

# Transformance Communiqué

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## Customers Want Lean

Many organizations have made dramatic improvements in operational and bottom line performance by adopting the philosophy of Lean Manufacturing. Those companies that have not yet adopted the philosophy may be feeling pressure from their supply chain partners who are Lean. Global competitiveness is increasingly based upon the effectiveness of an entire supply chain. In this regard, a supply chain that only contains one or two organizations that are Lean is no match for a supply chain that is Lean from end-to-end.

If you are feeling pressure from your customers to become more responsive, then you need to understand why your customer's expectations are rising.

### Why Expectations Are Rising

There are four major areas that are driving significant increases in customer expectations. These areas are:

- A. Make To Order Business Models
- B. Increased Promotional Activity
- C. Increased Private Labeling
- D. Global Competitive Cost Pressures

**A. Make To Order Business Models:** Many companies have leveraged Lean philosophies to significantly reduce their cycle times. This allows them to wait for actual customer orders before starting production. A focus on common platforms and common components also allows these same companies to dramatically increase the number of final configurations that they sell. For example, a manufacturer of flow meters is redesigning its products to reduce the number of platforms, but

significantly increase the number of available options. The result will be an explosion in final configurations to over five million potential end items. This company leverages Lean and ships orders in less than a week via an Assemble To Order business model.

**B. Increased Promotional Activity:** The fragmentation of many markets requires targeted promotions. The one-size-fits-all approach is inadequate. Many promotions require customized packaging and other printed materials and are targeted to specific niche markets. In addition, there is intense pressure to reduce the cycle time to design and launch a promotion. For example, a promotion by a competitor could be cutting into sales and a response is needed *now*, not in 12 weeks. Another aspect of promotions is the difficulty in predicting their effectiveness. Building up large inventories just to be safe is no longer tolerated. The better approach is to leverage a flexible supply chain ready to ramp-up production to meet increased demand.

**C. Increased Private Labeling:** Market power has shifted in many industries to large retailers, such as Wal-Mart, Target, Best Buy, Costco, and OfficeMax. These retailers are seeking to private label many products as this tends to be more profitable. It is common for a manufacturer to have the same item in dozens of different packages. Alternatively, by leveraging the advantages of Lean, many manufacturers are able to offer different configurations of a base item in addition to the private label packaging. The same concepts apply to industrial customers, such as Sysco, IBM, and Ford. For example, IBM may sell a data storage unit built by another company, but all of the tags and labels on the equipment will identify IBM as the supplier of the product.

**D. Global Competitive Cost Pressures:** There is tremendous pressure to drive down costs, and as discussed earlier, successful supply chains will be the long term survivors. As an example, Honda has worked intensely with its suppliers to bring new cars to market at an estimated savings of 25% on total cost to produce! Toyota, as the leader in Lean, sends its experts to work with suppliers to adopt Lean and eliminate waste in

their operations. Companies in other industries are aggressively attacking waste with inventory being one of the highest priorities. Many companies that have adopted Lean are now applying pressure on their suppliers and expecting to see significantly improvements in service and costs.

### Summary

Those companies that have adopted a Lean philosophy within their own organizations are now seeking to drive the same approach to their supply chain partners. Suppliers to these Lean organizations have a tremendous opportunity to meet the challenge of increased customer expectations.

To learn more about the philosophy of Lean, contact Mike Loughrin at:  
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**We are collaborating with a number of APICS chapters to bring our seminars to their members this spring.**

**The following seminars are scheduled for various locations in North America:**

**Demand Management  
Physical Inventory Management  
Project Management  
Crafting a World Class Supply Chain  
Supply Management**

**Check out the dates and locations at:  
[www.transformanceadvisors.com/seminars](http://www.transformanceadvisors.com/seminars)**

**For more information or to be notified when we will be in your area, send an email to:  
[seminar@transformanceadvisors.com](mailto:seminar@transformanceadvisors.com)**

## Automated Data Capture (ADC) Technologies

Data capture technologies are used to automate manual data entry processes. For example, prior to bar codes, checking out at a grocery store required the clerk to manually enter each item's price, at the very least. ADC technologies reduce human errors, increase productivity, and reduce processing time.

### History

Bar codes have existed since the 1950s, but didn't gain widespread adoption until the mid-1970s. In June of 1974, the first Universal Product Code

(UPC) barcode scanner was installed at a Marsh's supermarket in Troy, Ohio. The first retail product scanned was a pack of Wrigley's Gum!

**R**adio **F**requency **I**dentification (RFID) was invented in the 1940s for identifying friendly or enemy aircraft in World War II. Since the 1980s RFID was used for rail car tracking and animal tagging. Furthermore, most people don't realize that RFID is the technology behind automated highway tolls. Many technologies, such as wireless networking, handheld computing, ERP, and WMS systems have been developed or refined to take advantage of barcodes and RFID.

By integrating barcodes and/or RFID tags into a complete system, companies gain significant competitive advantages. These gains are best realized by continuously looking at process automation through ADC technologies.

### Current Situation

It wasn't until June 2003, with the almost simultaneous announcements of RFID mandates by Wal-Mart and the Department of Defense that RFID began to see widespread adoption. Wal-Mart has eased up on the mandate, because it was asking too much in too short a time frame, but they are still requesting their top 100 suppliers to provide pallet level RFID tracking by this month – January 2005. By automatically scanning a single RFID tag, which relates to the contents of a pallet, Wal-Mart expects to realize a savings of \$8.35 billion per year. The Department of Defense has a similar mandate, and is requiring all of their suppliers to ship box and pallet level RFID tags.

Another application for ADC technologies is situations where accuracy is paramount. An example of this is the recommendation by the FDA that patients and medications are "linked" through RFID technologies and software, to eliminate potential medication errors.

### Future Situation

As supply chains become more integrated, and information sharing between partners becomes commonplace, data capture technologies become critically important. Supply chain information is increasingly becoming shared information, as evidenced by retailers like Wal-Mart and suppliers like HP.

When information is improved through the use of ADC technologies, and then shared with suppliers and customers, the real time visibility can result in

significant inventory reductions and improved accuracy throughout the supply chain.

To learn more about Automated Data Capture Technologies, contact Scott Jewell at: [jewells@supplychainengineering.com](mailto:jewells@supplychainengineering.com)

**Our Demand Management seminar is coming to Chicago and Denver in February!**

Check out the dates and locations at [www.transformanceadvisors.com/seminars](http://www.transformanceadvisors.com/seminars)

For more information or to be notified when we will be in your area, send an email to: [seminar@transformanceadvisors.com](mailto:seminar@transformanceadvisors.com)

## The Six Sigma Training Question

In the last 10 years, hundreds (perhaps thousands) of companies have spent huge dollars training their employees to become black belts, green belts, and, in some cases, yellow belts. Although there is little doubt that, when implemented correctly, the six sigma methodologies will benefit any company; a key question must be asked before jumping into an initiative: ***What training is necessary to effectively implement six sigma?***

There are basically two types of six sigma training courses available: a four-week (160-hour) black belt course and a two-week (80-hour) green belt course. Some firms have also developed a yellow belt course, which is shorter than the green belt course. To be certified as a black belt, one has to attend a four-week black belt course and successfully complete one, or in some cases, two six sigma projects. For green belts, the completion of a project is usually waived.

Because black belts (and, to a lesser extent, green belts) are expected to not only collect data but also perform their own data analysis as part of their problem-solving effort, they have to be trained to become (six sigma) statisticians. The statistical training in most six sigma black belt courses requires as much as 50 percent of the total training time, which begs an obvious question: ***Do managers need to be trained as statisticians?*** Or is it more cost effective to employ a statistician who can consult with management on problem-solving projects?

Green belt and black belt training courses are the backbone of six sigma training offered by most six sigma consulting firms. Although each firm offers

its own variety of black belt and green belt training, many of these courses cover essentially the same material. The foundation of most, if not all, six sigma courses consist of:

1. An introduction to the DMAIC (define, measure, analyze, improve/innovate, and control) processes. (The most valuable contribution of six sigma methodology.)
2. An introduction to a host of well-established and proven problem-solving and quality function development tools such as cause-and-effect diagram, tree diagram, affinity diagram, flow charting, process mapping, cause-and-effect matrix, and others depending on the training firm.
3. An introduction to team facilitating. (Not covered by all training firms.)
4. An introduction to the various types of data such as continuous versus attribute.
5. A presentation of various introductory and advanced statistical topics and techniques, which includes but is not limited to: hypothesis testing, sampling theory, t-test, one-way and two-way analysis of variance, regression analysis, design of experiment, response, and surface analysis.

For black belts, this last item usually requires at least 80 hours of training. Because statisticians are invariably required to analyze data, participants are also required to not only learn how to use a statistical software package, but also interpret the seemingly endless stream of statistical coefficients produced by these software packages.

To learn more about Six Sigma, contact Jim Lamprecht at [jimlamprecht@earthlink.net](mailto:jimlamprecht@earthlink.net)

### Contact Us

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