

Fulfillment Competency is a Life Science Game Changer

Abstract

Human life spans are higher than ever before in recorded history, in large part because of innovations in the life sciences and pharma industry. Despite unprecedented progress, there is no shortage of new frontiers to cross and this sector is set for continued rapid growth across the world. Significant opportunities exist, particularly in emerging markets, which often lag behind in utilizing developments in the life sciences industry. Yet it is a complex sector to navigate. There are exceptional challenges across the value chain, from target selection and drug discovery/medical devices design and development, to manufacturing, supply chain planning, and sales and marketing. With an array of products and services to choose from, customers are becoming more knowledgeable and demanding, and regulations further add to the complexity.

Distribution, specifically customer fulfillment, is seeing disruption with the rapid expansion of the direct-to-patient homecare market, forcing innovation around traditional operational models. Similarly, medical devices, accessories and supplies are needed at the point of use in the hospitals and clinics on a 'just-in-time' basis since most of these facilities are not set up for storing inventory. While technology has made it easier to place online orders, fulfillment of the orders remains a weak point for many companies. The life sciences industry is ripe for reform and companies will feel the pressure to explore newer models of distribution, logistics and warehouse management to service the customer better.

This paper discusses strategies and solutions that can help the life sciences industry tackle critical operational and fulfillment challenges for greater productivity and growth.

Outsourcing Fulfillment Operations Boosts Capabilities

Some life sciences companies prefer to retain control over their own operations while others are re-examining their distribution strategies to implement an outsourced model, either when launching a new product, or when in need of additional warehousing or transportation capacity.

Outsourcing often bolsters a company's capacity to penetrate new markets and attend to multiple customer segments. A third-party logistics partner (3PL) with an established global network can expand distribution to a larger population of consumers and provide inbound services from manufacturing to consumption sites globally.

An outsourced partner can also open up new revenue streams. Let's take the case of non-adherence, the latest pressing issue in the US healthcare system. It is reported that widespread non-adherence to prescribed medications is set to cause 125,000 deaths annually, increase hospitalizations by at least 10% and add healthcare costs of \$100 to \$289 billion a year¹. The Silicon Valley startup, Proteus Digital Health, aims to solve the problem of prescription adherence. Its 'smart pill' platform, Discover², helps doctors track whether or not patients are following their drug protocol with the help of ingestible sensors that communicate with a smartphone app.

Adopt Best of Breed Strategies for Frictionless Operations and Warehouse Management

Whatever route a business chooses, whether internal or outsourced, fulfillment accuracy cannot be achieved until the company builds its capabilities to run operations and manage warehouses in a frictionless and cost effective manner. Key tasks such as batch management, serialization, and unit management must work together in real time. An efficient warehouse management system (WMS) that works seamlessly across inbound processing, inventory management, and outbound processing, is the key.

Life sciences companies must invest in the space and technology required to run a WMS that lets them meet diverse customers' needs. A well thought out engagement

management framework will ensure a time and cost efficient WMS, the ultimate success of which depends on a harmonious functioning of its key components.

Figure 1 describes the key components of a WMS.

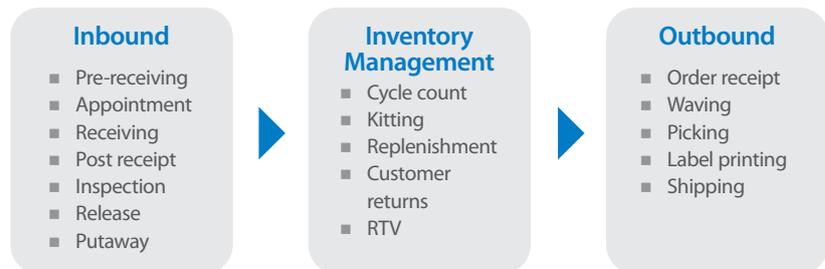


Figure 1: Inbound Processing, Inventory Management, and Outbound Processing under WMS

Inbound processing involves a detailed review of purchase orders, receiving inspection, put away to storage, and returns processing. As and when the need arises, companies must be able to quarantine identified inbound materials in a warehouse to prevent the held batches from being picked. Similarly the system should allow any outbound materials with inspection issues to be placed on 'ship hold' and sent to outbound exceptions storage. Once issues are resolved and all quality approvals are obtained, the materials could be removed from ship hold and put back into operations where possible or sent for reconciliation/recall.

Outbound processing requires review of the customer order, leading to pick task creation, order consolidation, order picking, routing, audit, kitting, manifesting, and shipping. Labels on products, packages, and international documents must be compliant with the ever-changing regulations. Efficient delivery is the key.

Inventory picking and allocation must be synchronized with the customer order management system, financial systems, and the WMS. Slotting helps reduce travel time, increase picking accuracy, eliminate injuries, and increase both labor and warehouse space utilization. It determines the best place to store each SKU based on a variety of factors. A detailed analysis of the operational flow in the distribution center increases efficiencies. Labor productivity can be improved by forecasting workforce requirements, tracking and optimizing schedules, and setting incentive pay to reduce labor costs.

Kitting (the process of packaging diverse SKUs into a new SKU) and fulfillment need not be done manually. Technological advances and well-qualified personnel can reduce processing errors in the warehouse.

Figure 2 shows how a well-planned fulfillment operation supported by a WMS solution can help a company gain strategic advantage. Furthermore, a well-planned engagement framework is critical to the implementation of a WMS system.



Figure 2: Benefits of a WMS driven fulfillment operation

A detailed assessment of business drivers and warehouse processes helps build a suitable business case to set up KPIs and achieve warehouse effectiveness. A WMS solution must be inter-woven with other ERP applications for seamless implementation and support functions involving full product traceability, multiple simultaneous holds, quality control inspections, packaging, assembly, and kitting. As well as processes, human resource competency with WMS training, planning, communications, and change readiness is crucial.

Gain Strategic Advantage with a Well Defined IT Strategy for Fulfillment

The company's IT strategy for fulfillment should be well thought out in view of current business processes, requirements, and growth areas, and go beyond listing applications to be deployed. In the context of global fulfillment operations, rich content visualization, mobile technologies, multiple applications on healthcare, and enhanced human

experience, are reshaping customer experience. Forward-looking companies are also capitalizing on sophisticated analytics to offer interesting solutions for operations and fulfillment.

Recently, GE Healthcare and the Johns Hopkins Hospital³ launched a fully digital hub to manage everyday operations. With predictive analytics, the Judy Reitz Capacity Command Center turns nearly 500 messages received every minute into meaningful suggestions for action. This has saved the Center an hour's worth of time usually needed to dispatch an ambulance to another facility, while also making it possible to assign beds in emergency rooms 30% faster.

IBM Watson Health⁴ feasts on electronic medical records and clinical data to find hidden patterns and new knowledge within them. Recently, it struck a deal with a community hospital in Florida that can now harness the supercomputer's power to match cancer patients with the treatments most likely to help them. Leveraging insights like these will require increasingly fine-tuned fulfillment services.

Capitalize on the Growth Opportunities in Pharma and Life Sciences

Operational excellence is critical for survival and growth in today's competitive pharma and life sciences environment. Companies have to move away from vanilla operational metrics like turnaround time to metrics that tie fulfillment to the end customer experience.

Forward-looking leaders understand that profitability is impossible without efficient operations. Warehouse management capabilities have a profound impact on the bottom line, helping boost fulfillment capabilities and productivity. An efficient WMS lets you build your company's ability to provide the right products with the right quality attributes at the right time. Warehousing has traditionally been seen as a support function; however, the need to ensure flexible global fulfillment in a timely manner while meeting the stringent compliance requirements is compelling life sciences companies to look for increasingly sophisticated applications to meet their critical fulfillment challenges.

Reference

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About The Author

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TK has over 25 years of experience helping Fortune 500 companies drive supply chain transformation, and is a Director in the Consulting and Systems Integration Practice at Tata Consultancy Service (TCS). He has advised a number of companies in consumer, life sciences, high tech and utilities industries on supply chain strategy and enterprise transformation programs, with focus on the roadmap for business process transformation and standardization of business processes with measured business benefits. He has an MBA in Operations Management (Georgia State University, Atlanta), MS in Project Engineering and BS in Chemical Engineering (BITS, Pilani, India).

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