Special Episode: Roddy Martin on the 5 Stages of Supply Chain Transformation



Key Takeaways

- The 5 Stages of Supply Chain Transformation is a model for supply chain maturity developed by Roddy Martin and AMR Research about ten years ago.
- Most pharma companies remain at stage one—the reactive stage—in the journey to supply chain transformation.
- The most difficult part of the journey to transformation is transitioning from an ERP-centric view to an end-to-end view of supply chain processes.

What are the 5 Stages of Supply Chain Transformation—and what challenges can you expect on the way? TraceLink's Kate Hare joins The Patient-Driven Supply Network podcast to interview our host, Roddy Martin, about the groundbreaking work he did on this 5-stage maturity model when he was an analyst at AMR Research.

Transcript:

TraceLink's Kate Hare interviews Roddy Martin about his groundbreaking work on

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the five stages of supply chain transformation. That's right now, on The Patient-Driven Supply Network podcast.

Kate Hare: Welcome. My name is Kate Hare, and I'm Vice President of Customer Success here at TraceLink. Today, I have with me Roddy Martin, who's the digital strategist here at TraceLink. Welcome, Roddy.

Roddy Martin: Thank you very much, Kate. It's a pleasure to be on this webinar with you.

Kate: Great. I'd love to ask you a few questions today. The first question is would you describe the five stages of the transformation journey for us today?

Roddy: Sure. I'll give you a little bit of context on the five-stage model as well. It's a very exciting effort that started probably 10 years ago and has matured and come into reality in the last year to two years, and is especially true for us at TraceLink, given the role we're playing in digitally transforming supply chains.

First of all, it's a five-stage model. It was developed originally by me when I started at AMR Research. We were trying to categorize the stage of maturities that companies were at as they moved from totally inwardly-focused, reactive supply chains to end-to-end supply networks. It's exactly the kind of transition that we are advocating at TraceLink.

The five stages, and by the way, the background of this is the Carnegie Mellon five-stage model that they developed many, many years ago around systems maturity. I've adapted it over the years and improved it to reflect supply chain stages maturity. Let me quickly sketch out the five stages.

Stage one is reactive. In other words, if I'm a manufacturer, I had no idea there was a problem coming down the line at me, and it just hit me. It could be a shortage of product. It could be a supplier failure. It could be a logistics failure. I didn't know it was coming. I had no idea. It completely blindsided me, and so

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therefore I have to react and solve the problem.

You find that many of the pharmaceutical companies and the contract manufacturers are in that sort of stage one react mode.

Stage two is the project improvement stage of maturity. In other words, I now have enough of these events that I see why is it that I'm getting all these quality events that are disrupting the supply chain, so I initiate a big integrated quality management project.

The problem is that you realize stage one reacting, stage two projects are still very siloed and they're not nationally connected. I can have multiple project doing improvement efforts around quality, around serialization, around inventory, around visibility, but not necessarily have them connected.

What happens is one project may impact another project and vice-versa, and you don't realize that's happening.

Stage three is functional excellence. Enough of these projects around are picked based on quality or compliance. Enough of these projects are in play to say look, we're focused on an integrated quality management strategy for the organization, or an integrated logistics strategy, or an integrated compliance strategy. Which means that all of these projects are now focused on one functional excellence capability.

Now here's the key, is that stages one, two, and three are very disconnected. They're siloed. They're not necessarily obviously connected, and they're very systems driven. You'll find in projects, companies will implement a system, or in stage three, a company will implement an ERP system.

It's very hard for them to get over to stage four, which is for the first time where a company looks end-to-end at its processes from the customer, in our case the patient, all the way back to supply.

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What you find is that transition from stage three to stage four is really hard for a lot of companies, especially when you've spent hundreds of millions or a billion dollars and more on an ERP system.

Then stage five is classically where we are trying to take companies in the TraceLink scenario, where we've got The OPUS Digital Network Platform, where all the partners are connected to a network with cell and gene therapy, and a completely different ecosystem of healthcare.

Why is this important? It's important because if you are talking to an executive or if you are drawing up a strategy, it's important to know where you are on that journey. Your language, your messaging, your goals and responsibilities that you're setting up should match those capabilities, the stage of capability you're in. It's important as a level of maturity diagnostic.

Let me stop at that because I'm sure you have lots of other questions to ask me.

Kate: Great, thank you. You mentioned that it's very difficult for customers to move from stage four to stage five. Are there some solutions that could help with that stage, moving to that stage?

Roddy: Absolutely, yes. I would say there are two difficult transitions. The one is to go from stage three to stage four because you're going from a heavily ERP-centric world to an end-to-end process world where ERP is the sort of back-office system that integrates enterprise.

Then stage four to stage five, which is going from an end-to-end supply chain, as in health care, to a networked partner supply chain like we have in the DNP OPUS platform.

Let's talk about the first stage. The first stage is hard because businesses sold the idea that ERP is the be-all and end-all of the way they operate. The problem is we all know the ERP is based on a forecast and it doesn't have accurate demand

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visibility. It can't continually and flexibly dynamically flex as demand changes.

We've seen that in the pandemic. Companies had a plan and it's hard to change that plan.

Leadership needs to change the mental model. The first change in the mental model is where the OPUS Digital Network Platform from TraceLink is a powerful enabler. It's part of the value proposition because instead of now everybody integrating to everybody else and sharing data, we're now connecting everybody to one common platform and sharing data with each other.

Visibility is not as big an issue as, "I can't see from my ERP system two stages downstream at my retail pharmacies because I have no visibility of the inventory whatsoever." Whereas, if everybody, like the retail pharmacies, connected to the manufacturer, and we're all on the same digital network platform, and we're seeing inventory levels around the network, it's much easier.

Just look at what Amazon has done to shoppers. How easy is it for you to go on Amazon, find what's available, make your purchase? They've got your credit card, and within 10 minutes you got an email saying it's on its way or it will be with you in a couple weeks’ time.

You can expect the healthcare model to look like that in the future. Whilst these platforms, like the digital network platform OPUS, our AWS platform at TraceLink, is technology, it's not a technology solution in the same vein as ERP.

I think the first thing is you have to understand the capabilities of your business around your ERP system. The whole point of the agile credo is how do you build the agility, the resilience, and the reliability to be agile in your own environment so you can connect to the network and be agile to all the other partners on the network?

In that case, your own architecture of ERP, manufacturing, compliance, quality,

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and serialization needs to be integrated. Then as you integrate into the platform environment with OPUS, you're obviously on the platform with all the other partners that are part of the network.

Yes, there are very distinct technology enablers. That's why agile is all about people, process, technology, and leadership. You can't be agile by just addressing the technology piece, or the people piece, or the process piece, or the leadership all in isolation.

Kate: Roddy, you mentioned having visibility into the end-to-end supply chain. Could you talk a little bit about the end-to-end patient-driven value network and why it's important for customers to have that visibility?

Roddy: Sure, and I think that's an excellent question.

Procter & Gamble coined the expression of consumer-driven supply network because they flipped their whole business operating model to focus on availability at the shelf, and the CEO coined the moment of truth about Procter & Gamble. If you say the product's available, then when a shopper walks in and buys, it's available.

We're doing exactly the same thing. We're saying to patients, whether it's in the traditional pharmaceutical model, whether it's in generics or whether it's in cell and gene therapy, the patient is the center of the supply chain.

Even though you might have a contract manufacturer or a manufacturer who doesn't deal directly with patients, they ultimately are serving the next downstream partner as a supplier because that next downstream partner is serving their next downstream partner as a supplier.

End-to-end, all of these are there because they are patient centric. They're making sure that the patient gets whatever the patient needs on time, in full, and not as I and many of us have experienced, go into a retail pharmacy and have to go back

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four times to fulfill a prescription because A, they don't have everything they need.

They knew you were coming in because the prescription was sent there. They don't necessarily know where the rest of the prescription is, so you end up by having to go back four times to fulfill an order. That just can't be part of the future.

Kate: You mentioned The Agile Supply Chain Credo. Could you talk a little bit about that in terms of TraceLink's product, the agile process team?

Roddy: Sure. A little bit about The Agile Supply Chain Credo. TraceLink...Really, Shabbir was the catalyst, said, "We need some industry galvanizing North Star and some operating principles that are important, technology agnostic, and vendor agnostic."

The credo's not about TraceLink. It's not about a particular technology. We subscribe to it, but it's not about us. The way it says "we," we're talking about the healthcare industry.

We got together. We got input from multiple external sources like McKinsey and supply chain leaders like Paul McKenzie from CSL Behring. We pulled together a really good generic North Star document that said, "This is how we would describe the agility and the guiding principles to get to agility for the healthcare industry."

What we then did, as we now are about to record a webinar tomorrow with a bunch of global specialist supply chain thought leaders and operating supply chain leaders, to talk about what are the implications of being agile and following the principles of this credo?

Now, let's go to the APT, or the Agile Process Team's capability that we've bought at TraceLink, and we're busy implementing. It fits well into the five-stage journey.

When you think about it, one of the weaknesses companies have is the ability to quickly sense a disruption in the supply chain, analyze it, pull a multi-functional

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team together, multi-cross discipline team together, and go after resolving that issue and prevent it from impacting the patient.

That's a real challenge for a lot of companies. They've been doing it for many years. They use email. They use spreadsheets. They use meetings to try and get that done.

APT is designed as a platform where you can, around an issue, pull together an agile process team, analyze it, document it, collect data about that issue, and go and track the resolution of that issue using the digital network platform, and manage it away.

Now you have a systematic, standardized approach to managing issues in the supply chain. That's very exciting because there aren't any other systems. Most companies do this via email, and an email is not a sustainable way of doing it because what happens if you have an issue?

You send an email to somebody. You don't know that they're on vacation, and they're on vacation for two weeks, or on a business trip for two weeks, and they don't get the email. What happens? Does that issue sit unaddressed for two weeks?

Having a workflow-based platform that brings all the stakeholders in to resolve the issue in an agile way, in other words, the people, the process, the technology, and the leadership is absolutely breakthrough. That's why we're so excited about APT capabilities.

Kate: Well, thank you. Those were all my questions today. Is there anything else that you would want customers to know about the five-stage journey, or the end-to-end supply chain?

Roddy: Sure. I think there are a couple of amusing nuggets that I would share. One is if you happen to talk to people in operations in a company, they'll tell you,

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"At best, we're a two or a three, but focused on lots of improvement projects."

You talk to the executives, they'll say, "No, no, no. We're clearly on a high stage four." The reaction from the people in the real business will say, "They live in cloud cuckoo land." That's part of the challenge.

Now, really good companies, companies like -- and they're very public about it -- Procter & Gamble. Companies like Schneider Electric with Annette Clayton.

Leaders are in their headsets, in their mindsets with their teams are trying to figure out what does stage four and stage five look like? How do we then go back into a stage two organization and build those capabilities in our organization?

That's a very mature way of looking at this transformation journey. It's very exciting. It puts pressure on us to be able to explain what the value of being in stage five or stage four is.

It's not a competition to see how fast we can get to stage four. You can't jump from stage one to stage five. I get that question all the time, "Why can't we jump from one to five?" No, because every one of the stages you build a very specific capability, and that becomes the foundation for the next stage.

If you try and operate as an end-to-end supply chain, but you can't manage projects...The "Critical Chain" by Eli Goldratt, famous story about being able to manage projects, you're just not going to get there. I think it's important to see the journey.

Second of all, to understand the language. You should be able to walk into a company and tell them and understand exactly what stage of maturity they are.

The flip side of that same discussion is that if you go into a stage five company or a stage four company, like a Procter & Gamble, an Amazon, an Apple, and talk stage two language to them, they'll tell you, "You don't understand our business. Go

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home because we're way past stage two."

The same thing happens when you go into a stage two business and you talk stage four, five language. They'll say, "We buy it, we get it, but we'll only be there in a couple of years' time." You've got to be careful to lead them down and tell them the transformation journey story to be able to get the full effect.

In the beginning, people sort of looked at me cockeyed when I put forward the idea that we needed to compartmentalize this journey. But today, you look at all the big consultants, you look at the great work Gartner's doing around the five-stage maturity model.

All the big management consultants equate the five stages. All the big vendors talk about the five stages. It's a very exciting development, and it's useful for all of us because there isn't a one-size-fits-all or a one stage for everybody.

We've got to be able to understand where a company is and what is the best solution to convince them to use. That's how I would close. It's a very exciting subject.

Kate: Well, great. Well, thank you for joining me here today.

Roddy: Awesome, Kate. Thanks for interviewing me. You and I have done this so many times, you could probably do the five-stage material just as well as I could from the many times that we've co-presented. Thank you for the opportunity.

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