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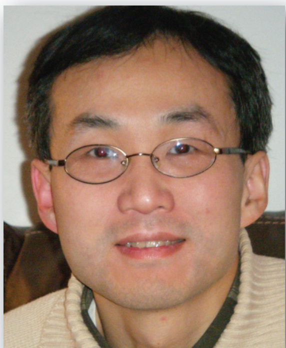

The Future of Branded Drug Distribution in the U.S.: Resell vs. Direct Models

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Introduction

Since 2004, the US pharmaceutical industry has been undergoing a drastic transition from the asset-based resell model, buy-and-hold (BNH), to inventory management agreements (IMAs) and fee-for-service (FFS) models, and recently to non-asset based direct models such as third party logistics (3PLs) and direct-to-pharmacy (DTP). These models were initiated by drug manufacturers or wholesalers acting in their best interests. New players, such as 3PLs, are entering this industry and making the future more uncertain.

Here is the issue: The once dominating equilibrium (BNH) is no longer feasible, and the industry fell into a state of chaos with many possibilities emerging. What is the next equilibrium – the resell model of FFS as advocated by wholesalers, or the direct model of DTP as advocated by manufacturers? What is the future of branded drug distribution in the U.S.? Although the industry has not yet reached consensus, one thing is certain: it has to be a model acceptable to both manufacturers and wholesalers, and it needs to be in the best interest of the patients.

Background

Wholesaling is the dominant way to distribute branded drugs in the U.S. The wholesalers provide valuable logistics services by carrying inventory for 10,000+ SKUs from some 500 manufacturers and delivering mixed-load shipments to nearly 140,000 pharmacies on a daily basis, whereas the manufacturers only have to ship bulk to at most 300 locations.

The resell model of BNH has led the industry to "a game of arbitrage" (NY Times, Jan. 2005) by assigning double roles to wholesalers, both as a logistics services provider and a reseller. Although manufacturers save money by compensating wholesalers indirectly through investment buy, they lose the profit that they could have made from price inflation and generated chaotic price-hedging activities which led to significant excessive inventory in the channel and the risk of counterfeit drugs.

Transition and Debate

The industry was thrown out of balance in 2004 when the SEC accused Bristol-Myers Squibb (BMS) of "manipulating its inventory of drugs to inflate earnings and meet Wall Street targets." In the settlement, BMS agreed to limit sales to wholesalers based on demand, which is the origin of the IMAs rolled out by manufacturers to continue compensating wholesalers by inventory appreciation, but at a more controllable level. After suffering losses, wholesalers made a counter-offer in 2005, the FFS contracts, to demand a fee from the manufacturers to cover their lost profit previously generated by investment buy.

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	Resell (BNH, IMAs)	Direct (DTP, 3PL)
Inventory Ownership	Wholesaler	Manufacturer
Pricing and discounts	Wholesaler	Manufacturer
Logistics services	Wholesaler	Wholesaler
Payment structure	Pharmacy pays wholesaler who pays manufacturer	Pharmacy pays manufacturer who pays wholesaler

Unwilling to pay a fee for a previously free service, many manufacturers started to bypass wholesalers by hiring 3PLs. As of August 2011, 6 of the top 10 global pharmaceutical manufacturers have outsourced at least part of their U.S. distribution operations to 3PLs. Pfizer went as far as implementing the DTP model in 2007 in the U.K. by hiring a former wholesaler as a logistics intermediary and controlling pricing and owning inventory throughout the channel until products reach the pharmacy.

The resell and direct models were heavily debated among industry observers, mostly on behalf of different players in the supply chain. To shed light on the future of this industry, we provide an objective comparison of these models based on real data.

Our Study and Insights

Using data from a leading U.S. pharmaceutical company and its wholesalers, we compare the resell FFS model to the direct DTP model to identify a win-win strategy for this industry. Our case study presents 24 months of data for 3 branded drugs, including wholesalers' shipments, manufacturer's shipments and forecasts, drug pricing, and production/inventory cost data for both players.

Our study reveals non-trivial and eye-opening insights:

- Under FFS, wholesalers have a strong incentive to investment buy. The data shows that they are buying 2-weeks to 1-month of inventory for investment purposes.
- Under FFS, wholesalers captured the profits of price inflation by investment buy, but at a much higher inventory carrying cost. DTP eliminates the incentive of investment buy and minimizes channel inventory. As such, it improves the efficiency of the pharmaceutical supply chain.
- DTP can increase the profit for both manufacturers and wholesalers simultaneously relative to FFS. In fact, wholesalers can make more profit by obtaining a higher fee (than FFS); manufacturers can make more profit by retaining the profit from price inflation despite the higher fee paid to the wholesalers.

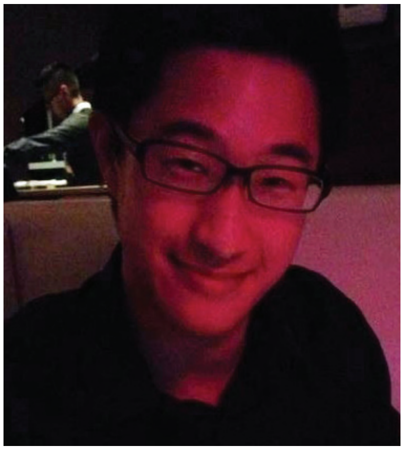
Implementation

Pfizer's successful implementation of the DTP model in the U.K. sheds lights on its potential and feasibility in the U.S. Prior to the switch, Pfizer faced issues such as counterfeit drugs, profit-losing damages, and stock-outs from cross-border parallel trade. By partnering with a former wholesaler but in a direct model, Pfizer was able to maintain the same services to pharmacists while ensuring genuine and up-to-date drugs to the patients. Pfizer can even detect illegal market activities at the pharmacy level to prevent profit losses, ensure drug integrity and reduce stock-outs.

Implementing the direct model in the U.S. with former wholesalers is not more challenging than doing the same with the new entrants - 3PLs. It is unwise for manufacturers to bypass wholesalers, as they are the most experienced and capable players in drug distribution. Pfizer's experiment shows that the same services can be provided to pharmacies by working with former wholesalers in the direct model. One note of caution: it requires wisdom from manufacturers to legitimately continue the current differentiated price practice in the U.S. under a direct model.

Summary

In summary, we believe that the future of the U.S. branded drug distribution lies in the new equilibrium that manufacturers and wholesalers work together but in a direct model. This model creates a win-win situation for all stakeholders, and rewards wholesalers on their core competence – logistics services. Ultimately, the equilibrium better ensures genuine and up-to-date products to the patients. The emergence of 3PLs serves as a catalyst to the transition – wholesalers need to decide between being replaced by 3PLs or becoming a 3PL themselves.



2014 Rutgers Supply Chain Meet & Greet: "The Doorway to Your Future"

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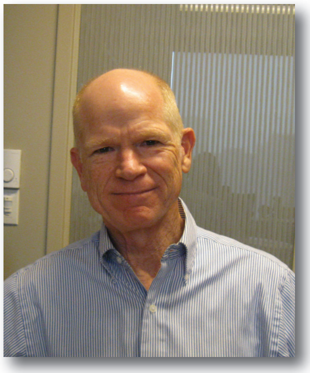
The 2014 Rutgers Supply Chain Meet & Greet, held on Wednesday, September 17, 2014, at the Livingston Recreation Center in Piscataway, was the largest in the three year history of the event. Hosted by the Supply Chain Management and Marketing Sciences Department at Rutgers Business School, the event attracted over 80 companies, 200 corporate attendees, and 400 students. The corporations that attended ranged from a variety of industries such as pharmaceutical, consumer, retail, energy, fashion, banking, and more. This year's Meet & Greet drew several first time attendees, including BNY Mellon, Stryker, GlaxoSmithKline, Lifecell, Siemens, and Schlumberger, along with many returning companies such as Johnson & Johnson, JPMorgan Chase, Diageo, Verizon, Pfizer, Caterpillar, Colgate, Mars, and more. The Meet & Greet continues to be a major recruiting event for the Rutgers Supply Chain Management and Marketing Sciences Department, and this year was no exception.

Our purpose this year was to continue the successful tradition of this flagship event. The Meet & Greet was our opportunity to showcase the talented pool of students at Rutgers to a variety of companies within the Supply Chain industry. Our goal for this event was not about hitting a targeted number of companies and students to attend. Instead, it was about providing the right fit for both the employer and employee. The success of this event will not be determined the day of the event; rather, it will be determined the following year when companies return to the Meet & Greet, satisfied with their Rutgers interns and co-ops, and expecting even bigger and better results.

As a student, I cannot stress the importance of this event to us. Not only does it build a bridge for corporations and students to network, but it also offers our talented students with career opportunities otherwise unknown. It is through the Meet & Greet that Rutgers continues to lead other college institutions within the Supply Chain community.

I would like to specifically highlight a few individuals without whom this event would not have been possible: Dr. Lei Lei, Dr. Gene Spiegle, Anthony Goralski, Josephine Lee, Rajan Phakey, Kristy Bachman, Andrew Zhang, Sarah Dobson, Rani Chacko, Ben Ruffle and our student volunteers.



Strategic Sourcing Challenges

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In order for a strategic sourcing category plan to be properly developed and ultimately implemented, don't forget to include your internal stakeholders right from the beginning. All too often, the Purchasing Department develops its category spend strategic plans with little or no input from internal stakeholders, who will be impacted either directly or indirectly, once implemented. Companies that are successful in developing and implementing excellent strategic plans have well-defined, documented processes that are understood and accepted not only by the Purchasing Department, but by the stakeholders and upper management. While each company or organization needs to use a strategic sourcing process that works for them, most always they include use of common tools and methods such as category spend analysis, positioning matrix (Kraljic), SWOT analysis, market and competitive analysis, risk assessment, forecasts, etc. The most important strategic spend categories (high impact on the company and high impact from a market perspective) obviously require the most effort and research, while those in the balanced category (low impact on the company and from a market perspective) require less data gathering. The various tools and approaches are well published, and many consulting companies are willing to help in this area, at a cost.

From my personal experience, and in speaking with many other supply chain management executives over the years, a critical but often missed element is failure to include the internal stakeholders right from the beginning. Two very common reasons why this happens include:

1. It takes more time to collaborate with multiple people, ask questions and discuss alternatives. Of course, you get a more robust plan if you do collaborate.
2. Upper management has either not supported the process or not properly communicated its importance to the organization; therefore, stakeholders might not be willing to spend their time.

Ignoring the stakeholders most likely will limit your chance of success, particularly if you are changing suppliers the stakeholder believes are currently providing a good product or service. If something goes wrong during implementation of the strategic sourcing plan (and it will), you want and need the support of the internal stakeholders to quickly fix or modify the plan and move forward.