The Supply CHAIN

Most traditional supply chains are challenged to compete in today's global economy.

repare for impact: The \$3 trillion supply chain shakeup is coming, ready or not. Analysts at Accenture say every business is now a digital business. But the question is: is every supply chain a truly digital supply chain? They say many companies are just putting digital processes on top of traditional practices — re-fitting, re-wiring, and re-adapting instead of re-inventing.

The increased money companies will make or save through optimized logistics and supply chains is estimated at \$3 trillion through 2022.

Accenture outlines four things that a truly

EXECUTIVE VIEWPOINT



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THE IMPACT OF RFID

The impact that RFID

technology will have on the pharmaceutical supply chain at the unit level and in conjunction with the Drug Supply Chain Security Act (DSCSA) is not clear at this point. Due to the lack of a clear legislative mandate to implement RFID at the unit level, and the significant time and cost to standardize, purchase, test and implement an RFID solution, it is unlikely that RFID will gain approval as an acceptable substitute for 2D barcodes within the DSCSA.

THE CRITICAL BARRIERS TO SPEED AND ACCESS

Perhaps the most significant barrier at this point is the failure to implement the GS1 data standards such as GLN and GTIN in on industrywide basis. Additionally, the use of best-in-class inventory management practices, such as those that are utilized with fast moving consumer goods, could help to address both speed and access

digital supply network should be: connected, intelligent, scalable, and rapid.

In terms of being connected, Accenture says systems need to have real-time visibility, seamless collaboration, and operating models that adapt to today's fickle consumers. In terms of intelligence, they say it's all about data driving insights, enhancing efficiency, and accelerating innovation. The more integrated, flexible, and personalized the supply chain is, the more scalable it is and, the more companies can take advantage of opportunities. Finally, rapid speed is the currency of the future. And any responsive, proactive company is going to be at an extreme advantage.

According to Accenture, supply chains, both linear and static, are struggling to serve customers whose diverse needs are constantly changing. They say what companies need now to stay competitive in this volatile business environment is a new supply chain strategy — a strategy structured around the flexibility and scalability that digital technologies can enable. With such a strategy, companies can unlock their supply chain to be an engine for growth, enabling quick movement into new geographies, supporting new value-delivery approaches, and creating new products and services

Coordination to Improve Efficiencies

According to Natalie Privett, assistant professor of management and policy at the Robert F. Wagner Graduate School of Public Service at New York University, and David Gonsalvez, professor of supply chain management at the MIT-Zaragova International Logistics Program, and former global supply chain director with General Motors, the global health pharmaceutical delivery (GHPD) supply chains are wanting. They say the lack of coordination in the GHPD supply chain is an issue whose existence aggravates nearly every other issue directly or indirectly.

Not only do capable supply chains win wars against disease, they are instrumental in winning battles against counterfeit drugs. In 2009, the World Health Organization (WHO) reported that 34 million counterfeit tablets had been taken out of circulation in Europe in just a two-month period.

There are many examples about counterfeit drugs circulating in black market channels and the places in which it is the biggest recurring

FAST FACT

34 MILLION COUNTERFEIT TABLETS WERE TAKEN OUT OF CIRCULATION IN EUROPE IN A TWO-MONTH PERIOD.

Source: WHO: Growing Threat from Counterfeit Medicines, 2010

problem is in the developing world where, in Africa and parts of Asia and Latin America, the proportion of counterfeit medicines has been estimated to be as high as 30%.

Pharmaceutical companies have to manage incredibly complex supply chains and manage the operational challenges of working and interacting with huge numbers of suppliers contributing ingredients and components to drug production. And now they need to meet track and trace directives and comply with new serialization regulations that require inventory to be auditable as it moves through the supply chain.

The two experts say companies coming to grips with serialization should consider if their existing supply chain management systems and processes provide:

- Accurate information across the entire chain at any point and at any location.
- Instant access to real-time updates and alerts if issues are detected.
- **3.** Visibility of all handovers in the supply chain.
- 4. Traceability back to source of all materials.
- 5. Seamless collaboration between all parties.

They add that traditional ERP systems do not provide a holistic and complete view of the production and movement of goods from start to finish that is now needed. With these traditional models, each link in the supply chain has its own systems that often cannot connect into each other so the level of visibility so desperately sought is difficult, if not impossible, to achieve. Networking suppliers, partners, and logistics providers along the supply chain can offer a more comprehensive view of activities. Organizations need a collaborative system that is equipped with reliable information throughout the supply chain. The first step toward achieving the directives of track and trace and serialization is to improve visibility throughout the supply chain. Until a company can see all the activity taking place among its suppliers, shippers, vendors, and partners, it'll struggle to prevent leaks in supply chain and — importantly — have a hard time showing regulators they're following the rules.

A cloud-based supply chain management platform offers visibility to all companies, regardless of size. For a large, multinational pharma business, access to data from all operational regions allows for greater awareness of growth areas, understanding of where hold-ups might exist in the supply chain, and insight into how these might be navigated in order to avoid impact on distribution. And crucially, this can help track and trace via serialization.

PwC analysts say as scientific advances enable the industry to move from a one-sizefits-all approach to care to one of segmentation, personalization and wellness, the supply chain will need to evolve. The supply chain of the future will be built around flexibility, responsiveness, and reliability shifting the supply paradigm from a stock-based model to an order-based model. Its characteristics will include: techniques to rapidly commission and decommission new products and markets; alternate supply models to match shifts in the provision of care; advanced product design and packaging to both drive patient compliance and protect intellectual property. Inventory tracking tools will need to eliminate counterfeiting and parallel-importing risks.

The Pharmaceutical Supply Chain Initiative

The Pharmaceutical Supply Chain Initiative (PSCI) was formed as a nonprofit business membership organization in 2006 and is legally established in the United States.

The vision is to create better social, economic, health, safety, and environmental outcomes for all those involved in the pharmaceutical supply chain. This includes:

- ► Fair and safe work conditions and practices
- Responsible business practices
- ► Environmental sustainability and efficient use of resources

The mission is to establish formal industry guidelines about ethics, labor, health and safety, the environment, and management systems and support suppliers to build capacity to operate in a manner consistent with those expectations.

The purpose of the initiative is to bring together the pharmaceutical industry to formalize, implement, and champion responsible supply chain practices.

The initiative's three main goals are to:

Drive leadership practices at member companies

- Enable suppliers to continuously improve
- Improve engagement across the industry and with key stakeholders

THE PRINCIPLES

The principles set the guidelines for ethics, labor, health and safety, environment, and related management systems.

As a first step, the PSCI created the Pharmaceutical Industry Principles for Responsible Supply Chain Management to articulate what the industry expects from the supply chain.

These principles address five areas of responsible business practices: ethics, labor, health and safety, environment, and management systems.

In each area they set out the relevant practices any business operating within the pharmaceutical supply chain is expected to uphold.

All members are expected to support and incorporate the principles into their supply agreements.

For more information, visit http://pscinitiative.org.

Top 10 Global Health Pharmaceutical Supply Chain Challenges

- 1. Lack of coordination
- 2. Inventory management
- 3. Absent demand information
- 4. Human resource dependency
- 5. Order management
- Shortage avoidance
- 7. Expiration
- 8. Warehouse management
- 9. Temperature control
- 10. Shipment visibility

Source: GT Nexus, an Infor company For more information, visit infor.com

