

Introduction

Many years ago, Toyota's Production Control and Logistics Department in Japan set out to optimize the entire fulfillment stream from raw materials to customers. To do so, they pioneered two key concepts: total cost of fulfillment and collaboration across all functions and firms. They supported these concepts with the familiar lean tools of leveled production, pull signals, and just-in-time deliveries.

Total cost of fulfillment recognizes that the fulfillment stream is the sum of many parts, and that each part generates costs that ultimately must be paid by the customer. Most companies calculate costs at points within departments: for example, the piece-price paid by the purchasing department to a supplier, the cost of rework in operations, the carrying cost of inventory in a distribution facility, or the cost to transport goods from the firm to its customers. But few companies calculate the total cost of all of these activities across the whole fulfillment stream. Embracing the total cost of fulfillment changes the way managers think, with major benefits for all the firms along the stream.

Collaboration across functions and firms becomes an obvious necessity once managers adopt the goal of minimizing the total cost of fulfillment. This goal requires a joint examination of the entire fulfillment stream to determine total costs as the stream currently functions. And it requires a joint effort to envision a better fulfillment stream that can benefit all of the firms involved.

Collaborating to create the lean fulfillment stream in Japan was a heroic feat, but Toyota had significant advantages: The Toyota Group of suppliers was (and is) tightly interlocked through shared equity, and the distribution channel also was jointly owned. So Toyota could give firm directions to its suppliers and distributors about adopting new techniques. The suppliers also were tightly concentrated in Toyota City, which eased both logistics and problem-solving. Finally, and perhaps most importantly, Toyota was able to teach its managers—including many transferred to its suppliers and distribution channels—to see the fulfillment stream and to fully support lean principles.

The challenges for readers of this work book are quite different. Many will be operating within departments with narrow mandates that often cause individuals to work at cross-purposes: i.e., the purchasing department focuses on lowest piece-part prices and

variance analysis while telling suppliers to cover the cost of freight; the production department works hard to keep assets—people and machines—fully occupied to cover standard costs, often driving overproduction and extra storage; and downstream customers usually behave similarly with their logistics, purchasing, and production practices.

Is anyone in your organization trying to calculate and minimize total fulfillment costs for the entire stream? The answer is likely “No.” Breaking through this suboptimizing approach requires a new way of thinking and a new way of telling the critically important story of your fulfillment stream.

In this workbook we will explore the tools lean-minded leaders can use to engage all of the functions and firms along the fulfillment stream. We will describe the critical principles of a lean fulfillment stream, and show how the total cost of fulfillment can be visualized, mapped, and calculated. This will bring us to the most important part of the book: how real managers in real firms can collaborate to minimize total costs.

As in other LEI workbooks, we will teach by example, showing how the ABE Corp.—a composite of many firms with which we have worked—goes about determining their current state, envisions a future state, develops an implementation plan, and steadily makes the transition to a lean fulfillment stream.

Let’s get started.

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