

THE next **BIG** clean

*Groundbreaking author James Womack
finds a new frontier in consumption*

BY MONICA ELLIOTT



Photos courtesy/ FAY FOTO/Boston

HOW FRUSTRATED ARE YOU AS A consumer? With so many dependent parts, complicated operating instructions, and unhelpful customer help lines, a basic purchase can become a basic nightmare. Even the steps it takes to acquire a product in today's market of myriad choices, particularly technology-based products, can be overwhelming.

James Womack, Ph.D., renowned co-author of the groundbreaking book *Lean Thinking*, says his mission in recent years has been to rehabilitate process thinking and raise its level of respectabil-

ity and visibility. In their book *Lean Consumption*, Womack and co-author Daniel Jones demonstrate that the way consumers are forced to make purchases needs some rehabilitating of its own. The book, which is due out this fall, applies lean concepts to this confusing process and lays out six principles that encompass how to solve customers' problems conveniently and quickly with minimal waste.

In this interview, Womack shares the impetus of their ideas and the benefits of their approach.

the next big lean

IE: How does process analysis come into play with consumers?

Womack: All of us are wearing two hats: We have our consumer hat and our provider hat. When you're down at the factory, it's pretty easy, at least for the IE, to think as a process thinker. But when you go home and put your consumer hat on, most people don't actually apply the rigor to consuming that they did to producing. What we tend to do is supply what we call bad people analysis. You go out to the airport to take a trip and you note that nothing works quite right. Then you just try to figure out who to blame it on. It's really interesting how quickly your thought process degenerates into just "I'm good" and "Who's bad," when in fact what you've got is a defective process.

IE: How does it relate to industrial engineering?

Womack: Industrial engineering is about how you take a process and figure out what the process is and then you figure out how to make the process better. A process is all of the steps or actions you have to take to create some value so that all value in life is the result of a process. As a society, we are not very good at doing process analysis, and that's what IEs really

came into the world to do a century ago. ... Therefore, there should be complete compatibility between what IEs do and what anybody would be doing that wanted to think about lean consumption.

IE: What is lean consumption?

Womack: Point one is that [providers] need to completely solve your problem. Everything needs to work. Point two is really such a simple one: but don't waste my time. If everyone had a meter on them and anytime they dealt with a provider organization they could turn the meter on and the price of your product was reduced the more time you had to spend messing with it, it would be amazing what would happen. But we've gotten into a world where we talk about price rather than cost because cost to the consumer is the price of the product plus the time and hassle that you have to go through in order to get it.

...The next thing of lean consumption is these systems ought to be able to get you exactly *what* you wanted, which is to say no out-of-stocks and the right thing in the right place. ...The fact is, we could do a much better job of making sure that what you want is really in the store when you want it. We have a lengthy discussion

in the book of why it should cost less to buy a tube of toothpaste at Wal-Mart than it should at the corner store. Our view just in terms of cost is that it shouldn't. It's just ... old-fashioned scale economies thinking that big stores must be cheaper than small stores. We say the future of what we've called mass consumption is not very bright and that we really ought to move to a lean world where you can get exactly what you want *where* you want.

When you want stuff is really an interesting thing because we've all been conditioned to think that we make snap judgments and we want everything right now. ...There's been this bizarre belief — even bought by a lot of manufacturing people based on the Dell model — that manufacturers have no cost penalty in making you anything you want instantly. That's an interesting idea; it's just not true. In Phil Crosby's phrase, quality is free. ... But instantaneous response to your every whim is not free and it's never going to be free.

... Most of us, on big ticket items, actually plan quite a ways ahead. Couldn't we move to a world where you can say, "What can you do for me on price in return for telling you a year in advance?" That's the missing part of the consumer world right

SIX PRINCIPLES OF LEAN CONSUMPTION

1

Solve the customer's problem completely by ensuring that all the goods and services work and work together.

2

Don't waste the customer's time.

3

Provide exactly what the customer wants.

4

Provide what's wanted exactly where it's wanted.

5

Provide what's wanted where it's wanted exactly when it's wanted.

6

Continually aggregate solutions to reduce the customer's time and hassle.

now. Nobody is really being given an incentive to plan ahead, and indeed, everybody gets opposite incentives of endless rebates and coupons and promotion [if they buy now], which are all very expensive for the provider.

The final step of lean consumption: Why can't somebody bundle things so that you've only got to think about a few things? ... As we look at the future, we think there's potential for a different class of companies that comes in as problem solvers as opposed to product sellers. Right now, we've got a lot of companies that are really good at selling or leasing your products but not nearly so good at just solving your problems so your life is simple. So we've got a whole class of examples of things we run through in the last chapter of what we call solution providers. ... I think 20 years from now the typical household is going to have a lot fewer suppliers to deal with than they've got right now.

IE: Why have fewer suppliers?

Womack: If you look out in the manufacturing world where all this Toyota lean stuff started, everybody has reduced their supply base. And they said, "What I'd really like is a small number of suppliers that do a larger range of things for me, and because we have a continuing relationship, they really know how to solve my problem." But as consumers, you go on the Web and your personal supply base is the entire world. It's amazing that as consumers, we've been exponentially expanding our supply base, [but] when we go back to the company and put our provider/producer hats on, we say, "We used to have 5,000 suppliers, now we have 500, and if we can get it down to 250..." It just hasn't gotten to the customer yet.

WOMACK ON...



The future of manufacturing: "The future of manufacturing in the [United States] is that you have to be very customer responsive. It's going to be mostly a build-to-order world, not a build-to-stock world. And you've got to [consider] the cost — that's the hassle factor as well as the time factor. And I don't just mean the delivery lag time but the amount of time and trouble I've got to go through to deal with your company. You've really

got to take that down if you want to succeed as a domestic manufacturer; otherwise, the alternative is just to go to some guy who's offering a commodity — but, by golly, it's a cheap commodity."

Manufacturing in the United States: "If you're going to make-to-order with very sophisticated product where you need real conversation with the customer, then you should be able to do fine from a U.S. location. But what you can't do is treat your customers as if you're in China when, in fact, you're right down the road."

Why Wal-Mart should have gone to Mexico instead of China: "Boats are really cheap, but they're just too slow. Airplanes are really fast but they're just too expensive. But the great thing about trucks is they're pretty fast and really cheap. So instead of making things in China, where Wal-Mart has 30 physical days just to get something from a Chinese factory to their U.S. distribution center, you could do the same thing in Mexico and you could get it there overnight. People don't quite realize that you can get anywhere in the United States from Mexico in 48 hours. You can't get to the port in China in 48 hours. So you save a little bit on direct labor costs, but you lose a tremendous amount on the distribution, the inventories, the overstocks, the understocks, the out-of-stocks, and all that. With all the North Americans heading off to China, they would've done much better to go south. The Europeans would do much better to go east into Eastern Europe. And then the Asians — a great place to make stuff for Asians is China."

IE identification: "I get a lot of e-mails these days from people who are trying to do process improvement in a company — everybody from Amazon to Nike to Wal-Mart — and the funny thing is that they all introduce themselves in their e-mail as being on the process improvement team. Nobody ever calls themselves industrial engineers. What a shame. It's interesting because what they're doing is classic industrial engineering, and they don't even know what to call it. They say, oh, it's quality stuff. Oh, really? But you just told me that you've been doing an analysis in which you've laid out all the steps and you've concluded that there's a different way to do this that leaves about three-quarters of the stuff out. That's quality analysis? That's fine, but that's not really what it is. It is process analysis. So I'm hoping that there'll be a bounce-back here for IEs."

IE: Are you proposing that everyone eventually use just one or two major suppliers of goods and services?

Womack: You don't want *one*. The real cost and the real service to the customer is in the provision system. And doing a provision system that gets it from the factory to you is actually a much bigger part of the cost these days than what goes on at the factory. ... That's really where people spend their money, but, more to the point, spend their time. Therefore it would be great to have a few people who can help you. But we know in life you can't ever be trapped with dependence on just one person. ... So I don't advocate that at all.

IE: Doesn't this idea of minimal goods and service providers create a dilemma for small businesses?

Womack: As Dan and I look at the world, the ability to serve every customer need is going to be more important in the future so the customer will need fewer suppliers. This means suppliers with more capabilities: (a) sophisticated logistics systems to serve all formats, (b) sophisticated processes for all of their activities, (c) broad geographic reach to deal with the fact that today's customer moves around a lot. That does suggest that in the world of lean consumption being big will be an advantage for any supplier but not for the reasons we've seen in the world of mass consumption. In today's world, being able to operate big facilities and bargain hard with suppliers has been the real advantage of bigness. In the future, the advantage of bigness will be the ability to provide multiple formats to meet every consumer need, to back up these formats with sophisticated fulfillment systems, and to follow the customer wherever the customer goes.

IE: In the March *Harvard Business Review* article based on your upcoming book, you mentioned the warehousing implications of lean consumption and the nature of a pull system being applied just as in lean production. What do you think of the RFID movement as it relates to this?

Womack: In analyzing any process, one of the criteria I look at is how can we run this process with the least possible information.

Several years ago, [I observed a bar code scanning system at FedEx]. They could show you the number of lost packages, which was, say, about 20,000 missing packages. And they said, "Isn't this fantastic? We know exactly how many packages are missing and we've got a pretty good idea of where to go look for them." And I said, "Why are 20,000 packages missing? If you had a capable process, it wouldn't even occur to you that you needed this because everything would work." That's an example of the kind of moral hazard created by having all this information that took the pressure off of trying to tighten up the process so all these things didn't go wrong.

Now you get to RFID, and the purpose of RFID is that we know where everything is. And of course, everything is not where it's supposed to be, and we've got possessed with their radio transmitters looking for it. And by the way, nobody would ever switch an RFID tag to make their ship promise, would they? And none of these tags would ever malfunction, would they? I'm not saying it's a bad idea, but I'm saying for any specific business application, step one is to simplify your process. Step two is to remember dear old Dr. [W. Edwards] Deming and make every step capable so that you don't have things going wrong all the time.

THE FOUNDATION

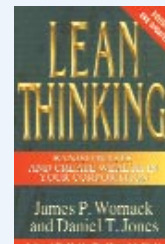
The Machine that Changed the World

by James P. Womack,
Daniel T. Jones, and Daniel Roos
Simon & Schuster Inc., 1990



Lean Thinking

by James P. Womack
and Daniel T. Jones
Originally published in 1996
Second Edition, Free Press, 2003



I'm just asking why do you need it, and right now that's not the test. The test is, can I afford it and will Wal-Mart make me do it. Those are two interesting questions, but they've got nothing to do with providing the right thing at the right time to the customer. So color me a skeptic on whether all of the hardware and software that's about to get sold here is really necessary and whether it's really going to make much difference. Start with the process. Why is the process so complicated? ... Then with the complexity that's left, you say what kind of IT do we need to help us deal with this complexity? Whereas, right now, we're starting with saying look at this wonderful new technical capability that's available. Shouldn't we all go out and buy a lot of that? ~



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