Lean Lessons From Danaher and Beyond: A Podcast with Mark DeLuzio, Art Byrne, and Jim Womack

November 23, 2020

Featuring: Mark Deluzio, Art Byrne, Jim Womack, and Tom Ehrenfeld

The long-term success of companies like Danaher, Fortive, Herman Miller, Parker Hannifin and many others, have all validated the power of lean thinking and practice. But if that's the case, why aren't there more exemplars? And why do so many companies either intentionally misconstrue Lean, or fail to realize its full promise over time? Join three stars of the Lean universe as we dive deep into this fundamental question.

Tom Ehrenfeld:

Welcome to today's episode of WLEI, the LEI podcast. I'm your host, Tom Ehrenfeld. And today I have the great privilege and honor to have three Lean legends on our broadcast. We have Jim Womack, founder of LEI. We have Art Byrne, veteran Lean practitioner and author of *The Lean Turnaround* and *The Lean Turnaround Action Guide*. And we have Mark DeLuzio, another Lean legend. His recent book is called *Flatlined: Why Lean Transformations Fail and What to Do About It*.

Mark, why don't you get us started? Please read us the very opening passage of your book.

Mark DeLuzio:

Okay, well the first chapter talks about why companies have flatlined. Let me read a few things here that we listed out:

Seasoned executives are perplexed as to why the Lean efforts are now flatlining. And by the way, flatlining is a word, why I called it that was because every time a CEO would call me and say, "We've been doing Lean for 10 years," and they always use that word flatline. These are the types of problems I'm seeing most often from talking with senior leaders in mature companies who seek my counsel. They do not understand that a Lean transformation is more than just a cost reduction program.

They typically view Lean as a manufacturing convention that does not apply to the rest of the business. They insist on running and structuring the organization with a traditional 1970s mindset. They believe that the fundamentals of Lean do not or cannot apply to their business. They become confused by Lean consulting zealots promoting the latest product or service and attempting to move away from the basics of Lean. They fail to look at themselves critically when evaluating the reason for their flatlined performance. They're consistently being shown only one benchmark—Toyota—with little appreciation for the successes that brownfield companies have had in their journey towards excellence. Sometimes it's hard to see something clearly when you are in the thick of things. As much as possible, it's important to step back and try to examine your own leadership and what's happening in your company objectively.

So I'll stop there. But here are the main reasons that I listed. And I go into detail in the book . Why companies flatline is one, and not in any order by the way, Lean is used as a short-term tactical tool. The

Lean initiative isn't connected to the broader strategy of the business, which is a big deal. Functions are optimized for Lean, but the enterprise is not, which is a real big deal, because many times when you try to optimize a function, you create dysfunctional results for the rest of the enterprise. And last but not least, leadership is either hands-off of Lean or reluctant to revisit the basics. And we've got a guy on here called Art Byrne who probably is the hallmark, if you will, of hands-on leadership. I remember hearing the stories about operators going home saying, "Hey, the CEO taught me 5S today or standard work, right?

And you just don't see that right now. So really what happens Tom, is that when people call and say, "Hey, we want to do what Danaher did, or we want to do Lean, and we have to do what Toyota did, what they really are saying to me for the most part, many times is we want their results, but they don't want to do the things that you have to do to get those results. And results are only one outcome, right? So that's kind of what they're asking for many times, without really understanding or being willing to change or actually do the work that's required and making some tough calls, right. And just changing that whole 19, you got to remember these leaders got to where they were in a very traditional format.

Now you're asking them to throw away the success practices that they've had that got them to the vice president level or the CEO level. You're asking them to throw that away now. And that's all they know, and it's very uncomfortable for them to be able to throw away what got them to their success today.

Tom Ehrenfeld:

One thing that struck me about this book is that it's comprehensive. You share a wealth of detailed knowledge and instruction about everything ranging from standard work, standard work and process, hoshin kanri; it's just all the kinds of tools in the toolbox and you contextualize this within an enterprise mindset. You establish how it's more than the tools and practices.

And sustaining Lean requires a complete commitment from top to bottom from every person. One phrase you use is a “level of discipline” which I thought was interesting because that actually speaks to the attributes that are needed for a company to sustain this work.

And finally, there's just this great wealth of experience that you use. You talked a lot about Jake Brake and Danaher, and I guess the question is I'm going to just skip ahead, why is there such a gap today?

Art Byrne:

All right. Let me jump in on that because I think I agree with everything that Mark said and my own experiences is much of the same thing , which is that when most companies look at Lean as a cost reduction tool, they just want cost reduction. That's basically what they want. And they're thinking, they've come up to where they are in a traditional way. And so changing things that's got them there, seems pretty hard to do. And I know my own experience when I tell people, "Look, if you really want to do Lean, everything has to change. You have to think about sales and marketing." And they look at you and say, "Sales and marketing?

That doesn't have anything to do with Lean." And I say, "Well, look, if you're shipping 50% of your orders in the last week of the month, sales and marketing has a whole lot to do with Lean because you got to change that. You can't have level loading and one piece flow and all the things that we're trying to do with Lean and still think you're going to ship 50% of your sales in the last week of the month. It's never going to happen."

And I think the other thing that now, if I go back to our early Danaher days, one of the things that we learned early on, in fact, the first Kaizen event that we had with Shingijitsu, we took a plant tour. This was in Clemson, South Carolina, with Jake Brake's sister company, Jacobs Truck. And we said, "Well, we'll introduce them to the factory. We'll take them on an hour and a half tour." We got about 100 yards into the factory, they held up their hands and they said, "We've seen enough. Let's go back." We went back into the conference room and Mr. Awada gets up on the board and in huge letters, he writes "no good."

And then he turns around and he looks at us and he says, "Look, everything here is no good, what do you want to do about it?" Now I would say that for 95, 98% of all companies, if a consultant came in and in two minutes told you that everything here was no good, he would have a fight on his hands.

Management would say, "No, wait a minute, you can't walk in here and say that to us." So they pushed back on it. And in our case, we said, "Okay, we agree, show us how to fix it." And I think that's a huge difference—that you have to overcome the mentality of what you have and when you get really right down to it, Lean is not a cost reduction program. It's a strategy. And it's a cultural mentality of how you look at the business. How does management look at the business? What are you trying to do? And if what you're trying to do is be the best supplier, look at it from a strategic point of view, then you have at least a shot at this stuff because the difference is, for example if the three of us went into any kind of company, what we see and what the existing management sees are completely different.

They're just not the same thing at all. And the way that they think is completely different. They've taken their value-adding for granted for a long time. In other words, if they have a six-week lead time, they've accepted the fact that that can't be changed. And when you talk about what leads to a six-week lead time, and they'll say, "Well, our setup times are two to three hours," and they've accepted the fact that that can't change because all their operators and all their functional leaders tell them, "There's no way you can reduce the setup beyond two or three hours." So once you get locked in on that, the only strategy that you have is to try and make your customers conform to your six-week lead time. So all these things are enormous hurdles, and we were able to solve them at Danaher just because we looked at it differently.

We had to do something different and we looked at it differently. We saw Lean as a strategy right away. We never started as a cost reduction program, even though we got huge cost reduction. No, that wasn't why we were doing it at all. It had nothing to do with it.

Tom Ehrenfeld:

Good. Jim, any thoughts?

James Womack:

Well, I think the problem we've all been dealing with is the "lack of Art Byrnes and the lack of Mark DeLuzios problem," okay? And take it the right way guys, but you're pretty weird. I don't know why you're so screwed up, but you're pretty weird. And, it's very constructively positively good for civilization weird but you are outliers. So as Lean came along after what, say 1990, that Jake Brake started, I think it was '87. By the early '90s, and we helped a little bit with MIT with the [*The Machine that Changed the World*] Machine book, there suddenly was a big desire to get some Lean. I'd like to buy some Lean please. And I've got the scale here and I've got my scoop and I'm going to scoop out of your bucket some Lean and put it on my scale. And then we'll talk about a price per pound.

And also we'll talk about payback because we're hard-headed businessman. And so we want to get paid back. And so the consulting world sort of responded to the customers want rather than the customer's need because in fact, and look, I've got no bad things to say about anybody. The customer did not want what they needed. So you said, "We're not really going to do the heavy-lifting." And so the thing we got into was that we would do Kaizen activities that would always produce the short-term, spectacular results. And then we had kind of this hope that if you did enough Kaizen, somehow or other everything would become aligned in Lean. And that was the part that was, "Hey, was that a crazy hypothesis?" "Hey, I don't know, it's an experiment. We're an experiment." But the hypothesis fairly quickly got rejected.

And that left us sort of backfooted with regard to what do you do. And we had actually created a sort of expectation that all there was to Lean was just doing five-day Kaizens plus 5S. And so that was the problem. That is the problem. And that's a long-term problem that we don't have enough Arts and Marks, and we got way too many guys who went to business schools and learned how to do functional analysis and listen to Michael Porter about how to be competitive which is by avoiding competition. And so we get the mess we got.

But not all is lost. I mean, I think the challenge for us right now is to think through what options we might have going forward. And in that regard, Mark's book which by the way, everybody should read, it's less than 100 pages, even a CEO could read this book.

Let me just say one more thing and be through, that we were sailing with a tailwind back in the '90s in the manufacturing world. Everybody was scared and here you've got this foreign competition. And then after the success of the GM Toyota joint venture plant at NUMMI in '84, people said, "Holy moly, these Japanese guys can show up here, build plants, and they can beat us here. We thought they could only beat us offshore with cheap labor and tricks, whatever they were doing. Now we've got guys who can actually on the ground with people like our guys can play the game as an away game and they can win." So that gave us a real boost of people just plain being scared. And back at that time, money still costs something. Remember when you had to pay serious money for money. And so inventory was a big thing.

And now they're just giving away money down at the treasury. So there were a lot of things that were going on that gave us a tailwind that we don't have now. Okay. And then look, there's always the distraction of doing these other things that you can just pay for. I mean, how many times have you gone to a company and they said, "We'd love to do this Lean thing, but we're doing a big ERP implementation. So hey, how about in three years, Okay?"

And now you've got all this crazy stuff out there with industry 4.0, which is a wonderful excuse for not doing anything. Hey, Art, catalog shoppers are going to rule the world. Catalog engineers, that you can buy so much kit and everybody else is buying kits. So you better get some kit. And if you haven't gotten robots, well you need some. And if you got some, you need more and so on.

So there are all these distractions. And by the way, I don't think we've been very successful with social media for us old guys. It's kind of a foreign land, and that's just another issue behind us—that we've got to figure out how to speak a language that the next generation of managers can easily get their heads around.

So your book, Mark, is a great sum-up of what Lean really is versus all the bad habits people learned. You just push the reset button in 90 pages and say, "Hey, look, here's what we were talking about. Thank goodness. Somebody did that." But then we still got all of us, those of us who are too old to actually be actually in the trenches, but still from an emotional standpoint, I'm really invested in this. I believe this Lean stuff makes a better world. And I'm not going to give up, but we do have some real practical questions of how we can get people to do now what they weren't willing to do then.

And some just didn't understand what they needed to do. And I think, look Mark, you've been giving good advice to companies for 35 years. And it's not in that book. There were a lot of guys that you have talked that book to over the years and you're a pretty good talker. And yet you still couldn't get a lot of them to actually give it a serious go. Instead, they said, "Well, why don't we start just to do some Kaizen over here." So it's look, a challenge. I don't know the answer, but it's the big challenge for us as we think about how to close the gap.

Tom Ehrenfeld:

Let me jump in with one thing. One big takeaway for me about this book was that it dynamically captured some of the paradoxes of Lean. You certainly need Kaizen events and point Kaizen at least as a starting point to get traction, for example. But everything seems to rest on the full enterprise approach and ownership from the top. And it makes this nice claim that “Toyota won the automobile war primarily through Kaizen,” which I thought is a nice, graceful argument. And given all this kind of small and ground level, high altitude, here's the softball. What do you think are the key takeaways and recommendations that you are capturing in the book that are essential for company leaders and employees to take to heart, to get some traction with this stuff?

Mark DeLuzio:

I think Jim touched on it and so did Art from his book. It first comes down to really understanding what this is, number one, and that's a problem. Okay. That really is a problem. And it's been very convoluted to Jim's point earlier about all the silver bullets that are out there today. In my book, I talk about just going back to the fricking basics, right? Standard work, takt time, one-piece flow, simple stuff. That, by the way, it's hard to do, okay. But it's simple. Everybody wants to put up the signboards and the yellow lines on the floor. There's nothing wrong with the yellow lines, and have a nice, shiny plant that doesn't perform. Right. And so all the show stuff is what we're looking at. But one of the issues is I think that we don't really believe and we don't set our compensation systems up either in accordance with Lean thinking.

So I talk about in the book the whole mantra of safety, quality, delivery and cost—in in that order. Each one being higher of importance than the other. And notice that cost is last. To Art's point, this is not a cost reduction program, but, if you do all the other ones right, cost falls out of this automatically. It’s just a by-product, right? The problem is when there's a maniacal focus on cost. And that's wrong because you've got to drive the drivers of costs that will get you the cost that you want. So what ends up happening, companies lay off 25% of their employees, like a big one just did and just looking at the bottom of my metric. One big company just had a big Lean initiative and they put a guy in charge and they said, "We are here to really drive our cost."

I said, "That's so wrong." But when it comes down to really believing what we say in the spirit, let's say of safety, quality delivery and cost, I was just waving out, I was with a CEO, about a couple of months ago. And I asked him, "What is the biggest problem that you have with your customer?" And they said, "Well, it's lead time." Okay. We're at 20 weeks, But it turned out to be 28, by the way, when we did look at it and the competition is at 12.

So I said, "well, geez." I said, "So your competition sucks too, but you just suck more." And then about an hour later into the meeting, they started talking about their strategy for outsourcing some of their major components to India. So I said, "Wait a minute, you've got a domestic customer base. You're going to move your product 8,000, whatever it is, miles away, okay, to get costs. I don't care if those guys work for zero, okay, it's going to cost you. And here's why it's going to cost you."

So I took a chair and put it in the middle of the conference room. I said, "There's your number one customer. I want you now to tell him why it's a good thing for him. After he just got through telling you his lead time is your biggest problem, right? Why is it a good thing for you to move that to India? How is moving to India is going to be better for him? Please have that conversation with him." And the CEO looked at me and he's a really good guy, and he said, "I never thought about it that way. Okay."

I said, "Okay, well," and when the CFOs, and I used to be one, Art knows because I worked for Art as a CFO, when CFOs do the math, there's no box on the spreadsheet, no cell on that spreadsheet that says how much market share are you going to lose because you're going to decimate your lead times? And I asked the CEO, "If you can get your lead times to, let's say three weeks, which I know we can do, okay, what will that mean for market share? He said, "I'll pick up about 20, 25%." Okay. Where's that box as you do the math to go to India? It's not on your spreadsheet.

So to Art's point earlier, and Jim, this is about profitable growth, not about cost reduction. And these guys are just looking at the cost and they're saying, "Hey, some CFO is looking at the math that says, "Labor rates are X and we're Y and we're going to save well, there's great money."

And that's not also talking about the 500 guys you sent over every year at $25,000 a clip on business class to go check on them and give them their value and their wisdom, when in fact they actually do nothing. All they do is interfere. And there's all kinds of other stuff that goes on with this from a lead time, from a customer service perspective, from a quality perspective. And so we don't really believe in the mantra of SQDC: we always gravitate back to cost, and we're not really talking to things that Art and Jim are talking about. They don't really believe it. A lot of these guys are measured the wrong way. And that is a big problem today, how they're measured. From CEOs all the way down the chain so.

Art Byrne:

One of the things that I say to people is: "Look, you're running a business and what you're trying to do is improve that business. And so you ought to think about a business in a very simplistic way." And my definition is that a business is nothing but a bunch of people and a bunch of processes trying to deliver a value to a set of customers. It's not anything more than that. And everybody can agree with that until you go to their company and when you get to their company, they say, "Well, Art, we agree with the theory that you said, but our company is so much more complex and so different. And you just don't understand all the problems that we have." And so they've already locked themselves in to all this wrong thinking and the reality is, and I think Mark mentioned, it's in his book, the processes that you have today are going deliver you the results that you have today.

And if you don't change those processes, if you don't focus on that, guess what? Your results are going to stay the same, no matter what you do. And so I look at it as with Lean. We're trying to compete on our operational excellence.

So I think one of the things that any company and any CEO has to do is first, you need to define: what is operational excellence going to be for you? And it's not a bunch of KPI type of measurements. It's not things like increased gross margin by three points or some goofy thing like that. It's what I call driver measures. The things that you think, if you do these things over the next five or 10 years, you will have a completely different company.

And these measurements will drive your results. They're not measuring the results. The results are results. But if I measure what I think drives that, you're going to start to get that. And what we did at Wiremold, for example, we ran the whole company on five things. First one was 100% on time customer service. Not 98.4 or 99.4, but 100. We just said we're not going to stop till we got to 100. And we said, we want to have a 50% reduction in defects every year. We want to have a 20% gain in productivity every year. We want to have 20 inventory turns as our first target. We were at three, by the way. So of course everybody said, "Oh my God, you're out of your mind." And then we said, we want to have 5S and visual control every place.

So those were all drivers. But they're all stretch goals. And they're all stretch goals on purpose to make you think differently. Because if I just said, "I want you to go from the three times inventory turns to five," it's pretty easy for most people to say, "Well, we can go from three to five, we'll just do what we're doing now a little bit better, and we'll get to five. But if you want me to go to 20, that's nuts, I don't get that. Right. I don't understand 20."

Once you have these operational excellence goals, the next thing is, how do I get everybody focused around these goals? Well, you can't do it and stay in a functional organization where all the punch presses are together and all the drilling machines are together and all the laser are together. I think we do that because we think that machines are happier when they're near other machines just like them. Which is a stupid thing, but that's what everybody does.

And then once you have these goals, you’ve got to deploy them down into your organization. And the only way to do that is to change the functional structure. And you've got to go from functional organization to a value stream organization. And once you get into a value stream organization, now you can say every value stream leader, the only thing we want you to do is focus on getting to these five things. And then what we did is we said, once we had those two things together, we said we're going to run the company based on that. We're going to stop doing these crazy end of month reviews because we're reviewing something that already happened.

And because we couldn't close the books for three weeks, there was nothing we can do about it now. Instead, we said, every week, that all the value stream leaders have to come in and present to myself and my senior management team, how they're doing on these five things. They had 10 minutes to tell us how they were doing and they had to tell us what they planned to do next week to improve, period. That's all we wanted to hear. We were there not to criticize, but to help them, if somebody was falling behind, we would assign the Kaizen promotion office in there to help him.

The whole drive of everybody all the time was just these five things, right? And sometimes people would say, "Well, all right, five things, that's a lot. What if you could only do two things, which ones would you pick?" And I said, "That's pretty simple, you would pick 100% on-time customer service, because that's why you're in business, right, you're trying to deliver more value to the customer. And the second thing you would pick would be inventory turns."

And people would look at you and say, "What are you talking about? Why would you pick inventory turns?" "Well, because if I can have inventory turns going up and customer service improving, everything else has to fall in line. I have to have good quality. I have to have good productivity. I have to have all the other things happening in order for those things to happen."

So if you have simple things you're trying to drive, and you make sure that the goals that you've set are stretch goals, because to me, stretch goals represent the Toyota respect for people principle, because by having stretch goals, what you're really saying is, "I believe that my people can do extraordinary things if we give them the right targets and assist them in learning how to implement those," as opposed to most people say, "I can't give my people those kinds of stretch goals. I'll lose them, they'll just go away. They'll think it's impossible."

So you keep it simple like that, I think you can make real progress on this.

Mark DeLuzio:

Art, you know the respect for people principle, I did a lot of studying on that but one of the biggest problems with the respect for people principle, or I should say adopting it is that so many companies or leaders I should say, do not know they're disrespecting people. And you go back to Ohno saying no problem is a problem, that usually is the biggest problem in that regard. It's not what they're doing, it's they don't even know they're doing it or even recognize that it's a problem. And so Tom, if you're looking for the biggest reason why this fails, that's probably it right there.

Tom Ehrenfeld:

I have to share a little story. I went with Art on a visit to a local hospital once, and we're at the gemba and, Art's looking at this chart of how long it takes to prepare a machine to turn it over. And it took a long time. And Art stood there and he said (I thought very respectfully) "why does it takes a lot of time?" And I thought that was a valid question. And the folks who led the tour afterwards said that was a little shocking. The nurses felt disrespected, and I never saw that. I think it's one of these dynamics, these kind of creative tensions in making Lean operational that it such hard work.

Mark Deluzio:

If you want to make change, I really do believe after all these years of doing this, you have to expect that you're going to challenge people. You cannot be afraid to not offend somebody. Okay. And you don't mean to, and you want to be respectful, but people will get offended like they did with Art, because you're calling them out on it. And that is a problem. Now I will say that when we started in '87 with Shingijitsu and I was there at the time, we got the crap beat out of us from that.

Art Byrne:

Absolutely.

Mark Deluzio:

And you want to know something, I remember saying, "Beat me again. I love it." And today though, I think we have become very soft and very sensitive. I mean, some of the things that we went through, Art and I went through with Shingijitsu, oh my god, I mean, how many times did you get fired Art? I got fired a million times. Okay. They kept hiring me back, sometimes five times a day. Right. Because of my concrete head. They were tough. But we looked at that and we knew that if they were doing that with us, they really respected us. They knew that we could do this. That's how we looked at it. If you tried that stuff today, forget it. Forget it.

Tom Ehrenfeld:

And I got to say, so I've seen Dr. Womack in action. I mean, Jim, I know you've been to 8 million gembas and one of your consistent qualities is truth. You really tell people what you see. And I think that is what has prompted productive change. And, another takeaway from Mark's book is that you're trying to foment organizational mindfulness—to produce an awareness of how things are running and where they're not running well. My point being, Jim: what do you think about this notion of Lean succeeding through, I guess, confrontation.

James Womack:

Well, it all depends on how you do it, Tom. Don't forget I was in a different position from Mark post Danaher. I was never there as the consultant who was actually going to make them do something. I was simply there as the great wizard who is going to be there for a day and as soon as we get rid of this guy, we can go back and do nothing. And so you get a little bit different reaction. People might be offended, but it's just different that I wasn't the one who's going to say, "By the way, we really got to do this, so why don't we start right now?" And therefore my job was easier. I was just trying to raise consciousness. I was not trying to say, "Hey, look, we can do this. And we are going to do this, and we're going to do it right now."

And that was the gift of the Shingi guys: certainly they were very abrasive, but they were also, I think universally recognized to be very smart, and their attitude as they were standing there was, "Well, we're going to do this." And by the way, the fact of the matter is with the Shingi guys that if they didn't respect you, they just walked out. They said, "Look, this is hopeless. We're going to do that." Mark and Art would appreciate this: I once went with Awada to a Denso plant in Japan, a totally automated Denso car parts plant. And we walked in and we were supposed to go see the head of the operation.

And we've walked in about 50 yards and Awada turns to me, and says, "These guys are Germans. It's all about machines. I can't help them, we're leaving." And I thought, "Well, that's going to be interesting." Here's a case where instead of calling them concrete heads, he just said, "This is so hopeless. I'm just out of here." And this is a totally different mentality.

So look, there are a lot of different ways that you can try to promote change. Some people can and do it from being Mr. Sweetie pie, yes, we can. Let me give you a hug. Other people can do it with tough love. Everybody has to develop their own a way that gets the person who doesn't really want to do something to do it.

Art said something very interesting a few minutes ago. He would call the line leaders in every week to discuss five things he wanted to ask them about. And by the way, he wasn't asking about their number—he was saying, "How are you going to improve your number? I don't care about your number. I want you to tell me how you are going to improve the number." We call those folks value stream managers. And in American practice today, those folks hardly exist. Line managers see their jobs as just keeping the score, doing annual reviews, to explain variances, if necessary. But they don't expect to be called to drive the fire truck to deal with all the things that have gone wrong today.

The fact that they themselves would have to actually understand their process and they would have to actually engage with their superiors in a discussion of how to improve their process….this is not hope as a plan. We're not talking about hope here. We're talking about what are you going to do? And we've created a whole continent and a whole generation of managers who don't know anything about their process. And to basically think they're there to call some consultant or some team to come in and do what Toyota would say is their work. Right? And so that's just a major problem if you're in the consulting business. What you desperately want, I think, Mark, is you just want somebody to talk to who's actually going to take responsibility, and not delegate responsibility, but take responsibility. So there's a whole culture there that it's hard for us to work around, but we keep trying.

Mark DeLuzio:

Yeah. We've had a lot of good successes over the years. Unfortunately, I wish those successes were higher in terms of our rate of success, but there have been a lot of really good successes. And at the end of the day, sustainability is the real issue. You ,made a good point, Jim, on rate of improvement and Art too on his team meetings. People at Danaher would come up to me and they would say to me, "Hey Mark, what's a world-class benchmark for inventory turns or whatever?"

And I said, "Look, I'm not going to sit here and argue with you about a number, okay? I don't know what the number is and I can guarantee you that whatever it is we agree on, by the time you get there, it will be changed, okay, number one. And number two, you're not world-class, so get your ass back to work, because you're just not it."

So I think the important thing is the rate of improvement. Art talked about 50%. Okay. And we learned that from the Japanese, they said at minimum, by the way, we look at quality improvements, not 3%, not 8%, at minimum 50. And I say the same thing about lead time, setup, everything else, right? And it's interesting and not to invoke six sigma, but if you are at, let's say 50,000 parts per million, and you only improve 50% per year, I think if you do the math, it's something like 13 or 14 years to get to six sigma.

You don't have that kind of time. You've got to do more than 50, right. And it was interesting just invoking six sigma. I remember, I think it was Awada, Jim that told me six sigma, no good. 3.4 parts per million. Why do you accept that? Why not? Why aren't you thinking about zero? 3.4, no good.

And you do the math on airplanes. If the airlines flew at six sigma, we'd have a crash every three days. So they could not understand why we would accept 3.4. It was more of a mentality, just like when Art said, "Why are you planning 99%? You're planning to fail 1% of the time. Why are you doing that? Why is that a good thing?" So it's all a mentality.

Art Byrne:

Talking about mentally, one of the things that I think helped us a lot in the early days at Danaher was when we first started working with Shingijitsu, of course, as Mark said, they were calling us names. They were throwing things around. They were really tough, really hard to deal with. Myself and George Koenigsaacker were the two that started this thing in Danaher to begin with, and we both thought strategically about things. And we said, "This is the greatest strategic weapon we've ever seen." We didn't ever, never, ever, ever saw it as a cost reduction. So we said, "Look, let's make a pact, whatever Shingujitsu tells us to do, we're going to do it even if we think it's the stupidest thing we ever heard."

And I would say about half the time, we thought it was the stupidest thing we ever heard, but we said, we're going to do it and we're going to learn from it. And the one thing we're going to make sure of is once we do it, we're never going to let it go back to what it was before because your local management team, most of the time it would fail. We couldn't get it to work because we'll build a cell, but we had never maintained the equipment before. And so you build a cell where one machine is dependent upon the other and because you never maintained it, some machine breaks down, the whole cell dies. Right? So your management team is saying, "Let's go back the way we were before. We can't keep this up." And we just said, "No, we're never going to let you go backwards. We're going to fix this. We're going to figure out what's wrong. We're going to fix it. And we're going to go forward."

And I think just having that mentality and that determination that says, "Never let it go backwards, fix the problem, take the next step." That was a big reason why at Danaher, and then eventually Wiremold and other places have been successful: because we didn't let it go back. We just said, "We're not going to do that. We're going to listen if they're telling us something, they're telling us for a reason." And we never found something that they told us that once we did it and understood it, we said, "Okay, now we get it. We understand why they wanted to do that."

James Womack:

Tom, I want to end on an optimistic note.

Tom Ehrenfeld:

Please.

James Womack:

I would recommend three things. I've gotten a lot of calls in the last year or two from the early adopters, from companies way back when that said, "We're going to do this." And what that ended up meaning was they have an operational excellence or a Lean team that's been working for nearly 30 years and they're doing still point Kaizen and called up and said, "I feel flatlined. And so therefore, what do we do?" Well read Mark's book. Okay. And I do think there's some willingness of these folks who are still sympathetic to the ideas. They honestly just don't know how to do them. I almost feel like I ought to make a list of all of those companies, see if they'd be willing to get together and talk about what they need to do now. So that's one thing.

Second, the folks are trying to bring some manufacturing back that we think that's a good thing. Bring some manufacturing back, but wait a minute, do it the Lean way rather than the crappy way you were doing it when you left. And I think it there's a real opportunity there, we've had an interesting experience with GE appliances that it's so hollowed out to appliance park in Louisville, that there was no, there, there, the lights were on, but nobody was home. And they decided for various reasons to bring it back and discovered by the way that they couldn't even do it the old way, they no longer knew how. All of the old mass production guys were gone and it turned out actually, they couldn't make anything. They just didn't know anything about manufacturing. And so we've had a lot of fun, not as their consultants, but as their thought partners. And by the way, they've just done some amazing, great stuff, but there are lots of other companies out there and we're saying, "Guys, before you come back with some manufacturing and do it the same crummy way you did it before you left, why don't we have a talk?"

And then the third thought, we never made this connection which is between the product development and production and a particular process development. So that when I could travel, that was back until the beginning of March, I would routinely see relatively new processes in companies that were totally wrong and yet this company hadn't said they were going to do Lean. And you say, "What happened, guys? This was the wrong technology and the wrong product design and what happened?" And the answer was, "Well, basically we just never talked because it's hard."

So I think completing that handshake in which you get the product and process development, I think don't ever let yourself say product development, it is product and process development. Every product has to have a process to get the value to the customer. I think we could have a conversation now that maybe we couldn't have before. So those are the three things that I've been looking at, thinking about as opportunities to get ourselves elevated up to the level that Mark describes in the book and that would be good for the country, it would be good for companies, it would be good for employees, it would just be good all around.

Mark DeLuzio:

Let me make a point about when people go to visit Toyota: they don't really understand that a lot of the brilliance that they see in their manufacturing is a by-product of the design, right? I mean, a lot of people don't understand that. And how that ties in and to me, the definition of genius is taking the complex and making it simple. And that's what they've done. But they did that a lot through design, both process and product. And so it's a really good point that I think a lot of people miss so.

Tom Ehrenfeld:

Mark, I'm going to ask Art to go. I'm going to let you be the final word because you are the author of a Flatlined and-

Mark DeLuzio:

I'll correct everything Art said, is that what you want me to do?

Tom Ehrenfeld:

Yes.

Mark DeLuzio:

Okay, go ahead.

Art Byrne:

That's fine with me. I think this has always been the most difficult question of all with Lean: how do you get people interested in doing this stuff in the first place? And even if you get them interested, how do you get them to understand what this really is? Because more than 95% of people just look at it as cost reduction. When they look at the results of Jake Brake or Wiremold or other companies that have been very successful, the thing they focus on is cost reduction. They don't focus on the customer service part, they don't focus on short lead times and the fact that Lean has really…I think of it as a time-based growth strategy, because what it does really is every time you remove waste, you shorten the time it takes to do anything.

And I always like to use a simple example when people say, "Well, Lean is not strategic." They're people who will argue with you up and down all the time about that it's not strategic, it's just cost reduction. And it's just something we should give to operations and nobody else has to do it. But think about something like setup reduction. Say you get two companies, A and B, and they both buy the same equipment from the same manufacturer. So it runs at the same speeds and all those kinds of things. And the only difference is company B figures out how to change the machine over in one minute and company A takes an hour. And then you say, okay, if they can each only do or dedicate one hour a day for changeover time because they got to make product the rest of the time, just ask yourself a couple of questions, who would have the lowest cost? The guy who changes in an hour, or the guy who changes in a minute, right?

This is confusing for a guy who thinks traditionally. It doesn't make any sense to them, right? But the reality is and you can point it out in lots of different examples, but the guy who can change in a minute will have an enormous cost advantage over the guy who takes an hour. And then the next question is: if they each can have only an hour a day of setup time who has the best customer service? I say, well, the guy that can change in an hour and he only has one hour a day, that means he can only make two different products a day. The one before the setup and the one after. The guy who can change in a minute, however, he can make 61 different products a day, the one before the setup and 60 changeovers. So he's going to have a huge advantage in customer service and he's going to have a huge advantage in lead time.

So you say, well, if all I did was setup reduction, but I got the lowest cost and the best customer service and the shortest lead time, I think that's pretty damn strategic, right? I think it's a very strategic thing. If we could get more people to understand Lean and what you're trying to do in those kind of simplistic ways, even though you're talking about something that they look at it as, "That's a manufacturing thing, the set up stuff."

If you can get people to understand that—understand that it's a time-based growth strategy, not a cost reduction program, I think then we could make some progress. And I'm hoping that as bad as this pandemic thing is, there's a lot of companies that if they don't make a change now, there are going to go away.

And that's a great motivator to try something very different than you've done before.

Tom Ehrenfeld:

Excellent. Mark, please share your final thoughts and we will-

Mark DeLuzio:

Okay. Well, final thoughts. First of all, Tom, thanks for getting us all together, I really appreciate it. I'll leave you a couple of key things to think about. One is it's really important for executives in particular to know that there is no silver bullet. I use the analogy of you go down to, let's say, Lowe's or Home Depot and you buy a refrigerator, you bring it home, you plug it in. And 20 minutes later you have cold drinks. It doesn't work that way.

We want DBS, like Jim said. I want a bucket of Lean, right? There's no silver bullet and the problem in our industry, my industry in consulting, is that there's just too many fricking silver bullets out there that everybody is getting confused on. Whether it's TOC, whether it's six sigma, Lean sigma, whatever the hell that is. And so there's a lot of stuff out there today that's really confusing the hell out of people, right, number one. Number two is I really stressed the basics and I think that's what Art's been talking about all along. I don't know how many companies that say they've been doing Lean for 10 years. And the first thing I ask for is where's your standard work combination sheet?

Well, we don't do standard work. You have to understand we're different. Okay. So it's all fake Lean. They've got the poster boards up, they've got the lines on the floor. They've got the gemba walks which are meaningless by the way because nobody knows how to do a gemba walk, but they go through the motion and waste everybody's time in the morning. And then what they turn into is expediting meetings rather than gemba walks. And then they mark themselves green because they outproduced the demand from the day before. And it's like, "Well, why'd you do that?" "Because we had a good day. We beat our plan." Well, what are you going to do with the inventory? Just stuff like that. Right. And so we do a lot of fake Lean, but the basics, if you go back just to the Toyota production system house, and look at the bottom, there are three things there.

Kaizen, level scheduling and standard work. I remember Awada telling me, "If you don't understand standard work, you do not understand the Toyota production system." Now as far as Kaizen goes, how many Kaizens are you doing? We're doing one a week or one a month or one a quarter I should say. And it's like, "Okay, so you were aspiring to be Mr. Universe, but you're going to go to the gym once a quarter. Okay. I got that. All right. That makes a lot of sense. By the way, really nice poster boards that you've put up. Right. So it's fake Lean. We're not doing the basics.

Number two, I've had companies telling me we can't use takt time because whatever we make, we can sell. So we don't really need to do takt time. Well, then why are you doing inventory 1.8 times? So that's the first, right?

And then last but not least, when comes to how we run our lives versus how we run our companies, they're drastically different. And a lot of it has to do with our measurement system. I'll give you a couple of examples. So I was with a CFO and a CEO of a company down in Arkansas, we're walking through their plant and I said to the CFO, "How do you pay people here?" "Everybody gets measured and compensated on utilization of equipment." I go, "That's great." So they weren't changing over, okay, like Art says because that shut their number down. Right. They're making stuff, they're making A when they had orders for B, they weren't doing even preventive maintenance. Because that took time away from their measure.

So I said, "What do you do then?" And the CFO says, "We've spent a lot of money for this equipment. We're trying to get our return back, our investment back." I said, "Okay, that's interesting." I said, "Hey, by the way, you have a new car, right?" He goes, "Yeah." I said, "It's a Lexus, right?" And he says, "Yeah, I have a Lexus." I said, "Well, you paid a lot of money for that, right? The car is pretty expensive."

I said, "Okay, well, are you going to drive it around the block tonight 1000 times to get utilization out of it? Well I wouldn't do that. Well, why would you do it? What the hell are you doing? Why are you having these guys do that? Okay. Why would you not do that if it's a good idea here, it should be a good idea for you too, right?

Another example is they couldn't understand what Art said about doing multiple changeovers. They were looking at less changeover, So changeover avoidance. And they couldn't understand. I said, "Okay, look," I said, "How many of you guys," And again, I would like to relate it back to real life, right? "How many of you guys ever had a barbecue in your backyard? Friends and family?" Everybody raises their hands. I said, "Okay, let's say you're serving hot dogs and hamburgers, how many people just make hotdogs then later, you're going to make the hamburgers?" Nobody raised their hand. I said, "Well, why not?" And they said, "Well, there are people that want hot dogs and there are people that want hamburgers because I want them all to eat at the same time."

I said, "Well, okay, if your machine let's say, makes 10 parts, do your customers only order part one because you decided to make it the first week and change over on Saturday, regardless of volume and then maybe part two, you just happen to consume it the same time you decide to manufacture it in week two?" "No." "Well, you don't do it with hotdogs and hamburgers, why are you doing it in your production?" So we took a thermal forming process down by 72% in one week, by the way and they were now able to make all 12 parts every 1.2 days with a set up wheel. Art knows what I'm talking about. And we got to do 12 changeovers in every 1.2 days? Yeah. I said, "Yeah, yeah, you do."

You're not going to just serve hotdogs and then hamburgers, right? So they got it. They understood it. But always going back to real life, we won't go out and buy eight months worth of inventory of groceries because we got a deal on it. We also wouldn't shop, if I live in Chicago, do grocery shopping in LA because I can get a cheaper price. But we go to India, we go to China. Right?

So if you think about how we live our lives and then apply that methodology and that thinking to our business, I think we'll be a lot better off because we pretty much live a Lean life the way we run our own pocketbook. But when it's somebody else's money, it's a different game. And then our compensation system gets in the way too.

There's a lot more to talk about, but those are the things that I think if people just get back to basics and know that this is a lot of hard work, it's also a lot of fun work too. It's fun, it's hard and it's worth it. The bottom line is it's worth it.

I will not work with a CEO whose main reason is to reduce headcount. I will not do that. I would just refuse to work with them. Right. Lean, L-E-A-N, the black eye it's gotten was Less Employees Are Needed, L-E-A-N. And that's not why we do Lean. We use it as a strategy to grow the business, right? And take share, and compete. Even in a commodity business, we can compete with lead time and quality and kick the crap and even get price out of a commodity, believe it or not.

So if you've got that as a competitive weapon, who's going to stop you? So anyway, I'll stop there. But I really thank you for having me on this and to be in the presence of these two guys which is phenomenal. So thank you.

Tom Ehrenfeld:

That's fantastic. I really want to just give the biggest most gracious thank you. We have had Jim Womack, who's written many books and who actually wrote the forward to Art Byrne's books. Art Byrne has written two books and has written the forward to Mark DeLuzio's book. And Mark's new book once again is Flatlined and we all highly recommend it. So thank you all. And here's to more conversations.

Mark DeLuzio:

Thanks Tom.

James Womack:

Nice seeing you guys.

Mark DeLuzio:

Thanks Art, thanks Jim.