

Delphi's Sobering Message to Us All

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Publish date: November 2005 Superfactory www.superfactory.com

Editor's Note: The lean community has been discussing the implications of the Delphi bankruptcy in many online blogs as well as discussion groups such as NWLean and JSLean. A summary of several pertinent blog posts can be found on Superfactory's Evolving Excellence [blog](#) here. This article is written in blog format, with links to the original sources.

The bankruptcy filing of Delphi last month was a blow to the head of sufficient force to knock the rose colored glasses from the entire lean manufacturing community. How could Delphi, winner of so many Shingo Prizes for lean manufacturing excellence, fail? The [articles, blogs and interviews have been flying fast](#) and furious since by everyone trying to understand – or in some cases, rationalize – the Delphi fiasco.

The immediate reaction from Jim Womack, co-author of *The Machine That Changed the World* and regarded by many as the leading lean authority in the U.S., was to [explain that Delphi is lean, but that is not enough](#) to offset high costs they inherited. As a result, according to Womack, many manufacturers must become lean and move production to low cost countries.

“In fact sustainable advantage lies in combining truly lean practices in product design, operations and logistics, purchasing, and customer touch with appropriate labor costs at the right location to serve specific customers,” explains Womack.

That same explanation has come forth as the official Delphi explanation, as they set out to have the bankruptcy courts, General Motors and the UAW take them off the hook for the ‘legacy costs’ and wage rates set forth in the company’s agreements with their American workforce. Ross Robson, executive director for the Shingo Prize, [repeats the same spiel](#). “Legacy costs,” is his explanation for how the winner of two dozen Shingo Prizes can be bankrupt.

Those explanations sound reasonable enough. The cost of health care for both active and retired auto workers is certainly a huge burden for Detroit to carry. But they also sound a bit too convenient. The experts behind those explanations have a personal stake in the validity of the theory that Delphi was a Toyota-like lean manufacturer, but they failed due to circumstances beyond their control.

I wrote a piece in the Superfactory blog which received quite a bit of attention entitled [“Why Delphi Is Important”](#) in which I pointed out that Delphi had not improved either inventory turns or their total manufacturing cost picture over the least several years. I wrote, “The lesson from Delphi is not Womack’s conclusion that lean is not enough, and that companies still may have to run off to some third world country. The lesson is that looking lean is not the same as being lean. Delphi apparently was lean by every internal look; but was just another failing Detroit manufacturer by every relevant external measure.

A similar post appeared in the [Gemba Panta Rei](#) blog, in which Jon Miller wrote, “As a key player in the Lean enterprise movement and a prominent speaker and author Dr. Womack has the ears of many influential business leaders. To not address this lack of vision and the failure of Lean enterprise strategy at Delphi is an opportunity lost. Perhaps the kid gloves didn’t come off because Delphi is a founding sponsor of LEI.” He also brought up the ‘looking’ versus ‘being idea with. “The lesson here is that Lean is not about changing things (how factories look and run) but changing how we think.”

The problem with this debate – whether Delphi was lean or not – is that it is a pointless one, not winnable or even worth pursuing by either side. There is no bright line of demarcation – lean manufacturers on one side; old school, batch manufacturers on the other.

Jon Miller and I are right. Delphi was not as lean as Toyota. They were [not even close](#), in fact. But Jon Miller and I were wrong. Of course Delphi was lean. They won 24 Shingo Prizes, for God's sake. Jim Womack wrote the book on lean – literally. His opinion counts for a lot.

Jim Womack and Ross Robson are right. But they are also wrong. Lean manufacturing that cannot be discerned at the bottom line is quite obviously incomplete. The lean manufacturing dots were not connected at Delphi. Somewhere between excellent shop floor techniques at plants, mostly in Mexico, and the bottom line in Detroit, the value of lean dropped off the table.

Delphi is not a unique case. They are the target of all of this simply because they carried such a high profile in the lean community, and the automotive industry. They are the Jim and Tammy Faye Baker of manufacturing. Having set themselves up very publicly to be paragons, their failure will not be allowed to quietly into the night.

Shingo Prize winning plants that are not elements of lean enterprises are hardly unique. Ford has won nine Shingo Prizes but no one is deluded into thinking that Ford is on a manufacturing par with Toyota. For that matter, of the 118 Shingo Prizes awarded to manufacturing companies since the Award's inception, by my count 56 of them have gone to the automotive industry. That would lead one to believe that automotive is leading manufacturing excellence in this country, but we all know that is hardly the case. Automotive is, for the most part, still too consumed with their age old struggle with the UAW over wage rates and restroom breaks to be serious about manufacturing.

The real issue the Delphi failure brings up is one that was pointed out in an article in Superfactory (reprinted from AME) entitled "[Lean Manufacturing: Fat Cash Flow](#)" in which Doc Hall of AME interviewed a fellow by the name of Clifford Ransom of State Street Research. Ransom is an investment guy who specializes in lean manufacturing. When asked if he was tracking many lean manufacturers, his response was, "No. Very few companies have advanced with lean manufacturing until you can see the results financially --- perhaps one or two percent at best."

If Ransom is correct – and certainly my personal experience and I am sure that of just about everyone reading this article indicates that he is – then Delphi is in very good company. There are lean factory floors strewn from one end of this country to another. But there is, according to Ransom, a 98%+ probability that whatever looks so lean on the shop floor makes no difference to the bottom line of the company.

Ransom's statistic should be the catalyst for an honest, introspective discussion within the lean community. Debating the leanness of Delphi is pointless. Delving into why 24 Shingo Award winning plants have not even made a dent in the bottom line is critical.

Lean authors and consultants are not social workers and the people running manufacturing plants do not pursue lean out of a sense of altruism. Lean manufacturing is about making companies more profitable. Ransom's data is a harsh indictment of the lean community – we fail more than 98% of the time. Delphi is simply one more, albeit high profile, example of the fact that we obviously do not have all of the pieces in place.

The day may come when Womack's position has merit. We may well learn that the leanest American company still needs the lower labor costs only available in distant lands in order to compete. But no one knows that yet. We have yet to plumb the depths of lean manufacturing in

the United States. We have no big company operating in a Toyota like manner that demonstrates just how few man hours manufacturing requires, and how much waste can be eliminated. Delphi was far from the point of setting those marks. Until we know how few hours American manufacturing requires, it is premature to assert that the American cost per hour makes offshore manufacturing mandatory.

The tough questions to ask include why only 24 Delphi's 180 or so manufacturing facilities rose to such lofty levels of lean performance? The emails and blog posts from a number of Delphi insiders indicate that most of the Delphi plants were not lean at all, and the successful plants all required quite a bit of consulting assistance and force to become lean. The first Delphi plant to win a Shingo Prize did so in 1999. Six years later it seems as though lean manufacturing had still not become internalized. Critical mass had not been reached. It still took a 'project approach', relying on external resources to make a Delphi plant lean. After so much experience and such solid examples, where was Delphi's corporate management and why were lean plants still an exception to the operating rules at Delphi?

I believe the gap between that which looks very lean on the factory floor and that which drives lean results at the bottom line lies in the knotty aspects of Ohno and Shingo's teachings that we have chosen to rationalize or ignore. Taichi Ohno said in quite clear terms that [inventory is 'waste'](#). Our financial and operating systems and practices are built around the deeply embedded principle that inventory is an asset.

Was Ohno's use of the term 'waste' simply a euphemism or an erroneous translation? Or is it simply easier for us to assume that he was speaking in flowery language than to confront the idea that the core of our balance sheet and P&L logic might be wrong?

I recently had an opportunity to participate in a great back and forth two day long email discussion on lean accounting issues with a veritable who's who of lean financial minds. At one point, the idea of adding the value of people to the balance sheet was raised, which set off a very thoughtful debate and eventual rejection of the idea. One of the reasons for rejecting the idea was that the balance sheet should reflect "economic reality".

My reaction to that was to toss out to the group the notion that, as lean proponents and 'experts', we all agreed that inventory is waste – a huge driver of non-value adding costs and a major force for undermining quality. Do we not believe that the 'economic reality' of inventory is that it is not an asset but a detriment to profitability, and should not be reflected on the balance sheet? The question was met with silence.

The point is not whether my view is right or wrong. Rather than confront and deal head-on with the clear conflict between Ohno's valuation of inventory and that which drives our profit calculations, we avoid the issue.

The same is true with other thorny matters such as stable employment in the face of fluctuating sales volumes. How are our clients supposed to cope with that, especially since inventory build is not a lean option? And what about the simple message with deep implications Ohno and Shingo left us that lean cannot succeed when management thinks cost plus profit equal selling price? That says Return On Sales is a dangerous measure at any incremental level.

Any honest assessment of the lean body of knowledge would have to agree that these very tough issues that challenge the deepest aspects of finance, human resources and marketing have been largely left out. These are aspects of lean that dwell in corporate headquarters, rather than the factories. I suspect that looking lean happens when the kanbans, setup reductions and U shaped cells are implemented in the factory; but being lean means driving these factory changes from a

fundamentally different management infrastructure. I also suspect that the resistance to lean in the factories is trivial compared to the resistance we are likely to encounter in the ivory towers.

Delphi was very lean in the factories, but still appears to run things in Detroit as if it were 1975. The same is true of Ford, and the rest of Ransom's 98%. The cost reductions promised by lean manufacturing can only take place within the context of marketing and human resource strategies that drive the factories to be cost reduction machines. The whole thing only happens when the company is driven by the right financial objectives. The Toyota Production System is actually a comprehensive business model with serious management implications.

Lean progress to date has proven, and Clifford Ransom is the scorekeeper, that locking in on the factory elements, while sweeping the sticky management aspects under the rug, leads to failure. Delphi's bankruptcy is in no way a discredit to Jim Womack or to the Shingo Prize. There are no higher bodies of lean manufacturing knowledge in America than them. If the Delphi failure proves that there are shortfalls in their lean package, then the rest of us have at least the same shortfalls.

Finally, all of us in the lean community need to become less "expert" and more 'student'. As experts, we have largely become snake oil salesmen. The promise of lean manufacturing is millions of dollars of cost reduction and cash flow – billions to companies like Delphi. We are kidding ourselves and the manufacturing community, and violating the fundamental principles of economics 101 regarding risk and return, when we tell manufacturers that such savings can be had for the price of a handful of our books, a couple of seminars, and a few thousand dollars in consulting fees. At best, we can help manufacturers start down a long, difficult and expensive road to eventual lean success and all of its rewards.

I believe that the American lean community has too often taken the easy path to lean expertise – the path that takes us through 5S and employee suggestion programs – instead of the rocky road through tough management issues. And we have been making promises that cannot be fulfilled to manufacturing that there are vast riches at the end of that easy path that simply are not there. This, I believe, is the real lesson to be taken from Delphi.