OPENING EMERGING MARKETS TO PROFITABLE GROWTH WITH DIGITAL SUPPLY NETWORKS

Nearly 2 billion people have no access to basic medicines. As economic conditions in many of these countries improve, the situation may actually get worse. An estimated 70 percent of the world’s poor live in middle-income countries that could lose support from sources like the Global Fund and Gavi, which are critical access points to affordable vaccines and medicines.¹ This same population is also seeing a rise in chronic diseases that could benefit from medicines that are often unavailable and unaffordable.

Providing access to basic medicines is both a challenge and an opportunity. Pharmaceutical demand was valued at $1.1 trillion globally in 2015, 36 percent of which is in emerging markets. Estimated growth at 30 percent CAGR by 2020 indicates the size of the opportunity. And digital supply networks may be the key to overcoming the challenge.²
Ensuring access to medicine is a global priority and a complicated challenge that is often attributed to price. While price has been and remains a factor, inefficient supply chains are a major contributor to the breakdown of health systems in these markets. Both cost and access have been negatively shaped by a fragmented infrastructure in economies most in need of speed and efficiency. Multiple hand-offs in the supply chain from manufacturer to patient add costs and increases opportunities for counterfeits to slip in. In emerging markets, manufacturer’s price often accounts for around 50 percent or less of the price to customers, as compared to developed markets, where the manufacturer’s price is approximately 85 percent of the retail price. Until recently, most companies have accepted the gaping hole between their price and the final customer price as the cost of doing business in emerging markets. Now, they have options for addressing the gap.

Organizations looking to get more medicines into the hands of people who need them at workable margins now have a powerful tool at their disposal—the digital supply network. A digital supply network is an integrated ecosystem that leverages information and digital technologies to more effectively connect nodes and partners across a supply chain network. These digital technologies can radically improve the capability and effectiveness of the pharmaceutical supply chain in emerging markets, transitioning away from purely a manual movement of physical goods to an integrated exchange of information to partners across the network. The increased visibility that a digital supply network offers can unlock markets that have been bound by inscrutable inefficiencies. Innovative technologies can overcome infrastructure barriers, while analytic capabilities can generate insights that can help leap-frog typical cycles of growth and improvement while addressing immediate needs.

Companies that deploy digital supply networks into developing markets will not only establish a strong foothold for growth and profit, they will also help save lives with affordable medicines for people who desperately need them.
Solving emerging market supply chain challenges represents a significant opportunity for the pharmaceutical industry. Unlike developed markets, which are highly saturated with limited room for growth, key emerging markets are growing rapidly. Fifty-eight percent of profits in retail pharmacy are generated outside the United States, Europe and Japan. The MINT countries (Mexico, Indonesia, Nigeria and Turkey) collectively compose a pharmaceutical market worth approximately $28 billion. All four countries are expected to enter the top 10 global economies by 2050.

The opportunity in developing countries is not just about scale—it is about scope as well. The medical needs in many emerging markets are evolving beyond issues like HIV and malaria and into non-communicable diseases such as heart disease, cancer, and diabetes at an increasing rate. The size of these markets as well as the rapidly growing need for a broader array of medications create an attractive opportunity for growth. Those who invest in establishing themselves in this market can improve health systems while eliminating costs and reducing risks, all while growing market share and strengthening their brands. With the future of pharmaceuticals residing in developing country markets, organizations must find ways to reduce complexity and grow market share.
TOO MANY KINKS
IN THE CHAIN

Hidden logistics costs can double a medicine’s price to the patient—and effectively price a medicine out of a market. Customers in developing country markets often pay high prices for pharmaceuticals regardless of the medicine’s true cost. Within these markets, more than half of a medicine’s final price can be driven by complex logistics and markups. The supply chain in developing markets typically includes multiple sub-distributors that add a markup of approximately 25 percent each, and retailers that mark up anywhere from 50 percent to 80 percent to maintain fixed overheads and stock levels. With these excess costs, pharmaceutical companies risk losing market share—and even entire markets—because the final price of medicine is largely determined by factors beyond the value of the treatment and outcomes to the patient.4
Tightening up the supply chain requires an understanding of the various parts and the ability to reassemble those parts into a more efficient network. In fact, the first effect of digitalization is the evolution from a linear chain into a non-linear network. Digital and its ability to collect and make sense of information from a broader global data set allows for a complete, accurate, real-time assessment of where products are and how they are moving toward the customer. Through a rapidly growing, living network of sensors and nodes, organizations can predict, respond, and react to situations that are happening on the ground without having to physically be there. Movement of products improves as a result, as well as the security of these products.

Data is the foundation for the digital supply network. Once data is collected—by sensors or mobile devices—organizations can analyze the information, draw correlations and identify patterns that can increase product forecast accuracy and inform long-range supply plans.

Some digital advancements have become mainstream—almost business as usual—in developed markets. These same innovations can make huge impacts in emerging markets. Take solar power, for instance. In developed markets, it helps reduce dependence on non-renewable energy. But, in developing countries, solar provides essential power to create and maintain cold chains that preserve medicines at the proper temperature as they make their way into markets without electricity. Widespread adoption of solar innovations in emerging markets could dramatically reduce fulfillment costs associated with cold chain of last-mile vaccine distribution.
Another innovation ripe for disrupting the current emerging market model is artificial intelligence (AI) and robotic process automation. In areas where skilled labor is in short supply, automating core, repetitive supply chain processes can provide efficiency and reliability of execution, at a fraction of the cost of labor. Additionally, as AI skills continue to improve, sophistication and execution accuracy of supply chain operations will also continue to grow.

Technologies like sensors and drones can quickly form the foundation for a digital supply network. Drones can help overcome infrastructure challenges by providing quick access to places and populations that are typically hard to reach. Collecting and analyzing input from sensors informs an agile approach to moving product in both the short- and long-term. Analyzing current and past performance can help improve processes, while predictive analytics can anticipate and address potential issues before they create disruption. For example, predictive analytics could trigger a process to stock anti-malarial medication based on environmental conditions, patient populations, and supply strategies before the rainy season brings on mosquito breeding and washed-out roads.
A digital supply network offers organizations in any market several distinct advantages:

**UNPRECEDENTED VISIBILITY**
to improve performance throughout the supply chain

**HIGH AVAILABILITY OF DISPERSE DATA**
combined with advanced analytical ability

**ABILITY TO SCALE EXPONENTIALLY**
with mass customization

**DRAMATICALLY REDUCED**
time to market

For pharmaceuticals, this increased visibility can drive efficiency, fair pricing and profit—and pay for itself. Digitalization could create savings of millions per year across distribution and retail, which could be reinvested to expand access to medicines and save lives.\(^5\) For instance, RFID product tracking and smart storage facilities could drive reductions in stock-outs, waste and counterfeit costs. In addition, route optimization and control towers enabled by mobile or AI technologies could significantly impact distribution costs.
Adding digital functionality to a supply chain is nothing new. Accenture Strategy research has found that 85 percent of companies have added some digital capabilities to their supply chain, but only a few are realizing the full potential. We call those few the digital trendsetters. They are employing digital not just to improve their supply chains, but to rethink them altogether, and profiting in the process. Digital trendsetters reported an increase in profitability of more than 10 percent over the last two years.

Learning from these digital trendsetters can be particularly valuable for organizations looking to leapfrog existing systems rather than simply improving them—which is necessary for pharmaceuticals in developing country markets.

How do digital trendsetters separate themselves from business as usual? And how can pharmaceutical companies and donors follow their path to more efficient and predictable results?
TARGET IDENTIFICATION AND VALIDATION

Just as pharma companies identify the disease they want to target, digital trendsetters set their business goals and align their supply chain accordingly. They tend to be more flexible in how they execute, using a targeted approach to define their digital strategy, based on market need and value potential, rather than a one-size-fits-all model.

**ACTION:** Determine the outcomes your organization wants to deliver—and to whom—in any given emerging market segment. Then build a plan around achieving those outcomes, with targeted digital interventions. Recognize that strategies may need to be adapted once they are tested in different markets, so start small and build agility into your execution model.

FIND YOUR LEAD COMPOUND

Internally and externally, digital trendsetters are better at creating effective ecosystems. By developing an information ecosystem, and actively pursuing a network of trusted partners who can help you strengthen that ecosystem, companies can create a rich foundation of insights across the digital supply network.

**ACTION:** Find the right chemistry with partners that can help you achieve your outcomes. Established players in developing country markets can accelerate the path to value and participate in the digital supply chain with robust data and insights gained through experience.
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Pursue Breakthroughs

Organizations with the strongest digital supply chains use technology to drive, not just enable. They invest in next-generation technology to help uncover new ways to operate rather than solving known problems. Life sciences companies are familiar with investing in exploration knowing there is no guarantee of success. Digital makes exploration faster and requires less commitment than developing a new drug.

**Action:** Think about new ways to apply technology to leapfrog challenges and achieve the desired outcomes. Succeeding in an emerging market sometimes means taking on the spirit and habits of a scrappy startup, seeking to disrupt the norm by looking past conventional business models and uses of technology.

The Race Is On

There is little doubt that developing country markets are the next big growth area for pharmaceuticals, and the broader life sciences industry. Nor is there much argument about the need in those markets, and the fact that meeting the needs of patients is being obstructed by fragmented supply chains. For the first time, digital capabilities open up the real prospect of addressing the supply chain challenges that have made these markets inaccessible and economically unfeasible. **Now, the remaining question is: who will be the first to use digital to transform these supply chains and capitalize on this massive opportunity to deliver value and life-saving health outcomes?**
NOTES
4 Ibid.

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