



## Zappos: Leveraging Customer Service, Culture, and Next-Gen Fulfillment

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Bruce Richardson

If you have ever talked to one of the nine million people who have purchased shoes or accessories from **Zappos.com**, you have undoubtedly heard the same compliment: "They have great customer service." When you buy a pair of shoes, the company provides free shipping, usually for next-day delivery. If for any reason you're not happy with your purchase, you have 365 days to return it, and that shipping is free. Unsure of the size or color? Zappos will ship you two pairs. Return the unwanted pair, and the company will pay for those shipping charges too.

Need to talk to a human? No problem. Zappos provides an 800 number on every page of its website. There are no time limits on the call, nor are the reps given incentives to try to upsell you or increase the average order size. In addition, if Zappos doesn't carry the product you want, they will happily refer you to competitors' websites.

### From zero to \$1B in gross sales in nine years of business

Oh, did I mention that Zappos' 2008 sales topped \$1B, way up from the \$1.6M reported in 2000? On a typical day, about three-quarters of purchases are from repeat customers. The focus on strong customer service works; a staggering 43% of new customers are drawn to the site, thanks to positive word of mouth.

The company is leading a charmed life. In February, *FORTUNE* named it No. 23 on its list of 100 Best Companies to Work For. A few weeks later, *BusinessWeek* ranked Zappos seventh on its 2009 list of the top 25 Customer Service Champs, ahead of perennial customer favorites like **Four Seasons Hotel and Resorts**, **Nordstrom**, **BMW**, and **L.L.Bean**.

### The world's largest carousel, four stories high

Last week I spent 45 minutes on a tour of Zappos' headquarters in Henderson, Nevada, a suburb of Las Vegas. While this place is an adventure in company culture (see "Zappos' Culture: Think 'PeeWee's Playhouse, The Work Edition'" on my blog), I quickly sensed I should have gone to Shepherdsville, Kentucky, to see Zappos' giant fulfillment center instead.

While you're waiting in the lobby for your tour to begin, you can easily be distracted by a three-minute video of the Kentucky site. The fulfillment center consists of 832,000 square feet, though not all of it's in use. Inside the site, a 23,000-foot conveyor winds through much of the building, holding up to three millions units. Unfortunately, there was no narration to describe what you were seeing. In hindsight, though, matching the video with the soundtrack to **Walt Disney's Fantasia** would be more in keeping with the Zappos spirit.

The company has more than four million pairs of shoes and other items in stock. This represents over 1,300 brands, 150,000 styles, and 800,000 unique UPCs. It only sells products in stock. There are no drop ships.

### From customer order to truck in 12 minutes

While on the tour, I noticed a reference on a bulletin board to a new material-handling system from **Kiva Systems**. It was unclear whether Zappos had deployed the revolutionary robotic system, or if this was still in a pilot phase.

When I got back to Boston, I Googled "Zappos and Kiva" and found a fascinating video on YouTube. It's worth investing seven-plus minutes to watch it.

When an order is received in the warehouse, a message is sent to a robot to retrieve the custom rack or bin, which is then delivered to a picker. The robots look like oversized, orange Roombas, the vacuum cleaning machines made by **iRobot**. They operate in a state of perpetual motion, delivering a never-ending queue of orders for the picker.

On the carousel side of the warehouse, it takes anywhere from 48 minutes to 3.5 hours to fulfill an order. In the video, Craig Adkins, vice president of services and operations, explained that the sub-hour time came as a result of additional capital investment in material handling. Using Kiva, the time has been reduced to 12 minutes.

The carousel consumes 416,000 square feet. In contrast, the Kiva system takes 80% less space. The Kiva side is also much quieter, uses less energy, and requires half the labor. Productivity is at least double that of the carousel, and requires less training for new employees—under four hours, compared to four days. The carousel is noisy, needs to be climate controlled, and well lit. Its 600 motors run 24-7, consuming lots of electricity.

## **"Lights out" fulfillment**

In contrast, most of the Kiva side of the center operates without lighting. For the most part, the robots operate in a "personnel exclusion zone." This has the added benefit of reducing shrinkage, which will become important as Zappos adds jewelry and watches.

If you've ever watched the baggage system at a large airport, you quickly notice some bags fit better than others. The same is true of merchandise. In the video, Mr. Adkins talks about adding bulky items like baseball bats, golf clubs, and golf bags. Kiva can easily accommodate new items.

Zappos signed the deal with Kiva in February 2008 and was using the robots to pick orders by June. Based on the results to date, you can see why Mr. Adkins is looking forward to the day when fulfillment is "100% Kiva."

## **Want to know more? Come see Zappos' Amanda Nevins at our conference**

When I was standing in the lobby waiting to sign in, the background music was smooth jazz. This is an effective metaphor for Zappos' operations, from order-taking to fulfillment.

With this in mind, I'm very happy to announce Amanda Nevins will be joining me on stage at our upcoming Supply Chain Executive Conference on May 27-29 at the Phoenician Resort in Scottsdale, Arizona. Ms. Nevins is the chief accounting officer and vice president of finance at Zappos. This will be a can't-miss session.

In addition, we'll be meeting with Kiva later this month to get a deeper overview of the company's current and future plans. You won't want to miss this coverage either.

## **What do you think?**

Are you one of the nine million Zappos customers? Did you find the service to be better than Nordstrom? Would you like to replace your tired, old material-handling system with one that would amaze even George Jetson? Do you dream of a lights-out fulfillment center with a 100% personnel exclusion zone? As always, I welcome your feedback and ideas—[brichardson@amrresearch.com](mailto:brichardson@amrresearch.com).