain Solutions can create high-performance supply chains that from inception to implementation generate real, hard-number values and quick benefit realization. This distinguishing capability, our experience in solving real-world challenges, and the resources of UPS enable us to set strategies, design and build solutions as well as implement, operate, manage and synchronize your world of commerce.