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## Supply Chain Management at Beautiful Bags

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It was June 2014. Vince Sheehy, senior director of merchandise management at Beautiful Bags (BB), was about to place a large order for the upcoming winter season. In four months, he would need to deliver the merchandise ordered now to BB stores and more than 3,000 retail partners. His design team had spent the past several months touring fashion shows throughout the world, and after a significant testing and vetting process, it had settled on the colors, patterns, and items it thought would resonate most highly with BB customers. Now Sheehy had to make a decision regarding how many pieces he should order of each SKU.<sup>1</sup>

Sheehy had two primary locations to choose from for manufacturing finished products: BB's six partner suppliers in China, and a domestic production facility located just 20 minutes down the road from BB's distribution center. Sheehy used historical sales figures to estimate demand for each of BB's nearly 6,000 SKUs, but given the vagaries of the fashion industry, accurately predicting customer demand was notoriously difficult. Merchandise sourced from China was less expensive, but the large order quantities and four-month lead times for receiving an order increased BB's risk exposure in a trend-intensive business.

### The Company

BB made quilted cotton bags in bright, pretty patterns.<sup>2</sup> The company was founded in 1982 in King of Prussia, Pennsylvania, by two friends, Millie Patrick and Jean Marcus. Operations first began in Marcus's basement, aided by \$500 worth of cloth, thread, and sewing machines. A key to BB's success was its use of proprietary patterns. BB cycled through four new patterns a year. From these four patterns, nearly 100 different styles of handbags, wallets, and luggage pieces were created each year.

Historically, BB had focused on selling wholesale quantities to its partner retailers. Since 2010, the company had expanded into other channels by launching its 87 BB corporate stores (where full-price merchandise was sold), 13 BB outlets (where discounted merchandise was sold), and an e-commerce website.<sup>3</sup> Interestingly, according to data collected by the company, only 7% to 10% of BB customers shopped in more than one of these channels. In other words, there was very little intersection between shoppers who first saw a full-price item in a flagship store and then took the time to shop for that same item at a discount.

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<sup>1</sup> SKU = stock keeping unit.

<sup>2</sup> Below is a reference for the terms used to describe BB's merchandise:

Style: A type of bag, wallet, or luggage—similar to a vehicle model.

Pattern: A full-color design that is printed on fabric.

Product: A style in a particular pattern (the SKU).

<sup>3</sup> In 2010, BB became a publicly traded company.

As the company grew, the number of different styles and patterns also expanded—and the process for ordering and managing inventory became far more complex. In 2014, BB was considering changes to its inventory management practices that it hoped would lead to greater flexibility, reduced costs, and a potential increase in working capital that could be directed toward growth projects such as BB's channel expansion.

### The Thomas Jefferson Lane Facility

In 2009, BB built a domestic production facility to support manufacturing of BB bags and other sewn products, such as tablet sleeves, eyeglass cases, placemats, and napkins. The Thomas Jefferson Lane facility (TJL) provided the company a great deal of flexibility, which was needed because BB maintained so many different SKUs and because fashion sales were difficult to predict.<sup>4</sup> The facility also allowed BB to maintain a high degree of customer service. In a very short time period, TJL could offset any inventory shortages that might be occurring in one of BB's distribution channels. Despite an average cost per bag that was nearly double the cost of the same bag made in China, TJL had proved invaluable as a way to meet shortages on top sellers and keep BB's retail partners and customers happy each season.

TJL used Lean manufacturing practices and a combination of automation and skilled labor. The standard production process for a bag was as follows. First, quilting machines would sandwich a roll of foam between two sheets of cotton fabric—the top layer, which would become the outside of the bag, and the bottom layer, which would become the inside lining of the bag. A single machine could quilt the three layers of a bag together in a classic diamond pattern at a rate of 360 yards per hour. The finished rolls of quilted fabric would then be moved to a spreader, which would roll out lengths of quilt and cut them to a specific size. The cut sheets were stacked by hand and became a kit, or batch. The number of bags in the kit depended on the style of bag and the number of quilted sheets. For instance, a stack of 20 sheets of quilt could make a kit of 100 small bags or 10 duffel bags.

The kit was then passed through a cutting machine, which compressed the stack of quilted sheets and cut a preset pattern of shapes from the kit. The kits were placed on movable, wheeled racks and combined with purchased parts such as zippers, snaps, and buckles, along with component parts manufactured in the facility such as basting and trim. The wheeled racks then were moved through several departments that partially assembled the kits before arriving at the finishing stations, where all the parts were put together into finished bags. In 2014, the facility had experimented with a few production cells wherein kits were fully assembled one at a time by workers who stood rather than sat.

### The Buying Decision

Under the current sourcing policy, a broad assortment of SKUs was ordered four times per year. Each season (i.e., a quarter that corresponded to a fashion season), a purchase order (PO) was issued to BB's Chinese suppliers for every type of product BB planned to carry that season. The lead time for receiving finished goods from the Chinese suppliers after placing the order was 120 days. The order quantities for each item were based on historical sales figures. Shortages and overages were common. Reorders of in-season products, sourced from TJL, were completed as part of in-season product management.

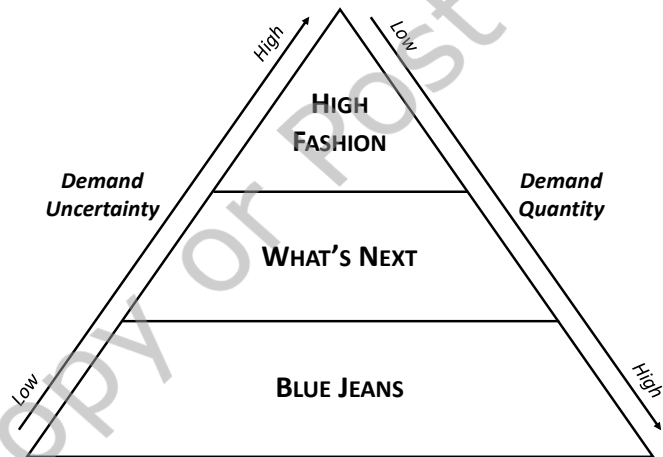
BB's best margins were earned on new product sold at retail price through the company's own channels—the website or corporate stores. BB made lower margins on new product sold wholesale to its retail partners. As excess inventory became dated, BB had several options for recouping some portion of its inventory

<sup>4</sup> BB originally attempted to work with contract manufacturers, but due to its large assortment and changing demands, the cost was too high.

investment. BB's first choice for selling more dated product was to sell it at a discount through its outlet stores. Items not sold in the current season, therefore, might remain on the web for an extended period of time and also be available in the factory outlet, assuming there was some velocity to the sales. The second choice for selling more dated inventory was through third-party liquidators such as T.J. Maxx and Marshalls. If the velocity, or rate of sale, slowed for a particular SKU, it would be moved to an annual outlet sale at the King of Prussia Convention Center (where many items had been in inventory for up to a year).

The numerous SKUs, patterns, and retail channels that sold BB products made it challenging to order inventory four months in advance. Sheehy wanted to implement three changes to simplify the inventory management process. First, he advocated for segmentation of BB's product lines into different categories. BB leadership had been moving toward a model that Sheehy called the "retail pyramid," which categorized the SKUs that BB might carry at any given time into three strata: "blue jeans," "what's next," and "high fashion" (Figure 1). Blue-jean products were tried-and-true BB styles that had steady demand—flagship sellers and consistent basics such as the BB bag, the hipster, and the tote. These products were here to stay, and they composed the base of the pyramid. Orders in excess of demand for these products would most likely be sold during the next quarter.

Figure 1. The retail pyramid.



Source: Created by case writer.

Products in the what's-next bracket were the products with a moderate amount of demand uncertainty. Due to this uncertainty, it was harder to forecast demand for these products—they didn't yet qualify as blue-jean products and were a bit more on trend,<sup>5</sup> so a shorter fashion life cycle was expected. What's-next products often had high demand, but usually not as large as blue-jean products. Funding these what's-next products, it was hoped, would produce a new crop of blue-jean products, updated for the next generation.

High fashion, the pinnacle of the pyramid, represented new SKUs that were extremely difficult to forecast and that held the most uncertainty. They were the fashion experiments; the exclusive, limited collections; and the test products. For the most part, they were destined for BB's corporate stores, to be debuted at full price in order to better collect information about their sales patterns.

The old way of thinking about merchandising at BB, according to Sheehy, had been generally limited to focusing on products that fell into the bottom tier—the blue jeans. Products that did not fit into this category were typically managed outside of the system by a single merchandiser. Sheehy believed that by embracing the other products that BB's next generation of customers might purchase and by adopting a more structured approach for the what's-next and high-fashion products, BB could maximize its use of resources and build new blue-jean products into its pipeline.

<sup>5</sup> *On trend* meant that the product or style had a shorter expected life-span and was a trendy piece rather than a classic piece. Buyers, who were predominantly women, invested in classic and timeless clothing and accessories when they wanted to be sure that they would be in style for years. On-trend clothing, in contrast, was expected to go out of style.